
RF Appendix 1

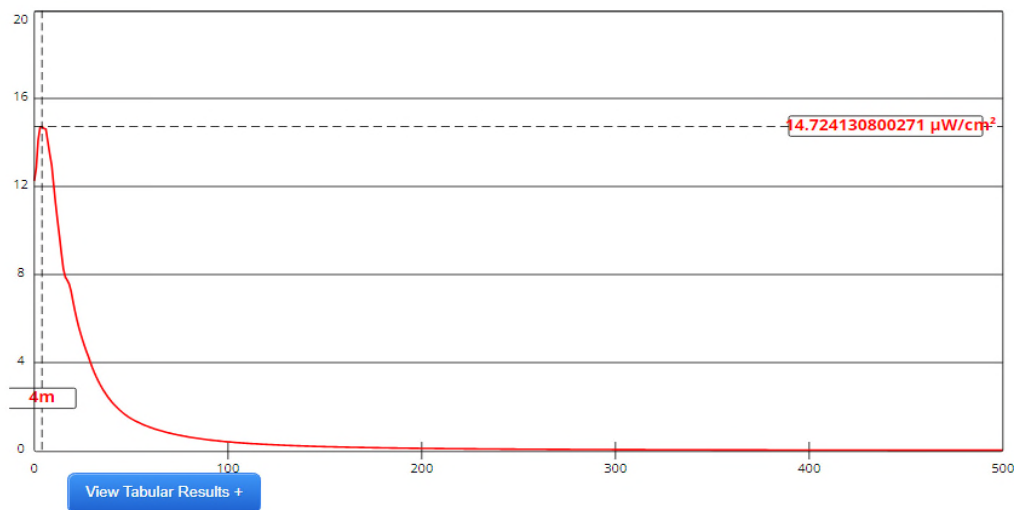
Compliance with Radiofrequency Radiation Guidelines

The proposed facility complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments as set forth under §1.1310 of the Commission's rules and the guidelines for RF radiation protection as set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01). The site is intended to house this single transmitter, therefore the potential for human exposure to non-ionizing radiofrequency radiation has been evaluated with regard to §1.1310 utilizing the Commission's own FM Model web-based software application. The use and implementation of this FCC sanctioned software is a matter of record before the Commission.

The maximum permissible uncontrolled limit $200 \mu\text{W}/\text{cm}^2$. The maximum permissible controlled limit is $1000 \mu\text{W}/\text{cm}^2$. Therefore single contributions of $\leq 200 \mu\text{W}/\text{cm}^2$ remain within the tolerances as allowed by §1.1310 and its governing OET Bulletin No. 65 (Edition 97-01) for the more restrictive of these two protections.

The proposed NEW CH296L1.P - Knoxville, TN analog LPFM station (Facility ID: 780792) will operate on CH296L1 (107.1 MHz) with 0.062 kW ERP circular polarization (H&V). The proposed operation will broadcast from an antenna COR mounted 15.0 meters above ground level (AGL). For purposes of this RF Compliance Study, a worst case one bay EPA Type 1 element as defined by the Commission's own FM Model - Appendix B (issued March 31, 2016) may be assumed. This facility will not operate with HD/IBOC facilities at this time.

The results of the evaluation for the FM station have been shown at the end of this RF compliance discussion. To ensure complete protection, the maximum FM contribution has been assumed without regard to any restricted access fencing distance. In addition, the facility is, or will be, properly marked with signs. Entry is, or will be, restricted by means of fencing with locked doors or gates. Furthermore, coordination with other users of the site will be secured to reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.



Channel Selection	Channel 296 (107.1 MHz) ▾		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▾		
Height (m)	15.0	Distance (m)	500
ERP-H (W)	62	ERP-V (W)	62
Num of Elements	1	λ	1
Num of Points	500	Apply	