

**EX-1022**

**INDEX OF CHALLENGED CLAIMS 1-10 OF**

**U.S. PATENT NO. 9,917,679**

| CLAIM |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 1     | <p data-bbox="358 384 1386 552">[1pre] A method for transmitting an acknowledgement frame for notifying successful data reception by a station (STA) to an access point (AP) in a wireless local area network, the method comprising:</p> <p data-bbox="456 611 1386 1031">[1a] receiving, from the AP, a downlink frame including a quality of service (QoS) control field including acknowledgement information representing whether the STA is requested to transmit the acknowledgement frame in a single-user (SU) format or in a multiple-user (MU) format at a Short Inter-Frame Space (SIFS) time after the downlink frame; and</p> <p data-bbox="456 1094 1357 1251">[1b] transmitting, to the AP, the acknowledgement frame based on the acknowledgement information at the SIFS time after the downlink frame,</p> <p data-bbox="456 1314 1386 1797">[1c] wherein transmitting the acknowledgment frame comprises: when the acknowledgment information represents that the STA is requested to transmit the acknowledgement frame in the MU format and the STA is allocated a resource, transmitting the acknowledgement frame in the MU format on the allocated resource simultaneously with transmission of at least one acknowledgement frame from at least one other STA, and</p> |

| CLAIM |                                                                                                                                                                                                                                                                 |
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|       | <p>[1d] [wherein transmitting the acknowledgment frame comprises:...] when the acknowledgment information represents that the STA is requested to transmit the acknowledgement frame in the SU format, transmitting the acknowledgement frame in SU format.</p> |
| 2     | <p>[2] The method according to claim 1, wherein the downlink frame further includes Modulation and Coding Scheme (MCS) information for the acknowledgement frame.</p>                                                                                           |
| 3     | <p>[3] The method according to claim 2, wherein a same MCS based on the MCS information is applied to the acknowledgement frame by the STA and the at least one other STA.</p>                                                                                  |
| 4     | <p>[4] The method according to claim 1, wherein the downlink frame includes downlink data for a plurality of STAs including the STA and the at least one other STA.</p>                                                                                         |
| 5     | <p>[5] The method according to claim 1, wherein the downlink frame includes block acknowledgement (ACK) requests for a plurality of STAs including the STA and the at least one other STA.</p>                                                                  |
| 6     | <p>[6pre] A method for receiving an acknowledgement frame for notifying successful data reception by an access point (AP) from a station (STA) in a wireless local area network, the method comprising:</p>                                                     |

| CLAIM |                                                                                                                                                                                                                                                                                                                                                                                          |
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|       | <p>[6a] transmitting, to the STA, a downlink frame including a quality of service (QoS) control field including acknowledgement information representing whether the STA is requested to transmit the acknowledgement frame in a single-user (SU) format or in a multiple-user (MU) format at a Short Inter-Frame Space (SIFS) time after the downlink frame; and</p>                    |
|       | <p>[6b] receiving, from the STA, the acknowledgement frame based on the acknowledgement information at the SIFS time after the downlink frame,</p>                                                                                                                                                                                                                                       |
|       | <p>[6c] wherein receiving the acknowledgment frame comprises: when the acknowledgment information represents that the STA is requested to transmit the acknowledgement frame in the MU format, receiving the acknowledgement frame in the MU format on an allocated resource simultaneously with transmission of at least one acknowledgement frame from at least one other STA, and</p> |
|       | <p>[6d] [wherein receiving the acknowledgment frame comprises:...] when the acknowledgment information represents that the STA is requested to transmit the acknowledgement frame in the SU format, receiving the acknowledgement frame in SU format.</p>                                                                                                                                |

| CLAIM |                                                                                                                                                                                          |
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| 7     | [7] The method according to claim 6, wherein the downlink frame further includes Modulation and Coding Scheme (MCS) information for the acknowledgement frame.                           |
| 8     | [8] The method according to claim 7, wherein a same MCS based on the MCS information is applied to the acknowledgement frame by the STA and the at least one other STA.                  |
| 9     | [9] The method according to claim 6, wherein the downlink frame includes downlink data for a plurality of STAs including the STA and the at least one other STA.                         |
| 10    | [10] The method according to claim 6, wherein the downlink frame includes block acknowledgement (ACK) requests for a plurality of STAs including the STA and the at least one other STA. |