

Date: July 25, 2018

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: BCG-E3219A Model Name A1921, A2103, A2104

To whom it may concern:

Apple Inc. 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 Verification Services Test Report 12124122-S4V1.

SPEAG test files		
UID	Communication System Name	MIF (dB)
10021-DAC	GSM-FDD (TDMA, GMSK)	3.63
10011-CAB	UMTS-FDD (WCDMA)	-27.23
10295-AAB	CDMA2000 (1xRTT, RC1, SO3, 1/8 th Rate 25 fr.)	3.26
10170-CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16QAM)	-9.76
10182-CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16QAM)	-9.76
10176-CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16QAM)	-9.76
10173-CAD	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/n WiFi 5 GHz (OFDM, 54 Mbps)	-3.15

Sincerely,



Abhishek Rala
Global Certification Manager
On behalf of Apple Inc.