

Dual Polarization Antenna 18GHz-40GHz



Note: Photo is for illustration purposes only.
Please refer to outline drawing.

Product Description

RCDPA18G40G16 is a dual polarization antenna with a frequency range of 18 to 40GHz.

The operating temperature of this product is from -45 to +85°C

Features

- Full band operation
- Low VSWR
- Rugged mechanical configuration

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($T_A=25^{\circ}\text{C}$)

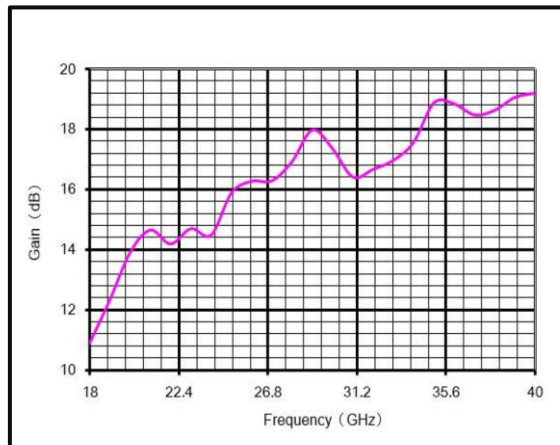
Parameter	Min	Typ	Max	Units
Frequency Range	18		40	GHz
Gain		16		dB
VSWR			2.5	:1
Average Power			30	W
Peak Power			300	W
Input / Output Connectors		2.92mm-Female		
Weight		0.46 Max.		lbs.
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-45°C to +85°C (Case Temperature)
Storage Temperature	-55°C to +125°C
Thermal Shock	-45°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

Typical Performance Plots

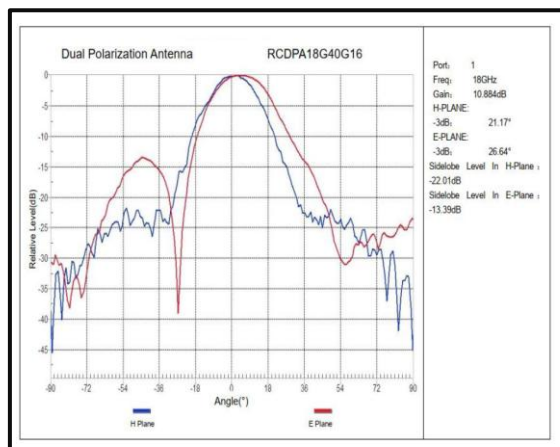
Gain



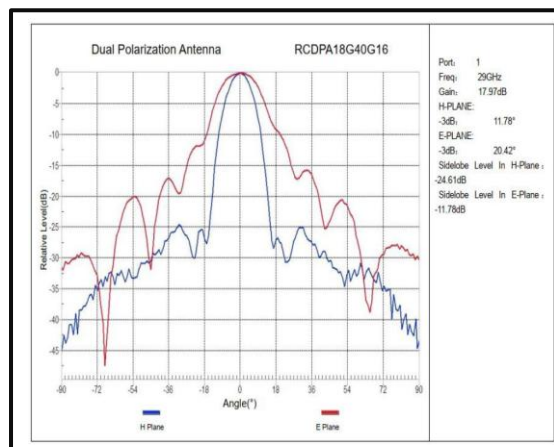
VSWR



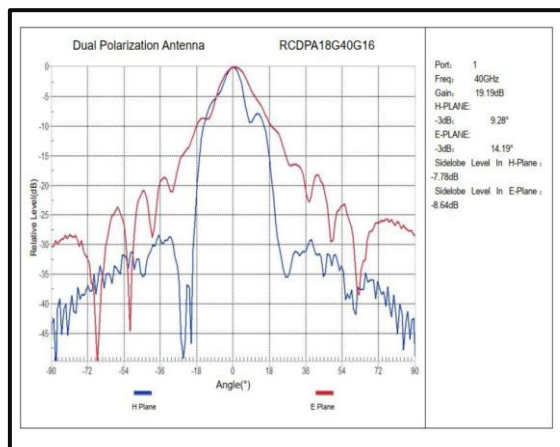
Pattern



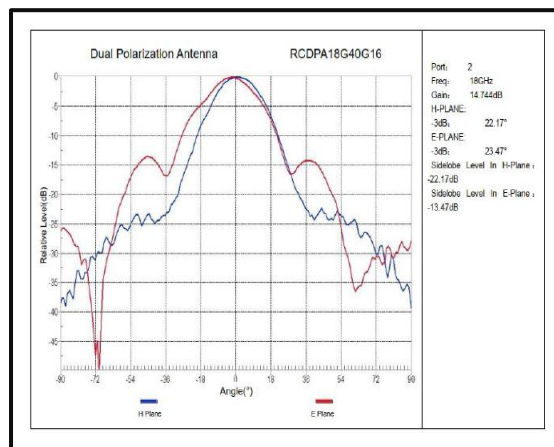
Pattern



Pattern

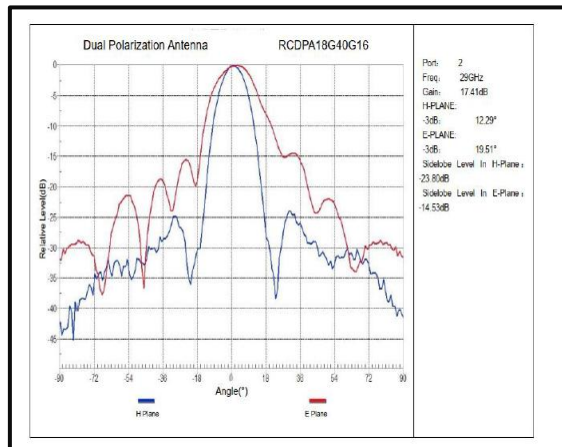


Pattern

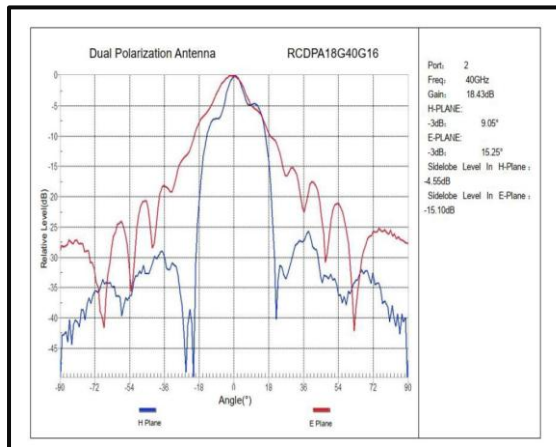


Typical Performance Plots

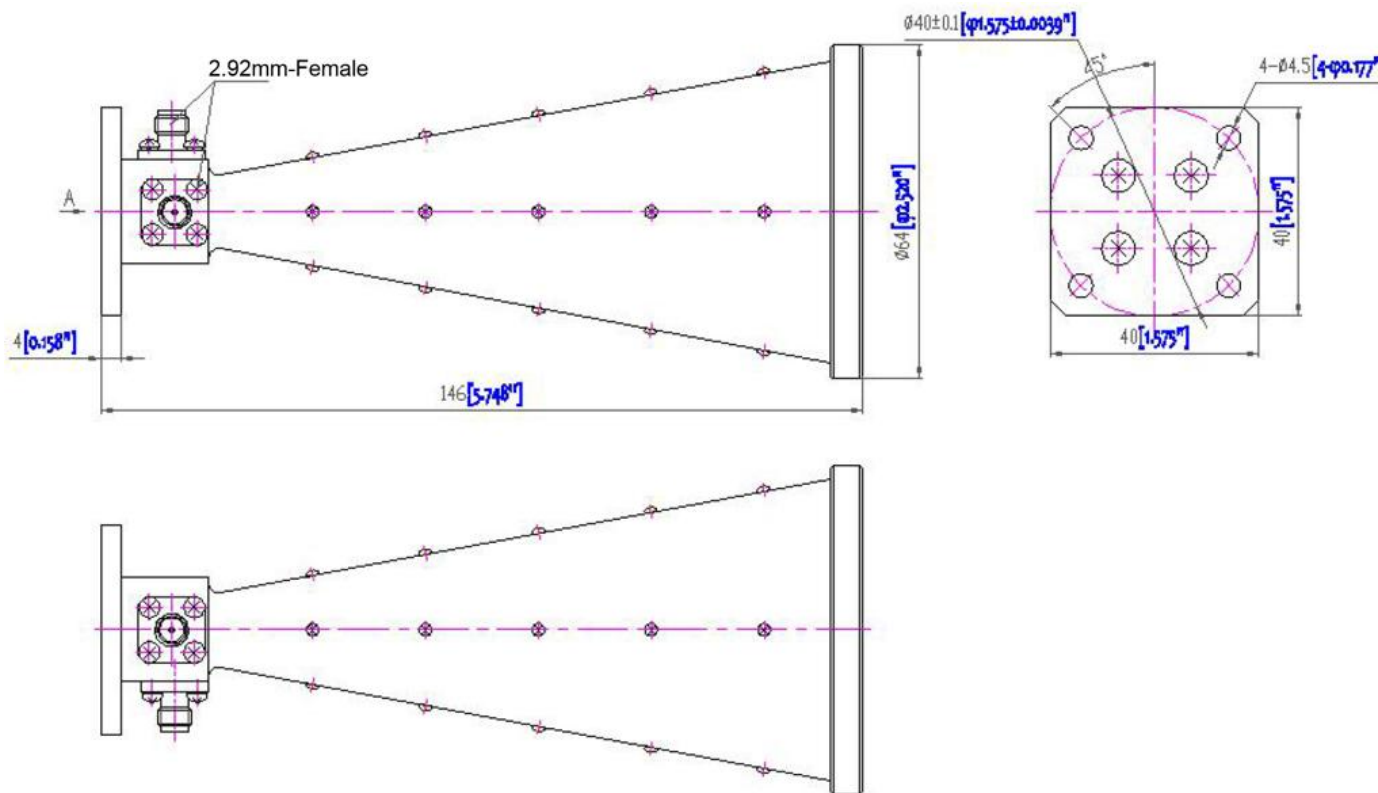
Pattern



Pattern



Outline Drawing



Notes:

1. All dimensions are in millimeters [inches]
2. Standard torque wrench must be used to secure RF connectors.

Additional Information

Documentation	Webpage
ESD Policy	https://rflambda.com/pdf/rflambda_esd_control.pdf
Connector Torque Specifications	https://www.rflambda.com/pdf/Torque_Specifications.pdf
Random Vibration Test Standard	https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf

Ordering Information

Part Number	Modification	Description
RCDPA18G40G16	Connectors 2.92mm–Female	18GHz-40GHz Dual Polarization Antenna

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