

2.1053 Field Strength of Spurious Radiation

Definition:

Emissions from the equipment when connected into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communication desired. The reduction in the level of these spurious emissions will not affect the quality of the information being transmitted.

Test Method: Per TIA /EIA 603.

Connect the equipment and follow the procedure described in paragraph 2.2.1.1 and paragraph 5.0. Measure the amplitude of each spurious radiated signal through the 10th harmonic. The spurious signals are then measured on the 3 meter range. First the EUT is measured using a tuned reference dipole below 1GHz and a double ridge guide Horn antenna above 1GHz. If the DRG antenna is used the appropriate gain factor for the antenna is subtracted from the final measurement. Then a dipole to dipole (or drg to drg) measurement is conducted to determine the actual power at each harmonic being generated by the EUT. If no noticeable emission can be observed the ground floor is recorded in the data sheets.

Test Results: All readings were at the spectrum analyzer ground floor above the fundamental.

All radiated spurious emissions are below the FCC Specifications.

	5969 Robinson Avenue Riverside, CA 92503 (909) 637-2630 FAX (909) 637-2704	Radiated Spurious	
DNB Job Number:	38004	Date: 29 August 2002	Conformance Standards [X] FCC Part 15 [X] FCC Part 90
Customer:	TPL Communications		
Model Number:	PA6-1AE	Serial Number: 1000	
Description:	RF Amplifier		

Fundamental Freq In MHz	Rated Output Power In Watts	Channel Spacing In kHz	Modulation
460	70-100	12.5 , 25	FM

						Limit (dBm)	
Freq (MHz)	Antenna	Horn Gain	Meter	Power	Corrected	12.5kHz BW	25.0kHz BW
920	Dipole - Hz	N/A	-16.0	-27.8	-27.8	-13	-20
1380	Horn - Hz	7.5	-34.8	-48.6	-56.1	-13	-20
1840	Horn – Hz	7.8	-15.9	-29.7	-37.5	-13	-20
2300	Horn – Hz	8.0	-35.5 gf	-20.0*	-28.0	-13	-20
2760	Horn – Hz	8.7	-37.1 gf	-20.0 *	-28.7	-13	-20
3220	Horn – Vt	8.9	-38.0 gf	-20.0 *	-28.9	-13	-20
3680	Horn - Hz	9.1	-37.6 gf	-20.0 *	-29.1	-13	-20
4140	Horn - Hz	9.4	-38.9 gf	-20.0 *	-29.4	-13	-20
4600	Horn - Hz	10.0	-37.9 gf	-20.0 *	-30.0	-13	-20

* Signal generator had a bottom level of –20dBm which represents the ground floor when using the substitution method.