

6b.3 ISM Band Radiated Spurious Emissions

FCC Limits:

§15.247. If any 100 kHz bandwidth outside these frequency bands, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either at least 20 dB below that in any 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in Sec. 15.209, whichever results in the lesser attenuation. All other emissions outside these bands shall not exceed the general radiated emission limits specified in Sec. 15.209.

§15.209. Shows the limit above 960 MHz to be 500uV/m @ 3 meters.

§15.35. States the peak of the harmonics shall not exceed 20 dB above the limits specified in 15.209. Restricted bands specified in 15.205 in the table below:

NOTE 1: Spurious emissions are dependent on the linearity of the Power Amplifier (U516) and are independent of modulation type or TDM interleaving.

NOTE 2: An asterisk () in the data indicates the spurious emission could not be detected due to noise limitations or ambients.*

NOTE 3: Spurious emission levels were measured with the non-detachable antenna mounted on the radio product, as in intended use.

Fundamental Frequency: 915.525 MHz

Site 3 Meters
Antenna Horn 511
Amp Amp #1
Cables #101 and #102

	Antenna POLARITY	frequency, GHz	Filed Strength, dBuV/m	Limit
2 X Fo	H	1.805	48.75	1.6mV/m
3 X Fo	H	2.732	44.11	54 dBµV/m
4 X Fo	H	3.620	47.38	54 dBµV/m
5 X Fo	H		*	54 dBµV/m
6 X Fo	H		*	1.6mV/m
7 X Fo	H		*	1.6mV/m
8 X Fo	H		*	54 dBµV/m
9 X Fo	H		*	54 dBµV/m
10 X Fo	H		*	54 dBµV/m

	POLARITY	f, GHz	Fs, dBuV/m	Limit
2 X Fo	V	1.807	51.44	1.6mV/m
3 X Fo	V	2.721	44.96	54 dBµV/m
4 X Fo	V	3.614	51.39	54 dBµV/m
5 X Fo	V	4.618	47.75	54 dBµV/m
6 X Fo	V		*	1.6mV/m
7 X Fo	V		*	1.6mV/m
8 X Fo	V		*	54 dBµV/m
9 X Fo	V		*	54 dBµV/m
10 X Fo	V		*	54

RBW:	1 MHz			
VBW:	1 MHz			
Sweep:	Auto			

Table 6b-3. Spurious Emissions in ISM Band

	POLARITY	f, GHz	Fs, dBuV/m	Limit
2 X Fo	H		*	1.6mV/m
3 X Fo	H		*	74 dB μ V/m
4 X Fo	H	3.618	38.09	74 dB μ V/m
5 X Fo	H		*	74 dB μ V/m
6 X Fo	H		*	1.6mV/m
7 X Fo	H		*	1.6mV/m
8 X Fo	H		*	74 dB μ V/m
9 X Fo	H		*	74 dB μ V/m
10 X Fo	H		*	74 dB μ V/m

	POLARITY	f, GHz	Fs, dBuV/m	Limit
2 X Fo	V		*	1.6mV/m
3 X Fo	V		*	74 dB μ V/m
4 X Fo	V	3.679	43.39	74 dB μ V/m
5 X Fo	V	4.636	38.06	74 dB μ V/m
6 X Fo	V		*	1.6mV/m
7 X Fo	V		*	1.6mV/m
8 X Fo	V		*	74 dB μ V/m
9 X Fo	V		*	74 dB μ V/m
10 X Fo	V		*	74 dB μ V/m
RBW:	1 MHz			
VBW:	10 Hz			
Sweep:	Auto			

*Indicates the spurious emission could not be detected due to noise limitations or ambients.

Table 6b-4. Spurious Emissions in ISM Band, VBW at 10 Hz