SAR/MPE Exclusion for simultaneous transmitter (co-located)

Standard Applicable

According to 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline. This is a mobile device.

Measurement Result for VN310, FCC ID: SQB-VN3104034R5

This is a mobile device and the max peak output power is 10.71 + 0.5= 11.21 dBm = (13.21 mW).

Note: radio firmware power level set to "11".

Measurement Result for BT, FCC ID: T9J-RN42

This is a mobile device and the max peak output power is 5.51 dBm = (4.00 mW).

Co-located Total SAR/MPE results

Both radio have been incorporated into a single hose device. Their respective SAR measurements have been summed together to determine whether or not SAR exceptions per 447498 v05r01, Annex A will apply.

The total SAR measurement for both radios is:
13.21+4.00= 17.21 mW

The radios are co-located at a distance of >40mm away from each other as can be seen in the attached photograph exhibits.

Based on the limits for SAR/MPE in Annex D provided below, SAR/MPE measurements are not necessary. The Annex shows a limit of 25mW threshold at 15mm.

Appendix D

Applying Estimated SAR for Simultaneous Transmission SAR Test Exclusion

The following Table illustrates the approximate SAR values estimated at selected frequencies, test separation distances and power levels for determining simultaneous transmission SAR test exclusion when standalone SAR is not required. The equation and threshold in section 4.3.2 must be applied to determine the estimated SAR.

Estimated SAR higher than 0.4 W/kg do not apply; therefore, they are not indicated								
Red numbers in "mW" column are the approximate maximum output power at the *SAR Exclusion Threshold* for standalone SAR test exclusion. Top row indicates different levels of test device maximum output power in mW								
MHz	10	25	50	100	150	200	mW	Min. Distance
150	0.1	0.3					39	
300	0.1	0.4					27	
450	0.2						22	
835	0.2						16	
900	0.3						16	
1500	0.3						12	5
1900	0.4						11	(mm)
2450							10	
3600							8	
5100							7	
5400							6	
5800							6	
MHz	10	25	50	100	150	200	mW	
150	0.1	0.1	0.3				77	
300	0.1	0.2	0.4				55	
450	0.1	0.2					45	
835	0.1	0.3					33	
900	0.1	0.3					32	
1500	0.2						24	10
1900	0.2						22	(mm)
2450	0.2						19	
3600	0.3						16	
5100	0.3						13	
5400	0.3						13	
5800	0.3						12	
MHz	10	25	50	100	150	200	mW	
150	0.0	0.1	0.2	0.3			116	
300	0.0	0.1	0.2				82	
450	0.1	0.1	0.3				67	
835	0.1	0.2					49	
900	0.1	0.2					47	
1500	0.1	0.3					37	15
1900	0.1	0.3					33	(mm)
2450	0.1	0.3					29	
3600	0.2						24	
5100	0.2						20	
5400	0.2						19	
5800	0.2						19	