

NAME OF TEST:

**Transmitter Spurious Emissions at Antenna Terminal**

RULE PART NUMBER: 2.1051,90.543(c)

MINIMUM STANDARD: 90.543(c):  $43+10\text{Log}_{10}(P(\text{ Watts}))$   
For 5Watt  $\Leftrightarrow$  50dBc ; For 1 Watt  $\Leftrightarrow$  43 dBc

TEST RESULTS: Meets minimum standard (see plots on the following page)

TEST CONDITIONS: Standard Test Conditions, 25 C  
RF voltage measured at antenna terminals

TEST PROCEDURE: TIA/EIA - 603, 2.2.13

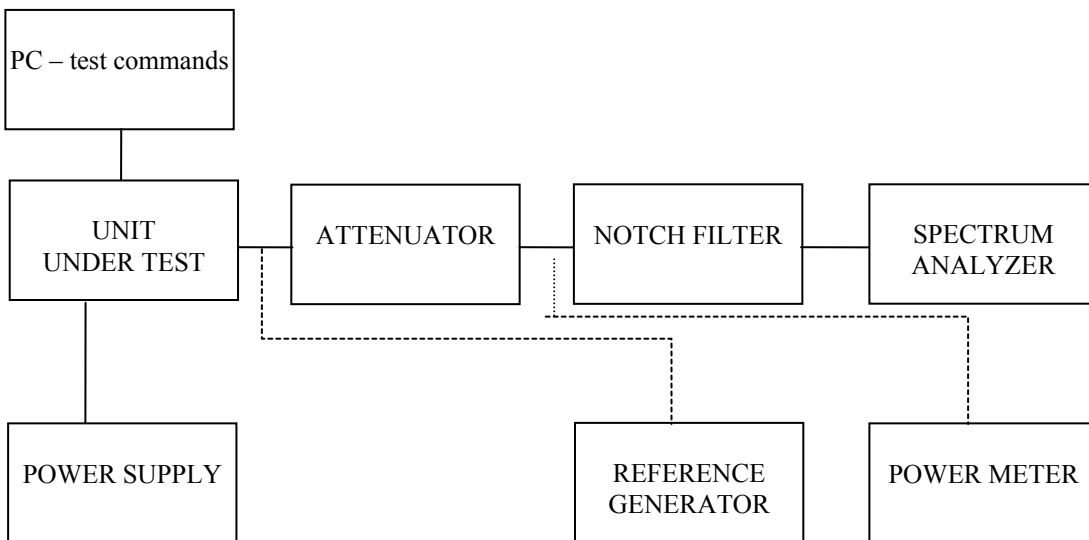
TEST EQUIPMENT: Attenuator, BIRD Model / 50-A-FFN-03 / 3 dB / 150 Watt  
DC Power Source, Model Astron VLS35M  
Notch filter calibrated before test  
Spectrum Analyzer, Model HP8563E  
Reference Generator, Model IFR 930A

PERFORMED BY:



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Date: May 7, 2004



NAME OF TEST: Transmitter Spurious and Harmonic Outputs  
(Continued)

## MEASUREMENT PROCEDURE:

1. The transmitter carrier output frequency is 770.0750 MHz. The reference oscillator frequency is 12.8 MHz.
2. After carrier reference was established on spectrum analyzer, the notch filter was adjusted to null the carrier Fc to extend the range of the spectrum analyzer for harmonic measurements.
3. At each spurious frequency, Generator substitution was used to establish the true spurious level.
4. The spectrum was scanned to the 10th harmonic.

## TEST DATA:

Power (W):	5	W	Min Spec:	-50	dBc
Power (dBm):	37	dBm	Worse Spur:	-83.1	dBc
Freq (MHz):	770.075	MHz			
		<b>Spec An</b>	<b>Loss</b>	<b>dBm</b>	<b>dBc</b>
2	1540.150	-47.2	1.1	-46.1	-83.1
3	2310.225	-74.0	4.0	-70.0	-107
4	3080.300	-94.0	10.6	-83.4	<-100
5	3850.375	-97.3	18.9	-78.4	<-100
6	4620.450	-104.0	10.4	-93.6	<-100
7	5390.525	-101.0	19.3	-81.7	<-100
8	6160.600	NF	5.9	<-80	<-100
9	6930.675	NF	34.8	<-80	<-100
10	7700.750	NF	19.7	<-80	<-100

NF ⇔ noise floor –115dBm