



Date: December 19, 2019

Federal Communications Commission
Office of Engineering and Technology Laboratory Division
7435 Oakland Mills Rd.
Columbia MD 21046

Attn: Office of Engineering and Technology

HAC Attestation - FCC ID: A3LSMG980F

To whom it may concern:

Samsung Electronics Co., Ltd. hereby declares that the MIF values detailed below are based on worst case operating modes for all air interfaces for which the HAC rating is provided based on the current methodology for determining MIF values.

Reference Test report Number(s): UL Korea Test Report 4789247752.

SPEAG test files

UID	Communication System Name	MIF (dB)
10021-DAC	GSM-FDD (TDMA, GMSK)	3.63
10011-CAB	UMTS-FDD (WCDMA)	-27.23
10170-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16QAM)	-9.76
10182-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16QAM)	-9.76
10176-CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16QAM)	-9.76
10173-CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16QAM)	-1.44
10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	-2.02
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	0.12
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	-3.15
10671-AAA	IEEE 802.11ax (20MHz, MCS 0 90pc duty cycle)	-5.58
10030-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	1.02

Sincerely,

Ms. Jenni Chun
General Manager
Regulatory & Environmental Affairs
On behalf of Samsung Electronics Co., Ltd.