maxell

Maxell, Ltd.
IP Innovation Business Unit

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VIA COURIER

Samsung Electronics Co., Ltd.
Intellectual Property Center
Corporate Legal Office
(Seoul R&D Campus, Umyeon dong)
33, Seongchon-gil, Seocho-gu,
Seoul, 06765, Korea
Attn: Corporate EVP / Head of Center
Tel +82-2-6147-8120

Re: Maxell's Smartphones, Tablets, Smartwatches, Streaming Devices, and Television Related Patents

Dear Mr. Injung Lee,

I am Tatsuya Yamamoto, General Manager of IP Innovation Business Unit of Maxell, Ltd., and I oversee, among other matters, all patent licensing and litigation for Maxell, Ltd. ("Maxell"). This letter is to invite you to discuss a mutually beneficial intellectual property transaction between Samsung and Maxell to build on the prior dealings.

Maxell currently owns Smartphone and TV patent portfolio and succeeded the portfolio which were previously owned by Hitachi Consumer Electronics Co., Ltd. ("HCE") in July 2013. As a prior TV patent licensee, and a prior purchaser of patents from Maxell's smartphone portfolio, Samsung obviously appreciates the value of Maxell's patents and unique portfolios as they related to Samsung's smartphone and TV business units. For example, and as Samsung is aware, Maxell maintains and develops intellectual property assets related to various fields of technologies including but not limited to smartphones, tablets, smartwatches, and televisions. As a result, Maxell owns a large portfolio of patents related to such technologies, and our analysis of Samsung Electronics, Inc. ("Samsung") line of smartphones (*e.g.*, Galaxy A or S series, Galaxy Note Series, Galaxy Z Fold Series), tablets (*e.g.*, Galaxy Tab), smartwatches (*e.g.*, Galaxy Watch), and televisions demonstrates that Samsung makes, uses, sells, offers to sell, or imports products in the U.S. that might benefit from a license to certain of Maxell's patents. Indeed, Samsung and HCE entered into a license agreement in March 2013 licensing certain Maxell's patents directed to televisions. That agreement expired in 2018 and certain Maxell patents in the television portfolio are still not licensed to Samsung as Lifetime Licensed Patents. Similarly, Samsung and HCE entered into a patent purchase agreement in 2011, in which Samsung purchased certain HCE's patents directed to feature phones and obtained a license to other current Maxell patents. That agreement expired in 2016 and a large number of Maxell patents directed to the smartphone/tablet/smartwatches portfolio are still not licensed to Samsung. Since the parties' prior agreements, the value of Maxell's patents has increased substantially as more devices, such as Samsung's line of smartphones and smart TVs, have adopted more and more

features and functionalities covered by Maxell's patents. This has borne out in through Maxell's recent licensing and litigation successes, which Samsung is surely aware of.

Building on the prior agreements, Maxell would welcome the opportunity to open negotiations with Samsung and enter into constructive discussions to determine whether the parties can agree to a mutually acceptable patent license agreements covering one or more of Maxell's patent portfolios identified below.

I. Maxell's Television Patent Portfolio

While Maxell continues to review its patent portfolio, we specifically call your attention to the following U.S. patents in Maxell's Television Patent Portfolio:

No.	U.S. Pat. No.	Claims	Samsung Products
1	10,555,042	1, 2, 6, 10	Neo QLED 8K SmartTVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
2	10,129,580	1-5	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD

			Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
3	10,638,189	1	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
4	10,659,833	1	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart

			TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
5	10,321,186	1, 3, 4	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
6	10,425,681	1, 3	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
7	9,930,397	1, 2, 7, 8	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs,

			Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
8	9,743,034	1, 2, 3, 5, 6, 7, 8	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
9	10,678,843	1, 6, 7	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED

			4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
10	10,306,295	1, 3	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
11	10,735,801	1, 4, 7, 10	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K

			UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
12	9,613,580	1, 11, 17	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
13	10,015,558	1, 9	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart

			TVs, Smart Full HD TVs, HD TVs
14	10,109,035	1, 4, 6, 10	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
15	10,225,613	1, 2, 4, 7, 8, 9, 10, 13, 14	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs, QLED 4K Smart TVs, Frame QLED 4K UHD HDR Smart TVs, Terrace QLED 4K UHD HDR Smart TVs, Sero QLED 4K UHD HDR Smart TVs, QLED 4K UHD HDR Smart TVs, QLED 8K UHD HDR Smart TVs, QLED 8K UHD Smart TVs, Serif QLED 4K UHD HDR Smart TVs, Crystal UHD 4K Smart TVs, 4K Crystal UHD HDR Smart TVs, Crystal UHD Smart TVs, QLED 4K UHD Smart TVs, Smart Full HD TVs, HD TVs
16	10,237,454	1, 10, 14	Neo QLED 8K Smart TVs, Neo QLED 4K Smart TVs, Frame QLED 4K Smart TVs,