

RF Exposure Evaluation
FCCID: HCOT43DPAN2
1.9-2.1 GHz Dual-Band Outdoor DRU
Dali Wireless Inc.

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RF Exposure Evaluation

Test Standard

FCC CFR47, Part 1, 1307 (b), 1310

FCC CFR47, Part 2, Subpart J 1091

FCC 1.1310 states the criteria listed in the table below shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Section 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Section 2.1093 of this chapter. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation".

Frequency Range (MHZ)	Electric Field Strength (V/m)	Magnetic Field Strength (A/M)	Power Density (mW/cm ²)	Average Time, min
<i>(A) Limits for Occupational/Control Exposures</i>				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
<i>(B) Limits for General Population/Uncontrolled Exposures</i>				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

EUT Operating Condition

RF exposure evaluation distance calculation

Case 1: Signal with BW \leq 1 MHz

2.1 GHz radio with 18.7 dBi antenna

Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
2122	43.5	18.7	328.9
2132	43.5	18.7	330.2
2142	43.5	18.7	331.4

As shown above, the minimum distance where the MPE limit is reached is 331.4 cm for the EUT.

Case 2: Signal with spectral density < 41.2 dBm/MHz

2.1 GHz radio with 21.0 dBi antenna

Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
2122	43.5	21.0	427.4
2132	43.5	21.0	430.3
2142	43.5	21.0	434.0

As shown above, the minimum distance where the MPE limit is reached is 434.0 cm for the EUT.