

RF Exposure Calculation

Applicant: Leica Geosystems AG
FCC ID: RFD-RX-T

This final mobile device is a composite device with the modular transmitter (FCC ID: RFD-PANMOD1) and the modular transmitter (FCC ID: HSW-2410G). The equipment full fills the technical standards and rules of the rule part under which it operates. Additional measurements of the final device enable the co-location of the both modular approved transmitter for the application in a "RX1250T" (FCC ID: RFD-RX-T).

integral Antenna requirement § 15.203).

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. The Following calculation is the reference data for 20cm distance.

name		nature value	log value
measured radiated power	EIRP	214,29 mW	23,31 dBm
duty cycle factor			
frequency		2400 MHz	
dwel time		4,86 ms	
Time of occupancy/puls-train time		6,94 ms	
duty cycle factor	$10\log(\text{dwell time}/100 \text{ ms})$	70,03%	-1,55 dB
max source-based time-averaged power			
conducted power		48,34 mW	16,84 dB
calculated radiated power	EIRP	76,61 mW	18,84 dB
measured radiated power	EIRP	150,06 mW	21,76 dB
M P E			
$S = \frac{PG}{4\pi R^2}$		calculated with max source-based time-averaged power measured conducted power	
r [cm]		20	2,5
S [mW/cm ²]		0,0299	1,0
Limit general population	[mW/cm ²]	1,0	
Limit occupational population	[mW/cm ²]	5,0	for f = 2400 MHz