

**CONNOISSEUR MEDIA  
KXMZ-FM  
RF Radiation Compliance**

OET Bulletin 65 Edition 97-01

February 13, 2008

# CONNOISSEUR MEDIA

## KXMZ-FM

### RF Radiation Compliance

This report is to show compliance with the FCC established guidelines for exposure to RF electromagnetic fields as described in OET Bulletin 65 Edition 97-01. The stations and methods are described below.

#### Facilities:

Facility ID	Call Sign	Freq	Antenna	HAGL	ERP	Coordinates
164109	KXMZ-FM	102.7	83201	80 Meters	50kw V / H	44-05-33 103-14-53
164913	KFMH-FM1	101.9	70903	24 Meters	2.3kw V / H	44-05-33 103-14-53
164915	KRKI-FM1	99.5	79107	30 Meters	2.3kw V / H	44-05-33 103-14-53
161655	KLMP-FM1	88.3	65601	52 Meters	2.3kw V / H	44-05-33 103-14-53
66654	KWBH-TV	CH-27		75.3 Meters	57.6 H	44-05-33 103-14-53
23491	KKRA-LP	CH-24		75.3 Meters	11.8kw H	44-05-33 103-14-53
81464	KNBN-TV	CH-21	38400	155 Meters	500kw V / H	44-05-33 103-14-53

The transmitter sites and tower were properly fenced with a locked gate. Also noted that KNBN-TV was running on a backup transmitter at a reduced power level.

#### Survey Meter

The measurements were performed using a NARDA Model 8718 B meter S/N 6053 and a NARDA Model 8764D probe S/N 6010. The meter and probe designed to measure electromagnetic fields with respect to human exposure from 100 kHz to 300 GHz. The instrument was last calibrated on 5-27-05. A certificate of calibration is included with this report. Spatial averaging was used during the measurements.

### **General Population / Uncontrolled Exposure:**

In regard to General Population / Uncontrolled Exposure. A Narda survey meter model 8718B with an 8761D probe was used in the area. The probe is calibrated in percent of limit for Uncontrolled Exposure ( $200\mu W / cm^2 = 100\%$ ) from 300 KHz to 3.0 GHz. Max hold was used while walking around the area with the probe being moved between ground and the 2 meter level. The transmitter site is fenced around the perimeter of the building and tower and the access gate to the site is locked. The highest level recorded outside the fenced area was  $127\mu W / cm^2$  located at North West fence corner 10 feet from the fence in the road. When spatial averaging was used the point was measured at  $70\mu W / cm^2$

The measurements taken meet with the OET Bulletin 65 Edition 97-01 for General Population / Uncontrolled Exposure.

### **Occupational / Controlled Exposure:**

The Occupational / Controlled Exposure measurements were made using the same meter and methods as the General Population / Uncontrolled measurements. The highest recorded level inside the fenced area was  $298\mu W / cm^2$  on the West side of the building between the building and propane tank.

The station is shown to be in compliance with OET Bulletin 65 Edition 97-01 for both General Population / Uncontrolled Exposure and Occupational / Controlled Exposure.

Table 1 from OET Bulletin 65 Edition 97-01 is provided to show the maximum limit for permissible exposure (MPE).

A spreadsheet showing the levels is included in this report. Spatial averaging was used during some of these measurements.

All measurements were taken on by myself Richard Jones on February 13, 2008 and are true and accurate to the best of my knowledge.



Richard Jones  
RJ Engineering

# KXMZ-FM

102.7 Mhz

KXMZ-FM	Ref#	Field Strength <i>mW / cm<sup>2</sup></i>	Location
Run Ref. Number: 00	1	0.105	South Inner Guy Anchor
Date: 2-13-08 Start Time: 1:20pm	2	0.000	South Outer Guy Anchor
	3	0.120	North West Inner Guy Anchor
	4	0.008	North West Outer Guy Anchor
	5	0.110	North East Inner Guy Anchor
	6	0.002	North East Outer Guy Anchor
Model 8718 S/N: 6053	7	0.066	10' North of the gate in the road
	8	0.101	Middle of N. Fence by edge of the road in line with the Tower.
Probe: 8761DS/N: 06010	9	0.015	North East Corner of the Fence
	10	0.012	South East Corner of the Fence
	11	0.034	South Fence due South of the Tower
	12	0.023	South West Corner of the Fence
	13	0.102	Middle of the West Fence in front of the propane tank
	14	0.077	North West Fence Corner 5' out
	15	0.298	Inside the fence between the building and Propane tank
Freq: 101.5 MHz Cor. Factor: 1.00	16	0.013	KXMZ Utility Power Meter
Avg Mode: N/A			



# Certificate of Calibration

L-3 Communications, Narda Microwave-East, hereby certifies that the referenced instrument has been calibrated by qualified personnel to Narda's approved test procedures.

Furthermore, the instrument meets, or exceeds, all published specifications and the calibration has been performed with test instrumentation that, where applicable, is traceable to the National Institute of Standards and Technology.

Narda's calibration measurements are traceable to the National Institute of Standards and Technology to the extent allowed by the bureau's calibration facilities.

Customer: **RJ ENGINEERING**  
**BILLINGS, MT 59105**

Certificate #: **54565 1**

Model #: **8718B**

Serial #: **06053**

Description: **METER**

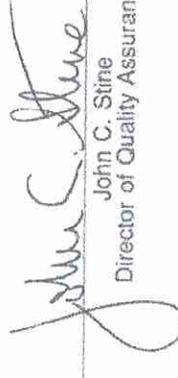
PO #: **VISA-JONES**

Date Calibrated: **05/27/2005**

R.O. #: **54565**

  
Vince Donovan

Manager of Instruments Assembly and Test

  
John C. Stine  
Director of Quality Assurance

This certificate shall not be reproduced, except in full, without written approval from L-3 Communications, Narda Microwave-East.

**Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

**(A) Limits for Occupational/Controlled Exposure**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

**(B) Limits for General Population/Uncontrolled Exposure**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

\*Plane-wave equivalent power density

NOTE 1: **Occupational/controlled** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: **General population/uncontrolled** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)

