

RADIOFREQUENCY RADIATION ASSESSMENT

This exhibit has been included to address the issue of allowable radiofrequency radiation levels (RFR). The KQMC antenna would conform to the FCC guidelines with respect to OET Bulletin No. 65 (Edition 97-01, August 1997), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields." It first should be noted that KQMC is only one of two full power FM's at this site, there are no AM, FM, or TV stations within 1 kilometer of this proposal. Also, there are no other stations of any type that would be required to be factored into the RFR calculations. Included in this attachment are printouts showing the FCC's Power Density Program FM Model from the FCC's own website. The input values located on this program are for the KQMC antenna and the other station, KAVB (an application). The type of antenna indicated in this attachment and the one to be used for KQMC is a one bay Armstrong (EPA Type 4 Two Piece Spiral) FMA-707 Circularly polarized antenna. The results from this printout show that the KQMC antenna would have a predicted power density value at ground level of 0.0538 mW per square cm which is lower than 0.2 mW per square cm, the maximum allowable level of RF radiation. The type of antenna indicated in this attachment and the one to be used for KAVB is a one bay "worst case" (EPA Type 1 Type Not Described) Circularly polarized antenna. The results from this printout show that the KAVB antenna would have a predicted power density value at ground level of 0.0968 mW per square cm which is lower than 0.2 mW per square cm, the maximum allowable level of RF radiation. The KAVB power density level of 0.0968 mW per square cm is 48.4% of the maximum allowable level of RF radiation and the KQMC power density level of 0.0538 mW per square cm is 26.9% of the maximum allowable level of RF radiation. The total of these two (KAVB and KQMC) is 75.6% of the maximum allowable level of RF radiation, which conforms to the FCC maximum permissible uncontrolled/general population RF exposure guidelines.

In addition to showing that the KQMC antenna meets the new OET bulletin No. 65 guidelines for a safe center of radiation, it should be noted that the transmitting tower is appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction of power or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency electromagnetic fields will not exceed the FCC guidelines. All of this information demonstrates that this application conforms to the new FCC guidelines with respect to OET Bulletin No. 65 (Edition

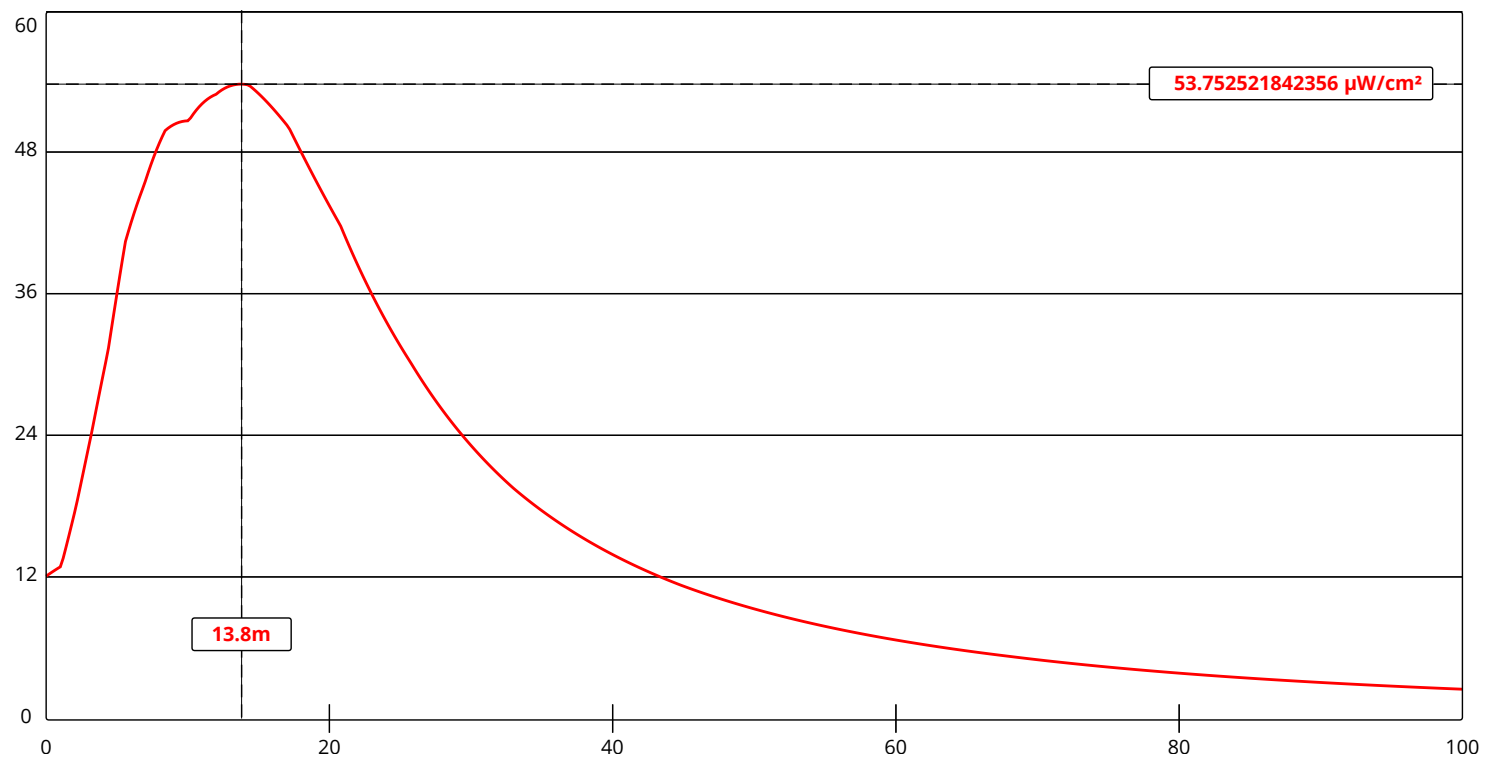
97-01, August 1997), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields."



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FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data [published in 1985 by the EPA](#) (<http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Txt\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>). [▼ Show More....](#)



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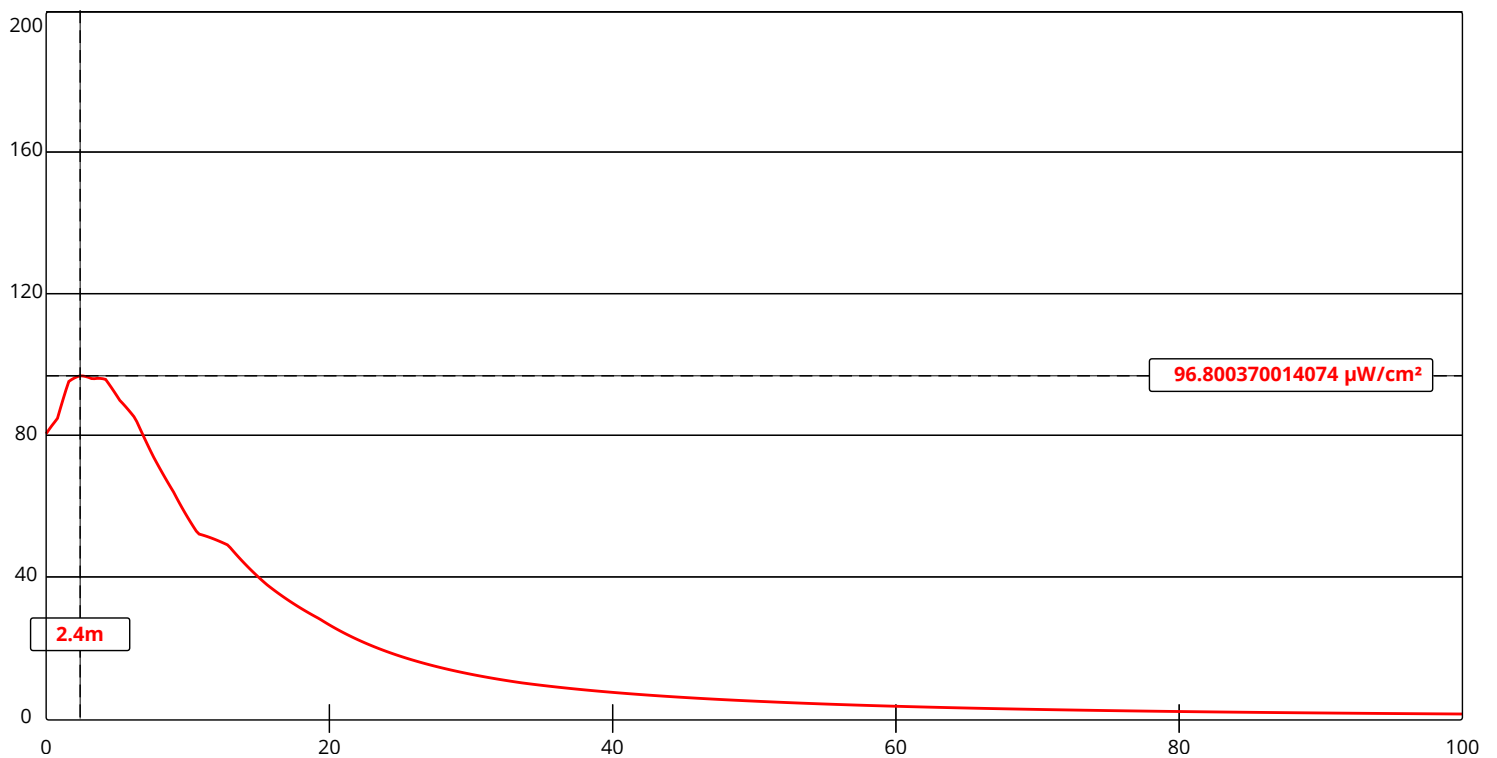
Channel Selection	Channel 211 (90.1 MHz) ▼		
Antenna Type +	EPA Type 4: Two-Piece Spiral ▼		
Height (m)	<input type="text" value="14"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="400"/>	ERP-V (W)	<input type="text" value="400"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	



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Channel Selection	Channel 254 (98.7 MHz) ▼		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▼		
Height (m)	<input type="text" value="11"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="195"/>	ERP-V (W)	<input type="text" value="195"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	Apply	