

**KTFM-FM Floresville, TX**  
**Auxiliary TPO Exhibit**  
**ALPHA MEDIA, LLC**  
**CH 231C2 – 94.1 MHz – 6.5 KW**  
**July 5, 2018**

**KTFM AUXILIARY TRANSMISSION SYSTEM CALCULATION**

Effective Radiated Power:	6.5 kilowatts (38.13 dBW) H & V
Antenna	ERI, SHPX-1AE 1 BAY Circular Polarization
Antenna Gain	0.461 (-3.3620 dB)
Transmission Line 1	Commscope Andrew, HJ8-50A (3" Air Helix) Attenuation: 0.133 dB/100' Length, 550 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 = 38.13 + 3.36 + 5.50(0.133) + 0.12(0.09) + 0.1 + 9(0.01)

TPO = 42.42 dBW = 17,472 Watts or **17.5 kW**