Date: July 9th, 2025

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-E8949A, BCG-E8957A, BCG-E8958A, BCG-E8959A, BCG-E8950A, BCG-E8960A, BCG-E8961A, BCG-E8962A

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.

SPEAG UID Summary

UID	Communication System Name	MIF (dB)
10021-DAC	GSM-FDD (TDMA, GMSK)	3.63
10023-DAC	GPRS-FDD (TDMA, GMSK, TN 0)	3.80
10024-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	1.15
10011-CAC	UMTS-FDD (WCDMA)	-27.23
10225-CAC	UMTS-FDD (HSPA+)	-20.39
10170-CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16QAM)	-9.76
10182-CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16QAM)	-9.76
10176-CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16QAM)	-9.76
10173-CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16QAM)	-1.44
10235-CAH	LTE-TDD (SC-FDMA, 1 RB, 10 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-CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	-3.15
10317-AAE	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	-9.82
10591-AAD	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	-5.59
10636-AAE	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	-5.56
10671-AAC	IEEE 802.11ax/be (20MHz, MCS0, 90pc duty cycle)	-5.58
10797-AAF	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	-14.32
10803-AAF	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	-14.38
N/A*	5G NR PC2 (CP-OFDM, 1 RB, 70 MHz, QPSK, 30 kHz)	-1.62
N/A*	5G NR PC1.5 (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	0.63
10866-AAF	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	-16.69
N/A*	5G NR PC2 (DFT-s-OFDM, 1 RB, 60 MHz, BPSK, 30 kHz)	-1.14
N/A*	5G NR PC1.5 (DFT-s-OFDM, 1 RB, 70 MHz, BPSK, 30 kHz)	1.44
N/A*	5G NR PC2 (DFT-s-OFDM, 1 RB, 70 MHz, QPSK, 30 kHz)	-1.14
N/A*	5G NR PC1.5 (DFT-s-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	1.01
10898-AAC	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	-16.68
10903-AAD	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	-16.68
10929-AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	-15.06
10930-AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	-15.06
10931-AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	-15.06
10932-AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	-15.06
10933-AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	-15.06
10934-AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	-15.07
10935-AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	-15.07

For “N/A”, MIF values were measured by Test laboratory.
*Refer to RF-E report appendix H

Sincerely,

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