

1.5. MPE calculation

A minimum distance to the user of 20cm is assumed.

Following calculations show assumption with the limits. The maximum tolerance according the manufacturer was assumed to +2dB according the data sheet of the RF-module.

Operation Mode	Frequency on channel (MHz)	Declared maximum conducted output power (dBm)	Max. antenna gain: (dBi)	Max. positive tolerance according manufacturer (dB)	Declared maximum output power (Measured+ Tune-up) (dBm)	Duty cycle	Declared Maximum conducted output power (W)	Equivalent conducted output power (maximum conducted output power x duty cycle) (mW)
W-LAN 5150-5250 MHz (20 MHz BW)	5180,0	13,70	5,0	2,00	20,70	100%	0,117	117
	5200,0	13,90			20,90		0,123	123
	5240,0	14,40			21,40		0,138	138
W-LAN 5250-5350 MHz (20 MHz BW)	5260,0	19,60	5,0	2,00	26,60	100%	0,457	457
	5280,0	18,00			23,00		0,200	200
	5320,0	18,60			25,60		0,363	363
W-LAN 5470-5700 MHz (20 MHz BW)	5500,0	18,50	5,0	2,00	25,50	100%	0,355	355
	5580,0	18,10			25,10		0,324	324
	5700,0	17,50			24,50		0,282	282
W-LAN 5150-5250 MHz (40 MHz BW)	5190,0	14,30	5,0	2,00	21,30	100%	0,135	135
	5230,0	15,50			22,50		0,178	178
W-LAN 5250-5350 MHz (40 MHz BW)	5270,0	20,40	5,0	2,00	27,40	100%	0,550	550
	5310,0	13,50			20,50		0,112	112
W-LAN 5470-5700 MHz (40 MHz BW)	5510,0	14,90	5,0	2,00	21,90	100%	0,155	155
	5550,0	18,10			23,10		0,204	204
	5670,0	17,30			24,30		0,269	269

Maximum calculated MPE value:		
MPE-Limit:	1	[mW/cm ²]
Highest MPE value:	0,1093	[mW/cm ²]
Margin to limit	0,8907	[mW/cm ²]