

TPO Calculation Summary

Call letters: KMA-FM (auxiliary)
City of License: Clarinda, IA
Frequency: CH256C1 (99.1 MHz)
CP File No.: NOT FILED YET!!
Facility ID: 35106
Applicant: KMA Broadcasting, L.P.
Operating Effective Radiated Power (ERP): 46 kW (H) & 46 kW (V)

ANTENNA INFO

Antenna Make: ERI
Antenna Model: SHPX-6AC
No of Elements: Six (6)
Power Gain: 3.303
Antenna Gain (ERI Listed): 5.189 dB

FEEDLINE INFO

<u>Feedline Description</u>	<u>Feedline Make/Model</u>	<u>Length</u>	<u>Loss</u>
Antenna to Transmitter	Andrew HJ8-50B (3in Heliax)	470 ft	-0.677 dB
Jumper Section	Myat 301-002 (3 1/8 in Line)	3.4 ft	-0.003 dB
Jumper Section	Myat 301-002 (3 1/8 in Line)	2.8 ft	-0.003 dB
Jumper Section	Myat 301-002 (3 1/8 in Line)	1.3 ft	-0.001 dB

ADDITIONAL SYSTEM LOSS(S)

<u>Component Description</u>	<u>Component Make/Model</u>	<u>Loss</u>
End Connectors	Generic (12@0.02 dB each)	-0.240 dB
Transmission line Switch	Myat 301-138-4 Patch Panel	-0.100 dB
Transmission Line Elbows	Myat 301-021 Elbow (2@0.05 dBu)	-0.100 dB
Wattmeter insertion section	Bird BPM-E3-VM Line Section	-0.050 dB

TOTAL SYSTEM GAIN/LOSS: 4.015 dB

$1/[[10^{(4 \text{ dB}/10)}/\text{ERP}]] = \text{CALCULATED TRANSMITTER POWER OUTPUT:}$ 18.3 kW

$\frac{\text{Licensed ERP}}{\text{Licensed TPO}} = \frac{\text{STA ERP}}{\text{STA TPO}}$
