

Re: FCC ID BRWXP662

Applicant: Horizon Hobby Distributors Inc
 Correspondence Reference Number: 22420
 731 Confirmation Number: EA673213

I understand that the attenuation requirement for radiated spurious emissions is needed is a determination of the actual power levels.

In case of a transmitter with Built-in Antenna, usually, the attenuation is shown in the ratio of Carrier Emission (dBuV/m) and Spurious Emission (dBuV/m) instead of "substitution method".

The grounds are as follows.

Frequency [MHz]	Maximum Field Strength [dBuV/m at 3m]	Maximum Field Strength [V/m at 3m]	Distance [m]	EIRP [W]	EIRP		Attenuation to RF Power [dB]
					[mW]	[dBm]	
72.55	117.9	0.78524	3	0.18498	184.979	22.7	3.8
RF Power by "substitution Method" = 70.96mW (18.9dBm)							

Above test results of filed strength, Effective radiated power is calculated from a formula.

$$E = \text{SQRT}(30 \cdot P) / d \quad [\text{V/m}] \quad P : \text{EIRP} [\text{W}]$$

d : Measured Distance, 3.0m
E : Field Strength

$$W = E^2 / 120 \pi f \hat{\epsilon} \quad [\text{W/m}^2]$$

W : Power Density
120 π f $\hat{\epsilon}$: Free space Impedance

It is understood that the calculated value (EIRP) increases by reflecting ground plane.
 The increase is 3.8dB, and is near the theoretical value 3dB.