

4. MPE calculations

4.1. FCC-Limits accord. §1.1310 (d)(2) + Table 1

Distance	20	cm								
Operation Mode	Frequency on channel	Declared maximum conducted output power	Antenna Gain	Declared maximum ERP (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:
	(MHz)	(dBm)	(dBi)	(dBm)	%	(W)		(mW/cm ²)	(mW/cm ²)	
W-LAN 2.4GHz	2412,0	16,19	2,4	18,6	100%	0,0723	72,3	1,0000	0,0144	0,9856
	2437,0	16,28	2,4	18,7		0,0738	73,8	1,0000	0,0147	0,9853
	2462,0	16,61	2,4	19,0		0,0796	79,6	1,0000	0,0158	0,9842

Remark: worst-case power value included for each channel, this is 20MHz signal bandwidth mode

4.2. Canadian limits accord. RSS-102, Issue 5

Distance	0,20	m								
Operation Mode	Frequency on channel	Declared measured conducted output power	Antenna Gain	Calculated maximum ERP (declared+ Tune-up+ antenna Gain+ path loss)	Duty-Cycle	Maximum ERP	Equivalent ERP (ERP x duty cycle)	MPE Limit accord. Table 4	MPE-Value	Margin
	(MHz)	(dBm)	(dBi)	(dBm)		(W)	(W)	(W/m ²)	(W/m ²)	(W/m ²)
W-LAN 2.4GHz	2412,0	16,19	2,4	18,59	100%	0,0723	0,072	5,3660	0,1438	5,2222
	2437,0	16,28	2,4	18,68	100%	0,0738	0,074	5,4040	0,1468	5,2572
	2462,0	16,61	2,4	19,01	100%	0,0796	0,080	5,4418	0,1584	5,2834

Maximum calculated MPE value:		
2.4GHz Band		
Lowest MPE-Limit:	5,3660	[W/m ²]
Highest MPE value:	0,1584	[W/m ²]
Lowest margin to limit	5,2222	[W/m ²]