

RESPONSE TO ITEMS REQUESTED BY OET ON 10 November, 1999:

Re: FCC ID GM3TRX7450
 Applicant: Teklogix Inc
 Correspondence Ref. Number: 10606
 731 Confirmation Number: EA95403
 Date of Original E-Mail: 11/10/1999

1) Peak and average measurements above 1 GHz are required and were requested. Only average measurements were submitted. Please explain and correct accordingly.

ITEM #1: The Teklogix 900 MHz transmitter for which measurements were taken and submitted, is a small FM transceiver, which transfers codes via continuous phase FSK. Because of this, peak reading and average readings are nearly identical. Peak readings, when compared to the limit of 74 dBuV (54 dBuV plus 20 dB) were found to be greater than 20 dB below the limit, and were not reported. To further answer your query, an expanded signal list is supplied, with the peak values as measured with the HP8546A above 1 GHz included.

Date of Test:	<u>September 8,9,29, 1999</u>	Manufacturer:	<u>Teklogix</u>
Location:	<u>L.S. Compliance, Inc.</u> <u>W66 N220 Commerce Court</u> <u>Cedarburg, WI 53012</u>	Model No.:	<u>Micro radio</u>
Specifications:	<u>Title 47CFR, FCC Part 15.249</u>	Serial No.:	<u>Pre-production</u>
Distance:	<u>3 meters, 1 meter</u>	Configuration:	<u>Continuous transmit</u>
Equipment:	<u>HP 8546A EMI Receiver</u> <u>EMCO 3115 Double Ridged Waveguide</u> <u>EMCO 3146A Log Periodic</u>	Detector(s) Used:	<u>Quasi-peak, below 1 GHz</u> <u>Average, above 1 GHz</u> <u>**= Peak above 1 GHz</u>

The following table depicts the level of significant fundamental and harmonic emissions found:

Higher order harmonics were found to be below the noise floor of the receiving system:

Frequency (MHz)	Antenna Polarity	Height (meters)	Azimuth (0° - 360°)	Channel	EMI Meter Reading (dB μ V/m)	15.249 Limit (dB μ V/m)	Margin (dB)
902.63	V	1.0	216	0	92.5	94.0	1.5
903.92	V	1.0	83	6	89.0	94.0	5.0
925.76	V	1.0	85	8	92.1	94.0	1.9
927.26	V	1.0	85	15	90.8	94.0	3.2
1855	V	1.0	255	15	37.5	54.0	16.5
1855	H	1.0	23	15	39.8	54.0	14.2
1805	H	1.0	60	0	42.0	54.0	12.0
1855	V	1.0	255	15	**40.5	**74.0	33.5
1855	H	1.0	23	15	**42.4	**74.0	31.6
1805	H	1.0	60	0	**43.7	**74.0	30.3

The following table depicts the level of significant spurious emissions found:

Frequency (MHz)	Antenna Polarity	Height (meters)	Azimuth (0° - 360°)	EMI Meter Reading (dB μ V/m)	15.249 Limit (dB μ V/m)	Margin (dB)
176.0	H	1.3	0	34.4	44.0	9.6
208.0	H	1.3	17	30.1	44.0	13.9
256.0	H	1.0	169	32.7	46.0	13.3
288.0	H	1.0	169	34.3	46.0	11.7
288.0	V	1.0	62	28.8	46.0	17.2
320.0	H	1.4	306	37.3	46.0	8.7
432.0	H	1.0	130	40.3	46.0	5.7
928.0	H	1.2	200	39.3	46.0	6.7
2056.0	V	1.0	178	40.2	54.0	13.8
2552.0	V	1.0	193	38.8	54.0	15.2
2565.0	H	1.0	104	37.1	54.0	16.9
2056.0	V	1.0	178	**43.6	**74.0	30.4
2552.0	V	1.0	193	**41.6	**74.0	32.4
2565.0	H	1.0	104	**43.8	**74.0	30.2

Kenneth Boston
 EMC lab manager
 L. S. Compliance