To the kind attention of the IP Department cc Legal Department

Samsung Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu
16677 Suwon-si, Gyeonggi-do, Gyeonggi-Do
Korea

By e-mail and registered letter
Luxemburg, October 25, 2023

Re: Notice of Wi-Fi 6 License offer – Follow-up to our letter dated April 08, 2022 and follow-up communications

Dear Sir or Madam,

This letter follows up on our "Notice of Wi-Fi 6 license offer" letter, sent to you on April 08, 2022, as well as our subsequent follow-up communications, relating to the Wi-Fi 6 SEPs co-owned by Wilus and SKT.

In our previous communications we have provided you our Patent Brochure, which enables you to understand the way in which your products, in particular those that we identified, make use of the claims of the patents by implementing the sections of the WiFi6 Standard that are cited in the Patent Brochure. We hereby provide you with an updated version of the Patent Brochure, which is accessible under the following link: https://www.sisvel.com/images/documents/Wi-Fi-6/Wilus-Sk-WiFi6-bilateral-Patent-brochure.pdf.

The patents listed in the Patent Brochure are included in our license offer to Samsung. For your convenience we also attach the last updated version of the list of the Wi-Fi 6 SEPs that are included in the Patent Brochure and the License Offer in **Attachment 1**. Such updated list is also available under the following link: https://www.sisvel.com/images/documents/Wi-Fi-6/Wilus-Sk-bilateral-Patent-List.pdf.

In our previous communications to your company we made a license offer to resolve any patent infringement under the Wi-Fi 6 SEPs by your products. With this letter we update the license offer to now also include Enterprise Access Points[364].

By incorporating technical aspects of the Wi-Fi 6 Standard, and in the absence of a relevant license, your company's products infringe the Wi-Fi 6 SEPs. Non-limiting examples of such products are found in **Attachment 2** to this letter. Please be aware that infringement of a valid patent may give rise to certain remedies for the rights owner. For those companies that are unwilling to take a license under such patents and decide to ignore intellectual property rights owned by other parties, remedies may include orders to cease and desist the offer and sale of the relevant products, and/or awards of monetary damages and enhanced damages.

[364] Please find the definition of Enterprise Access Point (and all other terms) in the License Offer: https://www.sisvel.com/Wi-Fi-6/Sisvel_Wi-Fi_6_Sublicense_Agreement_SKT_Wilus_template.pdf

Sisvel WE POWER INNOVATION
Sisvel International S.A.
4th floor of Immeuble Cubus C2,
2, rue Peternelchen
L-2370 Howald, Luxembourg
Société Anonyme
RCSL: B-38989
Business License: 10066660/4
VAT N° LU23037240
Tel: +352 27 85 701
Fax: +352 28 22 50 40
www.sisvel.com
info@sisvel.lu

SAMSUNG 1129
Samsung v. Wilus
IPR2025-01164

Under the License Offer, the royalty rate per licensed product are:

For Enterprise Access Points
Compliant rate: EUR 0.78
Standard rate: EUR 1.02

For all other Finished Products[365]:
Compliant rate: EUR 0.13
Standard rate: EUR 0.17

By signing a license agreement with Sisvel, your company's products would be licensed for their use of the Wi-Fi 6 SEPs, under fair, reasonable and non-discriminatory ("FRAND") terms. You can find the complete terms of our renewed license offer here: https://www.sisvel.com/images/documents/Wi-Fi-6/Sisvel_Wi-Fi_6_Sublicense_Agreement_SKT_Wilus_template.pdf ("License Offer"). We also refer to the results from the analysis in **Attachment 3**, where we provide some insight into how this reasonable royalty was reached.

As also indicated in our previous communications, in the event any of your company's products are to be considered already licensed under some or all of the patents under the License Offer for the relevant fields of use, please inform us accordingly by providing the necessary evidence supporting such belief.

For the avoidance of doubt, nothing in this letter or the License Offer shall be construed as restricting or otherwise burdening the right of any person or legal entity, including any licensee, to challenge the validity of any of the patents before a court of competent jurisdiction or a competent patent office, as the case may be. If Samsung is of the opinion that one or more of the identified products that your company has been offering and selling does not fall within the scope of the License Offer, or that any of the patents may be invalid or exhausted, we would appreciate receiving any evidence supporting this opinion so that we may assess it.

We assume and expect that you will forward this notice letter, and the details contained herein, to all entities within your company and inform the relative persons accordingly. For clarity, the License Offer made to your company would cover all of Samsung Electronics Co., Ltd.'s affiliates.

We consider that the License Offer in our First Letter and subsequent communications, including this letter, together with the supporting materials attached thereto, provides your company with all information reasonably required to determine the necessity of concluding a license agreement under the Wi-Fi 6 SEPs.

Yours sincerely,

Andrea Rombolá
SISVEL
Program Manager – Wi-Fi Licensing Program

***Attachments**:*
- *Overview of identified products*
- *List of Wi-Fi 6 SEPs*
- *Wi-Fi 6 SEPs FRAND rate and determination*

[365] Please find the definition of Finished Products (and all other terms) in the License Offer: https://www.sisvel.com/Wi-Fi-6/Sisvel_Wi-Fi_6_Sublicense_Agreement_SKT_Wilus_template.pdf

Attachment 1

EXEMPLARY OVERVIEW OF IDENTIFIED PRODUCTS:

Relevant products implementing essential features of the Wi-Fi 6 Standard may include, but are not limited to, ready-for-use electronic products, such as smartphones, tablets, laptops, routers and any product that has integrated the functionalities of the aforementioned products.

Notebook:

Samsung Galaxy Book Ion 13" Gaming

Samsung Galaxy Chromebook Go

Smartphone:

Samsung Galaxy Fold

Samsung Galaxy Note 10

Samsung Galaxy S21 5G

Samsung Galaxy S21 Ultra 5G

Samsung S21+ 5G

Tablet:

Samsung Galaxy Note 20

Samsung Galaxy Note 20 Ultra

Attachment 2:

LIST OF WI-FI 6 SEPS

CN106664283	KR10-2306040	IT (EP) 3439417	CN109314882	US11523464
KR10-1632894	KR10-2505004	JP6672525	KR10-2371756	KR10-2324941
KR10-2131654	NL (EP) 3367743	JP6987909	KR10-2411787	KR10-2371750
KR10-2333023	US10785795	JP7005665	KR10-2415048	KR10-2445912
KR10-2499573	US11375537	KR10-2128284	KR10-2344180	US10966251
US10256958	US11375538	KR10-2239511	KR10-2390641	US11528747
US10911196	CN108353425	KR10-2239514	KR10-2442356	KR10-2407195
US11552760	KR10-2371753	KR10-2409918	US10873973	KR10-2508402
US9813210	KR10-2464053	NL (EP) 3439417	US11483865	KR10-2556172
CN107735994	KR10-2464059	US10631335	US11503636	JP6874139
KR10-2178131	US10764924	US11272537	CN109417817	JP7242746
KR10-2231306	US11330628	US11324039	DE (EP) 3484229	KR10-2262155
KR10-2231309	US11330629	CN109076614	ES (EP) 3484229	KR10-2353826
KR10-2479074	CN108370585	KR10-2128286	FR (EP) 3484229	KR10-2432953
US10313077	IN427084	KR10-2164966	GB (EP) 3484229	US10931396
US10651992	KR10-2163572	KR10-2239519	IT (EP) 3484229	US11664926
US11128421	KR10-2268908	KR10-2435189	JP6740447	CN110115093
US11700084	KR10-2268912	US10623964	JP7091395	DE (EP) 3565365
CN107925514	KR10-2453795	US11140556	JP7091396	ES (EP) 3565365
KR10-2183477	US10616819	US11153759	KR10-2072326	FR (EP) 3565365
KR10-2249866	US11122495	CN108886712	KR10-2157470	GB (EP) 3565365
KR10-2411783	US11122496	IN420839	KR10-2190240	IT (EP) 3565365
US10554370	US11696214	KR10-2134147	NL (EP) 3484229	JP6746805
US11018836	CN109156033	KR10-2346684	TR (EP) 3484229	JP7055177
US11637679	IN424077	KR10-2353831	US10491355	JP7102471
CN108141889	KR10-2342150	KR10-2489970	US11095416	KR10-2173329
DE (EP) 3367743	KR10-2425184	US10659196	US11405161	KR10-2229580
DE (EP) 3866550	KR10-2445925	US11196513	DE (EP) 3512289	KR10-2229583
ES (EP) 3367743	US11129163	US11258543	ES (EP) 3512289	KR10-2390645
ES (EP) 3866550	US11700597	CN109075907	FR (EP) 3512289	KR10-2558123
FR (EP) 3367743	CN109156038	KR10-2450270	GB (EP) 3512289	NL (EP) 3565365
FR (EP) 3866550	DE (EP) 3439417	KR10-2549018	IT (EP) 3512289	TR (EP) 3565365
GB (EP) 3367743	DE (EP) 3852480	KR10-2549027	JP7076452	US10536979
GB (EP) 3866550	ES (EP) 3439417	US11540169	KR10-2407199	US10904927
IT (EP) 3367743	ES (EP) 3852480	KR10-2264550	KR10-2442012	US11368987
JP6568315	FR (EP) 3439417	KR10-2374928	KR10-2442014	CN110140374
JP6813635	FR (EP) 3852480	KR10-2424950	NL (EP) 3512289	JP7009484
JP7136876	GB (EP) 3439417	US10880924	TR (EP) 3512289	KR10-2082093
KR10-2173322	GB (EP) 3852480	US11445546	US11116035	KR10-2259020
KR10-2305933	IN392250	US11470643	US11516879	KR10-2259024

KR10-2402694
US10567047
US11159210
US11171695
KR10-2272813
KR10-2342153
KR10-2342161
KR10-2426755
US11284475
CN106465424
CN111106886
KR10-1617410
KR10-2082027
KR10-2082094
US10560965
US9655145
US9872315
KR10-2249762
KR10-2417162
KR10-2529434
CN106416412
KR10-2102506
KR10-2215127
KR10-2216662
KR10-2433618
US10506553
US11382067
CN106465418
CN111555845
CN111555846
IN354061
KR10-2054043
KR10-2157120
KR10-2218971
KR10-2297140
KR10-2550558
US10278210
US10813139
US11272549
KR10-2096431
KR10-2218970
KR10-2230309
KR10-2536582
US10313966
US10849060
US11523335
KR10-2117635
KR10-2249765
KR10-2309050
KR10-2445918
US10085243
US10708890
US10893511
US11350390
KR10-2054052
KR10-2283162
KR10-2346678
US10327262
US10750540
CN106797662
JP6368035
JP6535403
JP7007329
KR10-2054053
KR10-2054117
KR10-2082095
US10575332
US9763268
US9918343
CN107079481
KR10-2437919
US10917189
US11515957
US11515958
KR10-2344188
KR10-2464370
KR10-2464381
US10772109
US11284411
US11477799
KR10-2268844
KR10-2311278
KR10-2349914
US10820233
US11470506
US11653261
KR10-2130456
KR10-2367779
KR10-2433612
KR10-2529471
US10484222
US11012276
KR10-2163485
KR10-2283170
KR10-2283173
KR10-2473492
US10588149
US11051340
US11516849
US10667292
KR10-2104274
KR10-2178127
KR10-2188792
US10321457
US11102778
US11647489
CN107006038
IN400531
KR10-2309047
KR10-2427862
KR10-2442355
US10701732
US11317441
US11375544
KR10-2129283
KR10-2167924
KR10-2278750
KR10-2423848
US10582520
US11006434
US11363613
US10477589
US11140718
CN107251472
KR10-2054054
KR10-2296339
KR10-2468398
US10411870
US11153058
US10305638
US10911186
CN107534973
IN383714
KR10-2231307
KR10-2367773
KR10-2433616
US10666405
US11283570
US11290233
CN107624236
KR10-2231308
KR10-2363476
KR10-2433614
US10412621
US10986532
US11528638
CN107637005
KR10-2072283
KR10-2188794
KR10-2203133
US10512108
US10660136
US11153916
KR10-2297623
KR10-2356060
KR10-2390646
US10721175
US11201830
US11240166
US10932295
US11388758
US11395349
US11653392
US10841931
US11653348
KR10-2350994
KR10-2517089
US11477844
KR10-2272713
KR10-2309054
KR10-2309057
US10588128
US11259298
US11523390
CN108702375
DE (EP) 3396925
DE (EP) 3849157
ES (EP) 3396925
ES (EP) 3849157
FR (EP) 3396925
FR (EP) 3849157
GB (EP) 3396925
GB (EP) 3849157
IT (EP) 3396925
IT (EP) 3849157
JP6609067
JP6898412
KR10-2138618
KR10-2266148
KR10-2266149
NL (EP) 3396925
NL (EP) 3849157
US10687281
US11356947
US11470595
KR10-2349919
KR10-2417274
KR10-2426759
US10750403
US11304094
US11700546
CN108886710
DE (EP) 3442258
ES (EP) 3442258
FR (EP) 3442258
GB (EP) 3442258
IN421453
IT (EP) 3442258
JP6759354
JP6991290
JP6992138
KR10-2349928
KR10-2417275
KR10-2425185
NL (EP) 3442258
US11240705
US11683718
US11683719
DE (EP) 3567970
ES (EP) 3567970
FR (EP) 3567970
GB (EP) 3567970
IT (EP) 3567970
JP6911127
JP7176050
JP7177225
KR10-2173425
KR10-2239504
KR10-2239509
KR10-2407203
NL (EP) 3567970
US10660139
US11330640
US11343859

Attachment 3

WI-FI 6 SEPS FRAND RATE AND DETERMINATION

The determination of the FRAND rate for the Wi-Fi 6 SEPs portfolio is based on two separate, objective analyses, both of which justify the very conservative FRAND offer we have offered your company.

Under the first FRAND calculation, a per-patent royalty rate of $0.008 has been calculated for earlier versions of the 802.11 standard, by analyzing royalty rates that were judicially determined in cases involving patents essential to earlier versions of the 802.11 standard. Adjusting this per-patent royalty rate for inflation for the time-period between the cases that judicially determined the royalty rates (2013-14) and July 2023 results in an inflation-adjusted per-patent rate of $0.011. This per-patent rate has then been multiplied by the conservative number of 57, to account for one patent from each family in the Wi-Fi 6 SEPs portfolio[366], to arrive at a pre-adjustment portfolio rate of $0.60/unit. Accounting for the significant performance improvement factors offered by Wi-Fi 6 (802.11ax) over previous generations of Wi-Fi (802.11ac and earlier) would result in a much higher portfolio rate than $0.60/unit. Discounting that factor completely, and even applying an additional conservative validity and essentiality discount of 70%, results in a royalty rate of $0.18/unit (~€0.16).

Under the second FRAND calculation, the aggregate royalty burden ("ARB") for Wi-Fi 6 has been calculated by comparing LTE usage with Wi-Fi 5 usage. Utilizing the judicially determined ARB for LTE of 6%-10% of average sale prices, this comparison allows a determination of an implied ARB for Wi-Fi 5 based on the LTE-to-Wi-Fi offloading factor. This Wi-Fi 5 ARB is then adjusted to account for the pricing premium of Wi-Fi 6 products over Wi-Fi 5 products, and the value associated with Wi-Fi 6 single mode vs legacy Wi-Fi is isolated based on analogous cellular-related data points and caselaw. This analysis provides a Wi-Fi 6 ARB of $6.68 to $14.11 for the royalty stack. Estimating the percentage of the technical contributions made by Wilus to the main features of the 802.11ax standard, from which the Wi-Fi 6 SEPs portfolio results, provides a conservative FRAND rate for the portfolio of $0.401/unit (~€0.35) at the lowest end of the Wi-Fi 6 ARB.

For the FRAND rate for enterprise access points, we determined the ratio of average sale prices for enterprise/consumer products for the most recent year available, 2021, was determined, which was 7.9037 ($260.73 / $32.99 = 7.9037). Using this ratio establishes a minimum enterprise access point FRAND rate of $1.757/unit (~€1.485) under the first FRAND calculation, and of $3.169/unit (~€2.679) under the second FRAND calculation.

[366] We use the 1:1 ratio of families: patents as a conservative estimate that each specification yields only one SEP; of course, and in reality, we know that each family has yielded potentially multiple SEPs–indeed, the number of Wi-Fi 6 SEPs is much higher, as there are currently over 500 individual patent assets and growing—therefore justifying a higher rate. Hence the further conservative nature of this approach