

TPO Calculation Summary

Main Antenna Operation

Call letters: W288CQ-STA
City of License: Waynesville, NC
Frequency: CH288D (105.5 MHz)
File No: STA Pending
Facility ID: 155786
Applicant: Saga Communications of North Carolina, LLC

Operating Effective Radiated Power (ERP): 0.0005 kW

Antenna Make: Kathrein Scala
Antenna Model: CA2-FM(Horizontal)
No of Elements: One (1)
Antenna COR AGL: 8 meters AGL
Antenna COR AMSL: 657 meters AMSL
Max Input Power: 0.25 kW
Power Gain: 2.512

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } 4.000 \text{ dB}$

Calculated Antenna Input Power: 0.0002 kW

Transmitter Make/Model: T.B.D.

Transmitter Rated Power: 0.030 kW

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
End Connector	Generic (1 @0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	RG58 (foam) (2.300 dB/100 ft)	47 ft	-1.081 dB
End Connector	Generic (1 @0.02 dB each)		-0.020 dB
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6 dB Attenuator	Meca Model 612-06-1 6 dB Attenuator (or equivalent)		-6.000 dB
Main Antenna Feedline (Tower)	RG58 (foam) (2.300 dB/100 ft)	3 ft	-0.069 dB
End Connector	Generic (1 @0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: -3.230 dB

$1 / [10^{(-3.230/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.001 \text{ kW}$