

October 2, 2019

## Declaration – MIF for HAC RF Interference Evaluation

To Whom It May Concern,

This device, with FCC ID: **ZL5S52E**, Hearing Aid Compatibility Requirement is going to be certified under **ANSI C63.19-2011 version per Part 20.19**.

The M rating was determined by measuring the maximum steady state average E-field values in dB (V/m) as documented in the HAC report and adding the MIF value in dB (V/m) using pre-determined values provided by Speag under the below table:

UID	Reversion	Communication System Name	MIF (dB)
10021	DAC	GSM-FDD (TDMA, GMSK)	3.63
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	3.75
10460	AAA	UMTS-FDD (WCDMA, AMR)	-25.43
10225	CAB	UMTS-FDD (HSPA+)	-20.39
10081	CAB	CDMA2000 (1xRTT, RC3)	-19.71
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	3.26
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	-17.67
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	-9.76
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	-1.62
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	-1.44
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	-1.54
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
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	-13.44
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	-3.15
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	-5.57

The Speag-reference documentation for supporting the pre-determined MIF value is Schmid & Partner Engineering AG, **UID SUMMARY (Communication Systems for Calibration, Issued Date 2019/08/09)**.

We confirm that the Speag simulation provided represents all the air interface modes applicable for a HAC rating for this handset.

Sincerely Yours,



Eve Yao  
Bullitt Group  
Tel: +44 1189 580 449  
E-mail: [eveyao@bullitt-group.com](mailto:eveyao@bullitt-group.com)