

| Family Name | Given Name | MI | Affiliation                     | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                 |          | 07-09)            | Center, Berlin, Germany                              |            |                     |
| Cheong      | Minho      |    | Newracom Inc.                   | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| CHERIAN     | GEORGE     |    | Qualcomm Incorporated           | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Cherniavsky | Dmitry     |    | SiBEAM, Inc.                    | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Chesson     | Greg       |    |                                 | Ex Voter |                   |                                                      |            |                     |
| Chi         | Zhipei     |    |                                 | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Chia        | Meng       | W  |                                 | Ex Voter |                   |                                                      | 2011-07-22 |                     |
| Chin        | Francois   |    |                                 | Ex Voter |                   |                                                      | 2014-11-07 |                     |
| Chin        | Woon Hau   |    |                                 | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Chindapol   | Aik        |    |                                 | Ex Voter |                   |                                                      |            |                     |
| Chitrakar   | Rojan      |    | Panasonic Asia Pacific Pte Ltd. | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Cho         | Hangyu     |    | lg electronics                  | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Cho         | Joongwon   |    |                                 | Ex Voter |                   |                                                      | 2016-11-11 |                     |
| Cho         | Woong      |    |                                 | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Choi        | Chang-Soon |    |                                 | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Choi        | Hyeyoung   |    |                                 | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Choi        | Inhwan     |    |                                 | Ex Voter |                   |                                                      | 2012-02-19 |                     |

| Family Name | Given Name | MI | Affiliation                                                  | Status   | Expires             | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------|----------|---------------------|------------------------------------------------------|------------|---------------------|
| Choi        | In-Kyeong  |    | Newracom Inc.                                                | Aspirant | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Choi        | Jee-Yon    |    |                                                              | Ex Voter |                     |                                                      | 2015-03-13 |                     |
| Choi        | Jinsoo     |    | LG ELECTRONICS                                               | Voter    | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Choi        | Nakjung    |    |                                                              | Ex Voter |                     |                                                      | 2010-03-22 |                     |
| Choi        | Sangsung   |    | Electronics and Telecommunications Research Institute (ETRI) | Aspirant | 164<br>(2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Choi        | Seyeong    |    |                                                              | Ex Voter |                     |                                                      | 2010-03-22 |                     |
| Choi        | Sunghyun   |    |                                                              | Ex Voter |                     |                                                      |            |                     |
| Choi        | Won-Joon   |    |                                                              | Ex Voter |                     |                                                      |            |                     |
| Choo        | Li Chia    | C  |                                                              | Ex Voter |                     |                                                      | 2014-07-18 |                     |
| Choudhury   | Abhijit    | K  |                                                              | Ex Voter |                     |                                                      | 2008-07-19 |                     |
| Choudhury   | Sayantan   |    | Nokia                                                        | Voter    | 162<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 212                 |
| CHRISTIN    | Philippe   |    |                                                              | Ex Voter |                     |                                                      | 2011-07-22 |                     |
| Chu         | Liwen      |    | Marvell Semiconductor, Inc.                                  | Voter    | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Chu         | Wenjing    |    |                                                              | Ex Voter |                     |                                                      | 2014-03-21 |                     |
| CHUN        | JINYOUNG   |    |                                                              | Ex Voter |                     |                                                      | 2016-01-21 |                     |
| Ciochina    | Dana       |    | Sony Corporation                                             | Voter    | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ciotti      | Frank      |    |                                                              | Ex Voter |                     |                                                      |            |                     |
| Clements    | Ken        |    |                                                              | Ex Voter |                     |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation                                        | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
| Coffey      | John       |    | Realtek Semiconductor Corp.                        | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Cole        | Terry      | L  |                                                    | Ex Voter        |                  |                                                      | 2010-03-14 |                     |
| Coleman     | Ryon       | K  |                                                    | Ex Voter        |                  |                                                      | 2008-12-21 |                     |
| Congdon     | Paul       |    |                                                    | Ex Voter        |                  |                                                      |            |                     |
| Conner      | W          | S  |                                                    | Ex Voter        |                  |                                                      | 2008-02-13 |                     |
| Cook        | Charles    | I  |                                                    | Ex Voter        |                  |                                                      | 2010-11-12 |                     |
| Cook        | Kenneth    |    |                                                    | Ex Voter        |                  |                                                      |            |                     |
| Cooklev     | Todor      |    |                                                    | Ex Voter        |                  |                                                      | 2009-03-16 |                     |
| Coop        | Kenneth    |    |                                                    | Ex Voter        |                  |                                                      | 2015-11-08 |                     |
| Cordeiro    | Carlos     |    | Intel Corporation                                  | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Correal     | Neiyer     |    |                                                    | Ex Voter        |                  |                                                      | 2014-07-18 |                     |
| Crowley     | Steven     |    |                                                    | Ex Voter        |                  |                                                      | 2008-03-25 |                     |
| Cypher      | David      | E  |                                                    | Ex Voter        |                  |                                                      | 2009-11-23 |                     |
| da Silva    | Claudio    |    | Intel Corporation                                  | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| DANG        | Meimei     |    | China Academy of Telecommunication Research (CATR) | Aspirant        | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Das         | Subir      |    | Applied Communication Sciences                     | ExOfficio       |                  |                                                      |            |                     |
| Dauphinee   | Leonard    |    | MaxLinear Corp                                     | Potential Voter | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |

| Family Name  | Given Name | MI | Affiliation                               | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|-------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| De Courville | Marc       |    |                                           | Ex Voter        |                   |                                                      | 2009-11-23 |                     |
| De Ruijter   | Hendricus  |    |                                           | Ex Voter        |                   |                                                      | 2013-11-10 |                     |
| de Vegt      | Rolf       | J  | Qualcomm Incorporated                     | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Debergh      | Pierre     |    | Orange                                    | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Dehghan      | Hossein    |    |                                           | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Demessie     | Yohannes   |    |                                           | Ex Voter        |                   |                                                      | 2013-03-22 |                     |
| Deng         | Der-Jiunn  |    | National Changhua University of Education | Potential Voter | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| denson       | michael    |    |                                           | Ex Voter        |                   |                                                      | 2014-07-18 |                     |
| Denteneer    | Theodorus  |    |                                           | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Derham       | Thomas     |    |                                           | Ex Voter        |                   |                                                      | 2015-07-28 |                     |
| Deshmukh     | Nikhil     |    | National Instruments Corporation          | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| deVries      | Jeremy     |    |                                           | Ex Voter        |                   |                                                      | 2010-03-22 |                     |
| Dickey       | Susan      |    |                                           | Ex Voter        |                   |                                                      | 2010-11-12 |                     |
| Ding         | Gang       |    |                                           | Ex Voter        |                   |                                                      | 2010-09-18 |                     |
| DING         | ZHIMING    |    |                                           | Ex Voter        |                   |                                                      | 2008-12-21 |                     |
| Doi          | Yoshiharu  |    |                                           | Ex Voter        |                   |                                                      | 2009-07-20 |                     |
| Donapati     | Rakesh     |    | Anritsu Company                           | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center,                  |            |                     |

| Family Name  | Given Name | MI | Affiliation                   | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|-------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|              |            |    |                               |          |                   | Orlando, FL, USA                                     |            |                     |
| Dong         | Ting       |    |                               | Ex Voter |                   |                                                      | 2014-05-09 |                     |
| Dong         | Xiandong   |    |                               | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Doppler      | Klaus      |    |                               | Ex Voter |                   |                                                      | 2015-05-07 |                     |
| Dorsey       | John       |    |                               | Ex Voter |                   |                                                      | 2011-03-18 |                     |
| Douglas      | Brett      | L  |                               | Ex Voter |                   |                                                      |            |                     |
| Dowse        | Malcolm    |    |                               | Ex Voter |                   |                                                      | 2016-01-21 |                     |
| Drennan      | Offie      |    |                               | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| DU           | JiaDong    |    |                               | Ex Voter |                   |                                                      | 2015-11-13 |                     |
| Du           | Lei        |    |                               | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Dua          | Praveen    |    |                               | Ex Voter |                   |                                                      | 2016-11-11 |                     |
| Duan         | Chunjie    |    |                               | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Dundar       | Baris      | B  |                               | Ex Voter |                   |                                                      |            |                     |
| Durand       | Roger      | P  |                               | Ex Voter |                   |                                                      | 2014-11-07 |                     |
| duvvuri      | srinivasa  |    |                               | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Eastlake 3rd | Donald     | E  | Huawei Technologies Co. Ltd   | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Ecclesine    | Peter      |    | Self                          | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Edgar        | Richard    |    | Imagination Technologies Ltd. | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Edney        | Jonathan   | P  |                               | Ex Voter |                   |                                                      |            |                     |
| Edwards      | Bryan      |    |                               | Ex Voter |                   |                                                      | 2008-03-25 |                     |

| Family Name | Given Name | MI | Affiliation           | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Eitan       | Alecsander |    | Qualcomm Incorporated | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Ekbal       | Amal       |    |                       | Ex Voter |                      |                                                      | 2014-03-21 |                     |
| Elbakoury   | Hesham     | M  |                       | Ex Voter |                      |                                                      | 2008-03-25 |                     |
| Ellis       | Jason      |    |                       | Ex Voter |                      |                                                      |            |                     |
| Ellis       | Michael    |    |                       | Ex Voter |                      |                                                      | 2009-06-30 |                     |
| ElSherif    | Ahmed      |    | Qualcomm Incorporated | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Emeott      | Stephen    | P  |                       | Ex Voter |                      |                                                      | 2009-11-23 |                     |
| Emmelmann   | Marc       |    | Self Employed         | Voter    | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Engwer      | Darwin     |    |                       | Ex Voter |                      |                                                      | 2010-03-22 |                     |
| Eo          | Iksoo      |    |                       | Ex Voter |                      |                                                      | 2015-05-07 |                     |
| Epstein     | Joseph     |    |                       | Ex Voter |                      |                                                      | 2009-03-16 |                     |
| Epstein     | Leonid     |    | Celeno Communications | Aspirant | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Erceg       | Vinko      |    | Broadcom Corporation  | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Eriksson    | Patrik     |    |                       | Ex Voter |                      |                                                      |            |                     |
| Escalera    | Natalia    |    | Buffalo Inc.          | Aspirant | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Estevez     | Leonardo   |    |                       | Ex Voter |                      |                                                      | 2011-02-25 |                     |
| Estrada     | Andrew     |    |                       | Ex Voter |                      |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation           | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Euscher     | Christoph  |    |                       | Ex Voter |                  |                                                      |            |                     |
| Faccin      | Stefano    | M  |                       | Ex Voter |                  |                                                      |            |                     |
| Falk        | Lars       | P  |                       | Ex Voter |                  |                                                      | 2009-03-16 |                     |
| Fan         | Zhong      |    |                       | Ex Voter |                  |                                                      | 2016-07-29 |                     |
| Fanfelle    | Robert     |    |                       | Ex Voter |                  |                                                      | 2009-07-20 |                     |
| Fang        | Ping       |    | Huawei Device Co. Ltd | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Fang        | Yonggang   |    | ZTE TX Inc            | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Fechtel     | Stefan     |    |                       | Ex Voter |                  |                                                      | 2009-11-23 |                     |
| Fei         | QIN        |    |                       | Ex Voter |                  |                                                      | 2014-07-08 |                     |
| Feinberg    | Paul       | H  |                       | Ex Voter |                  |                                                      | 2008-12-21 |                     |
| Feldman     | Alex       |    |                       | Ex Voter |                  |                                                      |            |                     |
| Feng        | Xiang      |    | Keysight Technologies | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Ferdowsi    | Vida       |    | Newracom Inc.         | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Filin       | Stanislav  |    |                       | Ex Voter |                  |                                                      | 2014-07-08 |                     |
| Filo        | Marcin     |    | University of Surrey  | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Finn        | Norman     |    | Self Employed         | Voter    |                  |                                                      |            |                     |
| Fischer     | Matthew    | J  | Broadcom Corporation  | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Fischer     | Michael    |    | NXP Semiconductors    | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name | MI | Affiliation                  | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Fisher      | Wayne      | K  |                              | Ex Voter        |                   |                                                      | 2010-11-12 |                     |
| Flammer     | George     |    |                              | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| FLYNN       | P          |    |                              | Ex Voter        |                   |                                                      | 2014-07-18 |                     |
| Fracchia    | Roberta    |    |                              | Ex Voter        |                   |                                                      | 2008-12-21 |                     |
| Frank       | Colin      |    |                              | Ex Voter        |                   |                                                      | 2011-11-11 |                     |
| Fujimoto    | Atsushi    |    |                              | Ex Voter        |                   |                                                      | 2010-07-16 |                     |
| Fujinami    | Makoto     |    |                              | Ex Voter        |                   |                                                      | 2008-03-25 |                     |
| Fujio       | Shunsuke   |    | FUJITSU LABORATORIES LIMITED | Potential Voter | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Fukatsu     | Noriyasu   |    |                              | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Fuller      | Richard    |    | OmniTrail Technologies       | Potential Voter | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Funada      | Ryuhei     |    |                              | Ex Voter        |                   |                                                      | 2009-07-20 |                     |
| Fung        | Patrick    |    |                              | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Furuichi    | Sho        |    | Sony Corporation             | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Gagiev      | Yaroslav   |    | Intel Corporation            | Potential Voter | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Gal         | Dan        |    |                              | Ex Voter        |                   |                                                      | 2015-05-07 |                     |
| Gallizio    | Edoardo    |    |                              | Ex Voter        |                   |                                                      | 2008-05-05 |                     |
| Gan         | Ming       |    | Huawei Technologies Co. Ltd  | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name     | Given Name  | MI | Affiliation                                    | Status    | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-----------------|-------------|----|------------------------------------------------|-----------|-------------------|------------------------------------------------------|------------|---------------------|
| Gao             | Wen         |    |                                                | Ex Voter  |                   |                                                      | 2011-02-25 |                     |
| Garcia Villegas | Eduard      |    | Universitat Politecnica de Catalunya (UPC)     | Aspirant  | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Gardner         | James       |    |                                                | Ex Voter  |                   |                                                      |            |                     |
| Gast            | Matthew     |    |                                                | Ex Voter  |                   |                                                      | 2011-03-18 |                     |
| Ghamri-Doudane  | Mohamed     |    |                                                | Ex Voter  |                   |                                                      | 2011-11-11 |                     |
| Ghanbarinejad   | Majid       |    | Huawei R&D USA                                 | Voter     | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Ghasemi         | Amir        |    |                                                | Ex Voter  |                   |                                                      | 2011-02-25 |                     |
| Ghazi           | Vafa        |    |                                                | Ex Voter  |                   |                                                      |            |                     |
| Ghosh           | Chittabrata |    | Intel Corporation                              | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ghosh           | Monisha     |    |                                                | Ex Voter  |                   |                                                      | 2016-07-29 |                     |
| Gilb            | James       | P  | Gilb Consulting, Inc.                          | ExOfficio | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Gilbert         | Jeffrey     |    |                                                | Ex Voter  |                   |                                                      | 2011-07-22 |                     |
| Gillmore        | Matthew     |    |                                                | Ex Voter  |                   |                                                      | 2015-03-05 |                     |
| GIRAUD          | Claude      |    |                                                | Ex Voter  |                   |                                                      | 2011-11-11 |                     |
| Glibbery        | Ronald      |    |                                                | Ex Voter  |                   |                                                      | 2010-11-12 |                     |
| Gloger          | Reinhard    |    |                                                | Ex Voter  |                   |                                                      | 2013-03-22 |                     |
| Godfrey         | Tim         |    | Electric Power Research Institute, Inc. (EPRI) | Voter     | 164* (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| GONG            | DANING      |    |                                                | Ex Voter  |                   |                                                      | 2013-11-10 |                     |
| Gong            | Michelle    |    |                                                | Ex Voter  |                   |                                                      | 2012-05-01 |                     |
| Goodall         | David       |    |                                                | Ex Voter  |                   |                                                      | 2014-07-18 |                     |

| Family Name | Given Name | MI | Affiliation                   | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Gossain     | Hrishikesh |    |                               | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Gosteau     | Jeremy     |    |                               | Ex Voter |                  |                                                      | 2008-07-18 |                     |
| GOTO        | Fumihide   |    | Self                          | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Gottlib     | Elad       |    |                               | Ex Voter |                  |                                                      | 2014-03-21 |                     |
| Grandhe     | Niranjan   |    | Marvell Semiconductor, Inc.   | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Grandhi     | Sudheer    | A  |                               | Ex Voter |                  |                                                      | 2013-11-10 |                     |
| Grass       | Eckhard    |    | Humboldt-University in Berlin | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Grau        | Stephen    |    |                               | Ex Voter |                  |                                                      | 2014-07-18 |                     |
| Gray        | Gordon     | P  |                               | Ex Voter |                  |                                                      |            |                     |
| Green       | Evan       | R  |                               | Ex Voter |                  |                                                      |            |                     |
| Green       | Larry      |    |                               | Ex Voter |                  |                                                      |            |                     |
| Grigat      | Michael    |    | Deutsche Telekom AG           | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Grodzinsky  | Mark       |    |                               | Ex Voter |                  |                                                      | 2011-03-18 |                     |
| Gu          | Daqing     |    |                               | Ex Voter |                  |                                                      |            |                     |
| Guener      | Tugrul     |    |                               | Ex Voter |                  |                                                      | 2008-12-21 |                     |
| Guo         | Jianlin    |    |                               | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Guo         | Qiang      |    | Huawei R&D USA                | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Guo         | Yuchen     |    | Huawei Technologies Co. Ltd   | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Gupta       | Pratibha   |    |                             | Ex Voter |                  |                                                      | 2008-09-16 |                     |
| Gupta       | Vivek      | G  |                             | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Hadad       | Zion       |    | Runcom Technologies LTD.    | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 217                 |
| Hailemariam | Meareg     |    | IEEE                        | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Haines      | Russell    |    |                             | Ex Voter |                  |                                                      | 2015-07-28 |                     |
| Haisch      | Fred       |    |                             | Ex Voter |                  |                                                      |            |                     |
| Halasz      | David      |    |                             | Ex Voter |                  |                                                      | 2014-11-07 |                     |
| Hall        | Robert     |    | Johnson Controls Inc        | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Halls       | David      |    | Toshiba of Europe Ltd.      | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 217                 |
| Hamady      | Neil       |    |                             | Ex Voter |                  |                                                      |            |                     |
| Hamilton    | Mark       |    | Ruckus Wireless             | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| HAN         | Xiao       |    | Huawei Technologies Co. Ltd | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Han         | Yunbo      |    | HUAWEI                      | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Hanatani    | Yoshikazu  |    |                             | Ex Voter |                  |                                                      | 2016-03-18 |                     |
| Handte      | Thomas     |    | Sony Corporation            | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name  | MI | Affiliation           | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-----------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Hansen      | Christopher | J  | Covariant Corporation | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Hao         | Peng        |    |                       | Ex Voter |                      |                                                      | 2015-05-07 |                     |
| Har Zion    | Yuval       |    | Celeno Communications | Aspirant | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hara        | Yukihito    |    | Buffalo Inc.          | Aspirant | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Harada      | Hiroshi     |    |                       | Ex Voter |                      |                                                      | 2013-11-15 |                     |
| Hardison    | Nathaniel   |    |                       | Ex Voter |                      |                                                      | 2015-11-13 |                     |
| Harkins     | Daniel      | N  | Aruba Networks, Inc.  | Voter    | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hart        | Brian       | D  | Cisco Systems, Inc.   | Voter    | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hartman     | Chris       |    | Apple, Inc.           | Voter    | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Haslestad   | Thomas      |    |                       | Ex Voter |                      |                                                      |            |                     |
| Hassan      | Amer        | A  |                       | Ex Voter |                      |                                                      | 2010-07-11 |                     |
| Hassel      | Vegard      |    |                       | Ex Voter |                      |                                                      | 2010-03-22 |                     |
| Hattig      | Myron       |    |                       | Ex Voter |                      |                                                      | 2008-03-25 |                     |
| Hauser      | James       | P  |                       | Ex Voter |                      |                                                      |            |                     |
| Hayakawa    | Yutaka      |    |                       | Ex Voter |                      |                                                      |            |                     |
| Hayase      | Shigenori   |    |                       | Ex Voter |                      |                                                      | 2008-11-17 |                     |
| Hayes       | Kevin       | V  |                       | Ex Voter |                      |                                                      | 2008-11-17 |                     |
| Hayes       | Victor      |    | CONSULTANT            | Voter    |                      |                                                      |            |                     |

| Family Name | Given Name  | MI | Affiliation                 | Status    | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-----------------------------|-----------|------------------|------------------------------------------------------|------------|---------------------|
| He          | Haixiang    |    |                             | Ex Voter  |                  |                                                      |            |                     |
| He          | Linhai      |    | Qualcomm Incorporated       | Voter     | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| he          | shiwen      |    | Southeast University, China | Voter     | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 216                 |
| Heberling   | Allen       |    |                             | Ex Voter  |                  |                                                      | 2015-11-08 |                     |
| Hedayat     | Ahmadreza   |    | Newracom Inc.               | Voter     | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Hedberg     | David       | J  |                             | Ex Voter  |                  |                                                      |            |                     |
| Heide       | Carolyn     |    |                             | Ex Voter  |                  |                                                      | 2015-11-13 |                     |
| Heile       | Robert      | F  | Wi-SUN Alliance             | ExOfficio |                  |                                                      |            |                     |
| Henry       | Jerome      |    | Cisco Systems, Inc.         | Voter     | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Hepworth    | Eleanor     |    |                             | Ex Voter  |                  |                                                      |            |                     |
| Hermodsson  | Frans       |    |                             | Ex Voter  |                  |                                                      |            |                     |
| Hiertz      | Guido       | R  | Ericsson AB                 | Voter     | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hillman     | Garth       | D  |                             | Ex Voter  |                  |                                                      | 2014-03-21 |                     |
| Hinsz       | Christopher | S  |                             | Ex Voter  |                  |                                                      | 2008-02-13 |                     |
| Hiraga      | Ken         |    |                             | Ex Voter  |                  |                                                      | 2012-11-16 |                     |
| Hirano      | Jun         |    |                             | Ex Voter  |                  |                                                      |            |                     |
| Ho          | Chin        | K  |                             | Ex Voter  |                  |                                                      | 2013-07-19 |                     |
| Ho          | Duncan      |    | Qualcomm Incorporated       | Voter     | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ho          | Jin-Meng    |    |                             | Ex Voter  |                  |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation           | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Hoang       | Anh Tuan   | T  |                       | Ex Voter |                  |                                                      | 2013-11-15 |                     |
| Hoang       | Dien       |    |                       | Ex Voter |                  |                                                      | 2013-07-19 |                     |
| Hoghooghi   | Michael    | M  |                       | Ex Voter |                  |                                                      |            |                     |
| Holt        | Keith      |    |                       | Ex Voter |                  |                                                      |            |                     |
| Hong        | Hanseul    |    | Yonsei University     | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hong        | Seung-Eun  |    |                       | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| Hong        | Song-Nam   |    |                       | Ex Voter |                  |                                                      | 2016-03-18 |                     |
| Hong        | Sungjin    |    | WILUS Institute       | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Hong        | Wei        |    |                       | Ex Voter |                  |                                                      | 2014-03-21 |                     |
| Hong        | Wei        |    |                       | Ex Voter |                  |                                                      | 2014-07-18 |                     |
| Hong        | Yong-Geun  |    |                       | Ex Voter |                  |                                                      | 2008-05-05 |                     |
| Honma       | Naoki      |    |                       | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Horisaki    | Koji       |    | Toshiba               | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 216                 |
| Horne       | Kenneth    |    | Keysight Technologies | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Horne       | William    |    |                       | Ex Voter |                  |                                                      |            |                     |
| Hosur       | Srinath    |    |                       | Ex Voter |                  |                                                      |            |                     |
| Hou         | Victor     |    | Broadcom Corporation  | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Housley     | Russell    | D  |                       | Ex Voter |                  |                                                      |            |                     |
| Howard      | David      |    |                       | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| hsiao       | ying-chuan |    |                       | Ex Voter |                  |                                                      | 2013-11-10 |                     |
| Hsieh       | Jing-Rong  |    |                       | Ex Voter |                  |                                                      | 2016-07-29 |                     |

| Family Name | Given Name | MI | Affiliation                     | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Hsu         | Chien-Fang |    | MediaTek Inc.                   | Aspirant | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Hsu         | Jen-Yuan   |    |                                 | Ex Voter |                      |                                                      | 2014-05-09 |                     |
| Hsu         | Ju-Lan     |    |                                 | Ex Voter |                      |                                                      | 2012-02-19 |                     |
| Hsu         | Yungping   |    |                                 | Ex Voter |                      |                                                      |            |                     |
| Hu          | Chunyu     |    | Broadcom Corporation            | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hu          | Junling    |    |                                 | Ex Voter |                      |                                                      | 2008-12-21 |                     |
| hu          | wendong    |    |                                 | Ex Voter |                      |                                                      | 2010-11-12 |                     |
| Hua         | Rui        |    | ZTE Corporation                 | Aspirant | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Huang       | He         |    | ZTE Corporation                 | Aspirant | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Huang       | Lei        |    | Huawei Technologies Co. Ltd     | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Huang       | Lei        |    | Panasonic Asia Pacific Pte Ltd. | Voter    | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Huang       | Po-Kai     |    | Intel Corporation               | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Huang       | Robert     | Y  |                                 | Ex Voter |                      |                                                      | 2010-03-22 |                     |
| Huang       | Rongsheng  |    | MediaTek Inc.                   | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Huang       | Tian-Wei   |    |                                 | Ex Voter |                      |                                                      | 2011-07-22 |                     |

| Family Name | Given Name | MI | Affiliation                                      | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| huang       | wenyuan    |    | Toshiba Electronics China                        | Aspirant | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| HUANG       | YUN-LIANG  |    | MediaTek Inc.                                    | Aspirant | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Huang       | Zhiyong    |    | LitePoint Corporation/Teradyne                   | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| HUH         | JIYOUNG    |    |                                                  | Ex Voter |                      |                                                      | 2008-02-13 |                     |
| Humbert     | John       |    |                                                  | Ex Voter |                      |                                                      | 2015-11-08 |                     |
| Hunter      | David      |    | WireFi Networks Inc.                             | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Hurtarte    | Jeorge     |    | Teradyne, Inc.                                   | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Hwang       | Sung Hyun  | H  | ETRI                                             | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ibrahim     | Azmi       |    | TM Research & Development                        | Aspirant | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ibrahim     | Brima      |    | Broadcom Corporation                             | Voter    | 162*<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Ikram       | Muhammad   | Z  |                                                  | Ex Voter |                      |                                                      |            |                     |
| Imamura     | Daichi     |    |                                                  | Ex Voter |                      |                                                      |            |                     |
| Inoue       | Yasuhiko   |    | Nippon Telegraph and Telephone Corporation (NTT) | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ishihara    | Koichi     |    | Nippon Telegraph and Telephone Corporation       | Aspirant | 164<br>(2017-        | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                                                            | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
|             |            |    | (NTT)                                                                  |          | 07-09)           | Center, Berlin, Germany                              |            |                     |
| Ishizu      | Kentaro    |    | National Institute of Information and Communications Technology (NICT) | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Iso         | Akio       |    |                                                                        | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| ITO         | Takumi     |    |                                                                        | Ex Voter |                  |                                                      |            |                     |
| Ivry        | Raanan     |    | Optima Labs                                                            | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Iwaoka      | Mitsuru    |    |                                                                        | Ex Voter |                  |                                                      | 2016-03-18 |                     |
| Iwatani     | Junichi    |    | Nippon Telegraph and Telephone Corporation (NTT)                       | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Jacobs      | Wynona     |    |                                                                        | Ex Voter |                  |                                                      | 2011-11-11 |                     |
| Jacobsen    | Eric       | A  |                                                                        | Ex Voter |                  |                                                      |            |                     |
| Jacobson    | Scott      |    | Cadence Design Systems, Inc.                                           | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| jafarian    | amin       |    |                                                                        | Ex Voter |                  |                                                      | 2015-07-28 |                     |
| Jain        | Avinash    |    |                                                                        | Ex Voter |                  |                                                      | 2011-06-27 |                     |
| Jalfon      | Marc       |    |                                                                        | Ex Voter |                  |                                                      | 2008-05-05 |                     |
| Jang        | KyungHun   |    |                                                                        | Ex Voter |                  |                                                      |            |                     |
| Jauh        | Alan       |    |                                                                        | Ex Voter |                  |                                                      | 2016-07-29 |                     |
| Jee         | Junghoon   |    |                                                                        | Ex Voter |                  |                                                      | 2009-07-20 |                     |
| Jeffries    | Timothy    |    | Huawei R&D USA                                                         | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Jeon        | Ho-In J    | J  |                                                                        | Ex Voter |                  |                                                      | 2008-02-13 |                     |

| Family Name | Given Name | MI | Affiliation                  | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
| Jeon        | Hongseok   |    |                              | Ex Voter        |                  |                                                      | 2009-11-23 |                     |
| Jeon        | Taehyun    |    |                              | Ex Voter        |                  |                                                      |            |                     |
| Jeong       | ByungJang  | J  |                              | Ex Voter        |                  |                                                      | 2012-07-20 |                     |
| Jeong       | Chanyong   |    | SAMSUNG ELECTRO-MECHANICS    | Aspirant        | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| JEONG       | MIN SEOP   |    | SAMSUNG ELECTRONICS          | Aspirant        | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Jeong       | Moo Ryong  | R  |                              | Ex Voter        |                  |                                                      |            |                     |
| Jeong       | Wuncheol   |    |                              | Ex Voter        |                  |                                                      | 2013-11-15 |                     |
| Jeong       | Yangseok   |    |                              | Ex Voter        |                  |                                                      | 2015-03-05 |                     |
| Jeong       | Yeonkwon   |    |                              | Ex Voter        |                  |                                                      | 2009-11-23 |                     |
| Jetcheva    | Jorjeta    | G  |                              | Ex Voter        |                  |                                                      | 2012-07-20 |                     |
| Ji          | Lusheng    |    |                              | Ex Voter        |                  |                                                      | 2011-07-22 |                     |
| Ji          | Mingyue    |    | Broadcom Corporation         | Potential Voter | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Jia         | Jia        |    | Huawei Technologies Co., Ltd | Aspirant        | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Jiang       | Daniel     |    |                              | Ex Voter        |                  |                                                      | 2010-03-22 |                     |
| jiang       | feng       |    | Intel Corporation            | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Jiang       | Jinjing    |    | Marvell Semiconductor, Inc.  | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Jiang       | Robert     |    |                              | Ex Voter        |                  |                                                      | 2015-11-08 |                     |
| Jin         | Liang      |    | Spirent Communications       | Voter           | 166 (2017-       | Caribe Hotel and Convention                          |            | 212                 |

| Family Name | Given Name         | MI | Affiliation           | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|--------------------|----|-----------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |                    |    |                       |          | 11-05)            | Center, Orlando, FL, USA                             |            |                     |
| Jin         | Sunggeun           |    |                       | Ex Voter |                   |                                                      | 2013-09-16 |                     |
| Jin         | ZhongYi            |    |                       | Ex Voter |                   |                                                      | 2013-03-22 |                     |
| Jindal      | Nihar              |    |                       | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| jo          | junho              |    |                       | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Jo          | Kyungtae           |    | LG ELECTRONICS        | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Johnsson    | Kerstin            |    | Intel Corporation     | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Johnston    | David              |    |                       | Ex Voter |                   |                                                      |            |                     |
| Jokela      | Jari               | E  |                       | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Jones       | Allan              |    | Activision            | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| JONES       | JEFFRUM            |    | Qorvo, Inc.           | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Jones       | Vincent Knowles IV |    | Qualcomm Incorporated | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| JOO         | SEONG-SOON         |    |                       | Ex Voter |                   |                                                      | 2015-03-05 |                     |
| Jose        | Bobby              |    |                       | Ex Voter |                   |                                                      |            |                     |
| Joshi       | Avinash            |    |                       | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Josiam      | Kaushik            |    | SAMSUNG               | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |

| Family Name | Given Name  | MI | Affiliation                                                  | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|--------------------------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Jun         | Haeyoung    |    |                                                              | Ex Voter        |                   |                                                      | 2011-06-27 |                     |
| Junell      | Jari        |    |                                                              | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Kafle       | Padam       |    |                                                              | Ex Voter        |                   |                                                      | 2013-07-19 |                     |
| Kahn        | Michael     |    |                                                              | Ex Voter        |                   |                                                      | 2008-07-19 |                     |
| Kain        | Carl        | W  | Noblis, Inc.                                                 | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kakani      | Naveen      | K  | Qualcomm Incorporated                                        | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kamath      | Krishnanand |    | Viavi Solutions                                              | Aspirant        | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Kandala     | Srinivas    |    |                                                              | Ex Voter        |                   |                                                      |            |                     |
| Kang        | Byeongwoo   |    |                                                              | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Kang        | Hyunduk     |    | Electronics and Telecommunications Research Institute (ETRI) | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Kang        | Hyunjeong   |    |                                                              | Ex Voter        |                   |                                                      | 2015-11-08 |                     |
| Kaniganti   | Madhuri     |    | Microsoft Corporation                                        | Aspirant        | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Kapetanovic | Dzevdan     |    | Ericsson AB                                                  | Potential Voter | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Karaoguz    | Jeyhan      |    |                                                              | Ex Voter        |                   |                                                      | 2011-02-25 |                     |
| Karcz       | Kevin       |    |                                                              | Ex Voter        |                   |                                                      |            |                     |
| Karnam      | Mohan       |    | Imagination Technologies Ltd.                                | Potential Voter | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Karnik      | Pankaj      | R  |                                                              | Ex Voter        |                   |                                                      |            |                     |
| Kasher      | Assaf       | Y  | Qualcomm Incorporated                                        | Voter           | 164 (2017-        | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                            |                 | 07-09)           | Center, Berlin, Germany                              |            |                     |
| Kasslin     | Mika       |    |                            | Ex Voter        |                  |                                                      | 2014-03-21 |                     |
| Katagiri    | Masami     |    |                            | Ex Voter        |                  |                                                      | 2015-07-28 |                     |
| Kato        | Masato     |    |                            | Ex Voter        |                  |                                                      | 2009-07-20 |                     |
| Kato        | Shuzo      |    |                            | Ex Voter        |                  |                                                      | 2012-09-03 |                     |
| Kato        | Tatsuya    |    |                            | Ex Voter        |                  |                                                      | 2010-11-12 |                     |
| Kavner      | Douglas    |    |                            | Ex Voter        |                  |                                                      | 2010-03-22 |                     |
| Kedem       | Oren       |    | Intel Corporation          | Potential Voter | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kennedy     | Richard    | H  | Hewlett Packard Enterprise | ExOfficio       | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kenney      | John       |    |                            | Ex Voter        |                  |                                                      | 2016-03-18 |                     |
| Kerry       | Stuart     | J  | OK-Brit                    | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ketchum     | John       | W  |                            | Ex Voter        |                  |                                                      | 2008-03-25 |                     |
| Khakuria    | Prithpal   |    |                            | Ex Voter        |                  |                                                      | 2012-07-20 |                     |
| Khine       | Thet       | H  |                            | Ex Voter        |                  |                                                      | 2012-05-01 |                     |
| Khorov      | EVGENY     |    | IITP RAS                   | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Khoryaev    | Alexey     |    |                            | Ex Voter        |                  |                                                      | 2011-06-27 |                     |
| Khoury      | Peter      |    | Ruckus Wireless            | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name  | MI | Affiliation                                                  | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|--------------------------------------------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
| KI          | SANGWON     |    | Newracom Inc.                                                | Aspirant        | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kikuma      | Tomohiro    |    |                                                              | Ex Voter        |                  |                                                      |            |                     |
| Kim         | Bonghoe     |    |                                                              | Ex Voter        |                  |                                                      | 2012-11-16 |                     |
| KIM         | BYOUNG-HOON |    |                                                              | Ex Voter        |                  |                                                      | 2012-11-16 |                     |
| Kim         | Byoung-Jo   |    |                                                              | Ex Voter        |                  |                                                      |            |                     |
| Kim         | Eun         | S  |                                                              | Ex Voter        |                  |                                                      | 2012-11-16 |                     |
| Kim         | Eung        | S  |                                                              | Ex Voter        |                  |                                                      | 2010-11-12 |                     |
| Kim         | Eunkyo      |    |                                                              | Ex Voter        |                  |                                                      | 2008-03-25 |                     |
| Kim         | Eunkyung    |    |                                                              | Ex Voter        |                  |                                                      | 2015-03-13 |                     |
| Kim         | Hongsoog    |    |                                                              | Ex Voter        |                  |                                                      | 2015-03-05 |                     |
| Kim         | Igor        |    | Electronics and Telecommunications Research Institute (ETRI) | Potential Voter | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kim         | Jaehwan     |    |                                                              | Ex Voter        |                  |                                                      | 2015-11-13 |                     |
| Kim         | Jeehoon     |    |                                                              | Ex Voter        |                  |                                                      | 2016-07-29 |                     |
| Kim         | Jeongki     |    | LG ELECTRONICS                                               | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Kim         | Jin Min     |    | LG ELECTRONICS                                               | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Kim         | Jinho       |    |                                                              | Ex Voter        |                  |                                                      | 2013-11-10 |                     |
| Kim         | Jinkyong    |    |                                                              | Ex Voter        |                  |                                                      | 2014-03-21 |                     |
| Kim         | Joo Young   |    |                                                              | Ex Voter        |                  |                                                      | 2013-11-10 |                     |

| Family Name | Given Name | MI | Affiliation                                 | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Kim         | Joonsuk    |    | Apple, Inc.                                 | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Kim         | Kyeongpyo  |    | Newracom Inc.                               | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Kim         | Kyeongsoo  |    |                                             | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Kim         | Myeong-Jin |    |                                             | Ex Voter |                  |                                                      | 2016-03-18 |                     |
| Kim         | Sang Gook  |    | LG ELECTRONICS                              | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| KIM         | SANGKYUN   |    |                                             | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| kim         | Seong Soo  | S  |                                             | Ex Voter |                  |                                                      | 2008-12-21 |                     |
| Kim         | Suhwook    |    | LG ELECTRONICS                              | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Kim         | Taejoon    |    |                                             | Ex Voter |                  |                                                      | 2013-07-19 |                     |
| Kim         | Yongho     |    | Korea National University of Transportation | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kim         | Yongsuk    |    |                                             | Ex Voter |                  |                                                      |            |                     |
| Kim         | Yongsun    |    |                                             | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| Kim         | Youhan     |    | Qualcomm Incorporated                       | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kim         | Youjin     |    |                                             | Ex Voter |                  |                                                      | 2008-09-16 |                     |
| Kim         | Youngsoo   |    |                                             | Ex Voter |                  |                                                      | 2016-03-18 |                     |

| Family Name | Given Name | MI | Affiliation                                                  | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Kim         | Youn-Kwan  |    | The Catholic University of Korea                             | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Kim         | Yunbae     |    | Electronics and Telecommunications Research Institute (ETRI) | Aspirant | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| kim         | yunjoo     |    |                                                              | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Kimhi       | Ziv        |    |                                                              | Ex Voter |                   |                                                      |            |                     |
| Kinney      | Patrick    |    |                                                              | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Kirimis     | Dimitri    |    | Newracom Inc.                                                | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kiryanov    | Anton      |    | IITP RAS                                                     | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kishida     | Akira      |    |                                                              | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| Kitazawa    | Shoichi    |    | ATR Wave Engineering Laboratories                            | Aspirant | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Kivinen     | Tero       |    |                                                              | Ex Voter |                   |                                                      | 2012-11-16 |                     |
| Klein       | Philippe   |    | Broadcom Corporation                                         | Aspirant |                   |                                                      |            |                     |
| Kleindl     | Gunter     |    |                                                              | Ex Voter |                   |                                                      | 2008-11-17 |                     |
| Klik        | Cees       |    |                                                              | Ex Voter |                   |                                                      |            |                     |
| Kloper      | David      |    | Cisco Systems, Inc.                                          | Voter    | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| KNECKT      | JARKKO     |    | Apple, Inc.                                                  | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Ko          | Geonjung   |    | WILUS Institute                                              | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name | MI | Affiliation                                                            | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
| Ko          | Gwangzeen  |    |                                                                        | Ex Voter        |                  |                                                      | 2015-11-13 |                     |
| KOBAYASHI   | MARK       | M  |                                                                        | Ex Voter        |                  |                                                      | 2012-05-01 |                     |
| Koga        | Keiichiro  |    |                                                                        | Ex Voter        |                  |                                                      |            |                     |
| Koh         | Benjamin   |    |                                                                        | Ex Voter        |                  |                                                      | 2008-03-25 |                     |
| Kojima      | Fumihide   |    | National Institute of Information and Communications Technology (NICT) | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kolze       | Tom        |    | Broadcom Corporation                                                   | Aspirant        | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Koskela     | Timo       |    |                                                                        | Ex Voter        |                  |                                                      | 2014-07-08 |                     |
| Kotzer      | Igal       |    | General Motors Company                                                 | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kountz      | Dennis     |    | Chemours                                                               | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kowalski    | John       |    |                                                                        | Ex Voter        |                  |                                                      |            |                     |
| Kraemer     | Bruce      | P  | Marvell Semiconductor, Inc.                                            | Voter           |                  |                                                      |            |                     |
| Krasicki    | Maciej     |    | Poznan University of Technology                                        | Aspirant        | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Kruys       | Johannes   | P  |                                                                        | Ex Voter        |                  |                                                      | 2009-07-20 |                     |
| Kudo        | Riichi     |    |                                                                        | Ex Voter        |                  |                                                      | 2011-11-11 |                     |
| Kuehnel     | Thomas     |    |                                                                        | Ex Voter        |                  |                                                      | 2009-06-30 |                     |
| kukil       | LIM        |    | WILUS Inc.                                                             | Aspirant        | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kulkarni    | Parag      |    | Toshiba                                                                | Potential Voter | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kumagai     | Tomoaki    |    |                                                                        | Ex Voter        |                  |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation                                                  | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Kumar       | G Rajendra |    |                                                              | Ex Voter |                  |                                                      | 2014-07-18 |                     |
| Kumar       | Manish     |    | Marvell Semiconductor, Inc.                                  | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Kumar       | Rajesh     |    | Qualcomm Incorporated                                        | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kumar       | Rajneesh   |    |                                                              | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Kumari      | Warren     |    | Google                                                       | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kunihiro    | Takushi    |    |                                                              | Ex Voter |                  |                                                      |            |                     |
| Kurihara    | Thomas     | M  |                                                              | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Kuwahara    | Denis      |    |                                                              | Ex Voter |                  |                                                      |            |                     |
| Kwak        | Byung-Jae  |    | Electronics and Telecommunications Research Institute (ETRI) | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Kwak        | Jin-Sam    |    | WILUS Institute                                              | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 216                 |
| Kwak        | Joseph     |    |                                                              | Ex Voter |                  |                                                      | 2015-07-28 |                     |
| KWON        | EDWIN      |    |                                                              | Ex Voter |                  |                                                      | 2009-06-30 |                     |
| Kwon        | Hyoungjin  |    |                                                              | Ex Voter |                  |                                                      | 2015-11-13 |                     |
| KWON        | UI         | K  |                                                              | Ex Voter |                  |                                                      | 2011-06-27 |                     |
| Kwon        | Yong-Jin   |    | Newracom Inc.                                                | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kwon        | Young Hoon | H  | Newracom Inc.                                                | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name  | MI | Affiliation                                                            | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|------------------------------------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| LAGRANGE    | Pascal      |    |                                                                        | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Lakkis      | Ismail      |    |                                                                        | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Lalam       | Massinissa  |    | SAGEMCOM SAS                                                           | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lambert     | Paul        |    | Marvell Semiconductor, Inc.                                            | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Lan         | Zhou        |    | National Institute of Information and Communications Technology (NICT) | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Lanante     | Leonardo    |    | Kyushu Institute of Technology                                         | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Landt       | Jeremy      | A  |                                                                        | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Lansford    | James       |    | Qualcomm Incorporated                                                  | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Lanzl       | Colin       |    |                                                                        | Ex Voter |                   |                                                      |            |                     |
| Lauer       | Joseph      | P  |                                                                        | Ex Voter |                   |                                                      | 2011-02-25 |                     |
| Le Rouzic   | Jean-Pierre |    |                                                                        | Ex Voter |                   |                                                      | 2015-03-13 |                     |
| Leach       | David       | J  |                                                                        | Ex Voter |                   |                                                      |            |                     |
| Lee         | Anseok      |    |                                                                        | Ex Voter |                   |                                                      | 2013-07-19 |                     |
| Lee         | Daewon      |    | Newracom Inc.                                                          | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lee         | Donghun     |    |                                                                        | Ex Voter |                   |                                                      | 2013-11-10 |                     |
| Lee         | Dongjun     |    |                                                                        | Ex Voter |                   |                                                      |            |                     |
| Lee         | Hongsup     |    |                                                                        | Ex Voter |                   |                                                      | 2015-11-08 |                     |

| Family Name | Given Name | MI | Affiliation                                           | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-------------------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| lee         | hoosung    |    |                                                       | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| LEE         | Ilgu       |    |                                                       | Ex Voter |                  |                                                      | 2015-03-05 |                     |
| Lee         | Insun      |    |                                                       | Ex Voter |                  |                                                      |            |                     |
| Lee         | Jae Seung  | S  | ETRI                                                  | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lee         | Jae-Ho     |    |                                                       | Ex Voter |                  |                                                      | 2014-03-21 |                     |
| Lee         | Jehun      |    | Newracom Inc.                                         | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Lee         | JiHo       |    | Korea University                                      | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Lee         | Jihyun     |    |                                                       | Ex Voter |                  |                                                      | 2012-07-20 |                     |
| Lee         | Jin        |    |                                                       | Ex Voter |                  |                                                      | 2008-09-16 |                     |
| lee         | jiseon     |    | Pohang University of Science and Technology (POSTECH) | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| LEE         | JOONSOO    |    | Newracom Inc.                                         | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lee         | Ronald     |    | MaxLinear                                             | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lee         | Sok-kyu    |    |                                                       | Ex Voter |                  |                                                      |            |                     |
| LEE         | SUNGEUN    |    | Cypress Semiconductor Corporation                     | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lee         | Tae        | H  |                                                       | Ex Voter |                  |                                                      | 2009-07-20 |                     |
| Lee         | Wookbong   |    |                                                       | Ex Voter |                  |                                                      | 2016-01-21 |                     |
| Lee         | Wooyong    |    |                                                       | Ex Voter |                  |                                                      | 2011-11-11 |                     |

| Family Name | Given Name | MI | Affiliation                           | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Lee         | Xiaoyang   |    | DHS/OEC                               | Aspirant        | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lee         | Young Ha   |    | Newracom Inc.                         | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Lee         | Yuro       |    |                                       | Ex Voter        |                      |                                                      | 2015-11-13 |                     |
| Lefkowitz   | Martin     |    |                                       | Ex Voter        |                      |                                                      |            |                     |
| Lei         | Zhongding  |    |                                       | Ex Voter        |                      |                                                      | 2016-07-29 |                     |
| Leicht      | Suzanne    |    | National Security Agency              | Potential Voter | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| lemberger   | Uriel      |    |                                       | Ex Voter        |                      |                                                      | 2008-03-25 |                     |
| Lepp        | James      |    | BlackBerry                            | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Leung       | Wai Kong   | K  |                                       | Ex Voter        |                      |                                                      | 2014-07-08 |                     |
| Levy        | Joseph     |    | InterDigital, Inc.                    | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Li          | Bin        |    |                                       | Ex Voter        |                      |                                                      | 2011-11-11 |                     |
| Li          | Bo         |    | northwestern polytechnical university | Potential Voter | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Li          | Dejian     |    | Huawei Technologies Co. Ltd           | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Li          | Feng       |    |                                       | Ex Voter        |                      |                                                      | 2015-11-08 |                     |
| Li          | Guoqing    |    | Apple, Inc.                           | Voter           | 162*<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |

| Family Name | Given Name | MI | Affiliation                                                            | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| LI          | HONGGANG   |    |                                                                        | Ex Voter |                  |                                                      | 2015-03-05 |                     |
| Li          | Huan-Bang  |    | National Institute of Information and Communications Technology (NICT) | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Li          | Jing       |    | Huawei Technologies Co. Ltd                                            | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Li          | Liang      |    |                                                                        | Ex Voter |                  |                                                      | 2015-03-05 |                     |
| Li          | Lingjie    |    |                                                                        | Ex Voter |                  |                                                      | 2013-03-22 |                     |
| Li          | Pen        |    |                                                                        | Ex Voter |                  |                                                      |            |                     |
| Li          | Qinghua    |    | Intel Corporation                                                      | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Li          | Sheung     |    |                                                                        | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Li          | Yanchun    |    | Huawei Technologies Co. Ltd                                            | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Li          | Yunbo      |    | Huawei Technologies Co. Ltd                                            | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| LI          | YUNZHOU    |    |                                                                        | Ex Voter |                  |                                                      | 2013-03-04 |                     |
| Li          | Zhiqiang   |    |                                                                        | Ex Voter |                  |                                                      | 2015-05-07 |                     |
| Liang       | Haixiang   |    | Huawei R&D USA                                                         | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Lim         | Dong Guk   |    | LG ELECTRONICS                                                         | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Lin         | Chih-Che   |    |                                                                        | Ex Voter |                  |                                                      | 2014-11-07 |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Lin         | Huashih    | A  |                             | Ex Voter |                  |                                                      |            |                     |
| Lin         | Meilu      |    | HUAWEI                      | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lin         | Paul       |    |                             | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| Lin         | Wei        |    | Huawei Technologies Co. Ltd | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 217                 |
| Lin         | Yingpei    |    | Huawei Technologies Co. Ltd | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lindskog    | Erik       |    | Qualcomm Incorporated       | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Link        | Jeremy     |    |                             | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| Liru        | Lu         |    |                             | Ex Voter |                  |                                                      | 2014-11-07 |                     |
| Liu         | Changwen   |    |                             | Ex Voter |                  |                                                      |            |                     |
| LIU         | CHENCHEN   |    | Huawei Technologies Co. Ltd | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 217                 |
| Liu         | Dapeng     |    |                             | Ex Voter |                  |                                                      | 2014-07-18 |                     |
| Liu         | Der-Zheng  |    | Realtek Semiconductor Corp. | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Liu         | Fulei      |    | ZTE Corporation             | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Liu         | Hang       |    |                             | Ex Voter |                  |                                                      | 2011-03-18 |                     |
| Liu         | I-Ru       |    |                             | Ex Voter |                  |                                                      | 2008-05-05 |                     |
| Liu         | Jianhan    |    | MediaTek Inc.               | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |

| Family Name | Given Name | MI | Affiliation                      | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Liu         | Jinnan     |    | HUAWEI                           | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Liu         | Le         |    | Huawei Technologies Co. Ltd      | Voter    | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 217                 |
| Liu         | Pei        |    |                                  | Ex Voter |                   |                                                      | 2012-10-09 |                     |
| Liu         | Pei        |    | HiSilicon Technologies Co., LTD. | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            | 216                 |
| Liu         | Siyang     |    |                                  | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Liu         | Yong       |    | Apple, Inc.                      | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            | 212                 |
| Liu         | Yun        |    | Huawei Technologies Co., Ltd     | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Liu         | Zongru     |    |                                  | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Livshitz    | Michael    |    |                                  | Ex Voter |                   |                                                      | 2009-06-30 |                     |
| Lo          | Titus      | K  |                                  | Ex Voter |                   |                                                      |            |                     |
| Loc         | Peter      |    | Huawei Technologies Co. Ltd      | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lomayev     | Artyom     |    | Intel Corporation                | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Lou         | Hui-Ling   |    | Marvell Semiconductor, Inc.      | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            | 216                 |
| Lu          | Su         |    |                                  | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Lubar       | Daniel     |    |                                  | Ex Voter |                   |                                                      | 2009-07-20 |                     |
| Lukaszewski | Chuck      |    | Aruba Networks, Inc.             | Aspirant | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |

| Family Name | Given Name | MI | Affiliation                                                            | Status    | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|-----------|-------------------|------------------------------------------------------|------------|---------------------|
| Luo         | Haiyun     |    |                                                                        | Ex Voter  |                   |                                                      | 2008-07-18 |                     |
| Luo         | Jun        |    | Huawei Technologies Co. Ltd                                            | Voter     | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Luo         | Long       |    |                                                                        | Ex Voter  |                   |                                                      | 2014-03-21 |                     |
| Luo         | Yi         |    | Huawei Technologies Co. Ltd                                            | Aspirant  | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Luo         | Zhendong   |    | China Academy of Telecommunication Research (CATR)                     | Aspirant  | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lv          | Kaiying    |    | ZTE Corporation                                                        | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Lynch       | Bradley    |    |                                                                        | Ex Voter  |                   |                                                      | 2012-05-01 |                     |
| Lynch       | Michael    |    | MJ Lynch & Associates, LLC.                                            | ExOfficio |                   |                                                      |            |                     |
| M. Hizan    | Hizamel    |    | TM Research & Development                                              | Aspirant  | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ma          | Hui        |    |                                                                        | Ex Voter  |                   |                                                      | 2008-07-19 |                     |
| Ma          | Jing       |    | National Institute of Information and Communications Technology (NICT) | Voter     | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Ma          | YuanYe     |    | CESI Group                                                             | Aspirant  | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Maamari     | Diana      |    | Huawei R&D USA                                                         | Voter     | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| MADHAVAN    | NARENDAR   |    | TOSHIBA Corporation                                                    | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Maeda       | Shigeru    |    | TOSHIBA Corporation                                                    | Voter     | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |

| Family Name | Given Name  | MI | Affiliation            | Status    | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|------------------------|-----------|------------------|------------------------------------------------------|------------|---------------------|
| Mahadevappa | Ravishankar |    |                        | Ex Voter  |                  |                                                      |            |                     |
| Maida       | Anthony     | F  |                        | Ex Voter  |                  |                                                      | 2008-12-21 |                     |
| Majkowski   | Jakub       |    |                        | Ex Voter  |                  |                                                      | 2009-11-23 |                     |
| Malarky     | Alastair    |    |                        | Ex Voter  |                  |                                                      | 2011-02-25 |                     |
| Malek       | Majid       | m  |                        | Ex Voter  |                  |                                                      |            |                     |
| Malik       | Rahul       |    | Qualcomm Incorporated  | Voter     | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Malinen     | Jouni       | K  | Qualcomm Incorporated  | Voter     | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Maltsev     | Alexander   |    | Intel Corporation      | Voter     | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Mangold     | Stefan      |    | ltron Inc.             | Voter     | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Mani        | Mahalingam  |    |                        | Ex Voter  |                  |                                                      | 2008-02-13 |                     |
| Mano        | Hiroshi     |    | Koden Techno Info K.K. | Voter     | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Marin       | James       |    | Self Employed          | Aspirant  | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Marker      | Jeffrey     |    | Ixia                   | Aspirant  | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Marks       | Roger       |    | EthAirNet Associates   | ExOfficio |                  |                                                      |            |                     |
| Marshall    | Bill        |    |                        | Ex Voter  |                  |                                                      | 2011-11-11 |                     |
| Maruhashi   | Kenichi     |    |                        | Ex Voter  |                  |                                                      | 2011-11-11 |                     |
| Maslennikov | Roman       | M  |                        | Ex Voter  |                  |                                                      | 2010-07-16 |                     |
| Masour      | Avi         |    |                        | Ex Voter  |                  |                                                      | 2012-05-01 |                     |
| Matsumoto   | Yoichi      |    |                        | Ex Voter  |                  |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Matsuo      | Ryoko      |    | TOSHIBA Corporation         | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| MATTA       | SUDHEER    |    |                             | Ex Voter |                  |                                                      | 2008-12-21 |                     |
| Maufer      | Thomas     | A  |                             | Ex Voter |                  |                                                      |            |                     |
| Mccann      | Stephen    |    | BlackBerry                  | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| McClellan   | Kelly      | P  |                             | Ex Voter |                  |                                                      |            |                     |
| Mcfarland   | William    | J  |                             | Ex Voter |                  |                                                      |            |                     |
| McIntosh    | Bill       |    |                             | Ex Voter |                  |                                                      |            |                     |
| McNamara    | Darren     | P  |                             | Ex Voter |                  |                                                      | 2008-07-18 |                     |
| Mcnew       | Justin     | P  |                             | Ex Voter |                  |                                                      | 2010-11-12 |                     |
| Medvedev    | Irina      |    |                             | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Mehta       | Pratik     | M  |                             | Ex Voter |                  |                                                      |            |                     |
| Merlin      | Simone     |    | Qualcomm Incorporated       | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Mese        | Murat      |    |                             | Ex Voter |                  |                                                      | 2012-07-20 |                     |
| Mesecke     | Sven       |    |                             | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| Mestanov    | Filip      |    | Ericsson AB                 | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Meyer       | Klaus      |    |                             | Ex Voter |                  |                                                      | 2008-07-18 |                     |
| Miao        | Yannan     |    | Huawei Technologies Co. Ltd | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Miller      | James      |    |                             | Ex Voter |                  |                                                      | 2016-07-29 |                     |
| Miller      | Robert     | R  |                             | Ex Voter |                  |                                                      | 2011-11-11 |                     |

| Family Name | Given Name | MI | Affiliation                | Status    | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------|-----------|-------------------|------------------------------------------------------|------------|---------------------|
| Miroll      | Jochen     |    |                            | Ex Voter  |                   |                                                      | 2011-02-25 |                     |
| Misawa      | Yasunao    |    |                            | Ex Voter  |                   |                                                      | 2015-03-13 |                     |
| Miyoshi     | Hidekazu   |    |                            | Ex Voter  |                   |                                                      | 2008-05-05 |                     |
| Mizutani    | Keiichi    |    |                            | Ex Voter  |                   |                                                      | 2013-11-10 |                     |
| Mlinarsky   | Fanny      |    |                            | Ex Voter  |                   |                                                      | 2012-05-01 |                     |
| Mobasher    | Amin       |    | SAMSUNG                    | Voter     | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Mody        | Apurva     |    | BAE Systems                | ExOfficio |                   |                                                      |            |                     |
| Mohanty     | Bibhu      |    | Qualcomm Incorporated      | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Monajemi    | Pooya      |    | Cisco Systems, Inc.        | Voter     | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Monnerie    | Emmanuel   |    |                            | Ex Voter  |                   |                                                      | 2012-05-01 |                     |
| Montemurro  | Michael    |    | Research In Motion Limited | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Montenegro  | Gabriel    |    |                            | Ex Voter  |                   |                                                      | 2008-02-13 |                     |
| Montreuil   | Leo        |    | Broadcom Corporation       | Voter     | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 217                 |
| Moon        | Sungho     |    | Newracom Inc.              | Aspirant  | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Moore       | Rondal     |    |                            | Ex Voter  |                   |                                                      |            |                     |
| Moorti      | Rajendra   | T  |                            | Ex Voter  |                   |                                                      | 2012-05-01 |                     |
| Moreton     | Mike       |    |                            | Ex Voter  |                   |                                                      |            |                     |
| Mori        | Hiroki     |    |                            | Ex Voter  |                   |                                                      | 2016-07-29 |                     |
| Mori        | Kenichi    |    | Space-Time Engineering     | Voter     | 166 (2017-        | Caribe Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                                   | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                               |          | 11-05)            | Center, Orlando, FL, USA                             |            |                     |
| Mori        | Masahito   |    | Sony Corporation                              | Voter    | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Morioka     | Hitoshi    |    | SRC Software                                  | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Morioka     | Yuichi     |    | Sony Corporation                              | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Morley      | Steven     | A  |                                               | Ex Voter |                   |                                                      |            |                     |
| Morris      | Roy        |    |                                               | Ex Voter |                   |                                                      |            |                     |
| Moskowitz   | Robert     | G  |                                               | Ex Voter |                   |                                                      | 2008-01-05 |                     |
| Motozuka    | Hiroyuki   |    | Panasonic Corporation                         | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Mourot      | Patrick    |    |                                               | Ex Voter |                   |                                                      |            |                     |
| Mueller     | Robert     |    | Ilmenau University of Technology - TU Ilmenau | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Mujtaba     | Syed       | A  |                                               | Ex Voter |                   |                                                      |            |                     |
| Murabito    | Anthony    |    |                                               | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Murakami    | Yutaka     |    | Panasonic Corporation                         | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Murias      | Ronald     |    |                                               | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Murphy      | Peter      |    |                                               | Ex Voter |                   |                                                      |            |                     |
| Murphy      | Rick       |    |                                               | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Murray      | Peter      |    |                                               | Ex Voter |                   |                                                      | 2011-07-22 |                     |
| Myles       | Andrew     |    | Cisco Systems, Inc.                           | Voter    | 166 (2017-        | Caribe Hotel and Convention                          |            |                     |

| Family Name  | Given Name  | MI | Affiliation                                          | Status    | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|-------------|----|------------------------------------------------------|-----------|-------------------|------------------------------------------------------|------------|---------------------|
|              |             |    |                                                      |           | 11-05)            | Center, Orlando, FL, USA                             |            |                     |
| Nabar        | Rohit       |    |                                                      | Ex Voter  |                   |                                                      | 2009-03-16 |                     |
| Nabetani     | Toshihisa   |    | TOSHIBA Corporation                                  | Voter     | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Nadeem       | Tamer       |    |                                                      | Ex Voter  |                   |                                                      | 2008-05-05 |                     |
| Nagai        | Yukimasa    |    | Mitsubishi Electric Corporation                      | Voter     | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            | 216                 |
| Nagao        | Yuhei       |    | Radrix Co., Ltd                                      | Voter     | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| nagata       | kengo       |    |                                                      | Ex Voter  |                   |                                                      | 2009-11-23 |                     |
| Nakano       | Hiroki      |    | Kyoto University                                     | Voter     | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Nakao        | Seigo       |    |                                                      | Ex Voter  |                   |                                                      |            |                     |
| Nakase       | Hiroyuki    |    |                                                      | Ex Voter  |                   |                                                      | 2010-03-22 |                     |
| Nanda        | Sanjiv      |    |                                                      | Ex Voter  |                   |                                                      | 2008-03-25 |                     |
| Nandagopalan | SAI SHANKAR | S  | Cypress Semiconductor Corporation                    | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Narasimhan   | Partha      |    |                                                      | Ex Voter  |                   |                                                      |            |                     |
| Narasimhan   | Ravi        |    |                                                      | Ex Voter  |                   |                                                      |            |                     |
| Nemavat      | Pradeep     |    |                                                      | Ex Voter  |                   |                                                      | 2012-11-16 |                     |
| Nezou        | Patrice     |    | Canon Research Centre France                         | Voter     | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Ngo          | Chiu        |    | SAMSUNG                                              | Aspirant  | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Ni           | Qiang       |    |                                                      | Ex Voter  |                   |                                                      |            |                     |
| Nikolich     | Paul        |    | self (YAS), Samsung, Intel, SilverSpringNetworks, HP | ExOfficio |                   |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation               | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Nikula      | Eero       |    |                           | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Nitsche     | Gunnar     |    |                           | Ex Voter |                   |                                                      |            |                     |
| Noble       | Erwin      |    |                           | Ex Voter |                   |                                                      | 2008-11-17 |                     |
| Noens       | Richard    | H  |                           | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Noh         | Yujin      |    | Newracom Inc.             | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Nordstrom   | Eric       |    |                           | Ex Voter |                   |                                                      | 2015-11-13 |                     |
| Notor       | John       |    | Notor Research; ARM, Inc. | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Oakes       | Ivan       | F  |                           | Ex Voter |                   |                                                      |            |                     |
| Odagiri     | Hideaki    |    |                           | Ex Voter |                   |                                                      | 2009-03-16 |                     |
| Odman       | Knut       |    | Broadcom Corporation      | Voter    | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 216                 |
| Ogawa       | Hiroyo     |    |                           | Ex Voter |                   |                                                      | 2014-11-07 |                     |
| Oguma       | Hiroshi    |    |                           | Ex Voter |                   |                                                      |            |                     |
| Oh          | Jinhyung   |    |                           | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Oh          | Jisung     |    |                           | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Oh          | Jong-Ee    |    |                           | Ex Voter |                   |                                                      | 2015-05-07 |                     |
| Oh          | Minseok    |    | Kyonggi University        | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| OH          | MIN-SEOK   |    | LG Electronics            | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| O'Hara      | Robert     |    |                           | Ex Voter |                   |                                                      | 2008-05-05 |                     |
| Ohtani      | Yoshihiro  |    |                           | Ex Voter |                   |                                                      |            |                     |

| Family Name | Given Name        | MI | Affiliation                                           | Status   | Expires             | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------------|----|-------------------------------------------------------|----------|---------------------|------------------------------------------------------|------------|---------------------|
| Okada       | Hiraku            |    | Nagoya University                                     | Aspirant | 168<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Okada       | Kazuyasu          |    |                                                       | Ex Voter |                     |                                                      | 2011-11-11 |                     |
| Olesen      | Robert            |    | InterDigital, Inc.                                    | Voter    | 164<br>(2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 217                 |
| Olson       | Chandra           | S  |                                                       | Ex Voter |                     |                                                      | 2009-07-20 |                     |
| Olson       | David             |    |                                                       | Ex Voter |                     |                                                      | 2013-03-22 |                     |
| Omori       | Youko             |    |                                                       | Ex Voter |                     |                                                      | 2010-07-16 |                     |
| Orlik       | Philip            |    | Mitsubishi Electric Research Labs (MERL)              | Aspirant | 162<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Oteri       | Oghenekome        |    | InterDigital, Inc.                                    | Voter    | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Oyama       | Satoshi           |    | Association of Radio Industries and Businesses (ARIB) | Aspirant | 162<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Ozaki       | Kazuyuki          |    | FUJITSU LABORATORIES LIMITED                          | Voter    | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Paine       | Richard           | H  |                                                       | Ex Voter |                     |                                                      | 2010-07-16 |                     |
| PALANIVELU  | Arul              | D  |                                                       | Ex Voter |                     |                                                      | 2010-03-22 |                     |
| Paljug      | Michael           | J  |                                                       | Ex Voter |                     |                                                      | 2013-07-19 |                     |
| Palm        | Stephen           |    | Broadcom Corporation                                  | Voter    | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Pandey      | Santosh Ghanshyam | G  | Cisco Systems, Inc.                                   | Voter    | 162<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 216                 |

| Family Name  | Given Name | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Pang         | Jiyong     |    | Huawei Technologies Co. Ltd | Voter    | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 212                 |
| Pantelidou   | Anna       |    |                             | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Papadopoulos | Babis      |    |                             | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| Pare         | Thomas     |    | MediaTek Inc.               | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Park         | Changmin   |    |                             | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Park         | Eunsung    |    | LG Electronics              | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Park         | Giwon      |    |                             | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Park         | Hyungu     |    | Newracom Inc.               | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Park         | Hyunhee    |    | LG ELECTRONICS              | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Park         | Jaewoo     |    |                             | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Park         | Jeonghwan  |    | Newracom Inc.               | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Park         | Jonghyun   |    |                             | Ex Voter |                   |                                                      | 2012-11-16 |                     |
| Park         | Jungsoo    |    |                             | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Park         | Minyoung   |    | Intel Corporation           | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Park         | Seung-Hoon |    |                             | Ex Voter |                   |                                                      | 2013-11-10 |                     |

| Family Name     | Given Name  | MI | Affiliation                      | Status    | Expires             | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-----------------|-------------|----|----------------------------------|-----------|---------------------|------------------------------------------------------|------------|---------------------|
| PARK            | SEUNGKEUN   |    | ETRI                             | Aspirant  | 164<br>(2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Park            | Sung-jin    |    | LG ELECTRONICS                   | Voter     | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Park            | Taejoon     |    |                                  | Ex Voter  |                     |                                                      | 2014-05-09 |                     |
| Parsons         | Glenn       |    | Ericsson AB                      | ExOfficio |                     |                                                      |            |                     |
| Patel           | Vijaykumar  |    |                                  | Ex Voter  |                     |                                                      | 2009-11-23 |                     |
| Pathmasuntharam | Jaya        | S  |                                  | Ex Voter  |                     |                                                      | 2013-03-22 |                     |
| Patil           | Abhishek    |    | Qualcomm Incorporated            | Voter     | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Patil           | Sandhya     |    |                                  | Ex Voter  |                     |                                                      | 2013-03-22 |                     |
| Patkar          | Raghavendra |    | National Instruments Corporation | Aspirant  | 168<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Peiris          | Bemini      | H  |                                  | Ex Voter  |                     |                                                      | 2011-07-22 |                     |
| Peleg           | Yaron       |    |                                  | Ex Voter  |                     |                                                      |            |                     |
| Peng            | Xiaoming    |    | Institute for Infocomm Research  | Voter     | 162<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 212                 |
| Perahia         | Eldad       |    |                                  | Ex Voter  |                     |                                                      | 2016-01-21 |                     |
| Pereira         | Stephanie   |    |                                  | Ex Voter  |                     |                                                      | 2015-07-28 |                     |
| Perez Costa     | Xavier      | P  |                                  | Ex Voter  |                     |                                                      | 2014-07-08 |                     |
| Persson         | Hakan       |    | Ericsson AB                      | Voter     | 166<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Petranovich     | James       | E  | ViaSat, Inc.                     | Voter     | 166<br>(2017-11-05) | Caribe Hotel and Convention Center,                  |            |                     |

| Family Name | Given Name | MI | Affiliation                        | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                    |          |                  | Orlando, FL, USA                                     |            |                     |
| petrick     | Albert     |    | Jones-Petrick and Associates, LLC. | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Petro       | John       |    |                                    | Ex Voter |                  |                                                      | 2014-07-08 |                     |
| Petrovic    | Vladan     |    |                                    | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| Pienciak    | Walter     |    | IEEE                               | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| PILLAI      | KRISHNA    | M  |                                    | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Ping Ping   | Xu         | P  |                                    | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| Pirhonen    | Riku       |    | Self Employed                      | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Pirskanen   | Juho       |    |                                    | Ex Voter |                  |                                                      | 2014-07-18 |                     |
| Pirzada     | Fahd       |    |                                    | Ex Voter |                  |                                                      | 2009-03-16 |                     |
| Pitarresi   | Joe        |    |                                    | Ex Voter |                  |                                                      |            |                     |
| Png         | Khiam Boon | B  |                                    | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| Poncini     | Victoria   | M  |                                    | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Ponnampalam | Vishakan   |    |                                    | Ex Voter |                  |                                                      | 2013-09-16 |                     |
| Ponnuswamy  | Subburajan |    |                                    | Ex Voter |                  |                                                      | 2008-11-17 |                     |
| Popa        | Daniel     |    |                                    | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Pope        | Steve      |    | Self Employed                      | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| porat       | ron        |    | Broadcom Corporation               | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |

| Family Name   | Given Name  | MI | Affiliation                                                            | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|---------------|-------------|----|------------------------------------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Portaro       | James       | D  |                                                                        | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Ptasinski     | Henry       | S  |                                                                        | Ex Voter |                   |                                                      | 2013-11-15 |                     |
| Pulikkoonattu | Rethnakaran |    | Broadcom Corporation                                                   | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Purkovic      | Aleksandar  |    |                                                                        | Ex Voter |                   |                                                      |            |                     |
| Purnadi       | Rene        |    |                                                                        | Ex Voter |                   |                                                      | 2011-02-25 |                     |
| Pustogarov    | Ivan        |    |                                                                        | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Putta         | Satish      |    |                                                                        | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Pyo           | Chang-Woo   | C  |                                                                        | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Qi            | Emily       | H  | Intel Corporation                                                      | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Qian          | Luke        |    |                                                                        | Ex Voter |                   |                                                      | 2009-07-20 |                     |
| Qiao          | Dengyu      |    | Huawei Technologies Co. Ltd                                            | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Qu            | Huyu        |    |                                                                        | Ex Voter |                   |                                                      | 2013-03-22 |                     |
| Qu            | Shouxing    |    | BlackBerry                                                             | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Raab          | Jim         | E  |                                                                        | Ex Voter |                   |                                                      | 2012-05-01 |                     |
| Rabarijaona   | Verotiana   |    | National Institute of Information and Communications Technology (NICT) | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Rafie         | Reza        |    | Self                                                                   | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center,                  |            |                     |

| Family Name      | Given Name    | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|------------------|---------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|                  |               |    |                             |          |                   | Orlando, FL, USA                                     |            |                     |
| Rahman           | Mohammad      | A  |                             | Ex Voter |                   |                                                      | 2010-07-16 |                     |
| Rai              | Vinuth        |    |                             | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Raissinia        | Ali           |    |                             | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Rajagopal        | Sridhar       |    |                             | Ex Voter |                   |                                                      | 2011-07-22 |                     |
| Rajakarunanayake | Yasantha      |    | MediaTek Inc.               | Aspirant | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Rajkumar         | Ajay          |    |                             | Ex Voter |                   |                                                      |            |                     |
| Rakanovic        | Demir         |    | u-blox                      | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ramamurthy       | Harish        |    |                             | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Ramasastri       | Jayaram       |    |                             | Ex Voter |                   |                                                      | 2013-03-04 |                     |
| Rangwala         | Noman         |    |                             | Ex Voter |                   |                                                      |            |                     |
| Rantala          | Enrico-Henrik |    | Nokia                       | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Rayment          | Stephen G     | G  | Ericsson AB                 | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            | 212                 |
| Razoumov         | Leonid        |    |                             | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Redlich          | Oded          |    | Huawei Technologies Co. Ltd | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Reede            | Ivan          |    |                             | Ex Voter |                   |                                                      | 2015-03-13 |                     |
| Reible           | Stanley       | A  |                             | Ex Voter |                   |                                                      |            |                     |
| Ren              | Yazhen        |    | Huawei Technologies Co. Ltd | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name | MI | Affiliation                       | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Repice      | Joseph     | A  |                                   | Ex Voter        |                   |                                                      | 2008-11-17 |                     |
| Reuss       | Edward     |    | NO AFFILIATION                    | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Reznik      | Alex       |    |                                   | Ex Voter        |                   |                                                      | 2011-11-11 |                     |
| Riegel      | Maximilian |    | Nokia Networks                    | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Rios        | Carlos     | A  |                                   | Ex Voter        |                   |                                                      | 2008-07-19 |                     |
| Rison       | Mark       |    | Samsung Cambridge Solution Centre | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| roblot      | sandrine   |    |                                   | Ex Voter        |                   |                                                      | 2011-07-22 |                     |
| Roebuck     | Randal     |    |                                   | Ex Voter        |                   |                                                      | 2010-07-16 |                     |
| Roh         | Dongwook   |    |                                   | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Rong        | Zhigang    |    | Huawei Technologies Co. Ltd       | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Rosdahl     | Jon        | W  | Qualcomm Technologies, Inc.       | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Roy         | Arnab      |    | InterDigital, Inc.                | Potential Voter | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Roy         | Richard    |    |                                   | Ex Voter        |                   |                                                      | 2016-01-21 |                     |
| Ryu         | Cheol      |    |                                   | Ex Voter        |                   |                                                      | 2015-11-13 |                     |

| Family Name     | Given Name | MI | Affiliation           | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-----------------|------------|----|-----------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Ryu             | Kiseon     |    | LG ELECTRONICS        | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Sada            | Tomoki     |    | KDDI R&D Laboratories | Aspirant        | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sadeghi         | Bahareh    |    | Intel Corporation     | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Sadot           | Emek       |    |                       | Ex Voter        |                      |                                                      |            |                     |
| Sadri           | Ali        |    | Intel Corporation     | Potential Voter | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Safonov         | Alexander  |    |                       | Ex Voter        |                      |                                                      | 2012-05-01 |                     |
| Sakamoto        | Takenori   |    | Panasonic Corporation | Voter           | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Sakoda          | Kazuyuki   |    | Sony Corporation      | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Salazar Cardozo | Ruben E    | S  |                       | Ex Voter        |                      |                                                      | 2013-09-16 |                     |
| Sambasivan      | Sam        |    | AT&T                  | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Sampath         | Hemanth    |    | Qualcomm Incorporated | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sanwalka        | Anil       |    |                       | Ex Voter        |                      |                                                      |            |                     |
| Sargologos      | Nicholas   |    |                       | Ex Voter        |                      |                                                      | 2008-09-16 |                     |
| Sarikaya        | Behcet     |    | Huawei R&D USA        | Aspirant        | 166<br>(2017-        | Caribe Hotel and Convention                          |            |                     |

| Family Name    | Given Name   | MI | Affiliation                    | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|----------------|--------------|----|--------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
|                |              |    |                                |          | 11-05)           | Center, Orlando, FL, USA                             |            |                     |
| Sarrigeorgidis | Konstantinos |    |                                | Ex Voter |                  |                                                      |            |                     |
| Sarris         | Ioannis      |    | u-blox                         | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Sasaki         | Shigenobu    |    | Niigata University             | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Sastry         | Ambatipudi R | R  |                                | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| SATO           | KATSUYOSHI   |    |                                | Ex Voter |                  |                                                      | 2009-07-20 |                     |
| Sato           | Naotaka      |    | Sony Corporation               | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sawada         | Hirokazu     |    |                                | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| Scarpa         | Vincenzo     |    |                                | Ex Voter |                  |                                                      | 2008-11-17 |                     |
| Schelstraete   | Sigurd       |    | Quantenna Communications, Inc. | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Schlanger      | Gabriel      |    |                                | Ex Voter |                  |                                                      | 2008-05-05 |                     |
| Schmidl        | Timothy      |    |                                | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Schnacke       | Richard      |    |                                | Ex Voter |                  |                                                      |            |                     |
| Schneider      | Daniel       |    |                                | Ex Voter |                  |                                                      | 2016-07-29 |                     |
| Schultz        | Donald       |    |                                | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Schwoerer      | Jean         |    |                                | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| Schylander     | Erik         |    |                                | Ex Voter |                  |                                                      |            |                     |
| Scott          | Andy         |    | NCTA                           | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |

| Family Name  | Given Name | MI | Affiliation                                        | Status    | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|----------------------------------------------------|-----------|----------------------|------------------------------------------------------|------------|---------------------|
| Segev        | Jonathan   |    | Intel Corporation                                  | Voter     | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Seibert      | Cristina   |    |                                                    | Ex Voter  |                      |                                                      | 2014-07-18 |                     |
| Seminario    | Max        |    | ADVANTEST                                          | Aspirant  | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Sensendorf   | Joe        |    |                                                    | Ex Voter  |                      |                                                      |            |                     |
| Seok         | Yongho     |    | Newracom Inc.                                      | Voter     | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Serafimovski | Nikola     |    | pureLiFi                                           | Aspirant  | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Shah         | Kunal      |    | Silver Spring Networks Inc.                        | Voter     | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Shao         | Huairong   |    |                                                    | Ex Voter  |                      |                                                      | 2014-11-07 |                     |
| SHAO         | PENG       |    | NEC Communication Systems, Ltd.                    | Aspirant  | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Shao         | Zhenhai    |    |                                                    | Ex Voter  |                      |                                                      | 2014-03-21 |                     |
| Shapira      | Nir        |    |                                                    | Ex Voter  |                      |                                                      | 2012-11-16 |                     |
| Sharma       | Neeraj     |    |                                                    | Ex Voter  |                      |                                                      | 2009-07-20 |                     |
| Sharon       | Ariel      |    |                                                    | Ex Voter  |                      |                                                      | 2008-03-25 |                     |
| Shearer      | Steve      |    |                                                    | Ex Voter  |                      |                                                      | 2012-07-20 |                     |
| Shellhammer  | Stephen    | J  | Qualcomm Incorporated                              | ExOfficio |                      |                                                      |            |                     |
| Shen         | Bazhong    |    | Broadcom Corporation                               | Voter     | 162*<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 216                 |
| Shen         | Xia        |    | China Academy of Telecommunication Research (CATR) | Aspirant  | 164<br>(2017-07-09)  | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                    | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                |          |                  | Center, Berlin, Germany                              |            |                     |
| Sherlock    | Ian        |    | Texas Instruments Incorporated | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Sherman     | Matthew    |    |                                | Ex Voter |                  |                                                      |            |                     |
| Shi         | Kai        |    |                                | Ex Voter |                  |                                                      | 2009-11-23 |                     |
| SHI         | QICAI      |    |                                | Ex Voter |                  |                                                      | 2014-07-18 |                     |
| Shi         | Wei        |    |                                | Ex Voter |                  |                                                      | 2013-07-19 |                     |
| SHIBAGAKI   | Nobuhiko   |    |                                | Ex Voter |                  |                                                      | 2014-07-08 |                     |
| Shilo       | Shimi      |    | Huawei Technologies Co., Ltd   | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Shimada     | Shusaku    |    | Schubiquist Technologies       | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Shimomura   | Tsuyoshi   |    |                                | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| Shin        | ChangSub   | S  |                                | Ex Voter |                  |                                                      | 2013-11-10 |                     |
| SHIN        | JUNG-CHUL  |    |                                | Ex Voter |                  |                                                      | 2016-07-29 |                     |
| Shin        | Wooram     |    |                                | Ex Voter |                  |                                                      | 2014-11-07 |                     |
| Shukla      | Ashish     |    |                                | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| Shvodian    | William    | M  |                                | Ex Voter |                  |                                                      |            |                     |
| Shyy        | D.         | J  |                                | Ex Voter |                  |                                                      | 2008-05-05 |                     |
| Siep        | Thomas     | M  |                                | Ex Voter |                  |                                                      | 2013-11-15 |                     |
| Sim         | Michael    |    | Panasonic Corporation          | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Simon       | Francois   |    |                                | Ex Voter |                  |                                                      | 2010-11-12 |                     |

| Family Name | Given Name        | MI | Affiliation     | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------------|----|-----------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Simons      | John              |    |                 | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Simpson     | Floyd             |    |                 | Ex Voter |                  |                                                      |            |                     |
| Singh       | Harkirat          |    |                 | Ex Voter |                  |                                                      | 2009-03-16 |                     |
| Singh       | Shubhranshu       |    |                 | Ex Voter |                  |                                                      | 2010-11-12 |                     |
| Siti        | Massimiliano      |    |                 | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Skafidas    | Efstratios (Stan) |    |                 | Ex Voter |                  |                                                      |            |                     |
| Skidmore    | Roger             | R  |                 | Ex Voter |                  |                                                      |            |                     |
| Slater      | Robert            |    |                 | Ex Voter |                  |                                                      | 2016-07-29 |                     |
| Smith       | Dwight            |    |                 | Ex Voter |                  |                                                      | 2013-11-10 |                     |
| Smith       | Graham            | K  | SR Technologies | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Smith       | Matt              |    |                 | Ex Voter |                  |                                                      | 2009-11-23 |                     |
| So          | Tricci            |    |                 | Ex Voter |                  |                                                      |            |                     |
| Sohn        | Ill               | S  |                 | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Solomon     | Yoram             |    |                 | Ex Voter |                  |                                                      |            |                     |
| Son         | Ju-Hyung          |    | WILUS Institute | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Son         | JungBo            | B  |                 | Ex Voter |                  |                                                      | 2015-11-13 |                     |
| Song        | Chunyi            |    |                 | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| Song        | Hayeong           |    | Newracom Inc.   | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Song        | Jae-Hyung         |    |                 | Ex Voter |                  |                                                      | 2011-06-27 |                     |
| Song        | Leilei            |    |                 | Ex Voter |                  |                                                      | 2008-07-18 |                     |

| Family Name  | Given Name | MI | Affiliation                                                | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|------------------------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Song         | Myung Sun  | S  |                                                            | Ex Voter |                  |                                                      | 2014-07-08 |                     |
| Song         | Nah-Oak    |    | Korea Advanced Institute of Science and Technology (KAIST) | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 217                 |
| Song         | Yoo-Seung  |    |                                                            | Ex Voter |                  |                                                      | 2009-06-30 |                     |
| Sood         | Kapil      |    |                                                            | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Soomro       | Amjad      |    |                                                            | Ex Voter |                  |                                                      |            |                     |
| Soranno      | Robert     | T  |                                                            | Ex Voter |                  |                                                      |            |                     |
| Sreemanthula | Srinivas   |    |                                                            | Ex Voter |                  |                                                      | 2008-02-13 |                     |
| Sridhara     | Vinay      |    |                                                            | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Srinivasa    | Sudhir     |    | Marvell Semiconductor, Inc.                                | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Stacey       | Robert     |    | Intel Corporation                                          | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Stanley      | Dorothy    |    | Hewlett Packard Enterprise                                 | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Steck        | William    | K  |                                                            | Ex Voter |                  |                                                      |            |                     |
| Stefani      | Lawrence   |    |                                                            | Ex Voter |                  |                                                      | 2013-11-10 |                     |
| Stephens     | Adrian     | P  | Intel Corporation                                          | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Stephenson   | David      | S  |                                                            | Ex Voter |                  |                                                      | 2011-02-25 |                     |
| Stevenson    | Carl       | R  |                                                            | Ex Voter |                  |                                                      | 2010-03-14 |                     |
| Stine        | John       |    |                                                            | Ex Voter |                  |                                                      | 2011-03-18 |                     |
| Stott        | Noel       |    | Ixia                                                       | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center,                  |            |                     |

| Family Name | Given Name | MI | Affiliation                     | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                 |                 |                   | Orlando, FL, USA                                     |            |                     |
| Strickland  | Stuart     |    | Hewlett Packard Enterprise      | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Struik      | Rene       |    |                                 | Ex Voter        |                   |                                                      | 2015-03-13 |                     |
| STRUTT      | GUENAEL    | T  |                                 | Ex Voter        |                   |                                                      | 2011-06-27 |                     |
| SU          | HONGJIA    |    | Huawei Technologies Co. Ltd     | Potential Voter | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Suh         | JUNG HOON  | H  | Huawei Technologies Co. Ltd     | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sum         | Chin-Sean  |    |                                 | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Sumi        | Takenori   |    | Mitsubishi Electric Corporation | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sun         | Bo         |    | ZTE Corporation                 | Voter           | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Sun         | Chen       |    | Sony Corporation                | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sun         | Li-Hsiang  |    | InterDigital, Inc.              | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| sun         | sheng      |    | Huawei Technologies Co. Ltd     | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Sun         | Yakun      |    | Marvell Semiconductor, Inc.     | Voter           | 162* (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 212                 |

| Family Name | Given Name  | MI | Affiliation                                      | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|--------------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Sun         | Yanjun      |    | Qualcomm Incorporated                            | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Sun         | Winston     |    |                                                  | Ex Voter |                  |                                                      | 2008-02-13 |                     |
| Surineni    | Shravan     | K  |                                                  | Ex Voter |                  |                                                      |            |                     |
| Suzuki      | Hideyuki    |    |                                                  | Ex Voter |                  |                                                      | 2008-07-18 |                     |
| Szott       | Szymon      |    | AGH University of Science and Technology         | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Tabibiazar  | Arash       |    |                                                  | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Taghavi     | Mohammad    | H  |                                                  | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Takagi      | Eiji        |    |                                                  | Ex Voter |                  |                                                      | 2009-11-23 |                     |
| Takagi      | Masahiro    |    |                                                  | Ex Voter |                  |                                                      |            |                     |
| Takahashi   | Kazuaki     |    | Panasonic Corporation                            | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Takahashi   | Seiichiro   |    |                                                  | Ex Voter |                  |                                                      |            |                     |
| Takai       | Mineo       |    | Space-Time Engineering                           | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Takatori    | Yasushi     |    | Nippon Telegraph and Telephone Corporation (NTT) | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Takeda      | Daisuke     |    |                                                  | Ex Voter |                  |                                                      |            |                     |
| Tal         | Nir         |    |                                                  | Ex Voter |                  |                                                      |            |                     |
| Tamaki      | Tsuyoshi    |    |                                                  | Ex Voter |                  |                                                      |            |                     |
| Tamhane     | Sagar       |    | Marvell Semiconductor, Inc.                      | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Tan         | Pek-Yew     |    |                                                  | Ex Voter |                  |                                                      |            |                     |
| Tan         | Teik-Kheong |    |                                                  | Ex Voter |                  |                                                      | 2010-07-16 |                     |
| Tanahashi   | Masato      |    |                                                  | Ex Voter |                  |                                                      | 2008-07-19 |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Tanaka      | Hideki     |    |                             | Ex Voter |                      |                                                      |            |                     |
| Tanaka      | Yusuke     |    | Sony Corporation            | Voter    | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Tandai      | Tomoya     |    |                             | Ex Voter |                      |                                                      | 2016-03-18 |                     |
| Taniguchi   | Kentaro    |    | TOSHIBA Corporation         | Voter    | 162*<br>(2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 217                 |
| Tao         | Wu         |    | Huawei Technologies Co. Ltd | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Taori       | Rakesh     |    | Phazr                       | Voter    | 164*<br>(2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Tarighat    | Alireza    |    |                             | Ex Voter |                      |                                                      | 2016-01-21 |                     |
| Tayamon     | Soma       |    | Ericsson AB                 | Aspirant | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Teo         | Joseph     |    |                             | Ex Voter |                      |                                                      | 2013-07-19 |                     |
| Tetzlaff    | Thomas     |    |                             | Ex Voter |                      |                                                      | 2014-11-07 |                     |
| Thirupathi  | Durai      |    | Broadcom Corporation        | Aspirant | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Thompson    | Geoffrey   | O  |                             | Ex Voter |                      |                                                      | 2011-09-23 |                     |
| THOMSON     | ALLAN      |    |                             | Ex Voter |                      |                                                      | 2011-07-22 |                     |
| Thrasher    | Jerry      |    |                             | Ex Voter |                      |                                                      | 2013-09-16 |                     |
| Tian        | Bin        |    | Qualcomm Incorporated       | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| tian        | kaibo      |    | ZTE                         | Aspirant | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |

| Family Name        | Given Name | MI | Affiliation                       | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------------|------------|----|-----------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Tian               | Qingjiang  |    | Qualcomm Incorporated             | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Tian               | Tao        |    | Qualcomm Incorporated             | Voter           | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            | 217                 |
| Tian               | Tong       |    |                                   | Ex Voter        |                   |                                                      | 2014-07-18 |                     |
| Tingleff           | Jens       |    |                                   | Ex Voter        |                   |                                                      | 2015-11-13 |                     |
| Tinnakornsriruphap | Peerapol   |    | Qualcomm Incorporated             | Voter           | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Tokubo             | Eric       |    |                                   | Ex Voter        |                   |                                                      | 2011-02-25 |                     |
| Tolpin             | Alexander  |    |                                   | Ex Voter        |                   |                                                      | 2008-12-21 |                     |
| Tomcik             | James      | D  |                                   | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Tong               | Fei        |    | Samsung Cambridge Solution Center | Potential Voter | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Torab              | Payam      |    | Broadcom Corporation              | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Torkildson         | Eric       |    | Nokia                             | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Tosato             | Filippo    |    |                                   | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Toyoda             | Ichihiko   |    |                                   | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Trachewsky         | Jason      |    |                                   | Ex Voter        |                   |                                                      | 2010-11-12 |                     |
| Trainin            | Solomon    | B  | Intel Corporation                 | Voter           | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Tran               | Ha Nguyen  | N  |                                   | Ex Voter        |                   |                                                      | 2014-07-18 |                     |

| Family Name   | Given Name | MI | Affiliation                 | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|---------------|------------|----|-----------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
| Tsai          | Chia-Hung  |    | MediaTek Inc.               | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Tsai          | Chia-Lung  |    |                             | Ex Voter        |                  |                                                      | 2014-05-09 |                     |
| Tsao          | Alvin      |    |                             | Ex Voter        |                  |                                                      | 2008-05-05 |                     |
| Tsao          | Jean       |    |                             | Ex Voter        |                  |                                                      | 2010-11-12 |                     |
| Tsodik        | Genadiy    |    | Huawei Technologies Co. Ltd | Potential Voter | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Tsonev        | Dobroslav  |    | pureLiFi                    | Aspirant        | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Tsoulogiannis | Tom        |    |                             | Ex Voter        |                  |                                                      |            |                     |
| tsubaki       | toshimitsu |    |                             | Ex Voter        |                  |                                                      | 2016-11-11 |                     |
| Tsukada       | Kazuyoshi  |    |                             | Ex Voter        |                  |                                                      | 2015-11-13 |                     |
| Tu            | Yung-Szu   |    |                             | Ex Voter        |                  |                                                      | 2011-07-22 |                     |
| Tuomaala      | Esa        |    | Nokia                       | Voter           | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            | 212                 |
| Turner        | Sandra     | L  |                             | Ex Voter        |                  |                                                      |            |                     |
| Tzamaloukas   | Mike       | E  |                             | Ex Voter        |                  |                                                      |            |                     |
| Umehira       | Masahiro   |    |                             | Ex Voter        |                  |                                                      | 2015-03-13 |                     |
| Urabe         | Yoshio     |    | Panasonic Corporation       | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Uyehara       | Ashley     |    |                             | Ex Voter        |                  |                                                      | 2008-11-17 |                     |
| Van Erven     | Niels      |    |                             | Ex Voter        |                  |                                                      |            |                     |
| Van Leeuwen   | Richard    |    |                             | Ex Voter        |                  |                                                      |            |                     |
| Van Nee       | Richard    | D  | Qualcomm Incorporated       | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| van Waes      | Nico       | J  |                             | Ex Voter        |                  |                                                      |            |                     |

| Family Name          | Given Name      | MI | Affiliation                     | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|----------------------|-----------------|----|---------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Van Zelst            | Allert          |    | Qualcomm Incorporated           | Voter           | 164*<br>(2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Vangelista           | Lorenzo         |    | Patavina Technologies           | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Vanthournout         | Jerome          |    | CEVA-DSP                        | Aspirant        | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Varlet-Andre         | Mathieu         |    |                                 | Ex Voter        |                      |                                                      | 2009-06-30 |                     |
| Varsanofiev          | Dmitri          |    |                                 | Ex Voter        |                      |                                                      |            |                     |
| Varshney             | Prabodh         |    | Nokia                           | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Venkatachalam Jayara | Venkata Ramanan |    | Qualcomm Incorporated           | Voter           | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Venkatesan           | Ganesh          |    | Intel Corporation               | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Venkateswaran        | Sriram          |    | Broadcom Corporation            | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Verma                | Karan           |    | Central University of Rajasthan | Aspirant        | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Verma                | Lochan          |    | Qualcomm Incorporated           | Potential Voter | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Vermani              | Sameer          |    | Qualcomm Incorporated           | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |

| Family Name | Given Name | MI | Affiliation                                                            | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Victor      | Dalton     | T  |                                                                        | Ex Voter        |                   |                                                      | 2015-03-13 |                     |
| VIGER       | Pascal     |    | Canon Research Centre France                                           | Voter           | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Villard     | Gabriel    |    | National Institute of Information and Communications Technology (NICT) | Aspirant        | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Virk        | Bhupender  |    |                                                                        | Ex Voter        |                   |                                                      | 2012-07-20 |                     |
| Vlantis     | George     | A  | STMicroelectronics                                                     | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Vogtli      | Nanci      |    |                                                                        | Ex Voter        |                   |                                                      |            |                     |
| Volpano     | Dennis     |    |                                                                        | Ex Voter        |                   |                                                      |            |                     |
| Wadhwa      | Sanjay     |    |                                                                        | Ex Voter        |                   |                                                      | 2012-07-20 |                     |
| Walker      | Jesse      | R  |                                                                        | Ex Voter        |                   |                                                      | 2010-07-16 |                     |
| Wallace     | Brad       | N  |                                                                        | Ex Voter        |                   |                                                      |            |                     |
| Wandile     | Vivek      |    |                                                                        | Ex Voter        |                   |                                                      |            |                     |
| Wang        | Bo         |    | Huawei Technologies Co., Ltd                                           | Potential Voter | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Wang        | Chao Chun  |    | MediaTek Inc.                                                          | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Wang        | Haiguang   |    |                                                                        | Ex Voter        |                   |                                                      | 2015-07-28 |                     |
| Wang        | Haiming    |    | Southeast University, China                                            | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Wang        | Huaiyuan   |    |                                                                        | Ex Voter        |                   |                                                      |            |                     |
| Wang        | Hui        |    |                                                                        | Ex Voter        |                   |                                                      | 2008-03-25 |                     |
| Wang        | Huizhao    |    | Quantenna Communications, Inc.                                         | Voter           | 166 (2017-        | Caribe Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                             |                 | 11-05)           | Center, Orlando, FL, USA                             |            |                     |
| Wang        | James June | J  | MediaTek Inc.               | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Wang        | Junyi      |    |                             | Ex Voter        |                  |                                                      | 2012-07-20 |                     |
| Wang        | Lei        |    | Huawei R&D USA              | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Wang        | Lin        |    |                             | Ex Voter        |                  |                                                      | 2014-03-21 |                     |
| Wang        | Qi         |    | Broadcom Corporation        | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Wang        | Stanley    |    |                             | Ex Voter        |                  |                                                      |            |                     |
| Wang        | Xiang      |    |                             | Ex Voter        |                  |                                                      | 2014-03-21 |                     |
| Wang        | Xiaofei    |    | InterDigital, Inc.          | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Wang        | Xuehuan    |    | Huawei Technologies Co. Ltd | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Wang        | Yi         |    | Huawei Technologies Co. Ltd | Potential Voter | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Want        | Roy        |    | Google                      | Aspirant        | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Ward        | Dennis     |    |                             | Ex Voter        |                  |                                                      | 2008-03-25 |                     |
| Ward        | Lisa       |    | Rohde & Schwarz             | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center,                  |            | 212                 |

| Family Name | Given Name  | MI | Affiliation                                                        | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|--------------------------------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
|             |             |    |                                                                    |                 |                   | Orlando, FL, USA                                     |            |                     |
| Ware        | Christopher | G  |                                                                    | Ex Voter        |                   |                                                      |            |                     |
| Warren      | Craig       | D  |                                                                    | Ex Voter        |                   |                                                      | 2010-07-16 |                     |
| Watanabe    | Fujio       |    | NTT DoCoMo, Inc.                                                   | Voter           | 164* (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| waye        | patrick     |    |                                                                    | Ex Voter        |                   |                                                      | 2009-06-30 |                     |
| Webber      | Julian      |    | Advanced Telecommunications Research Institute International (ATR) | Potential Voter | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Wee         | Gaius       |    | Panasonic Asia Pacific Pte Ltd.                                    | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Wei-Xia     | Zou         |    |                                                                    | Ex Voter        |                   |                                                      | 2015-11-13 |                     |
| Wells       | Bryan       |    |                                                                    | Ex Voter        |                   |                                                      |            |                     |
| Wen         | Ericson     |    |                                                                    | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Wen         | Lei         |    |                                                                    | Ex Voter        |                   |                                                      | 2013-07-19 |                     |
| Wendt       | Jim         |    |                                                                    | Ex Voter        |                   |                                                      |            |                     |
| Wentink     | Menzo       | M  | Qualcomm Incorporated                                              | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| West        | Nicholas    |    |                                                                    | Ex Voter        |                   |                                                      | 2012-11-16 |                     |
| Weytjens    | Filip       |    |                                                                    | Ex Voter        |                   |                                                      |            |                     |
| Whetten     | Frank       |    |                                                                    | Ex Voter        |                   |                                                      | 2010-03-22 |                     |
| Whitesell   | Stephen     | R  |                                                                    | Ex Voter        |                   |                                                      | 2008-02-13 |                     |
| Wicaksana   | Harya       |    |                                                                    | Ex Voter        |                   |                                                      | 2013-11-15 |                     |
| Wilhelmsson | Leif        |    | Ericsson AB                                                        | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |

| Family Name | Given Name  | MI | Affiliation                        | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Williams    | Christopher |    |                                    | Ex Voter |                  |                                                      | 2014-07-08 |                     |
| Williams    | Kyle        |    |                                    | Ex Voter |                  |                                                      | 2009-03-16 |                     |
| Wilson      | James       | M  |                                    | Ex Voter |                  |                                                      |            |                     |
| Wineinger   | Gerald      |    |                                    | Ex Voter |                  |                                                      | 2008-07-19 |                     |
| Winters     | Jack        | H  |                                    | Ex Voter |                  |                                                      |            |                     |
| WON         | EUN TAE     | T  |                                    | Ex Voter |                  |                                                      | 2015-03-05 |                     |
| Wong        | Eric        |    | Apple, Inc.                        | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Wong        | Ian         |    |                                    | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Wong        | Timothy     | G  |                                    | Ex Voter |                  |                                                      | 2014-03-21 |                     |
| Worsham     | James       |    |                                    | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| Worstell    | Harry       | R  |                                    | Ex Voter |                  |                                                      | 2016-03-18 |                     |
| Wright      | Charles     | R  |                                    | Ex Voter |                  |                                                      |            |                     |
| Wright      | Michael     |    |                                    | Ex Voter |                  |                                                      |            |                     |
| Wu          | Fonchi      |    |                                    | Ex Voter |                  |                                                      | 2010-07-16 |                     |
| Wu          | Gang        |    |                                    | Ex Voter |                  |                                                      |            |                     |
| Wu          | Jianbing    |    | Shenzhen iTest Technology Co.,Ltd. | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Wu          | Songping    |    |                                    | Ex Voter |                  |                                                      | 2008-11-17 |                     |
| Wu          | Tianyu      |    | MediaTek Inc.                      | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Wu          | Ye          |    |                                    | Ex Voter |                  |                                                      | 2011-02-25 |                     |
| Wu          | Zhanji      |    |                                    | Ex Voter |                  |                                                      | 2013-09-16 |                     |
| Xia         | Pengfei     |    |                                    | Ex Voter |                  |                                                      | 2015-11-08 |                     |

| Family Name | Given Name | MI | Affiliation                 | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Xiao        | Zhenyu     |    |                             | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Xie         | Fang       |    |                             | Ex Voter        |                   |                                                      | 2013-11-15 |                     |
| Xie         | Zhen       |    |                             | Ex Voter        |                   |                                                      | 2008-03-25 |                     |
| Xin         | Yan        |    | Huawei Technologies Co. Ltd | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Xing        | Weimin     |    | ZTE Corporation             | Voter           | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Xu          | Dongmei    |    |                             | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Xu          | Mingguang  |    |                             | Ex Voter        |                   |                                                      | 2015-11-08 |                     |
| XU          | QUANPING   |    |                             | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Xue         | Qi         |    | Qualcomm Incorporated       | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| YAGHOOBI    | HASSAN     |    | Intel Corporation           | Potential Voter | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yagi        | Akiyoshi   |    |                             | Ex Voter        |                   |                                                      | 2008-11-17 |                     |
| Yamada      | Akira      |    | NTT DoCoMo, Inc.            | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Yamamoto    | Takeshi    |    |                             | Ex Voter        |                   |                                                      | 2009-11-23 |                     |
| Yamaura     | Tomoya     |    |                             | Ex Voter        |                   |                                                      | 2009-03-16 |                     |
| Yang        | Guang-Qi   |    |                             | Ex Voter        |                   |                                                      | 2014-07-08 |                     |
| Yang        | Lin        |    |                             | Ex Voter        |                   |                                                      | 2014-07-18 |                     |

| Family Name | Given Name | MI | Affiliation                                                        | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
| Yang        | Liuyang    |    |                                                                    | Ex Voter        |                  |                                                      | 2011-06-27 |                     |
| Yang        | Meng       |    |                                                                    | Ex Voter        |                  |                                                      | 2015-03-05 |                     |
| Yang        | Ou         |    | Intel Corporation                                                  | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yang        | Rongzhen   |    |                                                                    | Ex Voter        |                  |                                                      | 2015-05-07 |                     |
| YANG        | RUI        |    | InterDigital, Inc.                                                 | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Yang        | Sihoon     |    |                                                                    | Ex Voter        |                  |                                                      | 2008-03-25 |                     |
| Yang        | Xun        |    | Huawei Technologies Co. Ltd                                        | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Yang        | Xun        |    |                                                                    | Ex Voter        |                  |                                                      | 2015-05-07 |                     |
| Yang        | Yang       |    |                                                                    | Ex Voter        |                  |                                                      | 2014-03-21 |                     |
| Yang        | Yunsong    |    | Huawei Technologies Co. Ltd                                        | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yang        | Zhiyu      |    |                                                                    | Ex Voter        |                  |                                                      | 2008-09-16 |                     |
| Yano        | Kazuto     |    | Advanced Telecommunications Research Institute International (ATR) | Potential Voter | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| YAO         | KE         |    | ZTE Corporation                                                    | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Ye          | Fan        |    |                                                                    | Ex Voter        |                  |                                                      | 2014-05-09 |                     |

| Family Name | Given Name  | MI | Affiliation                 | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-----------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Ye          | Huanchun    |    |                             | Ex Voter |                  |                                                      | 2012-07-20 |                     |
| Yee         | James       |    | MediaTek Inc.               | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Yee         | Jung        |    |                             | Ex Voter |                  |                                                      | 2012-07-20 |                     |
| Yee         | Peter       |    | NSA/IAD                     | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yeh         | Chi-Hsiang  |    |                             | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Yeow        | Wai-Leong   |    |                             | Ex Voter |                  |                                                      | 2013-03-22 |                     |
| Yin         | Hujun       |    |                             | Ex Voter |                  |                                                      | 2015-03-05 |                     |
| Yokohira    | Kanji       |    |                             | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Yokoo       | Kaoru       |    |                             | Ex Voter |                  |                                                      | 2014-03-21 |                     |
| Yokota      | Hidetoshi   |    | Landis Gyr Group Worldwide  | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Yong        | Su Khiong   | K  | Apple, Inc.                 | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Yonge       | Larry       |    |                             | Ex Voter |                  |                                                      | 2015-11-08 |                     |
| Yoon        | Chanho      |    |                             | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Yoshida     | Seiji       |    |                             | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Young       | Christopher |    | Broadcom Corporation        | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Yu          | Bo          |    | Marvell Semiconductor, Inc. | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Yu          | Chang Wahn  |    |                             | Ex Voter |                  |                                                      | 2015-03-05 |                     |

| Family Name | Given Name | MI | Affiliation                 | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Yu          | Chinghwa   |    | Spreadtrum Comm.            | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 212                 |
| Yu          | Heejung    |    | Yeungnam University         | Voter           | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Yu          | Jian       |    | Huawei Technologies Co. Ltd | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yu          | Mao        |    | Marvell Semiconductor, Inc. | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Yu          | Patrick    |    |                             | Ex Voter        |                      |                                                      |            |                     |
| Yu          | Zhan       |    |                             | Ex Voter        |                      |                                                      | 2013-03-22 |                     |
| Yucek       | Tevfik     |    | Qualcomm Incorporated       | Potential Voter | 162<br>(2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Yue         | Guangrong  |    |                             | Ex Voter        |                      |                                                      | 2014-11-07 |                     |
| Yun         | Ji-Hoon    |    |                             | Ex Voter        |                      |                                                      | 2015-07-28 |                     |
| Yun         | SunWoong   |    | LG ELECTRONICS              | Potential Voter | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yung        | Hon        | M  |                             | Ex Voter        |                      |                                                      |            |                     |
| Yunoki      | Katsuo     | D  | KDDI R&D Laboratories       | Voter           | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Yurtkuran   | Erol       | K  |                             | Ex Voter        |                      |                                                      |            |                     |
| Zaks        | Artur      |    |                             | Ex Voter        |                      |                                                      | 2012-05-01 |                     |
| Zelevnikar  | Alan       |    | ARRIS Group                 | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Zeng        | Kun        |    | Huawei Technologies Co. Ltd | Voter           | 166<br>(2017-        | Caribe Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                              | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                          |          | 11-05)           | Center, Orlando, FL, USA                             |            |                     |
| Zhang       | Dezhi      |    |                                          | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Zhang       | Hongyuan   |    | Marvell Semiconductor, Inc.              | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Zhang       | Hui        |    |                                          | Ex Voter |                  |                                                      | 2014-03-21 |                     |
| zhang       | huimin     |    |                                          | Ex Voter |                  |                                                      | 2009-07-20 |                     |
| ZHANG       | JIAYIN     |    | Huawei Technologies Co. Ltd              | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Zhang       | Jinyun     |    | Mitsubishi Electric Research Labs (MERL) | Aspirant | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Zhang       | Junjian    |    |                                          | Ex Voter |                  |                                                      | 2013-03-22 |                     |
| Zhang       | Nianzu     |    |                                          | Ex Voter |                  |                                                      | 2014-05-09 |                     |
| Zhang       | Ning       |    |                                          | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| Zhang       | Xin        |    |                                          | Ex Voter |                  |                                                      | 2013-11-15 |                     |
| Zhang       | Xingxin    |    | Huawei Technologies Co. Ltd              | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Zhang       | Yan        |    | Marvell Semiconductor, Inc.              | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Zhao        | Meiyuan    |    |                                          | Ex Voter |                  |                                                      | 2010-11-12 |                     |
| Zhao        | Mu         |    |                                          | Ex Voter |                  |                                                      | 2016-01-21 |                     |
| Zhao        | Qiang      |    |                                          | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| Zhao        | Shiwei     |    |                                          | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| ZHAO        | XIAOWU     |    | ZTE Corporation                          | Aspirant | 164 (2017-       | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                             |          | 07-09)            | Center, Berlin, Germany                              |            |                     |
| Zheng       | Jun        |    |                             | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| ZHENG       | SHOUKANG   |    |                             | Ex Voter |                   |                                                      | 2015-03-13 |                     |
| Zheng       | Xiayu      |    | Marvell Semiconductor, Inc. | Voter    | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Zhou        | Jingyi     |    | Verizon Communications      | Aspirant | 162 (2017-03-12)  | Hyatt Regency, Vancouver, BC, Canada                 |            |                     |
| Zhou        | Mingtuo    |    |                             | Ex Voter |                   |                                                      | 2014-07-08 |                     |
| Zhou        | Xun        |    | Huawei Technologies Co. Ltd | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Zhou        | Yan        |    | Qualcomm Incorporated       | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| zhou        | yuan       |    |                             | Ex Voter |                   |                                                      | 2014-11-07 |                     |
| Zhu         | Chunhui    |    | Huawei Technologies Co. Ltd | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 212                 |
| Zhu         | Hufei      |    |                             | Ex Voter |                   |                                                      | 2015-05-07 |                     |
| Zhu         | Jing       |    |                             | Ex Voter |                   |                                                      | 2009-03-16 |                     |
| Zhu         | Jun        |    | Huawei Technologies Co. Ltd | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Zhuang      | Yan        |    |                             | Ex Voter |                   |                                                      | 2015-11-13 |                     |
| Zhuo        | Lan        |    | CESI Group                  | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Zorn        | Glen       |    |                             | Ex Voter |                   |                                                      |            |                     |

| Family Name | Given Name  | MI | Affiliation | Status   | Expires          | Meeting Location                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-------------|----------|------------------|--------------------------------------|------------|---------------------|
| Zuckerman   | Lawrence    |    |             | Ex Voter |                  |                                      | 2012-11-16 |                     |
| Zuniga      | Juan Carlos |    | SIGFOX      | Voter    | 162 (2017-03-12) | Hyatt Regency, Vancouver, BC, Canada |            |                     |
| Zweig       | Jonathan    |    |             | Ex Voter |                  |                                      | 2008-11-17 |                     |
| Zyren       | James       |    |             | Ex Voter |                  |                                      |            |                     |

## How do I specify my affiliation?

Affiliation is recorded in the IEEE myProject system at the Sponsor level, the Working Group level, and the Project level.

The affiliation shown above is updated from the IEEE-SA registration data after each session you attend.

### To enter affiliation initially:

- Log onto [myProject](#)
- Click on Manage Activity Profile
- Expand the list to the Sponsor, Working Group, or Project
- Check the box to enroll in that specific group
- Follow the instructions to add your affiliation

### To modify your affiliation in a committee that you already enrolled in:

- Log onto [myProject](#)
- Click on My Info on the top right hand corner
- Click on Affiliation Information

If you change your affiliation using the myProject system please also send an email to the Working Group Chair (Adrian P Stephens at [adrian.p.stephens@ieee.org](mailto:adrian.p.stephens@ieee.org)).

(Any changes may also often require the changing of emails in the 802.11 email reflectors, which can be done by the Working Group 2nd Vice Chair ([Dorothy Stanley](#)) at the same time.)

## How do I specify my employer?

There is no specific requirement in the IEEE-SA policies and procedures to disclose your employer.

Employer is asked for once in [myProject](#).

To view or update your employer :

- Log onto [myProject](#)
  - Click on My Info on the top right hand corner
  - Here you can modify your employer
- 

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## **APPENDIX BR**

# IEEE P802.11 - WORKING GROUP MEMBERSHIP LISTS

This page shows information for IEEE P802.11 Voter, Potential Voter, Aspirant, Ex Officio members, and Ex Voters as of 2017-05-12.

Note that this information is updated only after each 802.11 face-to-face session or working group letter ballot series.

The fields in the membership list have the following meaning

| Column              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Status              | <p>The Status column has the following meaning:</p> <ul style="list-style-type: none"><li>• Voter - the member can vote</li><li>• Potential voter - the member will have a voting token at the next face-to-face meeting and will become a voter after that meeting</li><li>• Aspirant - the member has recorded attendance at one qualifying meeting</li><li>• Ex Officio - the member is a voter by virtue of their membership of the IEEE 802 executive committee (EC)</li><li>• Ex Voter - the member was previously a voter member of 802.11. If you wish to be recognized as an Ex Voter, and are not recorded below, please furnish evidence of former voter status to the WG officers.</li></ul> <p>Members of all these status are entitled to join 802.11 email reflectors and submit documents to the 802.11 document server.</p>                                                                                                                                                                                                                                                   |
| Expires             | <p>This column shows the meeting number (which is necessarily a Plenary meeting) and approximate starting date of the meeting after which a voting member's voting status expires, if member does not attend any qualifying meetings between now and the end of that meeting.<br/>For "potential voter" members, this shows the meeting after which their status reverts to "aspirant".<br/>For "aspirant" members, this shows the meeting after which they lose "aspirant" status (and disappear from this listing).</p> <p>An asterisk after a meeting number (e.g., "142* (2013-11-07)") indicates that a voting member needs to attend one additional meeting before the cited meeting, or they will lose their voting membership at the cited meeting, regardless of whether they attend it or not. This occurs when the last two meetings attended by the member were a plenary and the interim following it.</p> <p>NOTE--the "Expires" entry for some voting members is blank. This signifies that the chair has granted them voting membership without an attendance requirement.</p> |
| Expired             | <p>The Expired column indicates the date when the member became an Ex Voter, if that is known.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Last Invalid Ballot | <p>This column indicates the ballot number any last invalid or missed ballot (see <a href="http://www.ieee802.org/11/LetterBallots.shtml">http://www.ieee802.org/11/LetterBallots.shtml</a> for the list of working group ballots). It is present only for Voter members.</p> <p>An invalid ballot is a failure to return a vote in a Working Group letter ballot series (i.e., the initial ballot and all recirculations for a particular project), or returning an invalid vote (voting "no" with</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

no "must be satisfied" comments, or voting abstain for a reason other than "lack of expertise"). Invalid ballots are counted over up to the last three letter ballot series since the member gained Voter status.

Transition arrangements: For ballots starting before August 2016, a voter's response to a letter ballot series is determined by their response to the initial ballot. After then, a voter's response will be determined when the letter ballot series is known to have terminated (i.e., when the project is approved by the EC, or meets the terms of conditional approval by the EC, to proceed to sponsor ballot). Voters who failed to meet the updated OM were granted a waiver of the most recent ballot they missed so that the change in the application of the rules resulted in no loss of voting membership.

According to the 802.11 operations manual, a Voter must return a valid vote in 2 of the last 3 letter ballot series to maintain their status. This means the voter can miss or return an invalid vote at most 1 such ballot series.

A Voter that has missed a ballot series and fails to return a valid vote by the end of the next letter ballot series loses their Voter status and becomes an Ex Voter.

---

## Please verify your affiliation.

There is a specific requirement in the IEEE-SA policies and procedures that attendees at its meetings disclose their affiliation. Attendees failing properly to do so risk losing the privileges of membership (i.e., voting rights).

For information from the IEEE-SA on affiliations please [click here](#).

Affiliation is not shown for Ex-Voters. For other membership statuses, if there is no affiliation beside your name or if the affiliation is incorrect please [follow these instructions](#).

If you have any related questions, please contact Adrian P Stephens at [adrian.p.stephens@ieee.org](mailto:adrian.p.stephens@ieee.org).

## Summary

| Member Status   | Count |
|-----------------|-------|
| Aspirant        | 112   |
| ExOfficio       | 12    |
| Ex Voter        | 827   |
| Potential Voter | 29    |
| Voter           | 328   |

## Detail

| Family Name | Given Name  | MI | Affiliation                        | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Aboba       | Bernard     |    |                                    | Ex Voter |                   |                                                      |            |                     |
| Aboulmagd   | Osama       | S  | Huawei Technologies Co. Ltd        | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Abraham     | Santosh     | P  | Qualcomm Technologies Incorporated | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Abu Surra   | Shadi       | A  |                                    | Ex Voter |                   |                                                      | 2016-11-11 |                     |
| Adachi      | Tomoko      |    | TOSHIBA Corporation                | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Agardh      | Kare        |    | Sony Mobile Communications         | Voter    | 164* (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Aggarwal    | Alok        |    |                                    | Ex Voter |                   |                                                      | 2009-07-20 |                     |
| Agre        | Jonathan    | R  |                                    | Ex Voter |                   |                                                      |            |                     |
| Ahn         | Jaehyun     |    |                                    | Ex Voter |                   |                                                      | 2016-01-21 |                     |
| Ahn         | Jinsoo      |    | Yonsei University                  | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Ahn         | Seung Hyeok |    | Newracom Inc.                      | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ahn         | Woojin      |    | WILUS                              | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 217                 |
| Aiello      | Roberto     |    |                                    | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Aio         | Kosuke      |    | Sony Corporation                   | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |

| Family Name | Given Name | MI | Affiliation                               | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-------------------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Akhmetov    | Dmitry     |    | Intel Corporation                         | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 225                 |
| Aldana      | Carlos     | H  | Intel Corporation                         | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Alexander   | Thomas     |    |                                           | Ex Voter |                      |                                                      | 2015-03-13 |                     |
| Alimian     | Areg       |    |                                           | Ex Voter |                      |                                                      |            |                     |
| Alpert      | Yaron      |    | Intel Corporation                         | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Al-Taleb    | Sajaa      |    | telekom research and development/malaysia | Aspirant | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Amann       | Keith      |    |                                           | Ex Voter |                      |                                                      | 2008-11-17 |                     |
| Amini       | Peiman     |    |                                           | Ex Voter |                      |                                                      | 2013-07-19 |                     |
| An          | Song-Haur  |    | INDEPENDENT                               | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Andrade     | Merwyn     | B  |                                           | Ex Voter |                      |                                                      |            |                     |
| Andren      | Carl       | F  |                                           | Ex Voter |                      |                                                      |            |                     |
| Andrus      | David      | C  |                                           | Ex Voter |                      |                                                      | 2011-11-11 |                     |
| Ansley      | Carol      |    | ARRIS Group                               | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Anton       | Butch      |    |                                           | Ex Voter |                      |                                                      |            |                     |
| Anwyl       | Gary       |    |                                           | Ex Voter |                      |                                                      | 2010-03-22 |                     |
| Aoki        | Tsuguhide  |    | TOSHIBA Corporation                       | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 217                 |
| Aramaki     | Takashi    |    |                                           | Ex Voter |                      |                                                      |            |                     |
| Arita       | Takashi    |    |                                           | Ex Voter |                      |                                                      | 2008-05-05 |                     |

| Family Name    | Given Name   | MI | Affiliation                     | Status   | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|----------------|--------------|----|---------------------------------|----------|-------------------|-----------------------------------------------------|------------|---------------------|
| Ariyavisitakul | Sirikiat Lek | L  |                                 | Ex Voter |                   |                                                     | 2014-11-07 |                     |
| Armstrong      | Lee          | R  | US Department of Transportation | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Arndt          | Manfred      |    | Hewlett Packard Enterprise      | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Arnett         | Larry        |    |                                 | Ex Voter |                   |                                                     |            |                     |
| Arnold         | James        |    |                                 | Ex Voter |                   |                                                     | 2016-11-11 |                     |
| Asai           | Yusuke       |    | NTT                             | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Ashley         | Alex         |    |                                 | Ex Voter |                   |                                                     | 2013-07-19 |                     |
| Asterjadhi     | Alfred       |    | Qualcomm Incorporated           | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Atcitty        | Torrey       |    |                                 | Ex Voter |                   |                                                     | 2012-05-01 |                     |
| Au             | Kwok Shum    | S  | Huawei Technologies Co. Ltd     | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Audeh          | Malik        |    |                                 | Ex Voter |                   |                                                     | 2009-11-23 |                     |
| Auluck         | Vijay        |    | Self                            | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            | 225                 |
| Aust           | Stefan       |    |                                 | Ex Voter |                   |                                                     | 2015-11-13 |                     |
| Avera          | Drayton      |    |                                 | Ex Voter |                   |                                                     | 2016-03-18 |                     |
| Awater         | Geert        | A  | Qualcomm Incorporated           | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Azizi          | Shahrnaz     |    | Intel Corporation               | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |

| Family Name | Given Name | MI | Affiliation                  | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Babaei      | Alireza    |    |                              | Ex Voter        |                   |                                                      | 2016-01-21 |                     |
| Backes      | Floyd      |    |                              | Ex Voter        |                   |                                                      | 2008-03-25 |                     |
| Bagby       | David      |    | Calypso Ventures, Inc.       | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Bahr        | Michael    |    |                              | Ex Voter        |                   |                                                      | 2012-07-20 |                     |
| Bai         | Fan        |    |                              | Ex Voter        |                   |                                                      | 2009-11-23 |                     |
| Baik        | Eugene     |    | Qualcomm Incorporated        | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Bain        | David      |    | TM Technologies              | Potential Voter | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Bajko       | Gabor      |    |                              | Ex Voter        |                   |                                                      | 2016-03-18 |                     |
| Baker       | Dennis     | J  |                              | Ex Voter        |                   |                                                      | 2008-12-21 |                     |
| Banerjea    | Raja       |    |                              | Ex Voter        |                   |                                                      | 2013-11-15 |                     |
| Banerjee    | Kaberi     |    |                              | Ex Voter        |                   |                                                      | 2011-03-18 |                     |
| bang        | saehee     |    | LG ELECTRONICS               | Voter           | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Bansal      | Amit       |    |                              | Ex Voter        |                   |                                                      | 2009-03-16 |                     |
| Barber      | Phillip    |    |                              | Ex Voter        |                   |                                                      | 2015-11-13 |                     |
| Barber      | Simon      |    |                              | Ex Voter        |                   |                                                      |            |                     |
| baron       | stephane   |    | Canon Research Centre France | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Barr        | David      |    | Intel Corporation            | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                             |          |                   | Center, Berlin, Germany                              |            |                     |
| Barr        | John       | R  |                             | Ex Voter |                   |                                                      | 2012-05-01 |                     |
| Barriac     | gwendolyn  |    |                             | Ex Voter |                   |                                                      | 2017-03-17 |                     |
| Barry       | Kevin      | M  |                             | Ex Voter |                   |                                                      |            |                     |
| Bartel      | Charles    | R  |                             | Ex Voter |                   |                                                      |            |                     |
| Basson      | Gal        |    |                             | Ex Voter |                   |                                                      | 2011-07-22 |                     |
| Batra       | Anuj       |    | Apple, Inc.                 | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Bavafa      | Moussa     |    |                             | Ex Voter |                   |                                                      | 2009-05-05 |                     |
| Baykas      | Tuncer     |    |                             | Ex Voter |                   |                                                      | 2013-03-04 |                     |
| Baysal      | Burak      | H  |                             | Ex Voter |                   |                                                      |            |                     |
| Bei         | Jianwei    |    | Marvell Semiconductor, Inc. | Aspirant | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Benko       | John       | L  |                             | Ex Voter |                   |                                                      | 2010-07-11 |                     |
| Ben-Tovim   | Erez       |    |                             | Ex Voter |                   |                                                      | 2013-11-15 |                     |
| Benveniste  | Mathilde   |    |                             | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Berens      | Friedbert  |    | FBConsulting Sarl           | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Berger      | Christian  |    | Marvell Semiconductor, Inc. | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Berkema     | Alan       |    |                             | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Berry       | Don        |    |                             | Ex Voter |                   |                                                      |            |                     |
| Bhandaru    | Nehru      |    | Broadcom Corporation        | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |

| Family Name | Given Name | MI | Affiliation             | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Bharadwaj   | Arjun      |    |                         | Ex Voter |                  |                                                      | 2017-01-20 |                     |
| Bhatt       | Anirudh    |    |                         | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| Bhukania    | Bijoy      |    |                         | Ex Voter |                  |                                                      | 2012-11-16 |                     |
| Bims        | Harry      |    | Bims Laboratories, Inc. | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Bjerke      | Bjorn      | A  |                         | Ex Voter |                  |                                                      | 2009-03-16 |                     |
| Black       | Simon      |    |                         | Ex Voter |                  |                                                      |            |                     |
| Blanchard   | Colin      |    |                         | Ex Voter |                  |                                                      | 2008-05-05 |                     |
| Blue        | Scott      |    |                         | Ex Voter |                  |                                                      |            |                     |
| Bocus       | Mohammud   |    | Toshiba of Europe Ltd.  | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Boer        | Jan        |    |                         | Ex Voter |                  |                                                      |            |                     |
| Booth       | Ted        |    |                         | Ex Voter |                  |                                                      | 2012-05-01 |                     |
| Borges      | Daniel     |    |                         | Ex Voter |                  |                                                      | 2011-06-27 |                     |
| Boucachard  | Philippe   |    |                         | Ex Voter |                  |                                                      | 2013-07-19 |                     |
| Bourdoux    | Andre      |    | IMEC                    | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Brandt      | David      |    | Rockwell Automation     | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Brasier     | William    | M  |                         | Ex Voter |                  |                                                      |            |                     |
| Braskich    | Anthony    |    |                         | Ex Voter |                  |                                                      | 2010-03-22 |                     |
| Bray        | Jennifer   |    |                         | Ex Voter |                  |                                                      |            |                     |
| Breit       | Gregory    |    |                         | Ex Voter |                  |                                                      | 2011-11-11 |                     |
| Brennan     | Joseph     |    |                         | Ex Voter |                  |                                                      | 2010-03-22 |                     |

| Family Name | Given Name   | MI | Affiliation                  | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|--------------|----|------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Britz       | David        |    |                              | Ex Voter        |                   |                                                      | 2008-12-21 |                     |
| Brown       | Alan         | M  | ADTRAN Inc.                  | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Buffington  | John         |    | Ittron Inc.                  | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Buga        | Walter       |    |                              | Ex Voter        |                   |                                                      | 2010-07-16 |                     |
| Bumiller    | G            |    |                              | Ex Voter        |                   |                                                      | 2012-07-20 |                     |
| Buttar      | Alistair     | G  |                              | Ex Voter        |                   |                                                      | 2008-02-13 |                     |
| Bynum       | Ann          |    |                              | Ex Voter        |                   |                                                      | 2016-03-18 |                     |
| Cai         | Lin          |    |                              | Ex Voter        |                   |                                                      | 2015-07-28 |                     |
| CAI         | YU           |    |                              | Ex Voter        |                   |                                                      | 2015-07-28 |                     |
| Caillerie   | Alain        |    | Canon Research Centre France | Potential Voter | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Calcev      | George       |    | Huawei R&D USA               | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Calvert     | Chris        |    | Landis Gyr Group Worldwide   | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Camps Mur   | Daniel       | C  |                              | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Cam-Winget  | Nancy        |    |                              | Ex Voter        |                   |                                                      | 2010-07-16 |                     |
| Canchi      | Radhakrishna |    | Kyocera International, Inc.  | ExOfficio       | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Canpolat    | Necati       |    |                              | Ex Voter        |                   |                                                      | 2011-07-22 |                     |

| Family Name | Given Name | MI | Affiliation                                    | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| cao         | fengming   |    |                                                | Ex Voter        |                   |                                                      | 2016-07-29 |                     |
| Cao         | Rui        |    | Marvell Semiconductor, Inc.                    | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Capar       | Cagatay    |    |                                                | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Cardona     | Javier     |    |                                                | Ex Voter        |                   |                                                      | 2010-03-22 |                     |
| Cariou      | Laurent    |    | Intel Corporation                              | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 217                 |
| Carlo       | James      |    |                                                | Ex Voter        |                   |                                                      | 2008-03-25 |                     |
| Carney      | William    |    | Sony Corporation                               | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Carson      | Pat        |    |                                                | Ex Voter        |                   |                                                      |            |                     |
| Centonza    | Angelo     |    |                                                | Ex Voter        |                   |                                                      | 2008-03-25 |                     |
| Cha         | Jaesun     |    |                                                | Ex Voter        |                   |                                                      | 2013-07-19 |                     |
| Chair       | Ricky      |    | Airgain                                        | Potential Voter | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Challans    | Romana     |    |                                                | Ex Voter        |                   |                                                      | 2013-03-22 |                     |
| CHAMBELIN   | Philippe   |    |                                                | Ex Voter        |                   |                                                      | 2012-10-31 |                     |
| Chan        | Douglas    | S  |                                                | Ex Voter        |                   |                                                      | 2009-11-23 |                     |
| Chang       | Kapseok    |    |                                                | Ex Voter        |                   |                                                      | 2011-07-22 |                     |
| Chang       | Kuor-Hsin  |    |                                                | Ex Voter        |                   |                                                      | 2015-03-13 |                     |
| CHANG       | SANGHYUN   |    | SAMSUNG ELECTRONICS                            | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Chang       | Soo-Young  |    | California State University, Sacramento (CSUS) | Voter           | 166 (2017-        | Caribe Hotel and Convention                          |            | 225                 |

| Family Name | Given Name  | MI | Affiliation                 | Status    | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-----------------------------|-----------|-------------------|-----------------------------------------------------|------------|---------------------|
|             |             |    |                             |           | 11-05)            | Center, Orlando, FL, USA                            |            |                     |
| Chang       | Xin         |    |                             | Ex Voter  |                   |                                                     | 2014-07-08 |                     |
| Chaplin     | Clint       | F  | Imagicon                    | ExOfficio |                   |                                                     |            |                     |
| Chen        | Bin         |    |                             | Ex Voter  |                   |                                                     | 2013-07-19 |                     |
| Chen        | Cheng       |    | Intel Corporation           | Aspirant  | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Chen        | Jiamin      |    | HUAWEI                      | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Chen        | Jiunn-Tsair |    |                             | Ex Voter  |                   |                                                     | 2010-03-22 |                     |
| Chen        | Jixin       |    |                             | Ex Voter  |                   |                                                     | 2014-05-09 |                     |
| CHEN        | KWANG-CHENG |    |                             | Ex Voter  |                   |                                                     | 2016-07-29 |                     |
| Chen        | Lidong      |    |                             | Ex Voter  |                   |                                                     | 2016-11-11 |                     |
| Chen        | Peng        |    | Huawei Technologies Co. Ltd | Aspirant  | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Chen        | Qian        |    |                             | Ex Voter  |                   |                                                     | 2014-11-07 |                     |
| CHEN        | Rory        |    |                             | Ex Voter  |                   |                                                     | 2008-02-13 |                     |
| Chen        | Spark       |    | ARRIS Group                 | Aspirant  | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Chen        | Teyan       |    |                             | Ex Voter  |                   |                                                     | 2016-11-11 |                     |
| CHEN        | Xi          |    |                             | Ex Voter  |                   |                                                     | 2014-03-21 |                     |
| Chen        | Xiaogang    |    | Intel Corporation           | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Chen        | Ye          |    |                             | Ex Voter  |                   |                                                     |            |                     |
| Chen        | Yi-Ming     |    |                             | Ex Voter  |                   |                                                     |            |                     |

| Family Name | Given Name | MI | Affiliation                      | Status          | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------------|-----------------|-------------------|-----------------------------------------------------|------------|---------------------|
| Cheng       | Gary       |    | Peraso Technologies Incorporated | Potential Voter | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Cheng       | Hong       |    |                                  | Ex Voter        |                   |                                                     | 2008-05-05 |                     |
| Cheng       | Paul       |    | MediaTek Inc.                    | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            | 225                 |
| Cheng       | Yong       |    | Huawei Device                    | Aspirant        | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Cheong      | Minho      |    | Newracom Inc.                    | Voter           | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| CHERIAN     | GEORGE     |    | Qualcomm Incorporated            | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            | 217                 |
| Cherniavsky | Dmitry     |    | SiBEAM, Inc.                     | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Chesson     | Greg       |    |                                  | Ex Voter        |                   |                                                     |            |                     |
| Chi         | Zhipei     |    |                                  | Ex Voter        |                   |                                                     | 2015-07-28 |                     |
| Chia        | Meng       | W  |                                  | Ex Voter        |                   |                                                     | 2011-07-22 |                     |
| Chin        | Francois   |    |                                  | Ex Voter        |                   |                                                     | 2014-11-07 |                     |
| Chin        | Woon Hau   |    |                                  | Ex Voter        |                   |                                                     | 2016-07-29 |                     |
| Chindapol   | Aik        |    |                                  | Ex Voter        |                   |                                                     |            |                     |
| Chitrakar   | Rojan      |    | Panasonic Asia Pacific Pte Ltd.  | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Cho         | Hangyu     |    | lg electronics                   | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Cho         | Joongwon   |    |                                  | Ex Voter        |                   |                                                     | 2016-11-11 |                     |

| Family Name | Given Name | MI | Affiliation                                                  | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Cho         | Woong      |    |                                                              | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Choi        | Chang-Soon |    |                                                              | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Choi        | Hyeyoung   |    |                                                              | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Choi        | Inhwan     |    |                                                              | Ex Voter |                   |                                                      | 2012-02-19 |                     |
| Choi        | In-Kyeong  |    | Newracom Inc.                                                | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Choi        | Jee-Yon    |    |                                                              | Ex Voter |                   |                                                      | 2015-03-13 |                     |
| Choi        | Jinsoo     |    | LG ELECTRONICS                                               | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Choi        | Nakjung    |    |                                                              | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Choi        | Sangsung   |    | Electronics and Telecommunications Research Institute (ETRI) | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Choi        | Seyoung    |    |                                                              | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Choi        | Sunghyun   |    |                                                              | Ex Voter |                   |                                                      |            |                     |
| Choi        | Won-Joon   |    |                                                              | Ex Voter |                   |                                                      |            |                     |
| Choo        | Li Chia    | C  |                                                              | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Choudhury   | Abhijit    | K  |                                                              | Ex Voter |                   |                                                      | 2008-07-19 |                     |
| Choudhury   | Sayantan   |    | Nokia                                                        | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| CHRISTIN    | Philippe   |    |                                                              | Ex Voter |                   |                                                      | 2011-07-22 |                     |
| Chu         | Liwen      |    | Marvell Semiconductor, Inc.                                  | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Chu         | Wenjing    |    |                                                              | Ex Voter |                   |                                                      | 2014-03-21 |                     |

| Family Name | Given Name | MI | Affiliation                                        | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| CHUN        | JINYOUNG   |    |                                                    | Ex Voter |                   |                                                      | 2016-01-21 |                     |
| Ciochina    | Dana       |    | Sony Corporation                                   | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Ciotti      | Frank      |    |                                                    | Ex Voter |                   |                                                      |            |                     |
| Clements    | Ken        |    |                                                    | Ex Voter |                   |                                                      |            |                     |
| Coffey      | John       |    | Realtek Semiconductor Corp.                        | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Cole        | Terry      | L  |                                                    | Ex Voter |                   |                                                      | 2010-03-14 |                     |
| Coleman     | Ryon       | K  |                                                    | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Congdon     | Paul       |    |                                                    | Ex Voter |                   |                                                      |            |                     |
| Conner      | W          | S  |                                                    | Ex Voter |                   |                                                      | 2008-02-13 |                     |
| Cook        | Charles    | I  |                                                    | Ex Voter |                   |                                                      | 2010-11-12 |                     |
| Cook        | Kenneth    |    |                                                    | Ex Voter |                   |                                                      |            |                     |
| Cooklev     | Todor      |    |                                                    | Ex Voter |                   |                                                      | 2009-03-16 |                     |
| Coop        | Kenneth    |    |                                                    | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| Cordeiro    | Carlos     |    | Intel Corporation                                  | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Correal     | Neiyer     |    |                                                    | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Crowley     | Steven     |    |                                                    | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Cypher      | David      | E  |                                                    | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| da Silva    | Claudio    |    | Intel Corporation                                  | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |
| DANG        | Meimei     |    | China Academy of Telecommunication Research (CATR) | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name  | Given Name | MI | Affiliation                               | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|-------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Das          | Subir      |    | Applied Communication Sciences            | ExOfficio       |                   |                                                      |            |                     |
| Dash         | Debashis   |    | Quantenna Communications, Inc.            | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Dauphinee    | Leonard    |    | MaxLinear Corp                            | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| De Courville | Marc       |    |                                           | Ex Voter        |                   |                                                      | 2009-11-23 |                     |
| De Ruijter   | Hendricus  |    | Silicon Laboratories                      | Aspirant        | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| de Vegt      | Rolf       | J  | Qualcomm Incorporated                     | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 217                 |
| Debergh      | Pierre     |    | Orange                                    | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Dehghan      | Hossein    |    |                                           | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Demessie     | Yohannes   |    |                                           | Ex Voter        |                   |                                                      | 2013-03-22 |                     |
| Deng         | Der-Jiunn  |    | National Changhua University of Education | Potential Voter | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| denison      | michael    |    |                                           | Ex Voter        |                   |                                                      | 2014-07-18 |                     |
| Denteneer    | Theodorus  |    |                                           | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Derham       | Thomas     |    |                                           | Ex Voter        |                   |                                                      | 2015-07-28 |                     |
| Deshmukh     | Nikhil     |    | National Instruments Corporation          | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| deVries      | Jeremy     |    |                                           | Ex Voter        |                   |                                                      | 2010-03-22 |                     |
| Dickey       | Susan      |    |                                           | Ex Voter        |                   |                                                      | 2010-11-12 |                     |

| Family Name  | Given Name | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Ding         | Gang       |    |                             | Ex Voter |                   |                                                      | 2010-09-18 |                     |
| DING         | ZHIMING    |    |                             | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Doi          | Yoshiharu  |    |                             | Ex Voter |                   |                                                      | 2009-07-20 |                     |
| Donapati     | Rakesh     |    | Anritsu Company             | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Dong         | Ting       |    |                             | Ex Voter |                   |                                                      | 2014-05-09 |                     |
| Dong         | Xiandong   |    |                             | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Doppler      | Klaus      |    |                             | Ex Voter |                   |                                                      | 2015-05-07 |                     |
| Dorsey       | John       |    |                             | Ex Voter |                   |                                                      | 2011-03-18 |                     |
| Douglas      | Brett      | L  |                             | Ex Voter |                   |                                                      |            |                     |
| Dowse        | Malcolm    |    |                             | Ex Voter |                   |                                                      | 2016-01-21 |                     |
| Drennan      | Offie      |    |                             | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| DU           | JiaDong    |    |                             | Ex Voter |                   |                                                      | 2015-11-13 |                     |
| Du           | Lei        |    |                             | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Dua          | Praveen    |    |                             | Ex Voter |                   |                                                      | 2016-11-11 |                     |
| Duan         | Chunjie    |    |                             | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Dundar       | Baris      | B  |                             | Ex Voter |                   |                                                      |            |                     |
| Durand       | Roger      | P  |                             | Ex Voter |                   |                                                      | 2014-11-07 |                     |
| duvvuri      | srinivasa  |    |                             | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Eastlake 3rd | Donald     | E  | Huawei Technologies Co. Ltd | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 216                 |
| Ecclesine    | Peter      |    | Self                        | Voter    | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 216                 |

| Family Name | Given Name | MI | Affiliation                   | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Edgar       | Richard    |    | Imagination Technologies Ltd. | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Edney       | Jonathan   | P  |                               | Ex Voter |                   |                                                      |            |                     |
| Edwards     | Bryan      |    |                               | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Eitan       | Alecsander |    | Qualcomm Incorporated         | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Ekbal       | Amal       |    |                               | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Elbakoury   | Hesham     | M  |                               | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Ellis       | Jason      |    |                               | Ex Voter |                   |                                                      |            |                     |
| Ellis       | Michael    |    |                               | Ex Voter |                   |                                                      | 2009-06-30 |                     |
| ElSherif    | Ahmed      |    | Qualcomm Incorporated         | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Emeott      | Stephen    | P  |                               | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Emmelmann   | Marc       |    | Self Employed                 | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Engwer      | Darwin     |    |                               | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Eo          | Iksoo      |    |                               | Ex Voter |                   |                                                      | 2015-05-07 |                     |
| Epstein     | Joseph     |    |                               | Ex Voter |                   |                                                      | 2009-03-16 |                     |
| Epstein     | Leonid     |    | Celeno Communications         | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Erceg       | Vinko      |    | Broadcom Corporation          | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 216                 |
| Eriksson    | Patrik     |    |                               | Ex Voter |                   |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status          | Expires           | Meeting Location                              | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|-----------------|-------------------|-----------------------------------------------|------------|---------------------|
| Escalera    | Natalia    |    | Buffalo Inc.                | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Estevez     | Leonardo   |    |                             | Ex Voter        |                   |                                               | 2011-02-25 |                     |
| Estrada     | Andrew     |    | Sony Corporation            | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA    |            |                     |
| Euscher     | Christoph  |    |                             | Ex Voter        |                   |                                               |            |                     |
| Faccin      | Stefano    | M  |                             | Ex Voter        |                   |                                               |            |                     |
| Falk        | Lars       | P  |                             | Ex Voter        |                   |                                               | 2009-03-16 |                     |
| Fan         | Zhong      |    |                             | Ex Voter        |                   |                                               | 2016-07-29 |                     |
| Fanfelle    | Robert     |    |                             | Ex Voter        |                   |                                               | 2009-07-20 |                     |
| Fang        | Ping       |    | Huawei Device Co. Ltd       | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Fang        | Yonggang   |    | ZTE TX Inc                  | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Fechtel     | Stefan     |    |                             | Ex Voter        |                   |                                               | 2009-11-23 |                     |
| Fei         | QIN        |    |                             | Ex Voter        |                   |                                               | 2014-07-08 |                     |
| Feinberg    | Paul       | H  |                             | Ex Voter        |                   |                                               | 2008-12-21 |                     |
| Feldman     | Alex       |    |                             | Ex Voter        |                   |                                               |            |                     |
| Feldman     | Ariel      |    | Autotalks                   | Aspirant        | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA    |            |                     |
| Feng        | Xiang      |    | Keysight Technologies       | Potential Voter | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Ferdowsi    | Vida       |    |                             | Ex Voter        |                   |                                               | 2016-11-11 |                     |
| Filin       | Stanislav  |    |                             | Ex Voter        |                   |                                               | 2014-07-08 |                     |
| Finn        | Norman     |    | Huawei Technologies Co. Ltd | Voter           |                   |                                               |            |                     |

| Family Name | Given Name | MI | Affiliation                  | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Fischer     | Matthew    | J  | Broadcom Corporation         | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Fischer     | Michael    |    | NXP Semiconductors           | Voter           | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Fisher      | Wayne      | K  |                              | Ex Voter        |                      |                                                      | 2010-11-12 |                     |
| Flammer     | George     |    |                              | Ex Voter        |                      |                                                      | 2014-03-21 |                     |
| FLYNN       | P          |    |                              | Ex Voter        |                      |                                                      | 2014-07-18 |                     |
| Fracchia    | Roberta    |    |                              | Ex Voter        |                      |                                                      | 2008-12-21 |                     |
| Frank       | Colin      |    |                              | Ex Voter        |                      |                                                      | 2011-11-11 |                     |
| Fujimoto    | Atsushi    |    |                              | Ex Voter        |                      |                                                      | 2010-07-16 |                     |
| Fujinami    | Makoto     |    |                              | Ex Voter        |                      |                                                      | 2008-03-25 |                     |
| Fujio       | Shunsuke   |    | FUJITSU LABORATORIES LIMITED | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Fukatsu     | Noriyasu   |    |                              | Ex Voter        |                      |                                                      | 2012-05-01 |                     |
| Funada      | Ryuhei     |    |                              | Ex Voter        |                      |                                                      | 2009-07-20 |                     |
| Fung        | Patrick    |    |                              | Ex Voter        |                      |                                                      | 2012-05-01 |                     |
| Furuichi    | Sho        |    | Sony Corporation             | Voter           | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Gagiev      | Yaroslav   |    | Intel Corporation            | Potential Voter | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Gal         | Dan        |    |                              | Ex Voter        |                      |                                                      | 2015-05-07 |                     |
| Gallizio    | Edoardo    |    |                              | Ex Voter        |                      |                                                      | 2008-05-05 |                     |
| Gan         | Ming       |    | Huawei Technologies Co. Ltd  | Voter           | 170*<br>(2018-       | Manchester Grand Hyatt,                              |            |                     |

| Family Name     | Given Name  | MI | Affiliation                                    | Status    | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-----------------|-------------|----|------------------------------------------------|-----------|-------------------|------------------------------------------------------|------------|---------------------|
|                 |             |    |                                                |           | 07-01)            | San Diego, CA, USA                                   |            |                     |
| Gao             | Wen         |    |                                                | Ex Voter  |                   |                                                      | 2011-02-25 |                     |
| Garcia Villegas | Eduard      |    | Universitat Politecnica de Catalunya (UPC)     | Aspirant  | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Gardner         | James       |    |                                                | Ex Voter  |                   |                                                      |            |                     |
| Gast            | Matthew     |    |                                                | Ex Voter  |                   |                                                      | 2011-03-18 |                     |
| Ghamri-Doudane  | Mohamed     |    |                                                | Ex Voter  |                   |                                                      | 2011-11-11 |                     |
| Ghanbarinejad   | Majid       |    | Huawei R&D USA                                 | Aspirant  | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ghasemi         | Amir        |    |                                                | Ex Voter  |                   |                                                      | 2011-02-25 |                     |
| Ghazi           | Vafa        |    |                                                | Ex Voter  |                   |                                                      |            |                     |
| Ghosh           | Chittabrata |    | Intel Corporation                              | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Ghosh           | Monisha     |    |                                                | Ex Voter  |                   |                                                      | 2016-07-29 |                     |
| Gilb            | James       | P  | Gilb Consulting, Inc.                          | ExOfficio |                   |                                                      |            |                     |
| Gilbert         | Jeffrey     |    |                                                | Ex Voter  |                   |                                                      | 2011-07-22 |                     |
| Gillmore        | Matthew     |    |                                                | Ex Voter  |                   |                                                      | 2015-03-05 |                     |
| GIRAUD          | Claude      |    |                                                | Ex Voter  |                   |                                                      | 2011-11-11 |                     |
| Glibbery        | Ronald      |    |                                                | Ex Voter  |                   |                                                      | 2010-11-12 |                     |
| Gloger          | Reinhard    |    |                                                | Ex Voter  |                   |                                                      | 2013-03-22 |                     |
| Godfrey         | Tim         |    | Electric Power Research Institute, Inc. (EPRI) | Voter     | 164* (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            | 225                 |
| GONG            | DANING      |    |                                                | Ex Voter  |                   |                                                      | 2013-11-10 |                     |
| Gong            | Michelle    |    |                                                | Ex Voter  |                   |                                                      | 2012-05-01 |                     |

| Family Name | Given Name | MI | Affiliation                   | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Goodall     | David      |    |                               | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Gossain     | Hrishikesh |    |                               | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Gosteau     | Jeremy     |    |                               | Ex Voter |                   |                                                      | 2008-07-18 |                     |
| GOTO        | Fumihide   |    | Self                          | Aspirant | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Gottlib     | Elad       |    |                               | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Grandhe     | Niranjan   |    | Marvell Semiconductor, Inc.   | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Grandhi     | Sudheer    | A  |                               | Ex Voter |                   |                                                      | 2013-11-10 |                     |
| Grass       | Eckhard    |    | Humboldt-University in Berlin | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Grau        | Stephen    |    |                               | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Gray        | Gordon     | P  |                               | Ex Voter |                   |                                                      |            |                     |
| Green       | Evan       | R  |                               | Ex Voter |                   |                                                      |            |                     |
| Green       | Larry      |    |                               | Ex Voter |                   |                                                      |            |                     |
| Grigat      | Michael    |    | Deutsche Telekom AG           | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Grodzinsky  | Mark       |    |                               | Ex Voter |                   |                                                      | 2011-03-18 |                     |
| Gu          | Daqing     |    |                               | Ex Voter |                   |                                                      |            |                     |
| Guener      | Tugrul     |    |                               | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Guo         | Jianlin    |    |                               | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Guo         | Qiang      |    | Huawei R&D USA                | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Guo         | Yuchen     |    | Huawei Technologies Co., Ltd  | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt,                              |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                             |          |                   | San Diego, CA, USA                                   |            |                     |
| Gupta       | Pratibha   |    |                             | Ex Voter |                   |                                                      | 2008-09-16 |                     |
| Gupta       | Vivek      | G  |                             | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Hadad       | Zion       |    |                             | Ex Voter |                   |                                                      | 2017-01-20 |                     |
| Hailemariam | Meareg     |    | IEEE                        | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Haines      | Russell    |    |                             | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Haisch      | Fred       |    |                             | Ex Voter |                   |                                                      |            |                     |
| Halasz      | David      |    |                             | Ex Voter |                   |                                                      | 2014-11-07 |                     |
| Hall        | Robert     |    | Johnson Controls Inc        | Voter    | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Halls       | David      |    | Toshiba of Europe Ltd.      | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 217                 |
| Hamady      | Neil       |    |                             | Ex Voter |                   |                                                      |            |                     |
| Hamilton    | Mark       |    | Ruckus Wireless             | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 217                 |
| HAN         | Xiao       |    | Huawei Technologies Co. Ltd | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Han         | Yunbo      |    | HUAWEI                      | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Hanatani    | Yoshikazu  |    |                             | Ex Voter |                   |                                                      | 2016-03-18 |                     |
| Handte      | Thomas     |    | Sony Corporation            | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |

| Family Name | Given Name  | MI | Affiliation                  | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Hansen      | Christopher | J  | Covariant Corporation        | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| HAO         | CHEN        |    | Huawei Technologies Co., Ltd | Potential Voter | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Hao         | Peng        |    |                              | Ex Voter        |                      |                                                      | 2015-05-07 |                     |
| Har Zion    | Yuval       |    | Celeno Communications        | Aspirant        | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Harada      | Hiroshi     |    |                              | Ex Voter        |                      |                                                      | 2013-11-15 |                     |
| Hardison    | Nathaniel   |    |                              | Ex Voter        |                      |                                                      | 2015-11-13 |                     |
| Harkins     | Daniel      | N  | Aruba Networks, Inc.         | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |
| Hart        | Brian       | D  | Cisco Systems, Inc.          | Voter           | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hartman     | Chris       |    | Apple, Inc.                  | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Haslestad   | Thomas      |    |                              | Ex Voter        |                      |                                                      |            |                     |
| Hassan      | Amer        | A  |                              | Ex Voter        |                      |                                                      | 2010-07-11 |                     |
| Hassel      | Vegard      |    |                              | Ex Voter        |                      |                                                      | 2010-03-22 |                     |
| Hattig      | Myron       |    |                              | Ex Voter        |                      |                                                      | 2008-03-25 |                     |
| Hauser      | James       | P  |                              | Ex Voter        |                      |                                                      |            |                     |
| Hayakawa    | Yutaka      |    |                              | Ex Voter        |                      |                                                      |            |                     |
| Hayase      | Shigenori   |    |                              | Ex Voter        |                      |                                                      | 2008-11-17 |                     |
| Hayes       | Kevin       | V  |                              | Ex Voter        |                      |                                                      | 2008-11-17 |                     |
| Hayes       | Victor      |    | CONSULTANT                   | Voter           |                      |                                                      |            |                     |
| He          | Haixiang    |    |                              | Ex Voter        |                      |                                                      |            |                     |

| Family Name | Given Name  | MI | Affiliation                 | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-----------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| He          | Linhai      |    | Qualcomm Incorporated       | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| he          | shuwen      |    | Southeast University, China | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Heberling   | Allen       |    | Tensorcom, Inc.             | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Hedayat     | Ahmadreza   |    | Newracom Inc.               | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 216                 |
| Hedberg     | David       | J  |                             | Ex Voter        |                   |                                                      |            |                     |
| Heide       | Carolyn     |    |                             | Ex Voter        |                   |                                                      | 2015-11-13 |                     |
| Heile       | Robert      | F  | Wi-SUN Alliance             | ExOfficio       |                   |                                                      |            |                     |
| Henry       | Jerome      |    | Cisco Systems, Inc.         | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hepworth    | Eleanor     |    |                             | Ex Voter        |                   |                                                      |            |                     |
| Hermodsson  | Frans       |    |                             | Ex Voter        |                   |                                                      |            |                     |
| Hiertz      | Guido       | R  | Ericsson AB                 | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Hillman     | Garth       | D  |                             | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Hinsz       | Christopher | S  |                             | Ex Voter        |                   |                                                      | 2008-02-13 |                     |
| Hiraga      | Ken         |    |                             | Ex Voter        |                   |                                                      | 2012-11-16 |                     |
| Hirano      | Jun         |    |                             | Ex Voter        |                   |                                                      |            |                     |
| Hirata      | Ryuichi     |    | Sony Corporation            | Aspirant        | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Ho          | Chin        | K  |                             | Ex Voter        |                   |                                                      | 2013-07-19 |                     |
| Ho          | Duncan      |    | Qualcomm Incorporated       | Voter           | 166 (2017-        | Caribe Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation         | Status   | Expires          | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------|----------|------------------|-----------------------------------------------------|------------|---------------------|
|             |            |    |                     |          | 11-05)           | Center, Orlando, FL, USA                            |            |                     |
| Ho          | Jin-Meng   |    |                     | Ex Voter |                  |                                                     |            |                     |
| Hoang       | Anh Tuan   | T  |                     | Ex Voter |                  |                                                     | 2013-11-15 |                     |
| Hoang       | Dien       |    |                     | Ex Voter |                  |                                                     | 2013-07-19 |                     |
| Hoghooghi   | Michael    | M  |                     | Ex Voter |                  |                                                     |            |                     |
| Holt        | Keith      |    |                     | Ex Voter |                  |                                                     |            |                     |
| Hong        | Hanseul    |    | Yonsei University   | Voter    | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Hong        | Seung-Eun  |    |                     | Ex Voter |                  |                                                     | 2011-07-22 |                     |
| Hong        | Song-Nam   |    |                     | Ex Voter |                  |                                                     | 2016-03-18 |                     |
| Hong        | Sungjin    |    | WILUS Institute     | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Hong        | Wei        |    |                     | Ex Voter |                  |                                                     | 2014-07-18 |                     |
| Hong        | Wei        |    |                     | Ex Voter |                  |                                                     | 2014-03-21 |                     |
| Hong        | Yong-Geun  |    |                     | Ex Voter |                  |                                                     | 2008-05-05 |                     |
| Honma       | Naoki      |    |                     | Ex Voter |                  |                                                     | 2010-03-22 |                     |
| Horisaki    | Koji       |    | TOSHIBA Corporation | Voter    | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 216                 |
| Horne       | William    |    |                     | Ex Voter |                  |                                                     |            |                     |
| Hosur       | Srinath    |    |                     | Ex Voter |                  |                                                     |            |                     |
| Hou         | Victor     |    |                     | Ex Voter |                  |                                                     | 2016-11-11 |                     |
| Housley     | Russell    | D  |                     | Ex Voter |                  |                                                     |            |                     |
| Howard      | David      |    |                     | Ex Voter |                  |                                                     | 2012-05-01 |                     |
| hsiao       | ying-chuan |    |                     | Ex Voter |                  |                                                     | 2013-11-10 |                     |
| Hsieh       | Jing-Rong  |    |                     | Ex Voter |                  |                                                     | 2016-07-29 |                     |

| Family Name | Given Name | MI | Affiliation                     | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Hsu         | Chien-Fang |    | MediaTek Inc.                   | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Hsu         | Jen-Yuan   |    |                                 | Ex Voter        |                   |                                                      | 2014-05-09 |                     |
| Hsu         | Ju-Lan     |    |                                 | Ex Voter        |                   |                                                      | 2012-02-19 |                     |
| Hsu         | Yungping   |    |                                 | Ex Voter        |                   |                                                      |            |                     |
| Hu          | Chunyu     |    | Broadcom Corporation            | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hu          | Junling    |    |                                 | Ex Voter        |                   |                                                      | 2008-12-21 |                     |
| hu          | wendong    |    |                                 | Ex Voter        |                   |                                                      | 2010-11-12 |                     |
| Huang       | He         |    |                                 | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Huang       | Lei        |    | Huawei Technologies Co. Ltd     | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Huang       | Lei        |    | Panasonic Asia Pacific Pte Ltd. | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Huang       | Po-Kai     |    | Intel Corporation               | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Huang       | Robert     | Y  |                                 | Ex Voter        |                   |                                                      | 2010-03-22 |                     |
| Huang       | Rongsheng  |    | MediaTek Inc.                   | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Huang       | Tian-Wei   |    |                                 | Ex Voter        |                   |                                                      | 2011-07-22 |                     |
| HUANG       | YUN-LIANG  |    | MediaTek Inc.                   | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name | MI | Affiliation                                                            | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Huang       | Zhiyong    |    | LitePoint Corporation/Teradyne                                         | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| HUH         | JIYOUNG    |    |                                                                        | Ex Voter |                   |                                                      | 2008-02-13 |                     |
| Humbert     | John       |    |                                                                        | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| Hunter      | David      |    | WireFi Networks Inc.                                                   | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 217                 |
| Hurtarte    | Jeorge     |    | Teradyne, Inc.                                                         | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Hwang       | Sung Hyun  | H  | Electronics and Telecommunications Research Institute (ETRI)           | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Ibrahim     | Azmi       |    | TM Research & Development                                              | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ibrahim     | Brima      |    |                                                                        | Ex Voter |                   |                                                      | 2017-03-17 |                     |
| Ikram       | Muhammad   | Z  |                                                                        | Ex Voter |                   |                                                      |            |                     |
| Imamura     | Daichi     |    |                                                                        | Ex Voter |                   |                                                      |            |                     |
| Inoue       | Yasuhiko   |    | Nippon Telegraph and Telephone Corporation (NTT)                       | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Iqbal       | Zabed      |    | Georgia Southern University                                            | Aspirant | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Ishihara    | Koichi     |    | Nippon Telegraph and Telephone Corporation (NTT)                       | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Ishizu      | Kentaro    |    | National Institute of Information and Communications Technology (NICT) | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |

| Family Name | Given Name | MI | Affiliation                                      | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Iso         | Akio       |    |                                                  | Ex Voter |                   |                                                      | 2012-05-01 |                     |
| ITO         | Takumi     |    |                                                  | Ex Voter |                   |                                                      |            |                     |
| Iwaoka      | Mitsuru    |    |                                                  | Ex Voter |                   |                                                      | 2016-03-18 |                     |
| Iwatani     | Junichi    |    | Nippon Telegraph and Telephone Corporation (NTT) | Voter    | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Jacobs      | Wynona     |    |                                                  | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Jacobsen    | Eric       | A  |                                                  | Ex Voter |                   |                                                      |            |                     |
| Jacobson    | Scott      |    | Cadence Design Systems, Inc.                     | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| jafarian    | amin       |    |                                                  | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Jain        | Avinash    |    |                                                  | Ex Voter |                   |                                                      | 2011-06-27 |                     |
| Jalfon      | Marc       |    |                                                  | Ex Voter |                   |                                                      | 2008-05-05 |                     |
| Jang        | KyungHun   |    |                                                  | Ex Voter |                   |                                                      |            |                     |
| Jauh        | Alan       |    |                                                  | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Jee         | Junghoon   |    |                                                  | Ex Voter |                   |                                                      | 2009-07-20 |                     |
| Jeffries    | Timothy    |    | Huawei R&D USA                                   | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Jeon        | Ho-In J    | J  |                                                  | Ex Voter |                   |                                                      | 2008-02-13 |                     |
| Jeon        | Hongseok   |    |                                                  | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Jeon        | Taehyun    |    |                                                  | Ex Voter |                   |                                                      |            |                     |
| Jeong       | ByungJang  | J  |                                                  | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Jeong       | Chanyong   |    | SAMSUNG ELECTRO-MECHANICS                        | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| JEONG       | MIN SEOP   |    | SAMSUNG ELECTRONICS                              | Aspirant | 168 (2018-        | Hyatt Regency O'Hare,                                |            |                     |

| Family Name | Given Name | MI | Affiliation                  | Status          | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------------|-------------------|-----------------------------------------------------|------------|---------------------|
|             |            |    |                              |                 | 03-04)            | Rosemont, Illinois, USA                             |            |                     |
| Jeong       | Moo Ryong  | R  |                              | Ex Voter        |                   |                                                     |            |                     |
| Jeong       | Wuncheol   |    |                              | Ex Voter        |                   |                                                     | 2013-11-15 |                     |
| Jeong       | Yangseok   |    |                              | Ex Voter        |                   |                                                     | 2015-03-05 |                     |
| Jeong       | Yeonkwon   |    |                              | Ex Voter        |                   |                                                     | 2009-11-23 |                     |
| Jetcheva    | Jorjeta    | G  |                              | Ex Voter        |                   |                                                     | 2012-07-20 |                     |
| Ji          | Chenhe     |    | Huawei Technologies Co., Ltd | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Ji          | Lusheng    |    |                              | Ex Voter        |                   |                                                     | 2011-07-22 |                     |
| Ji          | Mingyue    |    | Broadcom Corporation         | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Jia         | Jia        |    | Huawei Technologies Co., Ltd | Potential Voter | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Jiang       | Daniel     |    |                              | Ex Voter        |                   |                                                     | 2010-03-22 |                     |
| jiang       | feng       |    | Intel Corporation            | Voter           | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 225                 |
| Jiang       | Jinjing    |    | Marvell Semiconductor, Inc.  | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Jiang       | Robert     |    |                              | Ex Voter        |                   |                                                     | 2015-11-08 |                     |
| Jin         | Liang      |    | Spirent Communications       | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 225                 |
| Jin         | Sunggeun   |    |                              | Ex Voter        |                   |                                                     | 2013-09-16 |                     |
| Jin         | ZhongYi    |    |                              | Ex Voter        |                   |                                                     | 2013-03-22 |                     |
| Jindal      | Nihar      |    |                              | Ex Voter        |                   |                                                     | 2015-11-08 |                     |

| Family Name | Given Name         | MI | Affiliation           | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|--------------------|----|-----------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| jo          | junho              |    |                       | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Jo          | Kyungtae           |    | LG ELECTRONICS        | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Johnsson    | Kerstin            |    | Intel Corporation     | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Johnston    | David              |    |                       | Ex Voter |                   |                                                      |            |                     |
| Jokela      | Jari               | E  |                       | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Jones       | Allan              |    | Activision            | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| JONES       | JEFFRUM            |    | Qorvo, Inc.           | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Jones       | Vincent Knowles IV |    | Qualcomm Incorporated | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| JOO         | SEONG-SOON         |    |                       | Ex Voter |                   |                                                      | 2015-03-05 |                     |
| Jose        | Bobby              |    |                       | Ex Voter |                   |                                                      |            |                     |
| Joshi       | Avinash            |    |                       | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Josiam      | Kaushik            |    | SAMSUNG               | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 225                 |
| Jun         | Haeyoung           |    |                       | Ex Voter |                   |                                                      | 2011-06-27 |                     |
| Junell      | Jari               |    |                       | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Kafle       | Padam              |    |                       | Ex Voter |                   |                                                      | 2013-07-19 |                     |
| Kahn        | Michael            |    |                       | Ex Voter |                   |                                                      | 2008-07-19 |                     |
| Kain        | Carl               | W  | Noblis, Inc.          | Voter    | 168* (2018-03-04) | Hyatt Regency O'Hare,                                |            |                     |

| Family Name | Given Name | MI | Affiliation                                                  | Status    | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------|-----------|-------------------|-----------------------------------------------------|------------|---------------------|
|             |            |    |                                                              |           |                   | Rosemont, Illinois, USA                             |            |                     |
| Kakani      | Naveen     | K  | Qualcomm Incorporated                                        | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Kandala     | Srinivas   |    |                                                              | Ex Voter  |                   |                                                     |            |                     |
| Kang        | Byeongwoo  |    |                                                              | Ex Voter  |                   |                                                     | 2012-05-01 |                     |
| Kang        | Hyunduk    |    | Electronics and Telecommunications Research Institute (ETRI) | Voter     | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            | 225                 |
| Kang        | Hyunjeong  |    |                                                              | Ex Voter  |                   |                                                     | 2015-11-08 |                     |
| Kapetanovic | Dzevdan    |    | Ericsson AB                                                  | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Karaoguz    | Jeyhan     |    |                                                              | Ex Voter  |                   |                                                     | 2011-02-25 |                     |
| Karcz       | Kevin      |    |                                                              | Ex Voter  |                   |                                                     |            |                     |
| Karnik      | Pankaj     | R  |                                                              | Ex Voter  |                   |                                                     |            |                     |
| Kasher      | Assaf      | Y  | Qualcomm Incorporated                                        | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Kasslin     | Mika       |    |                                                              | Ex Voter  |                   |                                                     | 2014-03-21 |                     |
| Katagiri    | Masami     |    |                                                              | Ex Voter  |                   |                                                     | 2015-07-28 |                     |
| Kato        | Masato     |    |                                                              | Ex Voter  |                   |                                                     | 2009-07-20 |                     |
| Kato        | Shuzo      |    |                                                              | Ex Voter  |                   |                                                     | 2012-09-03 |                     |
| Kato        | Tatsuya    |    |                                                              | Ex Voter  |                   |                                                     | 2010-11-12 |                     |
| Kavner      | Douglas    |    |                                                              | Ex Voter  |                   |                                                     | 2010-03-22 |                     |
| Kedem       | Oren       |    | Intel Corporation                                            | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Kennedy     | Richard    | H  | Hewlett Packard Enterprise                                   | ExOfficio | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |

| Family Name | Given Name  | MI | Affiliation                                                  | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|--------------------------------------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Kenney      | John        |    |                                                              | Ex Voter        |                      |                                                      | 2016-03-18 |                     |
| Kerry       | Stuart      | J  | OK-Brit                                                      | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Ketchum     | John        | W  |                                                              | Ex Voter        |                      |                                                      | 2008-03-25 |                     |
| Khakuria    | Prithpal    |    |                                                              | Ex Voter        |                      |                                                      | 2012-07-20 |                     |
| Khine       | Thet        | H  |                                                              | Ex Voter        |                      |                                                      | 2012-05-01 |                     |
| Khorov      | EVGENY      |    | Skoltech                                                     | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Khoryaev    | Alexey      |    |                                                              | Ex Voter        |                      |                                                      | 2011-06-27 |                     |
| Khoury      | Peter       |    | Ruckus Wireless                                              | Voter           | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| KI          | SANGWON     |    | Newracom Inc.                                                | Aspirant        | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kikuma      | Tomohiro    |    |                                                              | Ex Voter        |                      |                                                      |            |                     |
| Kim         | Bonghoe     |    |                                                              | Ex Voter        |                      |                                                      | 2012-11-16 |                     |
| KIM         | BYOUNG-HOON |    |                                                              | Ex Voter        |                      |                                                      | 2012-11-16 |                     |
| Kim         | Byoung-Jo   |    |                                                              | Ex Voter        |                      |                                                      |            |                     |
| Kim         | Eun         | S  |                                                              | Ex Voter        |                      |                                                      | 2012-11-16 |                     |
| Kim         | Eung        | S  |                                                              | Ex Voter        |                      |                                                      | 2010-11-12 |                     |
| Kim         | Eunkyo      |    |                                                              | Ex Voter        |                      |                                                      | 2008-03-25 |                     |
| Kim         | Eunkyung    |    |                                                              | Ex Voter        |                      |                                                      | 2015-03-13 |                     |
| Kim         | Hongsoog    |    |                                                              | Ex Voter        |                      |                                                      | 2015-03-05 |                     |
| Kim         | Igor        |    | Electronics and Telecommunications Research Institute (ETRI) | Potential Voter | 168*<br>(2018-03-04) | Hyatt Regency O'Hare,                                |            |                     |

| Family Name | Given Name | MI | Affiliation    | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                |          |                   | Rosemont, Illinois, USA                              |            |                     |
| Kim         | Jaehwan    |    |                | Ex Voter |                   |                                                      | 2015-11-13 |                     |
| Kim         | Jeehoon    |    |                | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Kim         | Jeongki    |    | LG ELECTRONICS | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Kim         | Jin Min    |    | LG ELECTRONICS | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 216                 |
| Kim         | Jinho      |    |                | Ex Voter |                   |                                                      | 2013-11-10 |                     |
| Kim         | Jinkyong   |    |                | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Kim         | Joo Young  |    |                | Ex Voter |                   |                                                      | 2013-11-10 |                     |
| Kim         | Joonsuk    |    | Apple, Inc.    | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Kim         | Kyeongpyo  |    | Newracom Inc.  | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kim         | Kyeongsoo  |    |                | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Kim         | Myeong-Jin |    |                | Ex Voter |                   |                                                      | 2016-03-18 |                     |
| Kim         | Sang Gook  |    | LG ELECTRONICS | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| KIM         | SANGKYUN   |    |                | Ex Voter |                   |                                                      | 2015-03-13 |                     |
| kim         | Seong Soo  | S  |                | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Kim         | Suhwook    |    | LG ELECTRONICS | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |

| Family Name | Given Name | MI | Affiliation                                                  | Status   | Expires          | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------|----------|------------------|-----------------------------------------------------|------------|---------------------|
| Kim         | Taejoon    |    |                                                              | Ex Voter |                  |                                                     | 2013-07-19 |                     |
| Kim         | Yongho     |    | Korea National University of Transportation                  | Voter    | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Kim         | Yongsuk    |    |                                                              | Ex Voter |                  |                                                     |            |                     |
| Kim         | Yongsun    |    |                                                              | Ex Voter |                  |                                                     | 2011-07-22 |                     |
| Kim         | Youhan     |    | Qualcomm Incorporated                                        | Voter    | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Kim         | Youjin     |    |                                                              | Ex Voter |                  |                                                     | 2008-09-16 |                     |
| Kim         | Youngsoo   |    |                                                              | Ex Voter |                  |                                                     | 2016-03-18 |                     |
| Kim         | Youn-Kwan  |    | The Catholic University of Korea                             | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Kim         | Yunbae     |    | Electronics and Telecommunications Research Institute (ETRI) | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| kim         | yunjoo     |    |                                                              | Ex Voter |                  |                                                     | 2012-07-20 |                     |
| Kimhi       | Ziv        |    |                                                              | Ex Voter |                  |                                                     |            |                     |
| Kinney      | Patrick    |    |                                                              | Ex Voter |                  |                                                     | 2008-03-25 |                     |
| Kirimis     | Dimitri    |    | Newracom Inc.                                                | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Kiryanov    | Anton      |    | IITP RAS                                                     | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Kishida     | Akira      |    |                                                              | Ex Voter |                  |                                                     | 2015-11-08 |                     |
| Kitazawa    | Shoichi    |    |                                                              | Ex Voter |                  |                                                     | 2016-11-11 |                     |
| Kivinen     | Tero       |    |                                                              | Ex Voter |                  |                                                     | 2012-11-16 |                     |
| Klein       | Philippe   |    | Broadcom Corporation                                         | Aspirant |                  |                                                     |            |                     |
| Kleindl     | Gunter     |    |                                                              | Ex Voter |                  |                                                     | 2008-11-17 |                     |

| Family Name | Given Name | MI | Affiliation                                                            | Status   | Expires              | Meeting Location                              | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|----------|----------------------|-----------------------------------------------|------------|---------------------|
| Klik        | Cees       |    |                                                                        | Ex Voter |                      |                                               |            |                     |
| Kloper      | David      |    | Cisco Systems, Inc.                                                    | Aspirant | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| KNECKT      | JARKKO     |    | Apple, Inc.                                                            | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA    |            |                     |
| Ko          | Geonjung   |    | WILUS Institute                                                        | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA    |            |                     |
| Ko          | Gwangzeen  |    |                                                                        | Ex Voter |                      |                                               | 2015-11-13 |                     |
| KOBAYASHI   | MARK       | M  |                                                                        | Ex Voter |                      |                                               | 2012-05-01 |                     |
| Koga        | Keiichiro  |    |                                                                        | Ex Voter |                      |                                               |            |                     |
| Koh         | Benjamin   |    |                                                                        | Ex Voter |                      |                                               | 2008-03-25 |                     |
| Kojima      | Fumihide   |    | National Institute of Information and Communications Technology (NICT) | Voter    | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Kolze       | Tom        |    |                                                                        | Ex Voter |                      |                                               | 2016-07-29 |                     |
| Koskela     | Timo       |    |                                                                        | Ex Voter |                      |                                               | 2014-07-08 |                     |
| Kotzer      | Igal       |    | General Motors Company                                                 | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Kountz      | Dennis     |    | Chemours                                                               | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            | 225                 |
| Kowalski    | John       |    |                                                                        | Ex Voter |                      |                                               |            |                     |
| Kraemer     | Bruce      | P  | Marvell Semiconductor, Inc.                                            | Voter    |                      |                                               |            |                     |
| Krasicki    | Maciej     |    |                                                                        | Ex Voter |                      |                                               | 2015-07-28 |                     |
| Kruys       | Johannes   | P  |                                                                        | Ex Voter |                      |                                               | 2009-07-20 |                     |
| Kudo        | Riichi     |    |                                                                        | Ex Voter |                      |                                               | 2011-11-11 |                     |
| Kuehnel     | Thomas     |    |                                                                        | Ex Voter |                      |                                               | 2009-06-30 |                     |

| Family Name | Given Name | MI | Affiliation                                                  | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| kukil       | LIM        |    | WILUS Inc.                                                   | Aspirant        | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kulkarni    | Parag      |    | Toshiba                                                      | Potential Voter | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kumagai     | Tomoaki    |    |                                                              | Ex Voter        |                      |                                                      |            |                     |
| Kumar       | G Rajendra |    |                                                              | Ex Voter        |                      |                                                      | 2014-07-18 |                     |
| Kumar       | Manish     |    | Marvell Semiconductor, Inc.                                  | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Kumar       | Rajesh     |    | Qualcomm Incorporated                                        | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kumar       | Rajneesh   |    |                                                              | Ex Voter        |                      |                                                      | 2008-03-25 |                     |
| Kumari      | Warren     |    | Google                                                       | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kunihiro    | Takushi    |    |                                                              | Ex Voter        |                      |                                                      |            |                     |
| Kurihara    | Thomas     | M  |                                                              | Ex Voter        |                      |                                                      | 2012-11-16 |                     |
| Kuwahara    | Denis      |    |                                                              | Ex Voter        |                      |                                                      |            |                     |
| Kwak        | Byung-Jae  |    | Electronics and Telecommunications Research Institute (ETRI) | Aspirant        | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Kwak        | Jin-Sam    |    | WILUS Institute                                              | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 216                 |
| Kwak        | Joseph     |    |                                                              | Ex Voter        |                      |                                                      | 2015-07-28 |                     |
| KWON        | EDWIN      |    |                                                              | Ex Voter        |                      |                                                      | 2009-06-30 |                     |
| Kwon        | Hyoungjin  |    |                                                              | Ex Voter        |                      |                                                      | 2015-11-13 |                     |

| Family Name | Given Name  | MI | Affiliation                    | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|--------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| KWON        | UI          | K  |                                | Ex Voter |                      |                                                      | 2011-06-27 |                     |
| Kwon        | Yong-Jin    |    | Newracom Inc.                  | Aspirant | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Kwon        | Young Hoon  | H  | Newracom Inc.                  | Voter    | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| LAGRANGE    | Pascal      |    |                                | Ex Voter |                      |                                                      | 2011-11-11 |                     |
| Lakkis      | Ismail      |    |                                | Ex Voter |                      |                                                      | 2010-11-12 |                     |
| Lalam       | Massinissa  |    | SAGEMCOM SAS                   | Voter    | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Lambert     | Paul        |    | Marvell Semiconductor, Inc.    | Aspirant | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lan         | Zhou        |    | Huawei Technologies Co. Ltd    | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Lanante     | Leonardo    |    | Kyushu Institute of Technology | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 216                 |
| Landt       | Jeremy      | A  |                                | Ex Voter |                      |                                                      | 2010-11-12 |                     |
| Lansford    | James       |    | Qualcomm Incorporated          | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 217                 |
| Lanzl       | Colin       |    |                                | Ex Voter |                      |                                                      |            |                     |
| Lauer       | Joseph      | P  |                                | Ex Voter |                      |                                                      | 2011-02-25 |                     |
| Le Rouzic   | Jean-Pierre |    |                                | Ex Voter |                      |                                                      | 2015-03-13 |                     |
| Leach       | David       | J  |                                | Ex Voter |                      |                                                      |            |                     |
| Lee         | Anseok      |    |                                | Ex Voter |                      |                                                      | 2013-07-19 |                     |
| Lee         | Daewon      |    | Newracom Inc.                  | Voter    | 166*<br>(2017-       | Caribe Hotel and Convention                          |            | 225                 |

| Family Name | Given Name | MI | Affiliation                   | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                               |          | 11-05)           | Center, Orlando, FL, USA                             |            |                     |
| Lee         | Donghun    |    |                               | Ex Voter |                  |                                                      | 2013-11-10 |                     |
| Lee         | Dongjun    |    |                               | Ex Voter |                  |                                                      |            |                     |
| Lee         | Hongsup    |    |                               | Ex Voter |                  |                                                      | 2015-11-08 |                     |
| lee         | hoosung    |    |                               | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| Lee         | Howon      |    | Hankyong National University  | Aspirant | 170 (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| LEE         | Ilgu       |    |                               | Ex Voter |                  |                                                      | 2015-03-05 |                     |
| Lee         | Insun      |    |                               | Ex Voter |                  |                                                      |            |                     |
| Lee         | Jae Seung  | S  | ETRI                          | Voter    | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Lee         | Jae-Ho     |    |                               | Ex Voter |                  |                                                      | 2014-03-21 |                     |
| Lee         | Jehun      |    | Newracom Inc.                 | Voter    | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lee         | JiHo       |    | Korea University              | Aspirant | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Lee         | Jihyun     |    |                               | Ex Voter |                  |                                                      | 2012-07-20 |                     |
| Lee         | Jin        |    |                               | Ex Voter |                  |                                                      | 2008-09-16 |                     |
| LEE         | JOONSOO    |    | Newracom Inc.                 | Aspirant | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| LEE         | JUNG WOON  |    | Samsung Electronics Co., Ltd. | Aspirant | 170 (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Lee         | Ronald     |    | MaxLinear                     | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                           | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|---------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                       |          |                   | Center, Berlin, Germany                              |            |                     |
| Lee         | Sok-kyu    |    |                                       | Ex Voter |                   |                                                      |            |                     |
| LEE         | SUNGEUN    |    | Cypress Semiconductor Corporation     | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Lee         | Tae        | H  |                                       | Ex Voter |                   |                                                      | 2009-07-20 |                     |
| Lee         | Wookbong   |    |                                       | Ex Voter |                   |                                                      | 2016-01-21 |                     |
| Lee         | Wooyong    |    |                                       | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Lee         | Xiaoyang   |    | DHS/OEC                               | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Lee         | Young Ha   |    | Newracom Inc.                         | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lee         | Yuro       |    |                                       | Ex Voter |                   |                                                      | 2015-11-13 |                     |
| Lefkowitz   | Martin     |    |                                       | Ex Voter |                   |                                                      |            |                     |
| Lei         | Zhongding  |    |                                       | Ex Voter |                   |                                                      | 2016-07-29 |                     |
| Leicht      | Suzanne    |    | National Security Agency              | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| lemberger   | Uriel      |    |                                       | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Lepp        | James      |    | BlackBerry                            | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Leung       | Wai Kong   | K  |                                       | Ex Voter |                   |                                                      | 2014-07-08 |                     |
| Levy        | Joseph     |    | InterDigital, Inc.                    | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Li          | Bin        |    |                                       | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Li          | Bo         |    | northwestern polytechnical university | Aspirant | 164 (2017-        | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                                                            | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                                                        |                 | 07-09)            | Center, Berlin, Germany                              |            |                     |
| Li          | Dejian     |    | Huawei Technologies; HiSilicon                                         | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Li          | Feng       |    |                                                                        | Ex Voter        |                   |                                                      | 2015-11-08 |                     |
| Li          | Guoqing    |    | Apple, Inc.                                                            | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| LI          | HONGGANG   |    |                                                                        | Ex Voter        |                   |                                                      | 2015-03-05 |                     |
| Li          | Huan-Bang  |    | National Institute of Information and Communications Technology (NICT) | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Li          | Jing       |    | Huawei Technologies Co. Ltd                                            | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Li          | Liang      |    |                                                                        | Ex Voter        |                   |                                                      | 2015-03-05 |                     |
| Li          | Lingjie    |    |                                                                        | Ex Voter        |                   |                                                      | 2013-03-22 |                     |
| Li          | Pen        |    |                                                                        | Ex Voter        |                   |                                                      |            |                     |
| Li          | Qiang      |    | HUAWEI                                                                 | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Li          | Qinghua    |    | Intel Corporation                                                      | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |
| Li          | Sheung     |    |                                                                        | Ex Voter        |                   |                                                      | 2010-03-22 |                     |
| Li          | Yanchun    |    | Huawei Technologies Co. Ltd                                            | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Li          | Yunbo      |    | Huawei Technologies Co. Ltd                                            | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status          | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|-----------------|-------------------|-----------------------------------------------------|------------|---------------------|
| LI          | YUNZHOU    |    |                             | Ex Voter        |                   |                                                     | 2013-03-04 |                     |
| Li          | Zhiqiang   |    |                             | Ex Voter        |                   |                                                     | 2015-05-07 |                     |
| Liang       | Haixiang   |    | Huawei R&D USA              | Potential Voter | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Lim         | Dong Guk   |    | LG ELECTRONICS              | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Lim         | Sungkyun   |    | Georgia Southern University | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Lin         | Chih-Che   |    |                             | Ex Voter        |                   |                                                     | 2014-11-07 |                     |
| Lin         | Huashih    | A  |                             | Ex Voter        |                   |                                                     |            |                     |
| Lin         | Meilu      |    | HUAWEI                      | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            | 225                 |
| Lin         | Paul       |    |                             | Ex Voter        |                   |                                                     | 2011-07-22 |                     |
| Lin         | Wei        |    |                             | Ex Voter        |                   |                                                     | 2017-01-20 |                     |
| Lin         | Yingpei    |    | Huawei Technologies Co. Ltd | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Lindskog    | Erik       |    | Qualcomm Incorporated       | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Link        | Jeremy     |    |                             | Ex Voter        |                   |                                                     | 2012-05-01 |                     |
| Liru        | Lu         |    |                             | Ex Voter        |                   |                                                     | 2014-11-07 |                     |
| Liu         | Changwen   |    |                             | Ex Voter        |                   |                                                     |            |                     |
| LIU         | CHENCHEN   |    |                             | Ex Voter        |                   |                                                     | 2017-01-20 |                     |
| Liu         | Dapeng     |    |                             | Ex Voter        |                   |                                                     | 2014-07-18 |                     |
| Liu         | Der-Zheng  |    | Realtek Semiconductor Corp. | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center,                 |            |                     |

| Family Name | Given Name | MI | Affiliation                      | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                  |          |                   | Orlando, FL, USA                                     |            |                     |
| Liu         | Fulei      |    | ZTE Corporation                  | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 225                 |
| Liu         | Hang       |    |                                  | Ex Voter |                   |                                                      | 2011-03-18 |                     |
| Liu         | I-Ru       |    |                                  | Ex Voter |                   |                                                      | 2008-05-05 |                     |
| Liu         | Jianhan    |    | MediaTek Inc.                    | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Liu         | Jinnan     |    | HiSilicon Technologies Co., LTD. | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Liu         | Le         |    |                                  | Ex Voter |                   |                                                      | 2017-01-20 |                     |
| Liu         | Pei        |    |                                  | Ex Voter |                   |                                                      | 2017-01-20 |                     |
| Liu         | Pei        |    |                                  | Ex Voter |                   |                                                      | 2012-10-09 |                     |
| Liu         | Siyang     |    |                                  | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Liu         | Yong       |    | Apple, Inc.                      | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Liu         | Yun        |    | Huawei Technologies Co., Ltd     | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Liu         | Zongru     |    |                                  | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Livshitz    | Michael    |    |                                  | Ex Voter |                   |                                                      | 2009-06-30 |                     |
| Lo          | Titus      | K  |                                  | Ex Voter |                   |                                                      |            |                     |
| Loc         | Peter      |    | Huawei Technologies Co. Ltd      | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Lomayev     | Artyom     |    | Intel Corporation                | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center,                  |            | 217                 |

| Family Name | Given Name | MI | Affiliation                                        | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|----------------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                                    |                 |                   | Orlando, FL, USA                                     |            |                     |
| Lou         | Hui-Ling   |    | Marvell Semiconductor, Inc.                        | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 216                 |
| Lu          | Su         |    |                                                    | Ex Voter        |                   |                                                      | 2015-07-28 |                     |
| Lubar       | Daniel     |    |                                                    | Ex Voter        |                   |                                                      | 2009-07-20 |                     |
| Lukaszewski | Chuck      |    |                                                    | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Luo         | Haiyun     |    |                                                    | Ex Voter        |                   |                                                      | 2008-07-18 |                     |
| Luo         | Jun        |    | Huawei Technologies Co. Ltd                        | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Luo         | Long       |    |                                                    | Ex Voter        |                   |                                                      | 2014-03-21 |                     |
| Luo         | Yi         |    |                                                    | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Luo         | Zhendong   |    | China Academy of Telecommunication Research (CATR) | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Lv          | Kaiying    |    | ZTE Corporation                                    | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Lv          | Lily       |    | Huawei Technologies Co. Ltd                        | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Lynch       | Bradley    |    |                                                    | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Lynch       | Michael    |    | MJ Lynch & Associates, LLC.                        | ExOfficio       |                   |                                                      |            |                     |
| M. Hizan    | Hizamel    |    | TM Research & Development                          | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ma          | Hui        |    |                                                    | Ex Voter        |                   |                                                      | 2008-07-19 |                     |
| Ma          | Jing       |    | National Institute of Information and              | Voter           | 170* (2018-       | Manchester Grand Hyatt,                              |            |                     |

| Family Name | Given Name  | MI | Affiliation                      | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|----------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
|             |             |    | Communications Technology (NICT) |                 | 07-01)            | San Diego, CA, USA                                   |            |                     |
| Maamari     | Diana       |    | Huawei R&D USA                   | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| MADHAVAN    | NARENDAR    |    | TOSHIBA Corporation              | Voter           | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Maeda       | Shigeru     |    |                                  | Ex Voter        |                   |                                                      | 2017-03-17 |                     |
| Mahadevappa | Ravishankar |    |                                  | Ex Voter        |                   |                                                      |            |                     |
| Maida       | Anthony     | F  |                                  | Ex Voter        |                   |                                                      | 2008-12-21 |                     |
| Majkowski   | Jakub       |    |                                  | Ex Voter        |                   |                                                      | 2009-11-23 |                     |
| Malarky     | Alastair    |    |                                  | Ex Voter        |                   |                                                      | 2011-02-25 |                     |
| Malek       | Majid       | m  |                                  | Ex Voter        |                   |                                                      |            |                     |
| Malik       | Rahul       |    | Qualcomm Incorporated            | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Malinen     | Jouni       | K  | Qualcomm Incorporated            | Voter           | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Maltsev     | Alexander   |    | Intel Corporation                | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Mangold     | Stefan      |    | Itron Inc.                       | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Mani        | Mahalingam  |    |                                  | Ex Voter        |                   |                                                      | 2008-02-13 |                     |
| Mano        | Hiroshi     |    | Koden Techno Info K.K.           | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Marin       | James       |    |                                  | Ex Voter        |                   |                                                      | 2016-11-11 |                     |

| Family Name | Given Name | MI | Affiliation                  | Status    | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------|-------------------|------------------------------------------------------|------------|---------------------|
| Marks       | Roger      |    | EthAirNet Associates; Huawei | ExOfficio | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Marshall    | Bill       |    |                              | Ex Voter  |                   |                                                      | 2011-11-11 |                     |
| Maruhashi   | Kenichi    |    |                              | Ex Voter  |                   |                                                      | 2011-11-11 |                     |
| Maslennikov | Roman      | M  |                              | Ex Voter  |                   |                                                      | 2010-07-16 |                     |
| Masour      | Avi        |    |                              | Ex Voter  |                   |                                                      | 2012-05-01 |                     |
| Matsumoto   | Yoichi     |    |                              | Ex Voter  |                   |                                                      |            |                     |
| Matsuo      | Ryoko      |    | TOSHIBA Corporation          | Aspirant  | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| MATTA       | SUDHEER    |    |                              | Ex Voter  |                   |                                                      | 2008-12-21 |                     |
| Maufer      | Thomas     | A  |                              | Ex Voter  |                   |                                                      |            |                     |
| Mccann      | Stephen    |    | BlackBerry                   | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| McClellan   | Kelly      | P  |                              | Ex Voter  |                   |                                                      |            |                     |
| Mcfarland   | William    | J  |                              | Ex Voter  |                   |                                                      |            |                     |
| McIntosh    | Bill       |    |                              | Ex Voter  |                   |                                                      |            |                     |
| McNamara    | Darren     | P  |                              | Ex Voter  |                   |                                                      | 2008-07-18 |                     |
| Mcnew       | Justin     | P  |                              | Ex Voter  |                   |                                                      | 2010-11-12 |                     |
| Medvedev    | Irina      |    |                              | Ex Voter  |                   |                                                      | 2008-03-25 |                     |
| Mehta       | Pratik     | M  |                              | Ex Voter  |                   |                                                      |            |                     |
| Merlin      | Simone     |    | Qualcomm Incorporated        | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Mese        | Murat      |    |                              | Ex Voter  |                   |                                                      | 2012-07-20 |                     |
| Mesecke     | Sven       |    |                              | Ex Voter  |                   |                                                      | 2015-03-13 |                     |
| Mestanov    | Filip      |    | Ericsson AB                  | Aspirant  | 164 (2017-07-09)  | Estrel Hotel and Convention                          |            |                     |

| Family Name | Given Name | MI | Affiliation                 | Status    | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|-----------|-------------------|-----------------------------------------------------|------------|---------------------|
|             |            |    |                             |           |                   | Center, Berlin, Germany                             |            |                     |
| Meyer       | Klaus      |    |                             | Ex Voter  |                   |                                                     | 2008-07-18 |                     |
| Miao        | Yannan     |    | Huawei Technologies Co. Ltd | Aspirant  | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Miller      | James      |    |                             | Ex Voter  |                   |                                                     | 2016-07-29 |                     |
| Miller      | Robert     | R  |                             | Ex Voter  |                   |                                                     | 2011-11-11 |                     |
| Miroll      | Jochen     |    |                             | Ex Voter  |                   |                                                     | 2011-02-25 |                     |
| Misawa      | Yasunao    |    |                             | Ex Voter  |                   |                                                     | 2015-03-13 |                     |
| Miyoshi     | Hidekazu   |    |                             | Ex Voter  |                   |                                                     | 2008-05-05 |                     |
| Mizutani    | Keiichi    |    |                             | Ex Voter  |                   |                                                     | 2013-11-10 |                     |
| Mlinarsky   | Fanny      |    |                             | Ex Voter  |                   |                                                     | 2012-05-01 |                     |
| Mobasher    | Amin       |    | SAMSUNG                     | Voter     | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            | 225                 |
| Mody        | Apurva     |    | BAE Systems                 | ExOfficio |                   |                                                     |            |                     |
| Mohanty     | Bibhu      |    | Qualcomm Incorporated       | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Monajemi    | Pooya      |    | Cisco Systems, Inc.         | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            | 225                 |
| Monnerie    | Emmanuel   |    |                             | Ex Voter  |                   |                                                     | 2012-05-01 |                     |
| Montemurro  | Michael    |    | BlackBerry                  | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Montenegro  | Gabriel    |    |                             | Ex Voter  |                   |                                                     | 2008-02-13 |                     |
| Montreuil   | Leo        |    | Broadcom Corporation        | Aspirant  | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |

| Family Name | Given Name | MI | Affiliation                                   | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Moon        | Sungho     |    |                                               | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Moore       | Rondal     |    |                                               | Ex Voter        |                   |                                                      |            |                     |
| Moorti      | Rajendra   | T  |                                               | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Moreton     | Mike       |    |                                               | Ex Voter        |                   |                                                      |            |                     |
| Mori        | Hiroki     |    |                                               | Ex Voter        |                   |                                                      | 2016-07-29 |                     |
| Mori        | Kenichi    |    | Space-Time Engineering                        | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Mori        | Masahito   |    |                                               | Ex Voter        |                   |                                                      | 2017-03-17 |                     |
| Morioka     | Hitoshi    |    | SRC Software                                  | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Morioka     | Yuichi     |    | Sony Corporation                              | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Morley      | Steven     | A  |                                               | Ex Voter        |                   |                                                      |            |                     |
| Morris      | Roy        |    |                                               | Ex Voter        |                   |                                                      |            |                     |
| Moseley     | James      |    | Georgia Southern University                   | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Moskowitz   | Robert     | G  |                                               | Ex Voter        |                   |                                                      | 2008-01-05 |                     |
| Motozuka    | Hiroyuki   |    | Panasonic Corporation                         | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Mourot      | Patrick    |    |                                               | Ex Voter        |                   |                                                      |            |                     |
| Mueller     | Robert     |    | Ilmenau University of Technology - TU Ilmenau | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Mujtaba     | Syed       | A  |                                               | Ex Voter        |                   |                                                      |            |                     |
| Murabito    | Anthony    |    |                                               | Ex Voter        |                   |                                                      | 2010-11-12 |                     |
| Murakami    | Yutaka     |    | Panasonic Corporation                         | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt,                              |            |                     |

| Family Name  | Given Name  | MI | Affiliation                       | Status   | Expires              | Meeting Location                                    | Expired    | Last Invalid Ballot |
|--------------|-------------|----|-----------------------------------|----------|----------------------|-----------------------------------------------------|------------|---------------------|
|              |             |    |                                   |          |                      | San Diego, CA, USA                                  |            |                     |
| Murias       | Ronald      |    |                                   | Ex Voter |                      |                                                     | 2015-07-28 |                     |
| Murphy       | Peter       |    |                                   | Ex Voter |                      |                                                     |            |                     |
| Murphy       | Rick        |    |                                   | Ex Voter |                      |                                                     | 2014-07-18 |                     |
| Murray       | Peter       |    |                                   | Ex Voter |                      |                                                     | 2011-07-22 |                     |
| Myles        | Andrew      |    | Cisco Systems, Inc.               | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Nabar        | Rohit       |    |                                   | Ex Voter |                      |                                                     | 2009-03-16 |                     |
| Nabetani     | Toshihisa   |    |                                   | Ex Voter |                      |                                                     | 2017-03-17 |                     |
| Nadeem       | Tamer       |    |                                   | Ex Voter |                      |                                                     | 2008-05-05 |                     |
| Nagai        | Yukimasa    |    |                                   | Ex Voter |                      |                                                     | 2017-01-20 |                     |
| Nagao        | Yuhei       |    |                                   | Ex Voter |                      |                                                     | 2017-01-20 |                     |
| nagata       | kengo       |    |                                   | Ex Voter |                      |                                                     | 2009-11-23 |                     |
| Nakanishi    | Kensuke     |    | Toshiba                           | Aspirant | 170<br>(2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Nakano       | Hiroki      |    | Kyoto University                  | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Nakao        | Seigo       |    |                                   | Ex Voter |                      |                                                     |            |                     |
| Nakase       | Hiroyuki    |    |                                   | Ex Voter |                      |                                                     | 2010-03-22 |                     |
| Nanda        | Sanjiv      |    |                                   | Ex Voter |                      |                                                     | 2008-03-25 |                     |
| Nandagopalan | SAI SHANKAR | S  | Cypress Semiconductor Corporation | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 225                 |
| Narasimhan   | Partha      |    |                                   | Ex Voter |                      |                                                     |            |                     |
| Narasimhan   | Ravi        |    |                                   | Ex Voter |                      |                                                     |            |                     |
| Nemavat      | Pradeep     |    |                                   | Ex Voter |                      |                                                     | 2012-11-16 |                     |

| Family Name | Given Name | MI | Affiliation                                          | Status    | Expires           | Meeting Location                              | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------|-----------|-------------------|-----------------------------------------------|------------|---------------------|
| Nezou       | Patrice    |    | Canon Research Centre France                         | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA    |            |                     |
| Ngo         | Chiu       |    |                                                      | Ex Voter  |                   |                                               | 2016-11-11 |                     |
| Ni          | Qiang      |    |                                                      | Ex Voter  |                   |                                               |            |                     |
| Nikolich    | Paul       |    | self (YAS), Samsung, Intel, SilverSpringNetworks, HP | ExOfficio |                   |                                               |            |                     |
| Nikula      | Eero       |    |                                                      | Ex Voter  |                   |                                               | 2009-11-23 |                     |
| Nitsche     | Gunnar     |    |                                                      | Ex Voter  |                   |                                               |            |                     |
| Noble       | Erwin      |    |                                                      | Ex Voter  |                   |                                               | 2008-11-17 |                     |
| Noens       | Richard    | H  |                                                      | Ex Voter  |                   |                                               | 2010-03-22 |                     |
| Noh         | Yujin      |    | Newracom Inc.                                        | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Nordstrom   | Eric       |    |                                                      | Ex Voter  |                   |                                               | 2015-11-13 |                     |
| Notor       | John       |    | Notor Research; ARM, Inc.                            | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA    |            |                     |
| Oakes       | Ivan       | F  |                                                      | Ex Voter  |                   |                                               |            |                     |
| Odagiri     | Hideaki    |    |                                                      | Ex Voter  |                   |                                               | 2009-03-16 |                     |
| Odman       | Knut       |    |                                                      | Ex Voter  |                   |                                               | 2017-01-20 |                     |
| Ogawa       | Hiroyo     |    |                                                      | Ex Voter  |                   |                                               | 2014-11-07 |                     |
| Oguma       | Hiroshi    |    |                                                      | Ex Voter  |                   |                                               |            |                     |
| Oh          | Jinhyung   |    |                                                      | Ex Voter  |                   |                                               | 2015-07-28 |                     |
| Oh          | Jisung     |    |                                                      | Ex Voter  |                   |                                               | 2009-11-23 |                     |
| Oh          | Jong-Ee    |    |                                                      | Ex Voter  |                   |                                               | 2015-05-07 |                     |
| Oh          | Minseok    |    | Kyonggi University                                   | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            | 216                 |
| OH          | MIN-SEOK   |    | LG Electronics                                       | Voter     | 166 (2017-        | Caribe Hotel and Convention                   |            | 225                 |

| Family Name | Given Name | MI | Affiliation                  | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                              |          | 11-05)            | Center, Orlando, FL, USA                             |            |                     |
| Oh          | Youngseok  |    | SK Telecom                   | Aspirant | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| O'Hara      | Robert     |    |                              | Ex Voter |                   |                                                      | 2008-05-05 |                     |
| Ohtani      | Yoshihiro  |    |                              | Ex Voter |                   |                                                      |            |                     |
| Okada       | Hiraku     |    | Nagoya University            | Aspirant | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Okada       | Kazuyasu   |    |                              | Ex Voter |                   |                                                      | 2011-11-11 |                     |
| Olesen      | Robert     |    |                              | Ex Voter |                   |                                                      | 2017-01-20 |                     |
| Olson       | Chandra    | S  |                              | Ex Voter |                   |                                                      | 2009-07-20 |                     |
| Olson       | David      |    |                              | Ex Voter |                   |                                                      | 2013-03-22 |                     |
| Omori       | Youko      |    |                              | Ex Voter |                   |                                                      | 2010-07-16 |                     |
| Oteri       | Oghenekome |    | InterDigital, Inc.           | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |
| Oyama       | Satoshi    |    |                              | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Ozaki       | Kazuyuki   |    | FUJITSU LABORATORIES LIMITED | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Paine       | Richard    | H  |                              | Ex Voter |                   |                                                      | 2010-07-16 |                     |
| PALANIVELU  | Arul       | D  |                              | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Paljug      | Michael    | J  |                              | Ex Voter |                   |                                                      | 2013-07-19 |                     |
| Palm        | Stephen    |    | Broadcom Corporation         | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Pan         | Chun       |    | Huawei Technologies Co., Ltd | Aspirant | 170 (2018-        | Manchester Grand Hyatt,                              |            |                     |

| Family Name  | Given Name        | MI | Affiliation         | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|-------------------|----|---------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|              |                   |    |                     |          | 07-01)            | San Diego, CA, USA                                   |            |                     |
| Pandey       | Santosh Ghanshyam | G  | Cisco Systems, Inc. | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 216                 |
| Pang         | Jiyong            |    |                     | Ex Voter |                   |                                                      | 2017-03-17 |                     |
| Pantelidou   | Anna              |    |                     | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Papadopoulos | Babis             |    |                     | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| Pare         | Thomas            |    | MediaTek Inc.       | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Park         | Changmin          |    |                     | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Park         | Eunsung           |    | LG Electronics      | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Park         | Giwon             |    |                     | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Park         | Hyungu            |    | Newracom Inc.       | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Park         | Hyunhee           |    | LG ELECTRONICS      | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Park         | Jaewoo            |    |                     | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Park         | Jeonghwan         |    | Newracom Inc.       | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            | 225                 |
| Park         | Jonghyun          |    |                     | Ex Voter |                   |                                                      | 2012-11-16 |                     |
| Park         | Jungsoo           |    |                     | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Park         | Minyoung          |    | Intel Corporation   | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt,                              |            |                     |

| Family Name     | Given Name  | MI | Affiliation                      | Status    | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-----------------|-------------|----|----------------------------------|-----------|-------------------|-----------------------------------------------------|------------|---------------------|
|                 |             |    |                                  |           |                   | San Diego, CA, USA                                  |            |                     |
| Park            | Seung-Hoon  |    |                                  | Ex Voter  |                   |                                                     | 2013-11-10 |                     |
| PARK            | SEUNGKEUN   |    | ETRI                             | Aspirant  | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Park            | Sung-jin    |    | LG ELECTRONICS                   | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Park            | Taejoon     |    |                                  | Ex Voter  |                   |                                                     | 2014-05-09 |                     |
| Parsons         | Glenn       |    | Ericsson AB                      | ExOfficio |                   |                                                     |            |                     |
| Patel           | Vijaykumar  |    |                                  | Ex Voter  |                   |                                                     | 2009-11-23 |                     |
| Pathmasuntharam | Jaya        | S  |                                  | Ex Voter  |                   |                                                     | 2013-03-22 |                     |
| Patil           | Abhishek    |    | Qualcomm Incorporated            | Voter     | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Patil           | Sandhya     |    |                                  | Ex Voter  |                   |                                                     | 2013-03-22 |                     |
| Patkar          | Raghavendra |    | National Instruments Corporation | Aspirant  | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Peiris          | Bemini      | H  |                                  | Ex Voter  |                   |                                                     | 2011-07-22 |                     |
| Peleg           | Yaron       |    |                                  | Ex Voter  |                   |                                                     |            |                     |
| Peng            | Xiaoming    |    | Institute for Infocomm Research  | Aspirant  | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Perahia         | Eldad       |    |                                  | Ex Voter  |                   |                                                     | 2016-01-21 |                     |
| Pereira         | Stephanie   |    |                                  | Ex Voter  |                   |                                                     | 2015-07-28 |                     |
| Perez Costa     | Xavier      | P  |                                  | Ex Voter  |                   |                                                     | 2014-07-08 |                     |
| Persson         | Hakan       |    | Ericsson AB                      | Voter     | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |

| Family Name | Given Name | MI | Affiliation                        | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Peterson    | Harry      |    | Airvine Inc                        | Aspirant        | 170<br>(2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Petranovich | James      | E  | ViaSat, Inc.                       | Voter           | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| petrick     | Albert     |    | Jones-Petrick and Associates, LLC. | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Petro       | John       |    |                                    | Ex Voter        |                      |                                                      | 2014-07-08 |                     |
| Petrovic    | Vladan     |    |                                    | Ex Voter        |                      |                                                      | 2015-03-13 |                     |
| Pienciak    | Walter     |    |                                    | Ex Voter        |                      |                                                      | 2016-11-11 |                     |
| PILLAI      | KRISHNA    | M  |                                    | Ex Voter        |                      |                                                      | 2012-11-16 |                     |
| Ping Ping   | Xu         | P  |                                    | Ex Voter        |                      |                                                      | 2015-03-13 |                     |
| Pirhonen    | Riku       |    |                                    | Ex Voter        |                      |                                                      | 2012-09-03 |                     |
| Pirskanen   | Juho       |    |                                    | Ex Voter        |                      |                                                      | 2014-07-18 |                     |
| Pirzada     | Fahd       |    |                                    | Ex Voter        |                      |                                                      | 2009-03-16 |                     |
| Pitarresi   | Joe        |    |                                    | Ex Voter        |                      |                                                      |            |                     |
| Png         | Khiam Boon | B  |                                    | Ex Voter        |                      |                                                      | 2015-03-13 |                     |
| Poncini     | Victoria   | M  |                                    | Ex Voter        |                      |                                                      | 2008-03-25 |                     |
| Ponnampalam | Vishakan   |    |                                    | Ex Voter        |                      |                                                      | 2013-09-16 |                     |
| Ponnuswamy  | Subburajan |    |                                    | Ex Voter        |                      |                                                      | 2008-11-17 |                     |
| Popa        | Daniel     |    |                                    | Ex Voter        |                      |                                                      | 2012-11-16 |                     |
| Pope        | Steve      |    | Self Employed                      | Potential Voter | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Popper      | Ambroise   |    | Quantenna Communications, Inc.     | Aspirant        | 168<br>(2018-03-04)  | Hyatt Regency O'Hare,                                |            |                     |

| Family Name   | Given Name  | MI | Affiliation                                                            | Status   | Expires           | Meeting Location                              | Expired    | Last Invalid Ballot |
|---------------|-------------|----|------------------------------------------------------------------------|----------|-------------------|-----------------------------------------------|------------|---------------------|
|               |             |    |                                                                        |          |                   | Rosemont, Illinois, USA                       |            |                     |
| porat         | ron         |    | Broadcom Corporation                                                   | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA    |            |                     |
| Portaro       | James       | D  |                                                                        | Ex Voter |                   |                                               | 2010-11-12 |                     |
| Ptasinski     | Henry       | S  |                                                                        | Ex Voter |                   |                                               | 2013-11-15 |                     |
| Pulikkoonattu | Rethnakaran |    | Broadcom Corporation                                                   | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Purkovic      | Aleksandar  |    |                                                                        | Ex Voter |                   |                                               |            |                     |
| Purnadi       | Rene        |    |                                                                        | Ex Voter |                   |                                               | 2011-02-25 |                     |
| Pustogarov    | Ivan        |    |                                                                        | Ex Voter |                   |                                               | 2011-11-11 |                     |
| Putta         | Satish      |    |                                                                        | Ex Voter |                   |                                               | 2012-07-20 |                     |
| Pyo           | Chang-Woo   | C  |                                                                        | Ex Voter |                   |                                               | 2014-07-18 |                     |
| Qi            | Emily       | H  | Intel Corporation                                                      | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA    |            | 217                 |
| Qian          | Luke        |    |                                                                        | Ex Voter |                   |                                               | 2009-07-20 |                     |
| Qiao          | Dengyu      |    | Huawei Technologies Co. Ltd                                            | Voter    | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Qu            | Huyu        |    |                                                                        | Ex Voter |                   |                                               | 2013-03-22 |                     |
| Qu            | Shouxing    |    | BlackBerry                                                             | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            | 216                 |
| Raab          | Jim         | E  |                                                                        | Ex Voter |                   |                                               | 2012-05-01 |                     |
| Rabarijaona   | Verotiana   |    | National Institute of Information and Communications Technology (NICT) | Aspirant | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA |            |                     |
| Rafie         | Reza        |    | Self                                                                   | Aspirant | 166 (2017-        | Caribe Hotel and Convention                   |            |                     |

| Family Name      | Given Name    | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|------------------|---------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|                  |               |    |                             |          | 11-05)            | Center, Orlando, FL, USA                             |            |                     |
| Rahman           | Mohammad      | A  |                             | Ex Voter |                   |                                                      | 2010-07-16 |                     |
| Rai              | Vinuth        |    |                             | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Raissinia        | Ali           |    |                             | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Rajagopal        | Sridhar       |    |                             | Ex Voter |                   |                                                      | 2011-07-22 |                     |
| Rajakarunanayake | Yasantha      |    |                             | Ex Voter |                   |                                                      | 2016-11-11 |                     |
| Rajkumar         | Ajay          |    |                             | Ex Voter |                   |                                                      |            |                     |
| Rakanovic        | Demir         |    | u-blox                      | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Ramamurthy       | Harish        |    |                             | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Ramasasthy       | Jayaram       |    |                             | Ex Voter |                   |                                                      | 2013-03-04 |                     |
| Rangwala         | Noman         |    |                             | Ex Voter |                   |                                                      |            |                     |
| Rantala          | Enrico-Henrik |    | Nokia                       | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Rayment          | Stephen G     | G  | Ericsson AB                 | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Razoumov         | Leonid        |    |                             | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Redlich          | Oded          |    | Huawei Technologies Co. Ltd | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Reede            | Ivan          |    |                             | Ex Voter |                   |                                                      | 2015-03-13 |                     |
| Reible           | Stanley       | A  |                             | Ex Voter |                   |                                                      |            |                     |
| Ren              | Yazhen        |    | Huawei Technologies Co. Ltd | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Repice           | Joseph        | A  |                             | Ex Voter |                   |                                                      | 2008-11-17 |                     |

| Family Name | Given Name | MI | Affiliation                       | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Reuss       | Edward     |    | NO AFFILIATION                    | Aspirant | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Reznik      | Alex       |    |                                   | Ex Voter |                      |                                                      | 2011-11-11 |                     |
| Riegel      | Maximilian |    | Nokia Networks                    | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Rios        | Carlos     | A  |                                   | Ex Voter |                      |                                                      | 2008-07-19 |                     |
| Rison       | Mark       |    | Samsung Cambridge Solution Centre | Voter    | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Robert      | Joerg      |    | University of Erlangen-Nuremberg  | Aspirant | 170<br>(2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| roblot      | sandrine   |    |                                   | Ex Voter |                      |                                                      | 2011-07-22 |                     |
| Roebuck     | Randal     |    |                                   | Ex Voter |                      |                                                      | 2010-07-16 |                     |
| Roh         | Dongwook   |    |                                   | Ex Voter |                      |                                                      | 2012-05-01 |                     |
| Rong        | Zhigang    |    | Huawei Technologies Co. Ltd       | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Rosdahl     | Jon        | W  | Qualcomm Technologies, Inc.       | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |
| Roy         | Richard    |    |                                   | Ex Voter |                      |                                                      | 2016-01-21 |                     |
| Ryu         | Cheol      |    |                                   | Ex Voter |                      |                                                      | 2015-11-13 |                     |
| Ryu         | Kiseon     |    | LG ELECTRONICS                    | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |

| Family Name     | Given Name   | MI | Affiliation           | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-----------------|--------------|----|-----------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| Sada            | Tomoki       |    | KDDI R&D Laboratories | Aspirant        | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sadeghi         | Bahareh      |    | Intel Corporation     | Voter           | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Sadot           | Emek         |    |                       | Ex Voter        |                      |                                                      |            |                     |
| Sadri           | Ali          |    | Intel Corporation     | Potential Voter | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Safonov         | Alexander    |    |                       | Ex Voter        |                      |                                                      | 2012-05-01 |                     |
| Sakamoto        | Takenori     |    | Panasonic Corporation | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sakoda          | Kazuyuki     |    | Sony Corporation      | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Salazar Cardozo | Ruben E      | S  |                       | Ex Voter        |                      |                                                      | 2013-09-16 |                     |
| Sambasivan      | Sam          |    | AT&T                  | Voter           | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Sampath         | Hemanth      |    | Qualcomm Incorporated | Voter           | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Sanwalka        | Anil         |    |                       | Ex Voter        |                      |                                                      |            |                     |
| Sargologos      | Nicholas     |    |                       | Ex Voter        |                      |                                                      | 2008-09-16 |                     |
| Sarikaya        | Behcet       |    | Huawei R&D USA        | Aspirant        | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sarrigeorgidis  | Konstantinos |    |                       | Ex Voter        |                      |                                                      |            |                     |

| Family Name  | Given Name   | MI | Affiliation                    | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|--------------|----|--------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Sarris       | Ioannis      |    | u-blox                         | Aspirant | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Sasaki       | Shigenobu    |    | Niigata University             | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Sastry       | Ambatipudi R | R  |                                | Ex Voter |                      |                                                      | 2008-03-25 |                     |
| SATO         | KATSUYOSHI   |    |                                | Ex Voter |                      |                                                      | 2009-07-20 |                     |
| Sato         | Naotaka      |    | Sony Corporation               | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Sawada       | Hirokazu     |    |                                | Ex Voter |                      |                                                      | 2011-07-22 |                     |
| Scarpa       | Vincenzo     |    |                                | Ex Voter |                      |                                                      | 2008-11-17 |                     |
| Schelstraete | Sigurd       |    | Quantenna Communications, Inc. | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Schlanger    | Gabriel      |    |                                | Ex Voter |                      |                                                      | 2008-05-05 |                     |
| Schmidl      | Timothy      |    |                                | Ex Voter |                      |                                                      | 2012-11-16 |                     |
| Schnacke     | Richard      |    |                                | Ex Voter |                      |                                                      |            |                     |
| Schneider    | Daniel       |    |                                | Ex Voter |                      |                                                      | 2016-07-29 |                     |
| Schultz      | Donald       |    |                                | Ex Voter |                      |                                                      | 2010-03-22 |                     |
| Schwoerer    | Jean         |    |                                | Ex Voter |                      |                                                      | 2015-03-13 |                     |
| Schylander   | Erik         |    |                                | Ex Voter |                      |                                                      |            |                     |
| Scott        | Andy         |    | NCTA                           | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 216                 |
| Segev        | Jonathan     |    | Intel Corporation              | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |

| Family Name  | Given Name | MI | Affiliation                                        | Status    | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|--------------|------------|----|----------------------------------------------------|-----------|-------------------|------------------------------------------------------|------------|---------------------|
| Seibert      | Cristina   |    |                                                    | Ex Voter  |                   |                                                      | 2014-07-18 |                     |
| Seminario    | Max        |    | ADVANTEST                                          | Aspirant  | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Sensendorf   | Joe        |    |                                                    | Ex Voter  |                   |                                                      |            |                     |
| Seok         | Yongho     |    | Newracom Inc.                                      | Voter     | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Serafimovski | Nikola     |    | pureLiFi                                           | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Shah         | Kunal      |    | Silver Spring Networks Inc.                        | Voter     | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Shao         | Huairong   |    |                                                    | Ex Voter  |                   |                                                      | 2014-11-07 |                     |
| SHAO         | PENG       |    |                                                    | Ex Voter  |                   |                                                      | 2016-11-11 |                     |
| Shao         | Zhenhai    |    |                                                    | Ex Voter  |                   |                                                      | 2014-03-21 |                     |
| Shapira      | Nir        |    |                                                    | Ex Voter  |                   |                                                      | 2012-11-16 |                     |
| Sharma       | Neeraj     |    |                                                    | Ex Voter  |                   |                                                      | 2009-07-20 |                     |
| Sharon       | Ariel      |    |                                                    | Ex Voter  |                   |                                                      | 2008-03-25 |                     |
| Shearer      | Steve      |    |                                                    | Ex Voter  |                   |                                                      | 2012-07-20 |                     |
| Shellhammer  | Stephen    | J  | Qualcomm Incorporated                              | ExOfficio |                   |                                                      |            |                     |
| Shen         | Bazhong    |    |                                                    | Ex Voter  |                   |                                                      | 2017-01-20 |                     |
| Shen         | Xia        |    | China Academy of Telecommunication Research (CATR) | Aspirant  | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Sherlock     | Ian        |    | Texas Instruments Incorporated                     | Voter     | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 217                 |
| Sherman      | Matthew    |    |                                                    | Ex Voter  |                   |                                                      |            |                     |

| Family Name | Given Name        | MI | Affiliation                  | Status   | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------------|----|------------------------------|----------|------------------|------------------------------------------------------|------------|---------------------|
| Shi         | Kai               |    |                              | Ex Voter |                  |                                                      | 2009-11-23 |                     |
| SHI         | QICAI             |    |                              | Ex Voter |                  |                                                      | 2014-07-18 |                     |
| Shi         | Wei               |    |                              | Ex Voter |                  |                                                      | 2013-07-19 |                     |
| SHIBAGAKI   | Nobuhiko          |    |                              | Ex Voter |                  |                                                      | 2014-07-08 |                     |
| Shilo       | Shimi             |    | Huawei Technologies Co., Ltd | Voter    | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Shimomura   | Tsuyoshi          |    |                              | Ex Voter |                  |                                                      | 2015-03-13 |                     |
| Shin        | ChangSub          | S  |                              | Ex Voter |                  |                                                      | 2013-11-10 |                     |
| SHIN        | JUNG-CHUL         |    |                              | Ex Voter |                  |                                                      | 2016-07-29 |                     |
| Shin        | Wooram            |    |                              | Ex Voter |                  |                                                      | 2014-11-07 |                     |
| Shukla      | Ashish            |    |                              | Ex Voter |                  |                                                      | 2011-07-22 |                     |
| Shvodian    | William           | M  |                              | Ex Voter |                  |                                                      |            |                     |
| Shyy        | D.                | J  |                              | Ex Voter |                  |                                                      | 2008-05-05 |                     |
| Siep        | Thomas            | M  |                              | Ex Voter |                  |                                                      | 2013-11-15 |                     |
| Sim         | Michael           |    | Panasonic Corporation        | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Simon       | Francois          |    |                              | Ex Voter |                  |                                                      | 2010-11-12 |                     |
| Simons      | John              |    |                              | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Simpson     | Floyd             |    |                              | Ex Voter |                  |                                                      |            |                     |
| Singh       | Harkirat          |    |                              | Ex Voter |                  |                                                      | 2009-03-16 |                     |
| Singh       | Shubhranshu       |    |                              | Ex Voter |                  |                                                      | 2010-11-12 |                     |
| Siti        | Massimiliano      |    |                              | Ex Voter |                  |                                                      | 2008-03-25 |                     |
| Skafidas    | Efstratios (Stan) |    |                              | Ex Voter |                  |                                                      |            |                     |
| Skidmore    | Roger             | R  |                              | Ex Voter |                  |                                                      |            |                     |

| Family Name | Given Name | MI | Affiliation                                                | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
| Slater      | Robert     |    |                                                            | Ex Voter        |                   |                                                      | 2016-07-29 |                     |
| Smith       | Dwight     |    |                                                            | Ex Voter        |                   |                                                      | 2013-11-10 |                     |
| Smith       | Graham     | K  | SR Technologies                                            | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 216                 |
| Smith       | Matt       |    |                                                            | Ex Voter        |                   |                                                      | 2009-11-23 |                     |
| So          | Tricci     |    |                                                            | Ex Voter        |                   |                                                      |            |                     |
| Sohn        | IllSoo     | S  |                                                            | Ex Voter        |                   |                                                      | 2012-11-16 |                     |
| Solomon     | Yoram      |    |                                                            | Ex Voter        |                   |                                                      |            |                     |
| Son         | Ju-Hyung   |    | WILUS Inc.                                                 | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Son         | JungBo     | B  |                                                            | Ex Voter        |                   |                                                      | 2015-11-13 |                     |
| Song        | Chunyi     |    |                                                            | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Song        | Hayeong    |    | Newracom Inc.                                              | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Song        | Jae-Hyung  |    |                                                            | Ex Voter        |                   |                                                      | 2011-06-27 |                     |
| Song        | Leilei     |    |                                                            | Ex Voter        |                   |                                                      | 2008-07-18 |                     |
| Song        | Myung Sun  | S  |                                                            | Ex Voter        |                   |                                                      | 2014-07-08 |                     |
| Song        | Nah-Oak    |    | Korea Advanced Institute of Science and Technology (KAIST) | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Song        | Yoo-Seung  |    |                                                            | Ex Voter        |                   |                                                      | 2009-06-30 |                     |
| Sood        | Kapil      |    |                                                            | Ex Voter        |                   |                                                      | 2010-03-22 |                     |
| Soomro      | Amjad      |    |                                                            | Ex Voter        |                   |                                                      |            |                     |
| Soranno     | Robert     | T  |                                                            | Ex Voter        |                   |                                                      |            |                     |
| Squiers     | Ronald     |    | Mentor Graphics                                            | Potential Voter | 168 (2018-        | Hyatt Regency O'Hare,                                |            |                     |

| Family Name  | Given Name | MI | Affiliation                 | Status   | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|--------------|------------|----|-----------------------------|----------|-------------------|-----------------------------------------------------|------------|---------------------|
|              |            |    |                             |          | 03-04)            | Rosemont, Illinois, USA                             |            |                     |
| Sreemanthula | Srinivas   |    |                             | Ex Voter |                   |                                                     | 2008-02-13 |                     |
| Sridhara     | Vinay      |    |                             | Ex Voter |                   |                                                     | 2010-03-22 |                     |
| Srinivasa    | Sudhir     |    | Marvell Semiconductor, Inc. | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Stacey       | Robert     |    | Intel Corporation           | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Stanley      | Dorothy    |    | Hewlett Packard Enterprise  | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Steck        | William    | K  |                             | Ex Voter |                   |                                                     |            |                     |
| Stefani      | Lawrence   |    |                             | Ex Voter |                   |                                                     | 2013-11-10 |                     |
| Stephens     | Adrian     | P  | Intel Corporation           | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Stephenson   | David      | S  |                             | Ex Voter |                   |                                                     | 2011-02-25 |                     |
| Stevenson    | Carl       | R  |                             | Ex Voter |                   |                                                     | 2010-03-14 |                     |
| Stine        | John       |    |                             | Ex Voter |                   |                                                     | 2011-03-18 |                     |
| Stott        | Noel       |    | Ixia                        | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 225                 |
| Strickland   | Stuart     |    | Hewlett Packard Enterprise  | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Struik       | Rene       |    |                             | Ex Voter |                   |                                                     | 2015-03-13 |                     |
| STRUTT       | GUENAEL    | T  |                             | Ex Voter |                   |                                                     | 2011-06-27 |                     |
| Suh          | JUNG HOON  | H  | Huawei Technologies Co. Ltd | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |

| Family Name | Given Name | MI | Affiliation                              | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Sum         | Chin-Sean  |    |                                          | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Sumi        | Takenori   |    | Mitsubishi Electric Corporation          | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Sun         | Bo         |    | ZTE Corporation                          | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Sun         | Chen       |    | Sony Corporation                         | Voter    | 168* (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Sun         | Li-Hsiang  |    | InterDigital, Inc.                       | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| sun         | sheng      |    | Huawei Technologies Co. Ltd              | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Sun         | Yakun      |    |                                          | Ex Voter |                   |                                                      | 2017-03-17 |                     |
| Sun         | Yanjun     |    | Qualcomm Incorporated                    | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 217                 |
| Sun         | Winston    |    |                                          | Ex Voter |                   |                                                      | 2008-02-13 |                     |
| Surineni    | Shravan    | K  |                                          | Ex Voter |                   |                                                      |            |                     |
| Suzuki      | Hideyuki   |    |                                          | Ex Voter |                   |                                                      | 2008-07-18 |                     |
| Szott       | Szymon     |    | AGH University of Science and Technology | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Tabibiazar  | Arash      |    |                                          | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Taghavi     | Mohammad   | H  |                                          | Ex Voter |                   |                                                      | 2012-11-16 |                     |
| Takagi      | Eiji       |    |                                          | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Takagi      | Masahiro   |    |                                          | Ex Voter |                   |                                                      |            |                     |

| Family Name | Given Name  | MI | Affiliation                 | Status   | Expires              | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-----------------------------|----------|----------------------|-----------------------------------------------------|------------|---------------------|
| Takahashi   | Kazuaki     |    | Panasonic Corporation       | Voter    | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Takahashi   | Seiichiro   |    |                             | Ex Voter |                      |                                                     |            |                     |
| Takai       | Mineo       |    | Space-Time Engineering      | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 217                 |
| Takatori    | Yasushi     |    |                             | Ex Voter |                      |                                                     | 2016-11-11 |                     |
| Takeda      | Daisuke     |    |                             | Ex Voter |                      |                                                     |            |                     |
| Tal         | Nir         |    |                             | Ex Voter |                      |                                                     |            |                     |
| Tamaki      | Tsuyoshi    |    |                             | Ex Voter |                      |                                                     |            |                     |
| Tamhane     | Sagar       |    | Marvell Semiconductor, Inc. | Voter    | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Tan         | Pek-Yew     |    |                             | Ex Voter |                      |                                                     |            |                     |
| Tan         | Teik-Kheong |    |                             | Ex Voter |                      |                                                     | 2010-07-16 |                     |
| Tanahashi   | Masato      |    |                             | Ex Voter |                      |                                                     | 2008-07-19 |                     |
| Tanaka      | Hideki      |    |                             | Ex Voter |                      |                                                     |            |                     |
| Tanaka      | Yusuke      |    | Sony Corporation            | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            | 217                 |
| Tandai      | Tomoya      |    |                             | Ex Voter |                      |                                                     | 2016-03-18 |                     |
| Taniguchi   | Kentaro     |    | TOSHIBA Corporation         | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            | 217                 |
| Tao         | Wu          |    | Huawei Technologies Co. Ltd | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 225                 |
| Taori       | Rakesh      |    | Phazr                       | Voter    | 164*<br>(2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany |            | 225                 |
| Tarighat    | Alireza     |    |                             | Ex Voter |                      |                                                     | 2016-01-21 |                     |
| Tayamon     | Soma        |    | Ericsson AB                 | Aspirant | 164<br>(2017-07-09)  | Estrel Hotel and Convention                         |            |                     |

| Family Name       | Given Name | MI | Affiliation                       | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------------|------------|----|-----------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|                   |            |    |                                   |          |                   | Center, Berlin, Germany                              |            |                     |
| Teo               | Joseph     |    |                                   | Ex Voter |                   |                                                      | 2013-07-19 |                     |
| Tetzlaff          | Thomas     |    |                                   | Ex Voter |                   |                                                      | 2014-11-07 |                     |
| Thompson          | Geoffrey   | O  |                                   | Ex Voter |                   |                                                      | 2011-09-23 |                     |
| THOMSON           | ALLAN      |    |                                   | Ex Voter |                   |                                                      | 2011-07-22 |                     |
| Thrasher          | Jerry      |    |                                   | Ex Voter |                   |                                                      | 2013-09-16 |                     |
| Tian              | Bin        |    | Qualcomm Incorporated             | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Tian              | Qingjiang  |    | Qualcomm Incorporated             | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Tian              | Tao        |    | Spreadtrum Communications, Inc.   | Aspirant | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Tian              | Tong       |    |                                   | Ex Voter |                   |                                                      | 2014-07-18 |                     |
| Tingleff          | Jens       |    |                                   | Ex Voter |                   |                                                      | 2015-11-13 |                     |
| Tinnakornsisuphap | Peerapol   |    | Qualcomm Incorporated             | Aspirant | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Tokubo            | Eric       |    |                                   | Ex Voter |                   |                                                      | 2011-02-25 |                     |
| Tolpin            | Alexander  |    |                                   | Ex Voter |                   |                                                      | 2008-12-21 |                     |
| Tomcik            | James      | D  |                                   | Ex Voter |                   |                                                      | 2012-05-01 |                     |
| Tong              | Fei        |    | Samsung Cambridge Solution Center | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Torab             | Payam      |    | Broadcom Corporation              | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center,                  |            | 225                 |

| Family Name   | Given Name | MI | Affiliation                 | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|---------------|------------|----|-----------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
|               |            |    |                             |                 |                   | Orlando, FL, USA                                     |            |                     |
| Torkildson    | Eric       |    | Nokia                       | Potential Voter | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Tosato        | Filippo    |    |                             | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Toyoda        | Ichihiko   |    |                             | Ex Voter        |                   |                                                      | 2012-05-01 |                     |
| Trachewsky    | Jason      |    |                             | Ex Voter        |                   |                                                      | 2010-11-12 |                     |
| Trainin       | Solomon    | B  | Qualcomm Incorporated       | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |
| Tran          | Ha Nguyen  | N  |                             | Ex Voter        |                   |                                                      | 2014-07-18 |                     |
| Tsai          | Chia-Hung  |    | MediaTek Inc.               | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Tsai          | Chia-Lung  |    |                             | Ex Voter        |                   |                                                      | 2014-05-09 |                     |
| Tsao          | Alvin      |    |                             | Ex Voter        |                   |                                                      | 2008-05-05 |                     |
| Tsao          | Jean       |    |                             | Ex Voter        |                   |                                                      | 2010-11-12 |                     |
| Tsodik        | Genadiy    |    | Huawei Technologies Co. Ltd | Aspirant        | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Tsonev        | Dobroslav  |    | pureLiFi                    | Aspirant        | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Tsoulogiannis | Tom        |    |                             | Ex Voter        |                   |                                                      |            |                     |
| tsubaki       | toshimitsu |    |                             | Ex Voter        |                   |                                                      | 2016-11-11 |                     |
| Tsukada       | Kazuyoshi  |    |                             | Ex Voter        |                   |                                                      | 2015-11-13 |                     |
| Tu            | Yung-Szu   |    |                             | Ex Voter        |                   |                                                      | 2011-07-22 |                     |
| Tuomaala      | Esa        |    | Nokia                       | Aspirant        | 164 (2017-        | Estrel Hotel and Convention                          |            |                     |

| Family Name          | Given Name      | MI | Affiliation           | Status          | Expires          | Meeting Location                                     | Expired    | Last Invalid Ballot |
|----------------------|-----------------|----|-----------------------|-----------------|------------------|------------------------------------------------------|------------|---------------------|
|                      |                 |    |                       |                 | 07-09)           | Center, Berlin, Germany                              |            |                     |
| Turner               | Sandra          | L  |                       | Ex Voter        |                  |                                                      |            |                     |
| Tzamaloukas          | Mike            | E  |                       | Ex Voter        |                  |                                                      |            |                     |
| Umehira              | Masahiro        |    |                       | Ex Voter        |                  |                                                      | 2015-03-13 |                     |
| Urabe                | Yoshio          |    | Panasonic Corporation | Voter           | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Uyehara              | Ashley          |    |                       | Ex Voter        |                  |                                                      | 2008-11-17 |                     |
| Van Erven            | Niels           |    |                       | Ex Voter        |                  |                                                      |            |                     |
| Van Leeuwen          | Richard         |    |                       | Ex Voter        |                  |                                                      |            |                     |
| Van Nee              | Richard         | D  | Qualcomm Incorporated | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| van Waes             | Nico            | J  |                       | Ex Voter        |                  |                                                      |            |                     |
| Van Zelst            | Allert          |    | Qualcomm Incorporated | Voter           | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Vangelista           | Lorenzo         |    | Patavina Technologies | Voter           | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Vanthournout         | Jerome          |    | CEVA-DSP              | Potential Voter | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Varlet-Andre         | Mathieu         |    |                       | Ex Voter        |                  |                                                      | 2009-06-30 |                     |
| Varsanofiev          | Dmitri          |    |                       | Ex Voter        |                  |                                                      |            |                     |
| Varshney             | Prabodh         |    | Nokia                 | Voter           | 168 (2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Venkatachalam Jayara | Venkata Ramanan |    | Qualcomm Incorporated | Aspirant        | 166 (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Venkatesan           | Ganesh          |    | Intel Corporation     | Voter           | 170* (2018-      | Manchester Grand Hyatt,                              |            | 225                 |

| Family Name   | Given Name | MI | Affiliation                     | Status          | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|---------------|------------|----|---------------------------------|-----------------|-------------------|------------------------------------------------------|------------|---------------------|
|               |            |    |                                 |                 | 07-01)            | San Diego, CA, USA                                   |            |                     |
| Venkateswaran | Sriram     |    | Broadcom Corporation            | Voter           | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Verma         | Karan      |    | Central University of Rajasthan | Aspirant        | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Verma         | Lochan     |    | Qualcomm Incorporated           | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Vermani       | Sameer     |    | Qualcomm Incorporated           | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Victor        | Dalton     | T  |                                 | Ex Voter        |                   |                                                      | 2015-03-13 |                     |
| VIGER         | Pascal     |    | Canon Research Centre France    | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Villard       | Gabriel    |    |                                 | Ex Voter        |                   |                                                      | 2015-07-28 |                     |
| Virk          | Bhupender  |    |                                 | Ex Voter        |                   |                                                      | 2012-07-20 |                     |
| Vlantis       | George     | A  | STMicroelectronics              | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Vogtli        | Nanci      |    |                                 | Ex Voter        |                   |                                                      |            |                     |
| Volpano       | Dennis     |    |                                 | Ex Voter        |                   |                                                      |            |                     |
| Wadhwa        | Sanjay     |    |                                 | Ex Voter        |                   |                                                      | 2012-07-20 |                     |
| Walker        | Jesse      | R  |                                 | Ex Voter        |                   |                                                      | 2010-07-16 |                     |
| Wallace       | Brad       | N  |                                 | Ex Voter        |                   |                                                      |            |                     |
| Wandile       | Vivek      |    |                                 | Ex Voter        |                   |                                                      |            |                     |
| Wang          | Bo         |    | Huawei Technologies Co., Ltd    | Potential Voter | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Wang          | Chao Chun  |    | MediaTek Inc.                   | Voter           | 170* (2018-       | Manchester Grand Hyatt,                              |            |                     |

| Family Name | Given Name | MI | Affiliation                    | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
|             |            |    |                                |          | 07-01)            | San Diego, CA, USA                                   |            |                     |
| Wang        | Haiguang   |    |                                | Ex Voter |                   |                                                      | 2015-07-28 |                     |
| Wang        | Haiming    |    | Southeast University, China    | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Wang        | Huaiyuan   |    |                                | Ex Voter |                   |                                                      |            |                     |
| Wang        | Hui        |    |                                | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Wang        | Huizhao    |    | Quantenna Communications, Inc. | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Wang        | James June | J  | MediaTek Inc.                  | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Wang        | Junyi      |    |                                | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Wang        | Lei        |    | Huawei R&D USA                 | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Wang        | Lin        |    |                                | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Wang        | Qi         |    | Apple, Inc.                    | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Wang        | Stanley    |    |                                | Ex Voter |                   |                                                      |            |                     |
| Wang        | Xiang      |    |                                | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Wang        | Xiaofei    |    | InterDigital, Inc.             | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Wang        | Xuehuan    |    | Huawei Technologies Co., Ltd   | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Wang        | Yi         |    | Huawei Technologies Co. Ltd    | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name  | MI | Affiliation                                                        | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|--------------------------------------------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Want        | Roy         |    | Google                                                             | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Ward        | Dennis      |    |                                                                    | Ex Voter |                      |                                                      | 2008-03-25 |                     |
| Ward        | Lisa        |    | Rohde & Schwarz                                                    | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Ware        | Christopher | G  |                                                                    | Ex Voter |                      |                                                      |            |                     |
| Warren      | Craig       | D  |                                                                    | Ex Voter |                      |                                                      | 2010-07-16 |                     |
| Watanabe    | Fujio       |    | NTT DoCoMo, Inc.                                                   | Voter    | 164*<br>(2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| waye        | patrick     |    |                                                                    | Ex Voter |                      |                                                      | 2009-06-30 |                     |
| Webber      | Julian      |    | Advanced Telecommunications Research Institute International (ATR) | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Wee         | Gaius       |    | Panasonic Asia Pacific Pte Ltd.                                    | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Wei-Xia     | Zou         |    |                                                                    | Ex Voter |                      |                                                      | 2015-11-13 |                     |
| Wells       | Bryan       |    |                                                                    | Ex Voter |                      |                                                      |            |                     |
| Wen         | Ericson     |    |                                                                    | Ex Voter |                      |                                                      | 2014-03-21 |                     |
| Wen         | Lei         |    |                                                                    | Ex Voter |                      |                                                      | 2013-07-19 |                     |
| Wendt       | Jim         |    |                                                                    | Ex Voter |                      |                                                      |            |                     |
| Wentink     | Menzo       | M  | Qualcomm Incorporated                                              | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| West        | Nicholas    |    |                                                                    | Ex Voter |                      |                                                      | 2012-11-16 |                     |
| Weytjens    | Filip       |    |                                                                    | Ex Voter |                      |                                                      |            |                     |
| Whetten     | Frank       |    |                                                                    | Ex Voter |                      |                                                      | 2010-03-22 |                     |
| Whitesell   | Stephen     | R  |                                                                    | Ex Voter |                      |                                                      | 2008-02-13 |                     |

| Family Name | Given Name  | MI | Affiliation                        | Status   | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|-------------|----|------------------------------------|----------|-------------------|-----------------------------------------------------|------------|---------------------|
| Wicaksana   | Harya       |    |                                    | Ex Voter |                   |                                                     | 2013-11-15 |                     |
| Wilhelmsson | Leif        |    | Ericsson AB                        | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            | 225                 |
| Williams    | Christopher |    |                                    | Ex Voter |                   |                                                     | 2014-07-08 |                     |
| Williams    | Kyle        |    |                                    | Ex Voter |                   |                                                     | 2009-03-16 |                     |
| Wilson      | James       | M  |                                    | Ex Voter |                   |                                                     |            |                     |
| Wineinger   | Gerald      |    |                                    | Ex Voter |                   |                                                     | 2008-07-19 |                     |
| Winters     | Jack        | H  |                                    | Ex Voter |                   |                                                     |            |                     |
| WON         | EUN TAE     | T  |                                    | Ex Voter |                   |                                                     | 2015-03-05 |                     |
| Wong        | Eric        |    | Apple, Inc.                        | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 225                 |
| Wong        | Ian         |    |                                    | Ex Voter |                   |                                                     | 2012-11-16 |                     |
| Wong        | Timothy     | G  |                                    | Ex Voter |                   |                                                     | 2014-03-21 |                     |
| Worsham     | James       |    |                                    | Ex Voter |                   |                                                     | 2012-05-01 |                     |
| Worstell    | Harry       | R  |                                    | Ex Voter |                   |                                                     | 2016-03-18 |                     |
| Wright      | Charles     | R  |                                    | Ex Voter |                   |                                                     |            |                     |
| Wright      | Michael     |    |                                    | Ex Voter |                   |                                                     |            |                     |
| Wu          | Fonchi      |    |                                    | Ex Voter |                   |                                                     | 2010-07-16 |                     |
| Wu          | Gang        |    |                                    | Ex Voter |                   |                                                     |            |                     |
| Wu          | Jianbing    |    | Shenzhen iTest Technology Co.,Ltd. | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            | 225                 |
| Wu          | Songping    |    |                                    | Ex Voter |                   |                                                     | 2008-11-17 |                     |
| Wu          | Tianyu      |    | MediaTek Inc.                      | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Wu          | Ye          |    |                                    | Ex Voter |                   |                                                     | 2011-02-25 |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Wu          | Zhanji     |    |                             | Ex Voter |                   |                                                      | 2013-09-16 |                     |
| Xia         | Pengfei    |    |                             | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| Xiao        | Zhenyu     |    |                             | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Xie         | Fang       |    |                             | Ex Voter |                   |                                                      | 2013-11-15 |                     |
| Xie         | Zhen       |    |                             | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Xin         | Yan        |    | Huawei Technologies Co. Ltd | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Xing        | Weimin     |    | ZTE Corporation             | Voter    | 166* (2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Xu          | Dongmei    |    |                             | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Xu          | Mingguang  |    |                             | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| XU          | QUANPING   |    |                             | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Xue         | Qi         |    | Qualcomm Incorporated       | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| YAGHOوبي    | HASSAN     |    | Intel Corporation           | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Yagi        | Akiyoshi   |    |                             | Ex Voter |                   |                                                      | 2008-11-17 |                     |
| Yamada      | Akira      |    | NTT DoCoMo, Inc.            | Aspirant | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Yamamoto    | Takeshi    |    |                             | Ex Voter |                   |                                                      | 2009-11-23 |                     |
| Yamaura     | Tomoya     |    |                             | Ex Voter |                   |                                                      | 2009-03-16 |                     |
| Yang        | Guang-Qi   |    |                             | Ex Voter |                   |                                                      | 2014-07-08 |                     |

| Family Name | Given Name | MI | Affiliation                                                        | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|--------------------------------------------------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Yang        | Lin        |    |                                                                    | Ex Voter |                      |                                                      | 2014-07-18 |                     |
| Yang        | Liuyang    |    |                                                                    | Ex Voter |                      |                                                      | 2011-06-27 |                     |
| Yang        | Meng       |    |                                                                    | Ex Voter |                      |                                                      | 2015-03-05 |                     |
| Yang        | Ou         |    | Intel Corporation                                                  | Voter    | 168*<br>(2018-03-04) | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 225                 |
| Yang        | Rongzhen   |    |                                                                    | Ex Voter |                      |                                                      | 2015-05-07 |                     |
| YANG        | RUI        |    | InterDigital, Inc.                                                 | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 217                 |
| Yang        | Sihoon     |    |                                                                    | Ex Voter |                      |                                                      | 2008-03-25 |                     |
| Yang        | Xi         |    | Apple, Inc.                                                        | Aspirant | 170<br>(2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Yang        | Xun        |    |                                                                    | Ex Voter |                      |                                                      | 2015-05-07 |                     |
| Yang        | Xun        |    | Huawei Technologies Co. Ltd                                        | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Yang        | Yang       |    |                                                                    | Ex Voter |                      |                                                      | 2014-03-21 |                     |
| Yang        | Yunsong    |    | Huawei Technologies Co. Ltd                                        | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Yang        | Zhiyu      |    |                                                                    | Ex Voter |                      |                                                      | 2008-09-16 |                     |
| Yano        | Kazuto     |    | Advanced Telecommunications Research Institute International (ATR) | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| YAO         | KE         |    | ZTE Corporation                                                    | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Ye          | Fan        |    |                                                                    | Ex Voter |                      |                                                      | 2014-05-09 |                     |

| Family Name | Given Name  | MI | Affiliation                 | Status   | Expires           | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-----------------------------|----------|-------------------|------------------------------------------------------|------------|---------------------|
| Ye          | Huanchun    |    |                             | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Yee         | James       |    | MediaTek Inc.               | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Yee         | Jung        |    |                             | Ex Voter |                   |                                                      | 2012-07-20 |                     |
| Yee         | Peter       |    | NSA/IAD                     | Voter    | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Yeh         | Chi-Hsiang  |    |                             | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Yeow        | Wai-Leong   |    |                             | Ex Voter |                   |                                                      | 2013-03-22 |                     |
| Yin         | Hujun       |    |                             | Ex Voter |                   |                                                      | 2015-03-05 |                     |
| Yokohira    | Kanji       |    |                             | Ex Voter |                   |                                                      | 2008-03-25 |                     |
| Yokoo       | Kaoru       |    |                             | Ex Voter |                   |                                                      | 2014-03-21 |                     |
| Yokota      | Hidetoshi   |    | Landis Gyr Group Worldwide  | Aspirant | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Yong        | Su Khiong   | K  | Apple, Inc.                 | Voter    | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Yonge       | Larry       |    |                             | Ex Voter |                   |                                                      | 2015-11-08 |                     |
| Yoon        | Chanho      |    |                             | Ex Voter |                   |                                                      | 2012-11-16 |                     |
| Yoshida     | Seiji       |    |                             | Ex Voter |                   |                                                      | 2010-03-22 |                     |
| Young       | Christopher |    | Broadcom Corporation        | Voter    | 166 (2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yu          | Bo          |    | Marvell Semiconductor, Inc. | Voter    | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Yu          | Chang Wahn  |    |                             | Ex Voter |                   |                                                      | 2015-03-05 |                     |

| Family Name | Given Name | MI | Affiliation                 | Status   | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|-----------------------------|----------|----------------------|------------------------------------------------------|------------|---------------------|
| Yu          | Chinghwa   |    | Spreadtrum Comm.            | Voter    | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            | 225                 |
| Yu          | Heejung    |    | Yeungnam University         | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Yu          | Jian       |    | Huawei Technologies Co. Ltd | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Yu          | Mao        |    | Marvell Semiconductor, Inc. | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |
| Yu          | Patrick    |    |                             | Ex Voter |                      |                                                      |            |                     |
| Yu          | Zhan       |    |                             | Ex Voter |                      |                                                      | 2013-03-22 |                     |
| Yucek       | Tevfik     |    | Qualcomm Incorporated       | Aspirant | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yue         | Guangrong  |    |                             | Ex Voter |                      |                                                      | 2014-11-07 |                     |
| Yun         | Ji-Hoon    |    |                             | Ex Voter |                      |                                                      | 2015-07-28 |                     |
| Yun         | SunWoong   |    | LG ELECTRONICS              | Voter    | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            |                     |
| Yung        | Hon        | M  |                             | Ex Voter |                      |                                                      |            |                     |
| Yunoki      | Katsuo     | D  | KDDI R&D Laboratories       | Voter    | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Yurtkuran   | Erol       | K  |                             | Ex Voter |                      |                                                      |            |                     |
| Zaks        | Artur      |    |                             | Ex Voter |                      |                                                      | 2012-05-01 |                     |
| Zelevnikar  | Alan       |    | ARRIS Group                 | Voter    | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            |                     |

| Family Name | Given Name | MI | Affiliation                  | Status          | Expires           | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------------|-------------------|-----------------------------------------------------|------------|---------------------|
| Zeng        | Kun        |    | Huawei Technologies Co. Ltd  | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            | 225                 |
| Zeng        | Yan        |    | Huawei Technologies Co., Ltd | Aspirant        | 170 (2018-07-01)  | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Zhang       | Dezhi      |    |                              | Ex Voter        |                   |                                                     | 2012-11-16 |                     |
| Zhang       | Hongyuan   |    | Marvell Semiconductor, Inc.  | Voter           | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Zhang       | Hui        |    |                              | Ex Voter        |                   |                                                     | 2014-03-21 |                     |
| zhang       | huimin     |    |                              | Ex Voter        |                   |                                                     | 2009-07-20 |                     |
| ZHANG       | JIAYIN     |    | Huawei Technologies Co. Ltd  | Voter           | 164 (2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Zhang       | Junjian    |    |                              | Ex Voter        |                   |                                                     | 2013-03-22 |                     |
| Zhang       | Nianzu     |    |                              | Ex Voter        |                   |                                                     | 2014-05-09 |                     |
| Zhang       | Ning       |    |                              | Ex Voter        |                   |                                                     | 2012-05-01 |                     |
| Zhang       | Xin        |    |                              | Ex Voter        |                   |                                                     | 2013-11-15 |                     |
| Zhang       | Xingxin    |    | Huawei Technologies Co. Ltd  | Potential Voter | 170* (2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA          |            |                     |
| Zhang       | Yan        |    | Marvell Semiconductor, Inc.  | Voter           | 168 (2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA       |            |                     |
| Zhao        | Meiyuan    |    |                              | Ex Voter        |                   |                                                     | 2010-11-12 |                     |
| Zhao        | Mu         |    |                              | Ex Voter        |                   |                                                     | 2016-01-21 |                     |
| Zhao        | Qiang      |    |                              | Ex Voter        |                   |                                                     | 2012-05-01 |                     |
| Zhao        | Shiwei     |    |                              | Ex Voter        |                   |                                                     | 2011-07-22 |                     |

| Family Name | Given Name | MI | Affiliation                  | Status          | Expires              | Meeting Location                                     | Expired    | Last Invalid Ballot |
|-------------|------------|----|------------------------------|-----------------|----------------------|------------------------------------------------------|------------|---------------------|
| ZHAO        | XIAOWU     |    | ZTE Corporation              | Aspirant        | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Zheng       | Jun        |    |                              | Ex Voter        |                      |                                                      | 2016-07-29 |                     |
| ZHENG       | SHOUKANG   |    |                              | Ex Voter        |                      |                                                      | 2015-03-13 |                     |
| Zheng       | Xiayu      |    | Marvell Semiconductor, Inc.  | Voter           | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Zhou        | Jingyi     |    |                              | Ex Voter        |                      |                                                      | 2015-11-08 |                     |
| Zhou        | Mingtuo    |    |                              | Ex Voter        |                      |                                                      | 2014-07-08 |                     |
| Zhou        | Xun        |    | Huawei Technologies Co. Ltd  | Aspirant        | 164<br>(2017-07-09)  | Estrel Hotel and Convention Center, Berlin, Germany  |            |                     |
| Zhou        | Yan        |    | Qualcomm Incorporated        | Voter           | 168<br>(2018-03-04)  | Hyatt Regency O'Hare, Rosemont, Illinois, USA        |            | 217                 |
| zhou        | yuan       |    |                              | Ex Voter        |                      |                                                      | 2014-11-07 |                     |
| Zhu         | Chunhui    |    | Huawei Technologies Co., Ltd | Voter           | 170*<br>(2018-07-01) | Manchester Grand Hyatt, San Diego, CA, USA           |            | 225                 |
| Zhu         | Hufei      |    |                              | Ex Voter        |                      |                                                      | 2015-05-07 |                     |
| Zhu         | Jing       |    |                              | Ex Voter        |                      |                                                      | 2009-03-16 |                     |
| Zhu         | Jun        |    | Huawei Technologies Co. Ltd  | Voter           | 166*<br>(2017-11-05) | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |
| Zhuang      | Yan        |    |                              | Ex Voter        |                      |                                                      | 2015-11-13 |                     |
| Zhuo        | Lan        |    | CESI Group                   | Potential Voter | 166<br>(2017-11-05)  | Caribe Hotel and Convention Center, Orlando, FL, USA |            |                     |

| Family Name | Given Name  | MI | Affiliation | Status   | Expires          | Meeting Location                                    | Expired    | Last Invalid Ballot |
|-------------|-------------|----|-------------|----------|------------------|-----------------------------------------------------|------------|---------------------|
| Zorn        | Glen        |    |             | Ex Voter |                  |                                                     |            |                     |
| Zuckerman   | Lawrence    |    |             | Ex Voter |                  |                                                     | 2012-11-16 |                     |
| Zuniga      | Juan Carlos |    | SIGFOX      | Aspirant | 164 (2017-07-09) | Estrel Hotel and Convention Center, Berlin, Germany |            |                     |
| Zweig       | Jonathan    |    |             | Ex Voter |                  |                                                     | 2008-11-17 |                     |
| Zyren       | James       |    |             | Ex Voter |                  |                                                     |            |                     |

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## **APPENDIX BS**

# BSS Load Information Element for 11ax

**Date:** 2017-03-15

**Authors:**

| Name          | Affiliations | Address | Phone | email                                                                      |
|---------------|--------------|---------|-------|----------------------------------------------------------------------------|
| Frank Hsu     | MediaTek     |         |       | <a href="mailto:frank.hsu@mediatek.com">frank.hsu@mediatek.com</a>         |
| Chaochun Wang |              |         |       | <a href="mailto:chaochun.wang@mediatek.com">chaochun.wang@mediatek.com</a> |
| James Yee     |              |         |       | <a href="mailto:james.yee@mediatek.com">james.yee@mediatek.com</a>         |
| Gabor Bajko   |              |         |       | <a href="mailto:gabor.bajko@mediatek.com">gabor.bajko@mediatek.com</a>     |
| Bo Sun        | ZTE          |         |       | <a href="mailto:sun.bo1@zte.com.cn">sun.bo1@zte.com.cn</a>                 |

# 11ax D1.0 CID of BSS Load

| CID  | Commenter | P.L   | Clause    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                        | Proposed Change                                                                                                                                                                         |
|------|-----------|-------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5917 | James Yee | 67.01 | 9.4.2.139 | With the introduction of new features such as OFDMA and UL MU MIMO, the existing BSS load elements (9.4.2.160 & 9.4.2.28), which address STA numbers, primary/secondary channel busy condition and DL MU-MIMO underutilization (11ac) are not sufficient for addressing the BSS load status in a 11ax BSS. A further enhanced BSS Load element needs to be defined.                                                            | Add a new information element to define 11ax BSS Load. The new IE shall address utilization status of OFDMA as well as UL/DL MU MIMO, as well as provisions to allow future extensions. |
| 8165 | Ming Gan  | 67.01 | 9.4.2.    | BSS load element provides the channel utilization such that the unassociated STA can choose the proper AP $\pm \epsilon$ and extended BSS load element further provides the the spatial stream underutilization given the busy channel such that unassociated STA with MU-MIMO capability can choose the proper AP. Now 11ax introduce a OFDMA, there is the probability of frequency underutilization given the busy channel. | Define a HE BSS load element considering frequency utilization such to help unassociated STA to choose a best AP                                                                        |

## Summary

- **802.11 defines two BSS load information elements[1] containing**
  - information of current STA population and traffic level in the BSS (BSS load element)
  - information of MIMO spatial stream underutilization and bandwidth utilization (Extended BSS load element)
- **11ax introduces MU of OFDMA and UL MIMO, but current BSS load IEs cannot reflect true loading of 11ax HE BSSs**
- **In this presentation, we propose defining a new information element for conveying HE BSS load information**

## 11ax MU BSS Load Element

- **Propose to add a new IE containing three categories of information**
  1. 11ax MU capable STA count and active STA counts
  2. MU TXOP time percentage over an observation period
  3. Load Report: Underutilization rate of MU TXOP to reflect potential capacity of an 11ax BSS

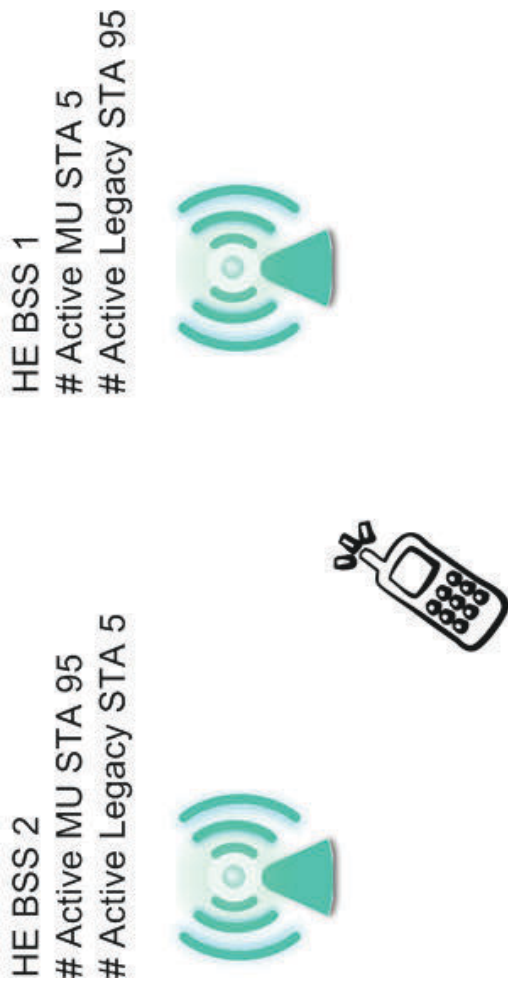
# 11ax MU BSS Load Element Contents(1/4)

## 1. *STA count*

- **Total number of MU capable STAs**
  - MU includes MU MIMO and OFDMA
  - Let STAs know how many MU competitors are within the BSS
- **Active STA counts**
  - Some associated STA may not be active for a long time
  - AP can monitor STA's activities during an observation period
    - Prefer to define observation period in units of beacon intervals
  - An active STA: if the AP receives any MPDU from that STA during the observation period. Two active STA counts are defined.
    - Active STA count
    - Active MU capable STA count

## 11ax MU BSS Load Element Contents(2/4)

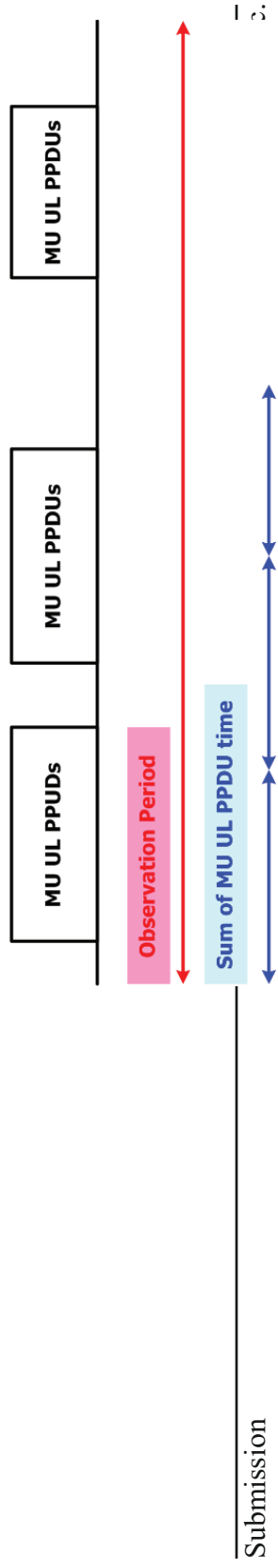
- **Usage Example:**
  - Example: HE BSS1 has 100 active STAs with 5 active MU capable STAs, and HE BSS2 has 100 active STAs with 95 active MU capable STAs. An unassociated HE STA may choose HE BSS2 for more transmit and receive opportunities



# 11ax MU BSS Load Element Contents(3/4)

## 2. Time percentage of MU/SU TXOPs

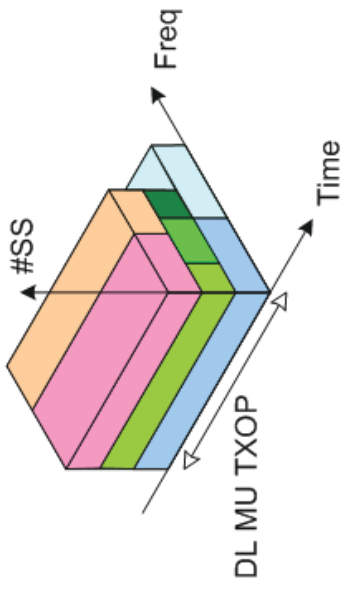
- MU: Report UL and DL separately
- SU: Report DL
- Let STAs know the traffic trend of TXOPs during the observation period. STA may have specific UL/DL requirements
  - dot11ChannelUtilizationBeaconIntervals serves as the observation period (50 beacon intervals default)
- Usage Example:
  - High percentage UL TXOP means heavily MU UL loaded BSS
- Illustration



# 11ax MU BSS Load Element Contents(4/4)

## 3. Load report of MU TXOPs

- Underutilization percentage over space & frequency
  - Information of available BW and SS
    - Interfered and used RUs shall not be included
  - Separate DL & UL reports
- Report BW
  - Reports of per 20 MHz BW
- Underutilization percentage formula (MU DL example)



$$N_{\max\_SS} \times RU_{\max} \times \sum_j T_{\text{Busy}(MUDL),j} - \sum_j \left[ T_{\text{Busy}(MUDL),j} \left( \sum_i N_{SS,i,j} \times RU_{\text{Busy},i,j} \right) \right]$$

$$N_{\max\_SS} \times RU_{\max} \times \sum_j T_{\text{Busy}(MUDL),j}$$

$N_{\max\_SS}$ : Max supported spatial stream

$RU_{\text{Busy}}$ : Occupied RU weight(Used or interfered)

$RU_{\max}$ : RU weight of the available BW

$T_{\text{Busy}(MUDL)}$ : Time of busy period for MU DL (MU DL TXOP)

# 11ax MU BSS Load Information Element

## (1/2)

- Define a new BSS Load information element for 11ax
- For UL/DL underutilization
  - Variable length dependent on the channel bandwidth
- Optional subelements carry active STA counts and legacy BSS load IEs (defined in next page)

| Element ID | Length | Element ID Extension | MU Capable STA count | MU UL TXOP Utilization | MU DL TXOP Utilization | SU DL TXOP Utilization | MU Underutilization Count |
|------------|--------|----------------------|----------------------|------------------------|------------------------|------------------------|---------------------------|
| Octet 1    | 1      | 1                    | 2                    | 1                      | 1                      | 1                      | 1                         |

| MU UL Underutilization #1 | MU DL Underutilization #1 | MU UL Underutilization #2 | ----- | MU UL Underutilization #N | MU DL Underutilization #N | Optional Subelements |
|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------------------|
| Octet 1                   | 1                         | 1                         |       | 1                         | 1                         | Variant              |

**From Lowest 20MHz subband to Highest 20MHz subband** →

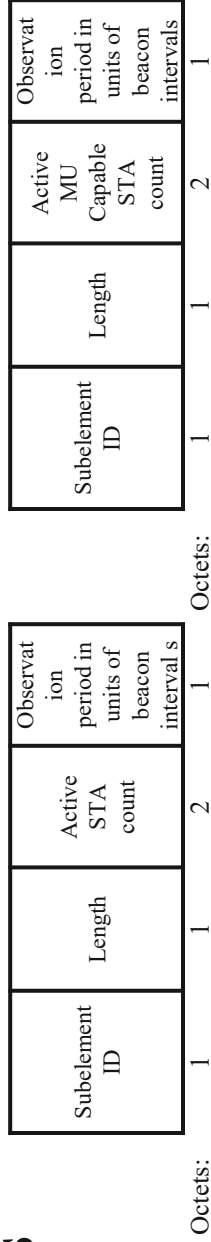
# 11ax MU BSS Load Information Element

## (2/2)

- **Subelements**
  - Optional active STA counts
  - Able to carry legacy BSS load elements
    - BSS load (9.4.2.28)
    - Extended BSS load (9.4.2.160)

| Subelement ID | Name                        | Extensible |
|---------------|-----------------------------|------------|
| 0             | Reserved                    |            |
| 1             | Active STA count            | Yes        |
| 2             | Active MU capable STA count | Yes        |
| 3             | BSS load                    |            |
| 4             | Extended BSS load           |            |
| 5-255         | Reserved                    |            |

- **Active STA count subelements**



## Straw poll 1

- Do you support to add a BSS load information element containing information defined on page 3~7?
  - Y
  - N
  - A

## Straw poll 2

- Do you support to define the 11ax MU BSS load information element as the formant on page 8~9?
  - Y
  - N
  - A

# **References**

## **1. P802.11 2016**

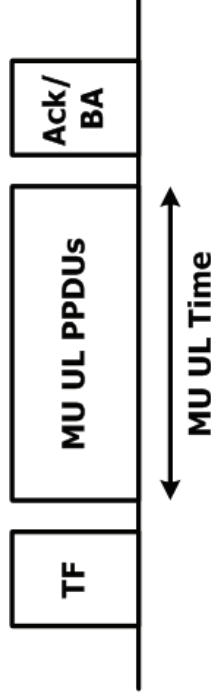
# BACKUP

# Underutilization Percentage RU Weights

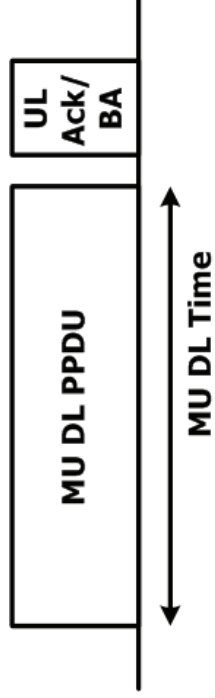
- RU weights example of report per 20 MHz BW
  - RU26: 1/9
  - RU52: 2/9
  - RU106: 4/9
  - RU242: 9/9
  - RU484: 9/9 (half on the target 20MHz)

# MU UL/DL Time Definitions

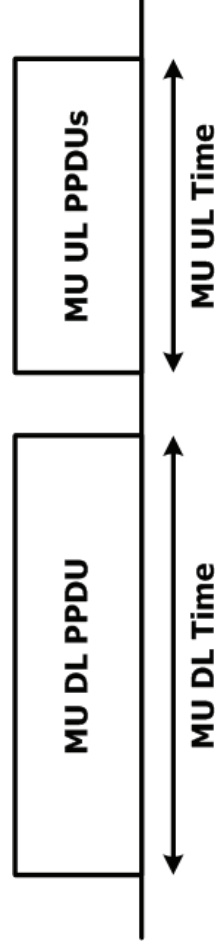
- UL MU by TF



- DL MU



- Cascaded MU



# Legacy BSS Load IEs

- BSS load element



2239

Figure 9-260—BSS Load element format

- Extended BSS load element

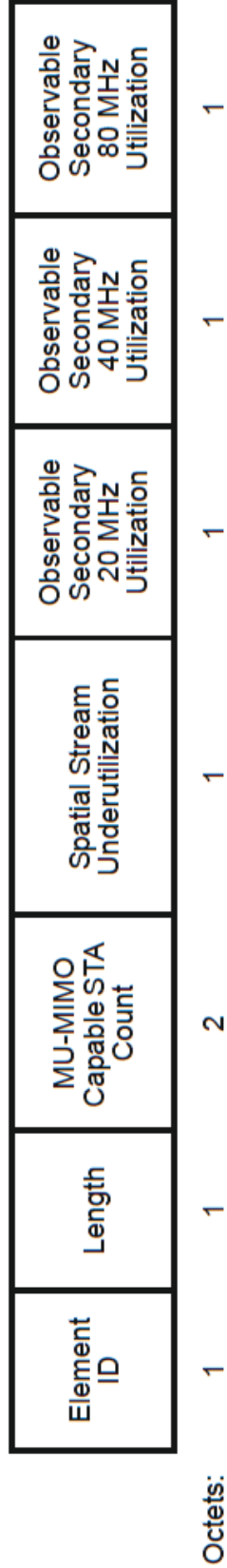


Figure 9-565—Extended BSS Load element format

# dot11ChannelUtilizationBeaconIntervals

- In Annex C

dot11ChannelUtilizationBeaconIntervals OBJECT-TYPE

SYNTAX Unsigned32 (1..100)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This is a control variable.

It is written by an external management entity.

Changes take effect as soon as practical in the implementation."

This attribute indicates the number of beacon intervals over which the channel busy time should be averaged."

DEFVAL { 50 }

::= { dot11OperationEntry 16 }

.

# **APPENDIX BT**

# Resolution to CID 7547

Date: 2017-03-02

## Authors:

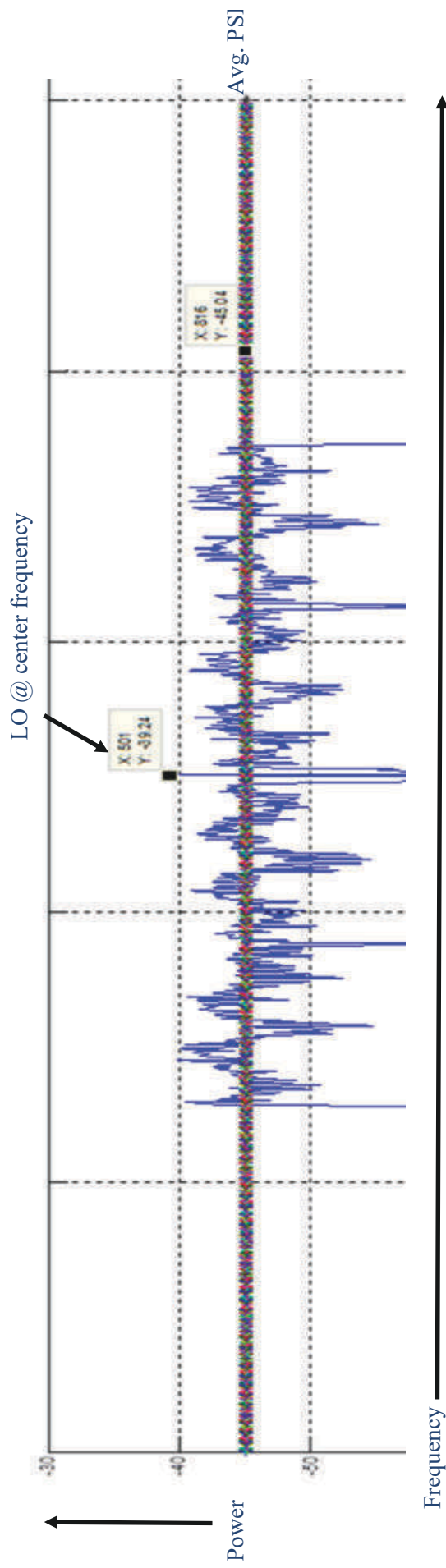
| Name           | Affiliations  | Address | Email                     |
|----------------|---------------|---------|---------------------------|
| Xiaogang Chen  | Intel         |         | Xiaogang.c.chen@intel.com |
| Ilan Sutskover | Intel         |         |                           |
| Michael Simon  | Rohde-schwarz |         |                           |
| Lisa Ward      | Rohde-schwarz |         |                           |
|                |               |         |                           |
|                |               |         |                           |

## Statement of Problem

- **Draft 1.0 defines that masks of HE PPDU<sub>s</sub> are measured with RBW=25kHz and VBW=7.5kHz**
  - A change over former 802.11 that used RBW=100kHz and VBW=30kHz
- **With RBW of 25kHz, each spectrum point for 160MHz transmission is approximately  $10\text{LOG}(160/0.025)=38\text{dB}$  below the total power. 6dB lower than 11ac.**
  - For in-band spurs, there is more chance that 0dB<sub>r</sub> at peak spectrum will be touching the CW “spur” instead of the data subcarriers.
  - For out-band spurs, there is more chance the spur break the mask.
- **Smaller RBW requires larger number of points at the SA, resulting in significantly more variance in the frequency domain & higher test time**
- **We have identified that some major SA manufacturers (like Keysight) support RF filtering with a limited RBW granularity only, where RBW=25kHz is not one of the available options**

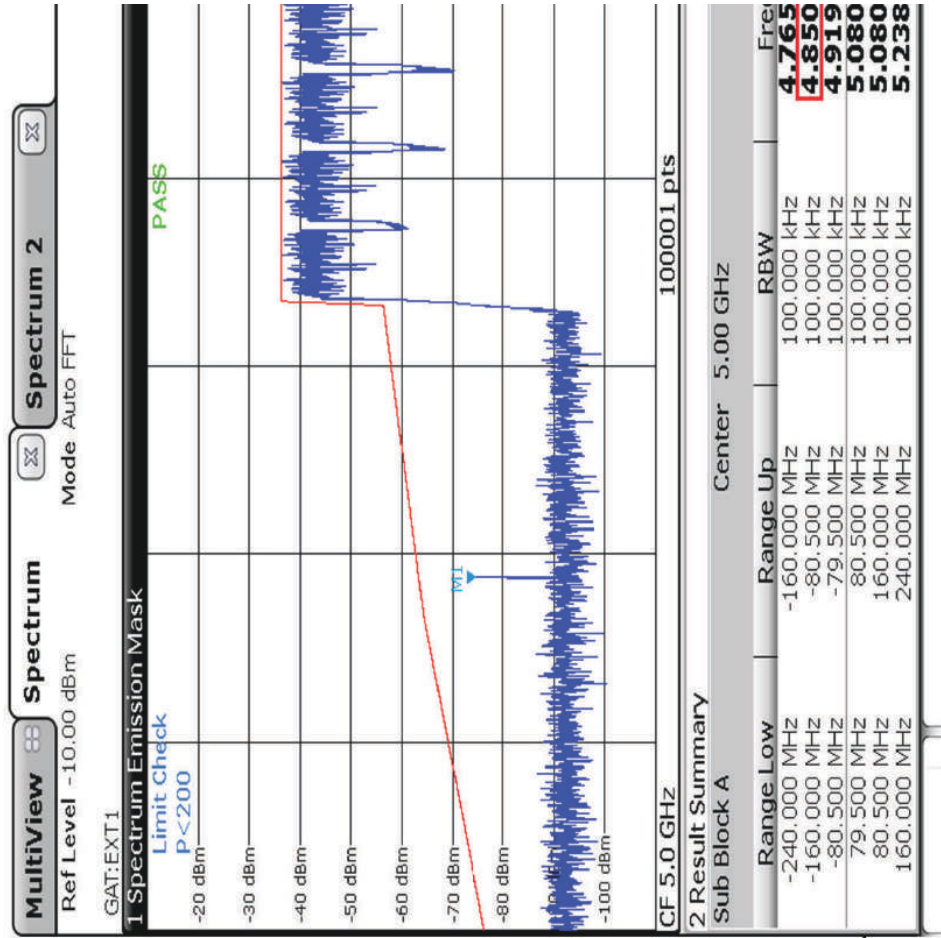
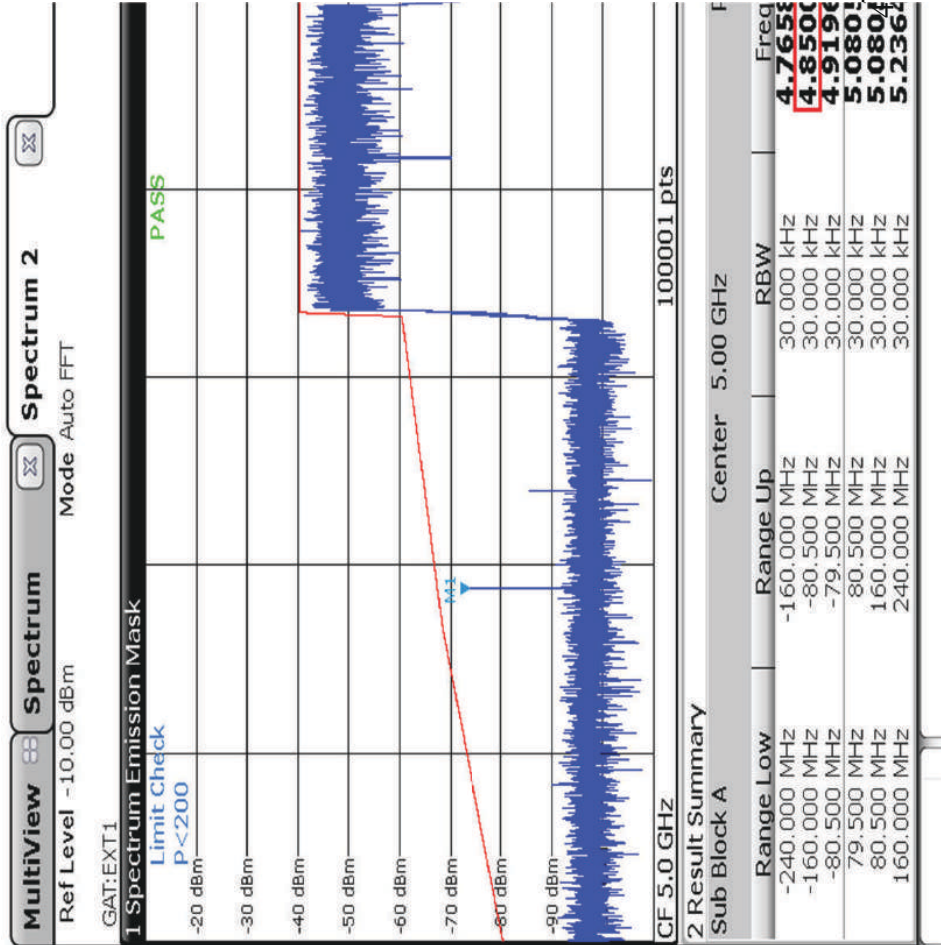
## Spur Resilience (in-band)

- CW-like signals' power does not vary with RBW, as their bandwidth is infinitely small. But the mask peak spectrum reduces in power with reduction to RBW.
- As a result, resilience to CW-like spurs has degraded by 6dB upon the change from RBW=100kHz to RBW=25kHz



## Spur Resilience (out-band)

- Mask drop more due to accumulated power drop from 100kHz to 30kHz;
- Less margin for 30kHz RBW to the mask if out of band spur presents.



# Number of Points in the Spectrum Analyzer

- To ensure proper coverage of the tested span, the number of points measured must cover the spectrum properly. With reduction of RBW by 4X (compared to 11ac and earlier WiFi), 4X points are required to ensure same coverage.
- For 160MHz PPDU, span greater than 480MHz is required. With RBW=25kHz, according to R&S guideline (see below), one expects at least  $2 \cdot 480000 / 25 = 38400$  points.
- Number of points has a significant impact on both test time and “deviations” in the spectrum (see next slides). The number of points is an implementation issue and is not defined by the standard.

Figure 10-11: Minimum number of points in the frequency step size

As a rule of thumb, you should keep the frequency step size to around half of the measurement bandwidth. This way there is no possibility of both missing information or an error in the magnitude response. The displayed measurement bandwidths of the network analyzer define the 3 dB bandwidths of the measurement filter, so up to 3 dB error could be expected when the frequency step size comes close to the measurement bandwidth.

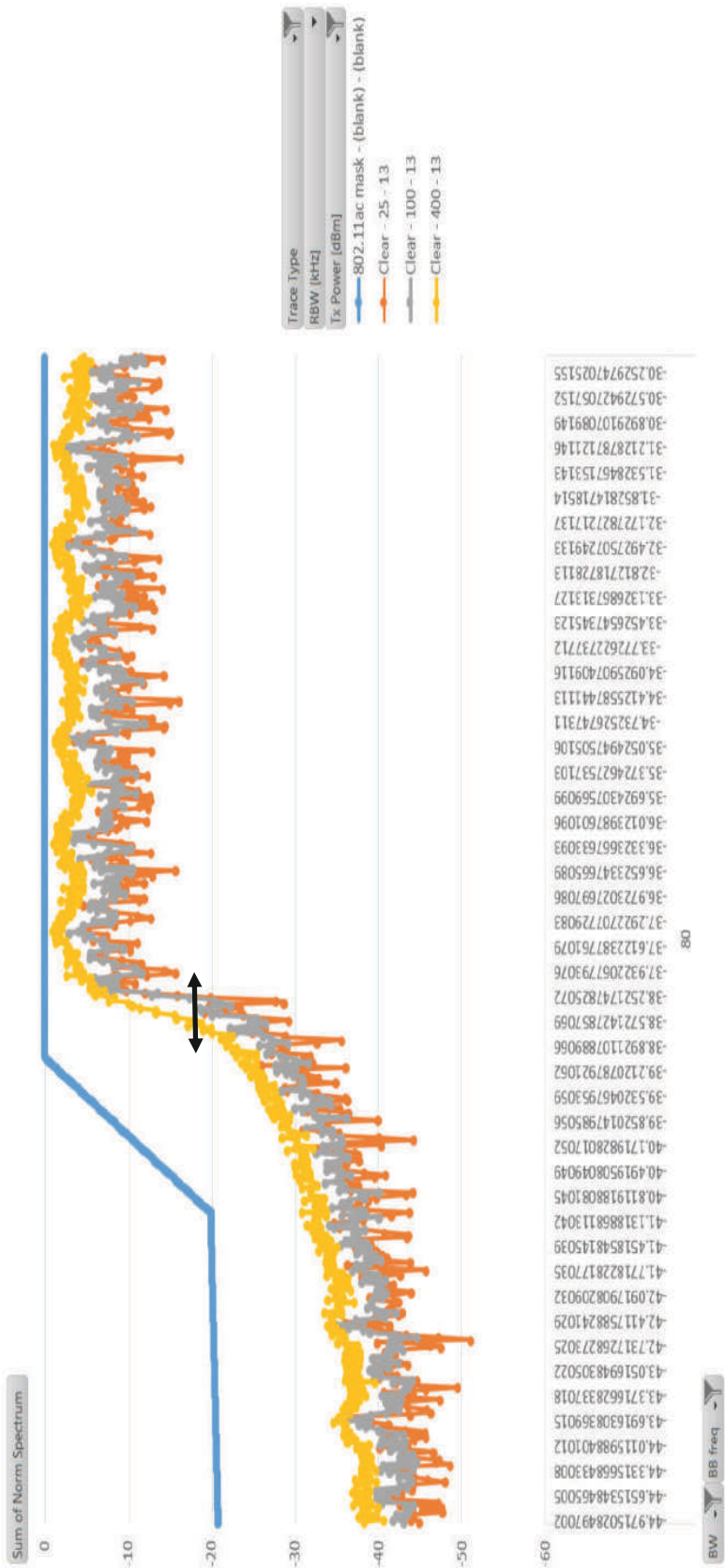
With a maximum number of 60,001 data points and a measurement bandwidth of 5 MHz, the maximum frequency span that can be measured is:

$$2.5 \text{ MHz} \cdot 60,000 = 150 \text{ GHz}$$

[https://cdn.rohde-schwarz.com/pws/dl\\_downloads/dl\\_application/application\\_notes/1ez62/1EZ62\\_0e.pdf](https://cdn.rohde-schwarz.com/pws/dl_downloads/dl_application/application_notes/1ez62/1EZ62_0e.pdf)

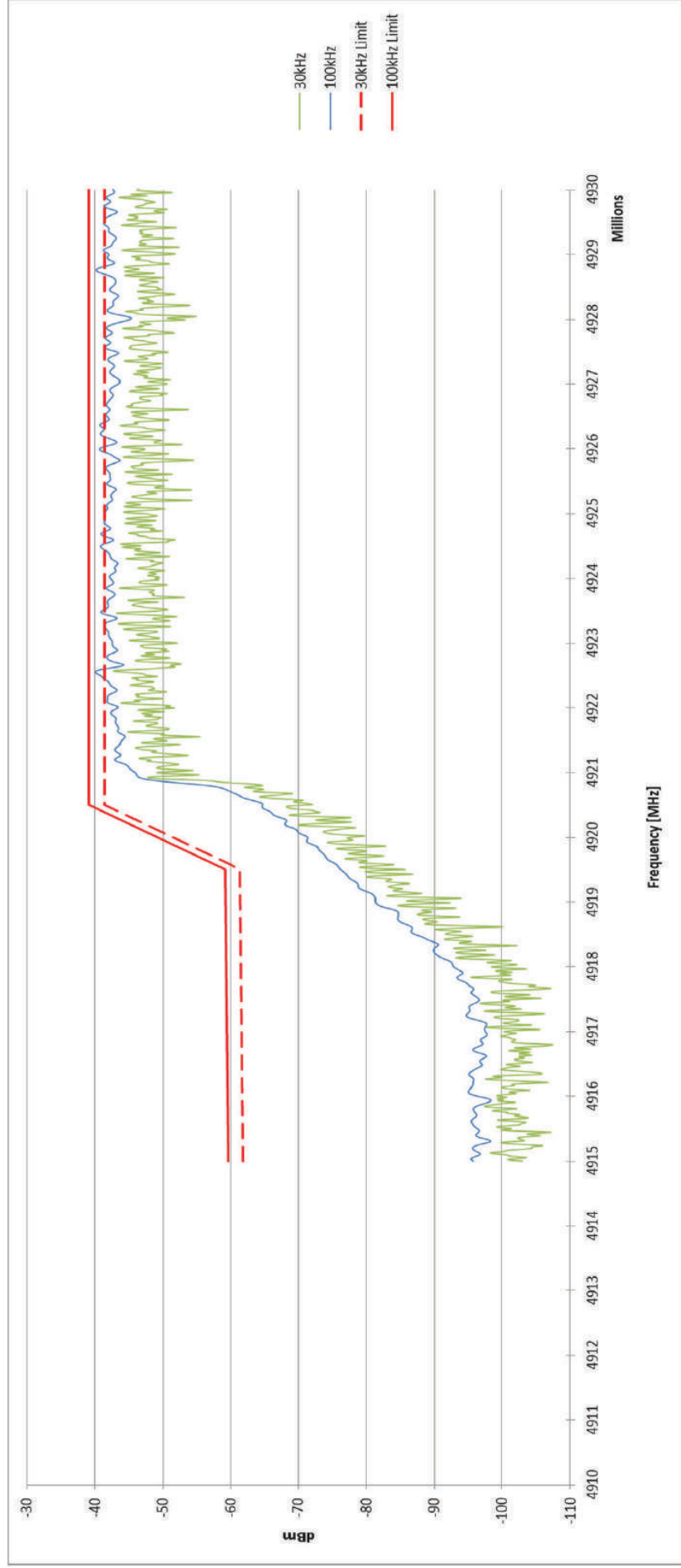
## Impacts on the 11ax mask (1/3)

- 11ac transmissions with RBW=24kHz, 100kHz, 400kHz
- Shaping with 4X RBW is only slightly worse ( $\sim 1$  subcarrier spacing) than with 1X RBW.



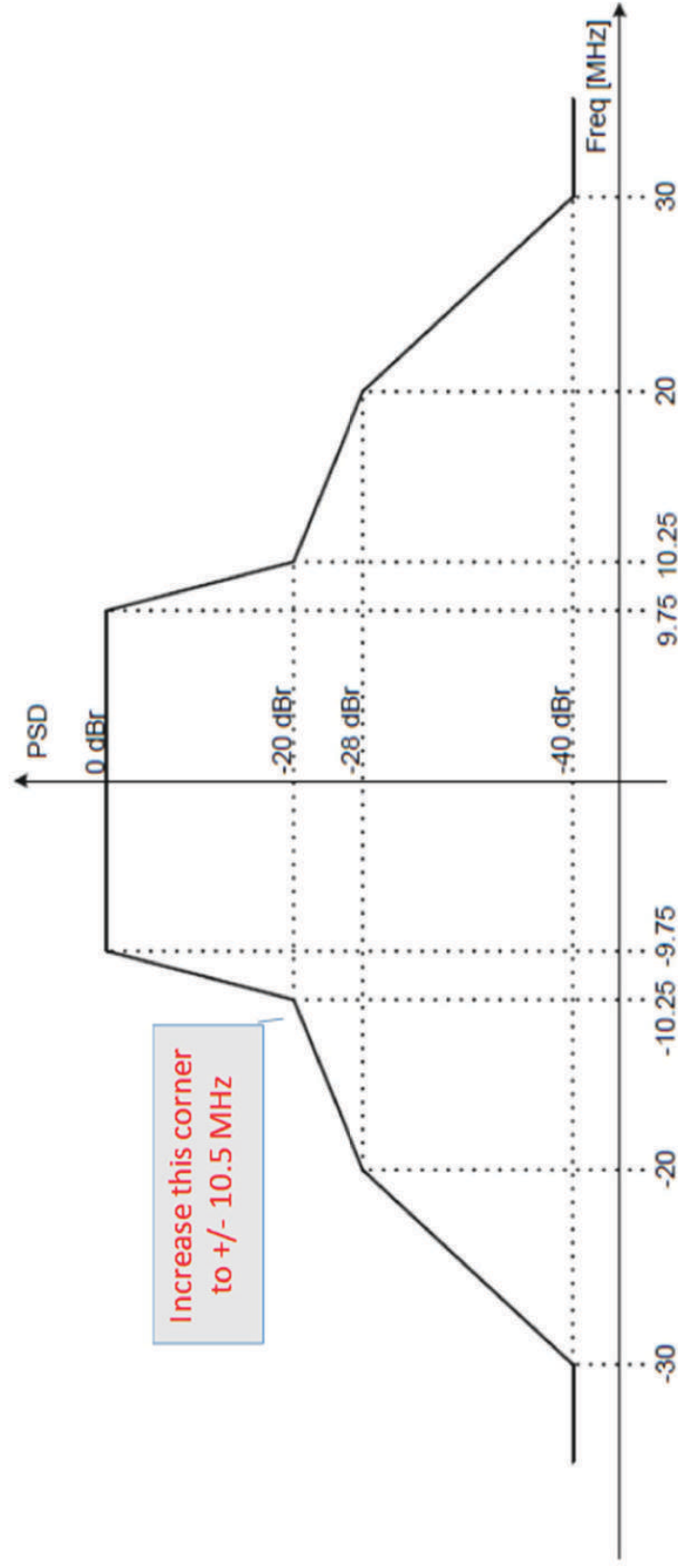
## Impacts on the 11ax mask (2/3)

- Cross check from Rohde-schwarz



## Impacts on the 11ax mask (3/3)

- RBW 100kHz extends the shoulder part of the measured signal;
- If CFO presents in testing, it might be safer to stretch out 20MHz mask a little as shown below (to be updated)



Proposed changes: Revised for CID 7547 per editing instructions in 11-17/0078r1

- *To the TGax Editor: modify P.L. 353.53 as following*
  - Measurements shall be made using a ~~25~~ 100 kHz resolution bandwidth and a 7.5 kHz video bandwidth.

- *In addition, replace Figure 28-37 with the bellow figure.*

