

# KTFM-FM Floresville, TX

## TPO Exhibit

ALPHA MEDIA, LLC

CH 231C2 – 94.1 MHz – 19.0 KW

November 5, 2019

### KTFM TRANSMISSION SYSTEM CALCULATION

Effective Radiated Power: 19.0 kilowatts (42.785 dBW) H & V

Antenna ERI, MPX-3E  
SERIAL/JOB #: 35725  
3 BAY Full Wavelength spaced  
Circular Polarization

Antenna Gain 1.5588 (1.9278 dB)

Transmission Line 1 Commscope Andrew, HJ8-50A  
(3" Air Helix)  
Attenuation: 0.133 dB/100'  
Length, 907 feet

Transmission Line 2 Type: Myat, 3 1/8" Rigid  
Attenuation: 0.0902 dB/100'  
Length, 12 feet

Coax Switch Dielectric, DC 60000-300  
Attenuation: 0.1 dB

Other Losses 9 mated connections  
Attenuation: 0.01 dB / Connection

TPO = ERP – Antenna Gain + Line Losses + Switch Loss + Other Losses TPO =

42.79 - 1.93 + 907(0.13) + 0.12(0.09) + 0.1 + 9(0.01)

TPO = 42.27 dBW = 16865 Watts or **16.9 kW** ; Rounded to **17 kW** per §73.212