

FCC PART 1.1307, 1.1310, 2.1091, 2.1093: RF EXPOSURES COMPLIANCE

This device is considered categorically excluded from routine RF exposure evaluation for demonstrating compliance. The antennas are fixed-mounted on outdoor permanent structures with a separation distance of at least 6 meters from all persons.

1.0 SUGGESTED GRANT NOTES :

The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance of at least 6 meters from all persons during normal operation. The peak conducted output power at each antenna terminal must not exceed 54.5W and the peak radiated output power must not exceed 360W EIRP. Users and installers must be provided with appropriate antenna installation instructions and transmitter operating conditions, including antenna co-location requirements of §1.1307(b)(3), for satisfying RF exposure compliance.

2.0 SAFETY INFORMATION:

2.1 Installer and User WARNING:

An “**IMPORTANT NOTE**” should be included at a conspicuous location in the manual(s) to alert all responsible parties about the specific requirements; example template - “**IMPORTANT NOTE:** To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied ...”

Instructions shall be placed in the user manual instructing installers and users to maintain a minimum 6m separation distance during normal operation of the transmitter.

The device is to be installed and operated at a “fixed location”. The term “fixed location” means that the device is physically secured at one location and is not able to be easily moved to another location.

The installer may be required to perform an MPE evaluation and an Environmental Assessment (EA) of the location at the time of licensing per CFR 47 Part 1.1307. Fixed mounted antennae that are co-located with other antennae must satisfy the co-location requirements of Part 1.1307.

2.2 Limits:

The limit for general population/uncontrolled environment exposures is $0.27 \text{ mW} / \text{cm}^2$ (Frequency(MHz)/1500) for the band 300-1500 MHz.

3.0 MPE EVALUATION: UNCONTROLLED ENVIRONMENT/GENERAL POPULATION

The calculated minimum safe distance, Radius(cm), is approximately one half (1/2) the minimum required installation distance of 600 cm per Part 2.1091.

Therefore, the transmitter **VXR-7000U** complies with the MPE requirements by providing a safe separation distance between the antenna (including any radiating structure) and any persons.

The calculations were performed using formulas found in OET Bulletin 65 Edition 97-01(1997).

TRANSMITTER SPECIFICATIONS :

Antenna with a gain of 0-6 dBd. Consult the antenna provider if the gain is unknown.

Antenna Maximum Gain (dBd)	Output Power Conducted Peak (dBm)	Duty Cycle (%)	Base stations M/N	Minimum Installation Distance (cm)
6	47.4 dBm (54.5W)	100	VXR-7000U	600

MPE RADIUS FOR GENERAL POPULATION/UNCONTROLLED ENVIRONMENT

The numbers are provided for the worst-case MPE radius (more stringent limit), obtained for 400.025MHz.

Power P(W) Peak Max.	EIRP (W)	Antenna numeric G	Radius (cm)	Base stations M/N
54.5	360	6.6 (8.2 dBi)	324	VXR-7000U