To the kind attention of the IP Department cc Legal Department

Samsung Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu
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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

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SAMSUNG 1129
Samsung v. Wilus
IPR2025-01165

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
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JP7136876	GB (EP) 3439417	US10880924	TR (EP) 3512289	KR10-2082093
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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