

Rev 1 Date 1/31/07 Status = Active Disposal = T or E

How to Specify and Order Antennas from AntDevCo.

This Quote Specifications Sheet will enable Antenna Development Corporation to better assist you in the procurement of an antenna that will satisfy your requirements. It should be a very good start toward the complete specification of the unit.

Antenna Request for Quote Specifications Sheet

(Please complete as much of the specifications sheet as possible)

Requestor:

Contact Name:
Organization:

Title:
Electronic Mail:
Phone:
Date:

Antenna Description:

Describe the antenna application with a few sentences of prose:

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1. Antenna Center Frequency:
2. VSWR Bandwidth:
3. Pattern Bandwidth:
4. Polarization (linear, circular/sense):
Note: If linearly polarized, define the direction of the electric field with respect to a standard spherical coordinate system – For example: Does the main beam electric field point in the $\phi = 0^\circ$ direction (along the X axis)? or $\phi = 90^\circ$ direction (along the Y axis)?

Direction of the linearly polarized electric field:

5. Gain and Direction of main beam

Note: The main beam of the radiation pattern is usually along the $\theta = 0^\circ$ direction and therefore the usual radiation direction of the main beam is in the direction of the Z axis.

Gain:

Direction of main beam:

6. Half Power Beam Width in $\phi = 0$ plane:
7. Half Power Beam Width in $\phi = 90$ plane:
8. Max VSWR (state the bandwidth for the requirement):
9. Antenna transmit power (CW or average):
10. Antenna transmit power peak:
11. Pulsed power duty cycle:
12. Operational Environment (altitude – ground, space, or launch vehicle)
13. Connector Type:
14. Maximum allowable dimensions of antenna:
15. Mounting (Bracket or flat or other requirements?):
16. Maximum allowable mass of antenna:
17. Temperature Range, Qualification:
18. Temperature Range, Acceptance (operating):
19. Is the antenna subjected to a thermal pulse?
20. Storage temperature range:
21. Vibration requirement, random:
22. Vibration requirement, sine sweep:
23. Pyro Shock (attach spectrum):
24. Expected Mission Duration:
25. Antenna Optical Properties: Absorptivity
26. Antenna Optical Properties: Emissivity
27. Static Electricity Dissipation Requirements

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Precision Antennas for Spacecraft, Rockets, and Missiles***

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Testing Requirements (check applicable parameters and provide details if available):

- a. Radiation Patterns (principal planes) _____
- b. Radiation Distribution Plots _____
- c. Gain Coverage Statistics _____
- d. Axial Ratio _____
- e. Power Test _____
- f. Vacuum Multipaction _____
- g. VSWR _____
- h. Random Vibration _____
- i. Sine Vibration _____
- j. Mechanical Shock _____
- k. Thermal, Qualification _____
- l. Thermal, Acceptance _____
- m. Other tests _____ describe:

Please attach more sheets and other pertinent documentation if available.

How to Order:

The customer may use existing AntDevCo model/part numbers or certain model numbers from New Mexico State Universities Physical Science Laboratory (we have an agreement in place that allows us to produce certain PSL antennas). Another alternative is for *AntDevCo* to make that determination and work with you to determine the antenna design/model appropriate for the specific application. *AntDevCo* has some units that have preliminary pricing already determined and which can be supplied rapidly to the customer. However, these prices are based on certain assumptions with respect to the levels of documentation and testing required for the specific application. Spacecraft applications and requirements tend to be mission-specific and therefore pricing must be customized to fit requirements.

The key is to call or email *AntDevCo* as soon as possible in the engineering/procurement cycle. We will help you to determine the specifications and develop formal requirements. This will help your systems architects refine the communications system design approach.

The *AntDevCo* website at www.AntDevCo.com provides details on some of the antennas and support equipment we have available. Please consult that site and feel free to contact us for direct help with your application.

AntDevCo is ISO 9001:2000 certified (September, 2008)

www.AntDevCo.com (575) 541-9319
BBlevins@AntDevCo.com (575) 635-3528 (cell)
TGreenling@AntDevCo.com (575) 644-1527 (cell)

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