1.6. MPE calculations accord. §1.1310

The assumptions for calculations of the Maximum permissive exposure is a minimum distance between user and equipment on all times of operation of at least 20cm.

Distance	20	cm											
Operation Mode	Frequency on channel	Declared maximum conducted output power	Path Loss du RF-connector cable according manfacturer	Antenna Gain	Declared maximum EIRP (Measured+ Tune-up)	Duty cycle	Declared Maximum conducted output power	Equivalent conducted output power (output power x duty cycle) (mW)	MPE Limit accord. Table 1	MPE-Value	Margin to Limit:	Fraction for Co-Location calculations	Max. Fraction-Value within Frequency-Band
	(MHz)	(dBm)	(dB)	(dBi)	(dBm)	%	(W)		(mW/cm^2)	(mW/cm^2)			
Bluetooth 2.4GHz	2412,0	4,08	0,2	3,29	7,57		0,0057	5,7	1,0000	0,0011	0,9989	0,001137	
	2437,0	3,75	0,2	3,29	7,24	100%	0,0053	5,3	1,0000	0,0011	0,9989	0,001054	0,0011369
	2462,0	3,28	0,2	3,29	6,77		0,0048	4,8	1,0000	0,0009	0,9991	0,000946	

Maximum calculated MPE value:		
Lowest MPE-Limit:	1,0000	[mW/cm^2]
Highest MPE value:	0,0011	[mW/cm^2]
Lowest Margin to limit:	0,9989	[mW/cm^2]

1.7. MPE calculations accord. RSS-102, Issue 5

The assumptions for calculations of the maximum permissive exposure is a minimum distance between user and equipment on all times of operation of at least 20cm.

Distance	0,20	m												
Operation Mode	Frequency on channel	Declared measured conducted output power	Antenna Gain	Path Loss to ext. antenna connector according manufacturer	Calculated maximum EIRP (declared+ Tune-up+ antenna Gain+ path loss)	Duty-Cycle	Maximum EIRP	Equivalent EIRP (EIRP x duty cycle)	MPE Limit accord. Table 4	MPE-Value	Margin	Fraction for Co-location calculations	Maximum Fraction Value within Frequency band	Exception from MPE if power exceeds:	Excemption fullfiled ?
	(MHz)	(dBm)	(dBi)	(dB)	(dBm)		(W)	(W)	(W/m^2)	(W/m^2)	(W/m^2)			(W / eirp)	
Bluetooth	2402,0	4,08	3,29	0,20	7,57	100%	0,0057	0,006	5,3508	0,0114	5,3394	0,00212		2,68	yes
	2439,0	3,75	3,29	0,20	7,24	100%	0,0053	0,005	5,4070	0,0105	5,3965	0,00195	0,00212	2,70	yes
	2480,0	3,28	3,29	0,20	6,77	100%	0,0048	0,005	5,4689	0,0095	5,4595	0,00173		2,74	yes

Maximum calculated MPE value:		
	2.4GHz Band	
Lowest MPE-Limit:	5,3508	[W/m^2]
Highest MPE value:	0,0114	[W/m^2]
Lowest margin to limit	5,3394	[W/m^2]