

TPO Exhibit

ALPHA MEDIA, LLC

K277CX FM TRANSLATOR

CH 277D – 103.3 MHz – 0.250 KW

SAN ANTONIO, TX

October 12, 2021

K277CX TRANSMISSION SYSTEM CALCULATION

Effective Radiated Power:	0.250 kilowatts (23.979 dBW) H & V
Antenna	PSI, PSIFMR-2E-50WS-DA SERIAL/JOB #: 1368 2 BAY ½ Wavelength spaced Circular Polarization
Antenna Gain	0.98 (-0.08 dB)
Transmission Line 1	RFS, HCA78 (7/8" Air Heliac) Attenuation: 0.359 dB/100' Length, 158 feet
Transmission Line 2 Type:	Times Microwave, LMR-400 Attenuation: 1.3 dB/100' Length, 29 feet
Band-Pass Filter	Bext, FFTC3 Attenuation: 0.35 dB @ f ₀
Other Losses	6 mated connections Attenuation: 0.01 dB / Connection

TPO = ERP – Antenna Gain + Line Losses + Filter Losses + Other Losses

TPO = 23.979 + .008 + 1.58(0.359) + 0.29(1.3) + 6(0.01)

TPO = 25.414 dBW = 348 Watts or **0.348 kW**