

E-Slide FM System Calculations

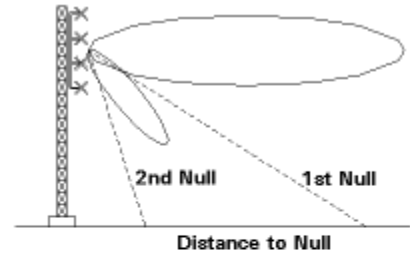
Prepared For: David Hodges - Positive Alternative Radio - Blacksburg, VA

Transmitter:

Station Frequency: 106.7 MHz
Transmitter Power Output (TPO): .079 kW
Recommended Options: An 815D5 - 5 kW Solid-State Transmitter

Antenna:

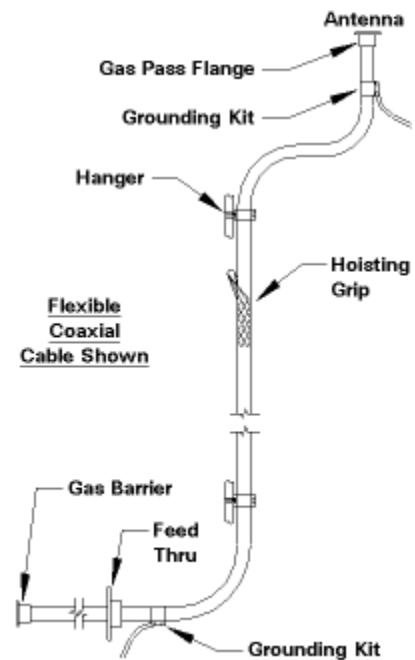
Type of Antenna 1 Bay - End Fed - Full Wave
Effective Radiated Power (ERP) 0.021 kW
Length of Antenna 0.5 ft (0.2m)
Elevation of Top Bay Center (AGL) 102.3 ft (31.2m)
Elevation of Bottom Bay Center (AGL) 101.8 ft (31m)
Center of radiation (AGL) 102 ft (31.1m)
Antenna Power Gain (H & V) 0.4611
Antenna Field Gain (H & V)679
Antenna Input Power 0.05 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 Andrew LDF4-50A, 1/2" Foam Heliax
Average Power Rating 3.49 kW
Total Length of Line 127 ft (38.7 m)
Length of Line on Tower 102 feet
Distance to Transmitter 25 feet
Line Loss at 106.7 MHz 00.6841667 db/100 feet
Other Losses 1.5 db
Power Loss in Line 0.033 kW
Line Efficiency 58.0 %



Hangers:

Distance Between Hangers 3 ft
Number of Hangers 34
Number of Hanger Adapters 34
Number of Hoist Grips 0
Number of Grounding Straps 2

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

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