

## High Gain Parabolic Antenna 9Ghz–11GHz



Please note: The photo is for illustration purposes only. Please refer to the outline drawing.

### Features

- High Gain Parabolic Antenna
- Gain > 31.5dB
- Functional Bandwidth 9-11GHz

### Product Description

RPAANT09G10G31 is a high gain parabolic antenna with a frequency range of 9 to 11GHz.

The gain of this horn antenna is 31.5dB. The VSWR is 1.5:1.

The working temperature of this product is between - 45°C and + 85°C.

### Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

### Electrical Specifications, TA = +25°C

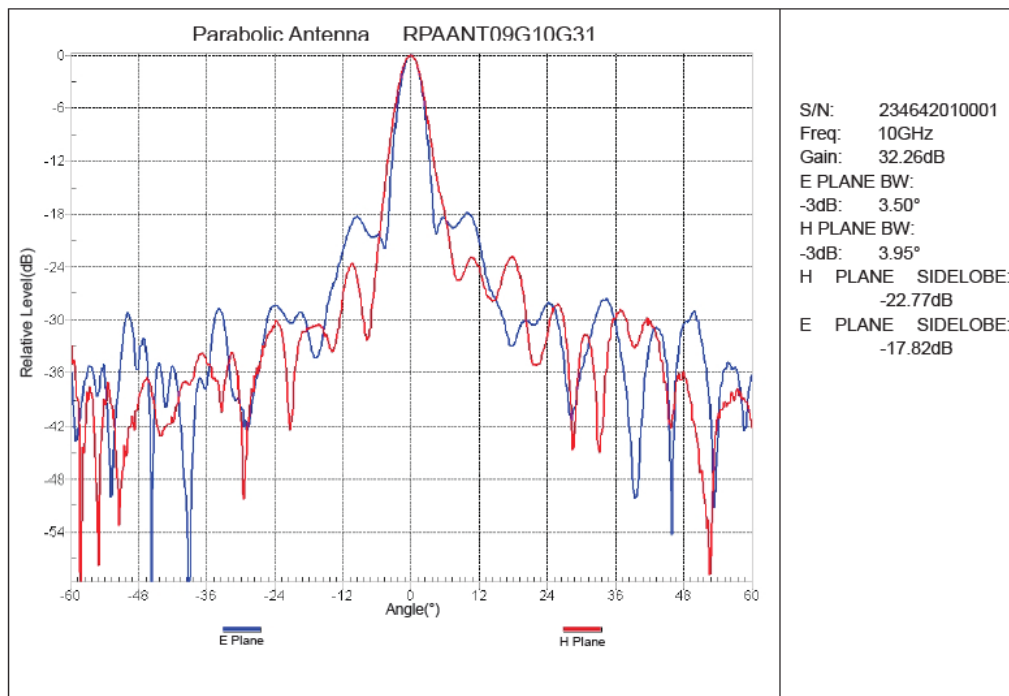
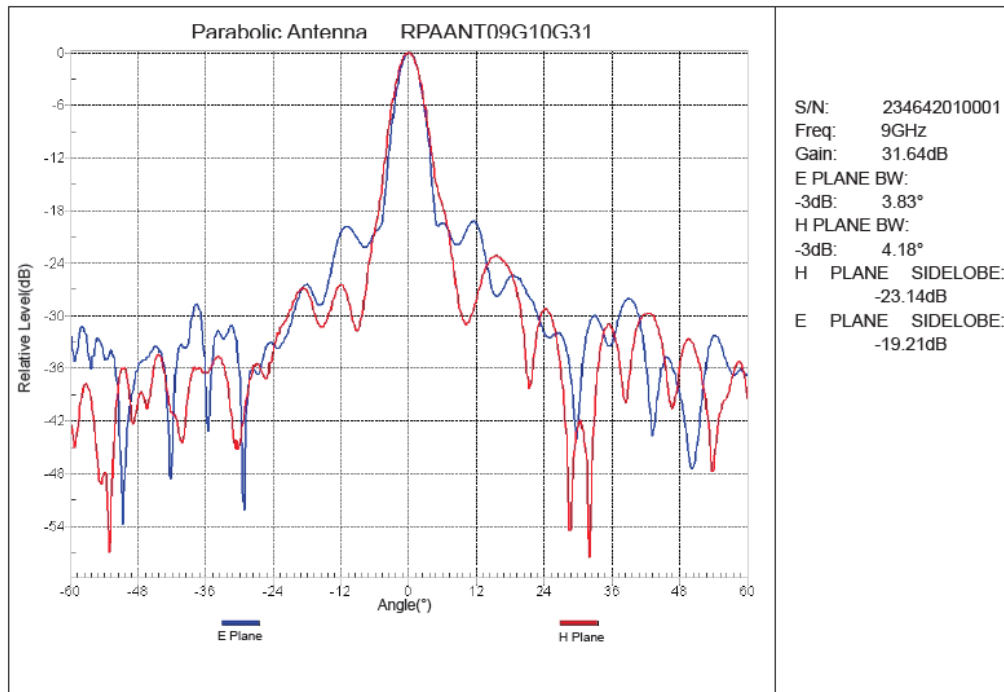
| Parameter       | Min                                                                      | Typ               | Max | Units |
|-----------------|--------------------------------------------------------------------------|-------------------|-----|-------|
| Frequency Range | 9                                                                        |                   | 11  | GHz   |
| Gain            | 31.5                                                                     |                   |     | dB    |
| VSWR            |                                                                          |                   | 1.6 | : 1   |
| Beam Width      | -3dB E PLANE BW (Typ): 3.50°@10GHz<br>-3dB H PLANE BW (Typ): 3.95°@10GHz |                   |     |       |
| Impedance       |                                                                          | 50                |     | Ohms  |
| Weight          |                                                                          | 2.5               |     | kg    |
| Interface       |                                                                          | WR90 Cover Flange |     |       |
| Polarization    |                                                                          | Linear            |     |       |

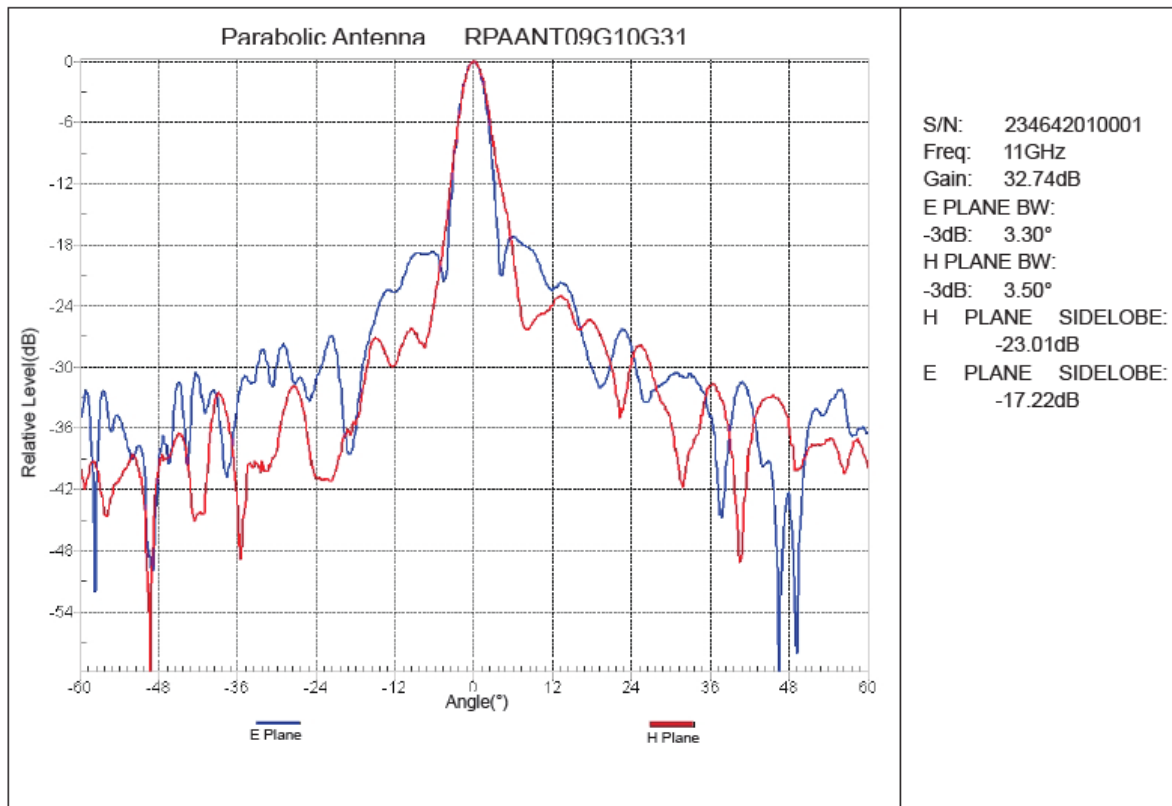
## Environmental Specifications and Test Standards

| Parameter                         | Description                                                                                                                                                                                                    |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operational Temperature           | -45°C to +85°C<br>(Case Temperature)                                                                                                                                                                           |
| Storage Temperature               | -55°C to +125°C                                                                                                                                                                                                |
| Thermal Shock                     | -45°C → +85°C<br>(5 Cycles / 10 hours)                                                                                                                                                                         |
| *Random Vibration                 | MIL-STD-39016<br>Table 214-I, Test Condition Letter C<br>1.5 Hours Per Axis                                                                                                                                    |
| High Temperature Burn In          | Temperature +85°C for 72 Hours                                                                                                                                                                                 |
| Shock                             | 1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s<br>2. Weight ≤20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s<br>3. Total 18 times (6 directions, 3 repetitions per direction). |
| Altitude                          | Standard: 30,000 Ft (Epoxy Sealed Controlled Environment)<br>Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)                                                                                            |
| Hermetically Sealed<br>(Optional) | MIL-STD-883 (For Hermetically Sealed Units)                                                                                                                                                                    |

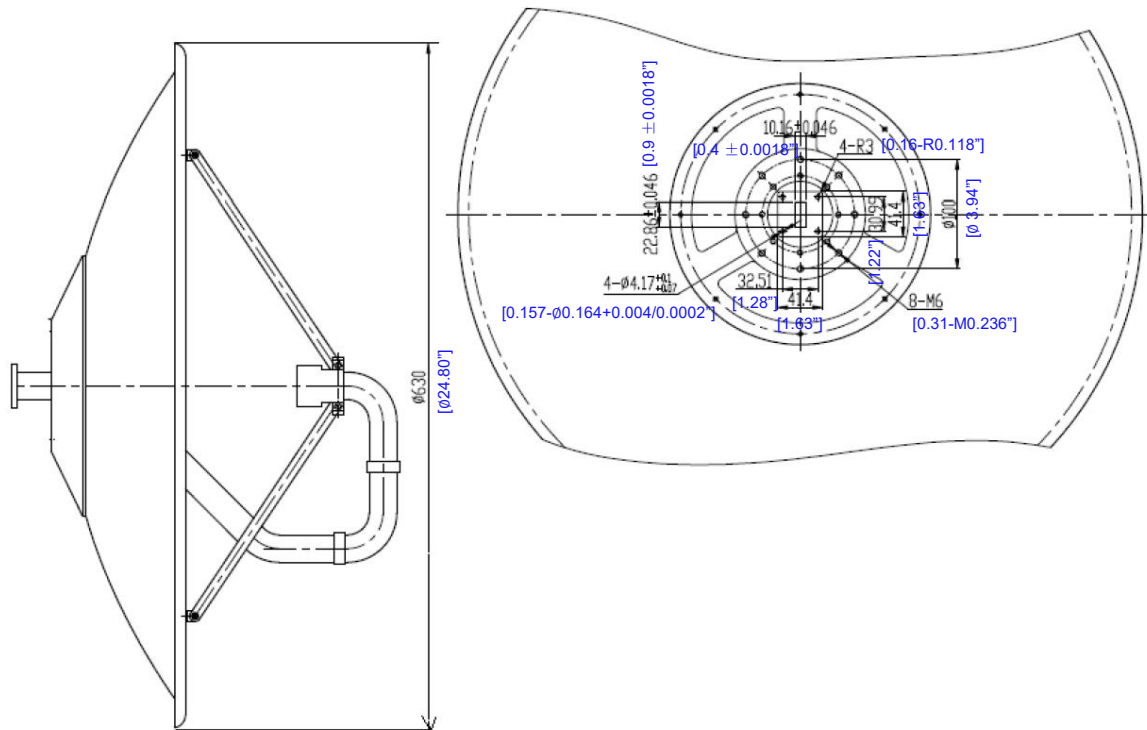
\*For vibration testing details please see additional information section.

Typical Performance Plots



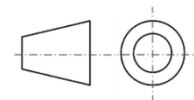


**Outline Drawing**



**Notes:**

1. Package Material: Aluminum
2. Finish: Anti Corrosion Grey Paint
3. All dimensions are in millimeters [inches].
4. Hole Tolerances  $\pm 0.2$  [0.008] unless otherwise specified.



**Additional Information**

**Documentation**

Connector Torque Specifications

[https://www.rflambda.com/pdf/Torque\\_Specifications.pdf](https://www.rflambda.com/pdf/Torque_Specifications.pdf)

Random Vibration Test Standard

[https://www.rflambda.com/pdf/rflambda\\_random\\_vibration\\_MIL-STD-202G.pdf](https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf)

**Webpage**

**Ordering Information**

| Part Number    | Modification | Description                               |
|----------------|--------------|-------------------------------------------|
| RPAANT09G10G31 | WR90         | 9.4Ghz–9.6GHz High Gain Parabolic Antenna |

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