

E-Slide FM System Calculations

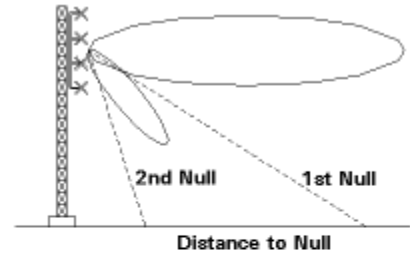
Prepared For: David Hodges - Positive Alternative Radio - Blacksburg, VA

Transmitter:

Station Frequency: 100.1 MHz
Transmitter Power Output (TPO): .046 kW
Recommended Options: An 815D5 - 5 kW Solid-State Transmitter

Antenna:

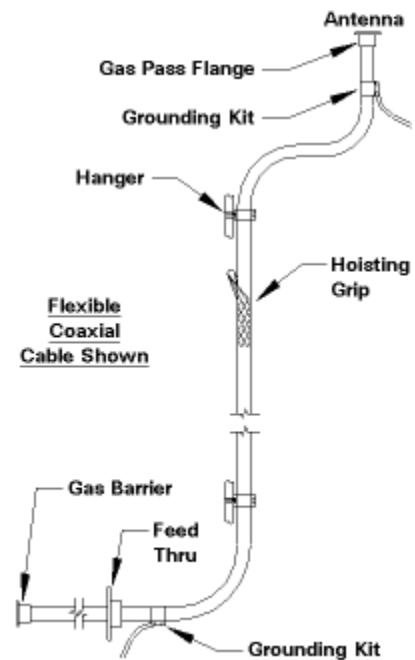
Type of Antenna 1 Bay - End Fed - Full Wave
Effective Radiated Power (ERP) 0.019 kW
Length of Antenna 0.5 ft (0.2m)
Elevation of Top Bay Center (AGL) 256.3 ft (78.1m)
Elevation of Bottom Bay Center (AGL) 255.8 ft (78m)
Center of radiation (AGL) 256 ft (78.0m)
Antenna Power Gain (H & V) 0.4611
Antenna Field Gain (H & V)679
Antenna Input Power 0.04 kW
Field Intensity (1kW @ 12 mile) 93.436 mV/m
1st Null (no beam tilt) 90 Degrees 0 Miles
2nd Null (no beam tilt) 0 Degrees 0 Miles



Null Fill, Beam Tilt, Pattern Studies, and Optimization are available. Null Fill and Beam Tilt will reduce power gain. Seek the advice of your consultant to help you determine if any of these are required.

Transmission Line:

Type of Line Cablewave HCA158-50, 1-5/8" Air Coax
Average Power Rating 19.6 kW
Total Length of Line 281 ft (85.7 m)
Length of Line on Tower 256 feet
Distance to Transmitter 25 feet
Line Loss at 100.1 MHz 00.1886111 db/100 feet
Other Losses 0 db
Power Loss in Line 0.005 kW
Line Efficiency 88.5 %



Hangers:

Distance Between Hangers 3 ft
Number of Hangers 86
Number of Hanger Adapters 86
Number of Hoist Grips 1
Number of Grounding Straps 3

Notice

Please confirm all data with your station or group Technical Consultant. Suggestions provided only to aid you and your Consultant in preparing appropriate FCC forms and to plan for equipment needs.

Provided by Continental Electronics - Dave Hultsman, Regional Sales Manager

May/26/2011 at 15:09 PM