

# TPO Calculation Summary

Call letters: K275BQ  
City of License: Kansas City, MO  
Frequency: CH275D (102.9 MHz)  
LIC File No.: BLFT-20100513ADE  
Facility ID: 149132  
Applicant: Alpine Broadcasting Corporation

Operating Effective Radiated Power (ERP): 0.25 kW

## ANTENNA INFO

Antenna Make: Scala  
Antenna Model: 1x3 754 154 CP Panel Array  
No of Elements: One (1)  
Power Gain: 0.7911 (composite H & V)  
 $\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } -1.0176 \text{ dB}$

## FEEDLINE INFO

<u>Feedline Description</u>	<u>Feedline Make/Model</u>	<u>Length</u>	<u>Loss</u>
Antenna Jumpers (6 total-varying lengths)	Cellflex LCF 12-50 (1/2 in Foam)(0.684 dB/100 ft)	108 ft	-0.739 dB
Power Divide to Main line Pigtail	Generic 7/8 inch Foam Line(0.369 dB/100 ft)	2 ft	-0.007 dB
Main Antenna Line	Cornscope FXL 1875(1 5/8 Foam)(0.200 dB/100 ft)	1,075 ft	-2.150 dB
Main line to Transmitter Pigtail	Generic 1/2 inch Foam Line(0.671 dB/100 ft)	3 ft	-0.020 dB

## ADDITIONAL SYSTEM LOSS(S)

<u>Component Description</u>	<u>Component Make/Model</u>	
Connectors - Antenna Jumper(s)	Generic (12@0.02 dB each)	-0.240 dB
Power Divide	Scala 770 148 Seriest	-0.050 dB
Connectors - Power Divide Pigtail	Generic (2@0.02 dB each)	-0.040 dB
Connectors - Main Antenna Line	Generic (2@0.02 dB each)	-0.040 dB
Connectors - Transmitter Pigtail	Generic (2@0.02 dB each)	-0.040 dB

TOTAL SYSTEM GAIN/LOSS: -4.344 dB

$1 / [[10^{(dB/10)}] / \text{ERP}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.680 \text{ kW}$