

## Radiated Spurious Emission Measurement (EIRP)

\* SG @ 0 dBm

Frequency ( MHz )	Polarization	SA Reading (dBuV)	SG Reading (dBuV)	Cable Loss (dB)	Antenna Gain (dB)	dBi transfer factor	EIRP Result (dBm)	Limit ( dBm )
38.386	V	45.6	79.0	-0.2	2.2	2	-29.4	-13.0
153.664	V	30.1	69.6	-1.0	1.2	2	-37.3	-13.0
161.336	H	43.5	79.9	-1.0	1.3	2	-34.1	-13.0
166.550	V	34.1	71.3	-1.0	1.5	2	-34.7	-13.0
196.829	V	27.1	66.9	-1.0	2.0	2	-36.8	-13.0
211.221	H	37.6	74.8	-1.1	1.7	2	-34.6	-13.0

The result is calculated as following equation:

$$\text{Result} = \text{SA Reading} - \text{SG Reading} + 0 + \text{Cable Loss} + \text{Antenna Gain} + \text{dBi transfer factor}$$

**dBi transfer factor** is the factor of transferring from dipole antenna to isotropic antenna.

The limit is calculated as following:

According to § 24.238 (a), on any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power ( P ) by at least  $43 + 10 \log ( P )$  dB.

$$\text{Limit (in dBm)} = 10 \log ( P * 1000 ) - ( 43 + 10 \log P ) = -13 \text{ dBm}$$