

RF Exposure Calculation

Applicant: proveo AG
FCC ID: I28INFOMANE1

The antenna used for this mobile transmitter must provide a separation distance of at least 20 cm from all persons and must not be co-located or operated in conjunction with any other antenna or transmitter.

A safety statement concerning minimum separation distances from enclosure of the I28INFOMANE1 will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate Max conducted power can be drawn from the test report no.:
G0M20710-0208-C-2

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm^2

The far field on-axis power flux density (W/m^2) is calculated using the following formula:

S = Power density (mW/cm^2)
ERP = effective radiated power (mW)
EIRP = isotropically radiated power (mW)
r = Distance in cm

Calculations

name			nature value	log value
max conducted power			85,70 mW	19,33 dBm
max Antenna gain dBi			1,26	1,00 dBi
max Antenna gain dBd			0,77	-1,15 dBd
calculated radiated power		EIRP	107,8947 mW	20,33 dBm
		ERP		
duty cycle factor				
frequency	2462 MHz			
dwel time			100,0 ms	
Time of occupancy/puls-train time			100 ms	
duty cycle factor	10log(dwel time/100 ms)		100,00%	0,00 dB
max source-based time-averaged power				
conducted power			85,70 mW	19,33 dB
calculated radiated power		EIRP	107,89 mW	20,33 dB
MPE				
$S = \frac{PG}{4\pi R^2}$		calculated with max source-based time-averaged power measured conducted power		
		r [cm]	20	2,5 1,5 2,931
		S [mW/cm²]	0,0215	1,0
Limit general population		[mW/cm²]	1,0	for f = 2462 MHz
Limit occupational population		[mW/cm²]	5,0	