



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RW75HORN10C14

Fan Beam Circular Polarized Antenna 13.75 - 14.5GHz

Typical Applications

- Wireless Infrastructure
- RF Microwave & VSAT
- Military & Aerospace
- Test Instrument
- Fiber Optics



Electrical Specifications, $T_A=25^{\circ}\text{C}$

Parameter	Min	Typ.	Max	Units
Frequency Range	13.75~14.5			GHz
Gain	10			dB
VSWR			2	:1
HPBW	>70 degree X dimension			
	>15 degree Y dimension			
Material	Aluminum			

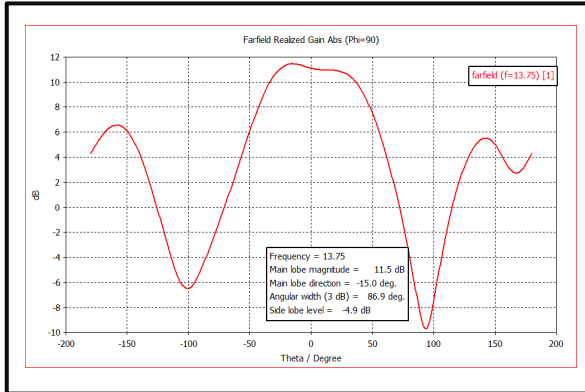
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
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	MIL-STD-883 (For Hermetically Sealed Units)

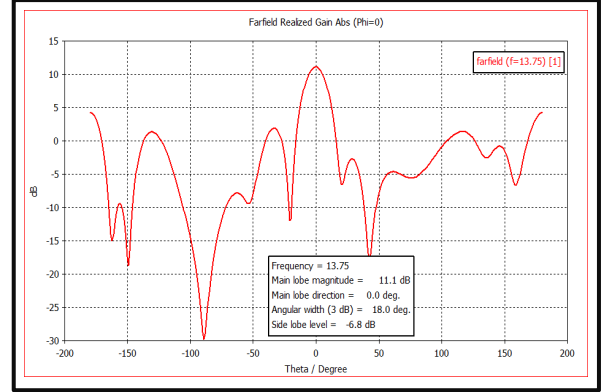
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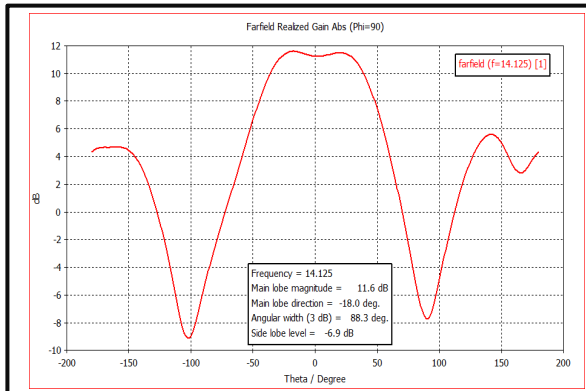
**F=13.75GHz Directional Pattern
X dimension**



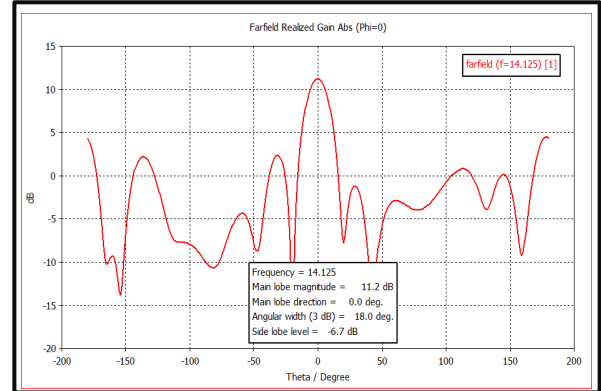
**F=13.75GHz Directional Pattern
Y dimension**



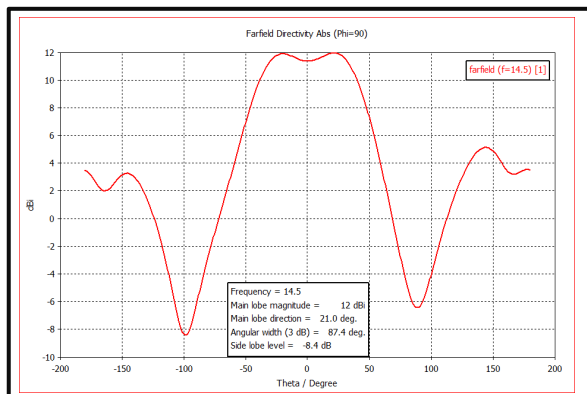
**F=14.125GHz Directional Pattern
X dimension**



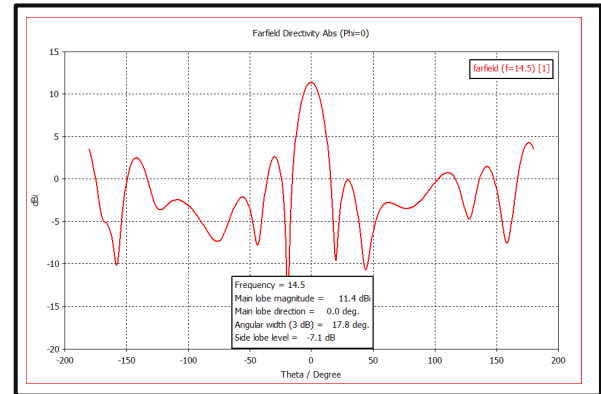
**F=14.125GHz Directional Pattern
Y dimension**



**F=14.5GHz Directional Pattern
X dimension**

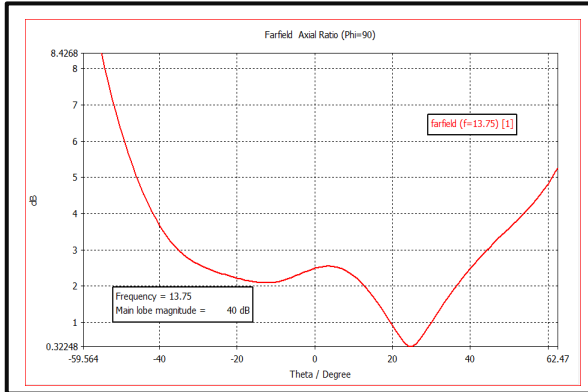


**F=14.5GHz Directional Pattern
Y dimension**

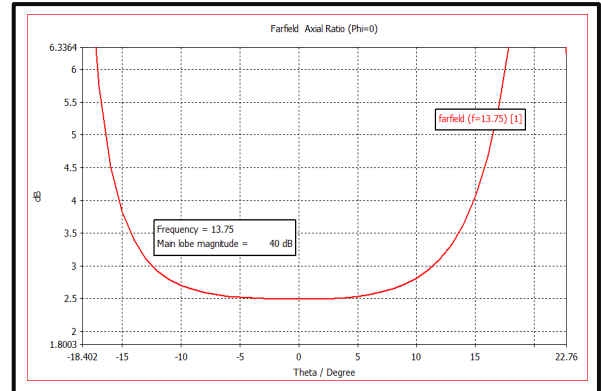




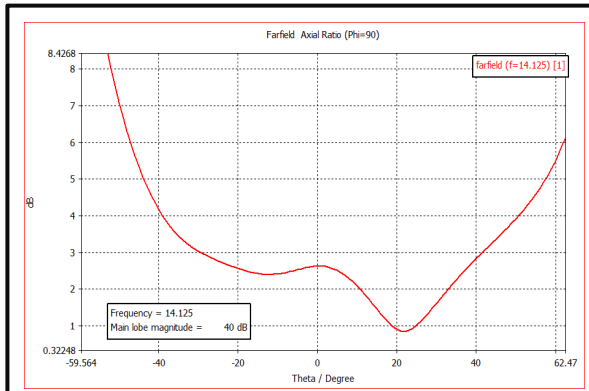
**F=13.75GHz Axial Ratio Curve
X dimension**



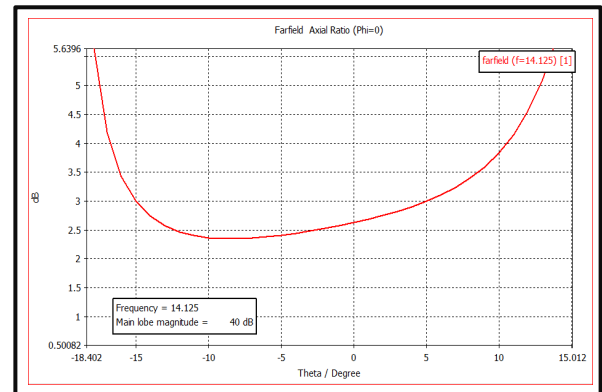
**F=13.75GHz Axial Ratio Curve
Y dimension**



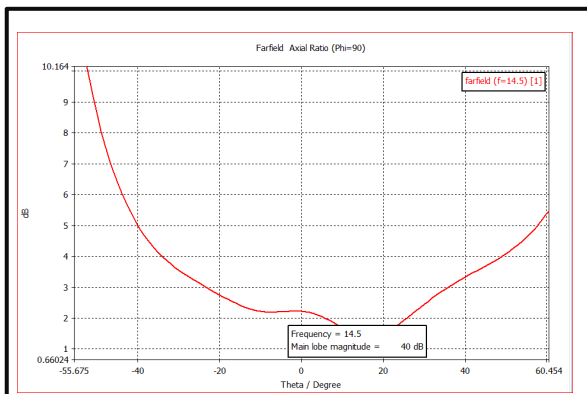
**F=14.125GHz Axial Ratio Curve
X dimension**



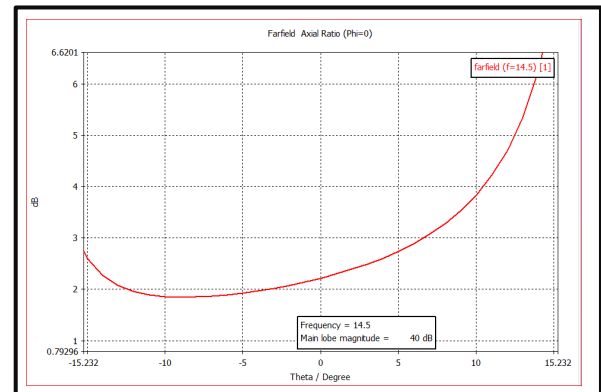
**F=14.125GHz Axial Ratio Curve
Y dimension**



**F=14.5GHz Axial Ratio Curve
X dimension**



**F=14.5GHz Axial Ratio Curve
Y dimension**



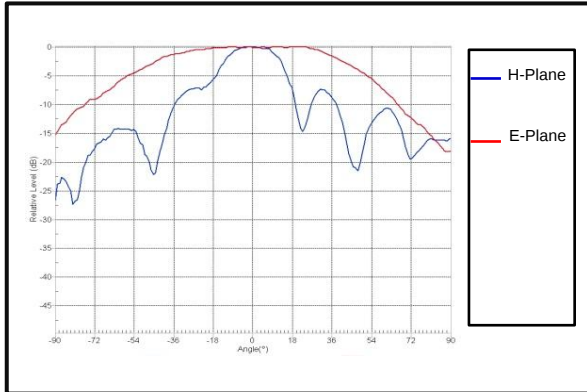


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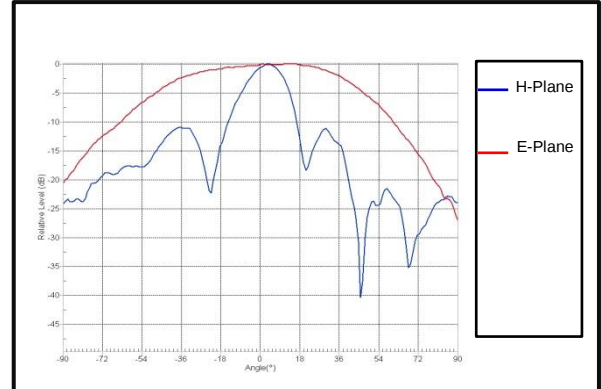
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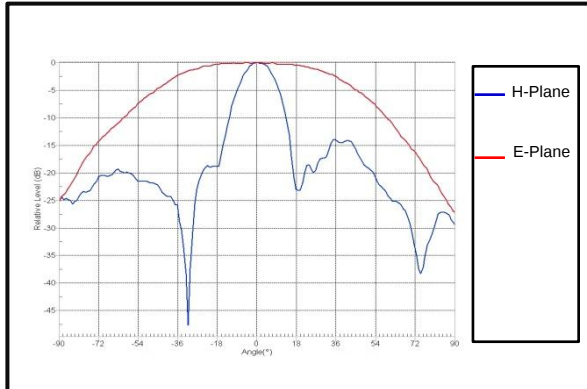
F=13.75GHz, Gain=8.05dB, Axis Ratio=2.80dB
H Plane BW: -3dB=27.38°, E Plane BW: -3dB=90.00°



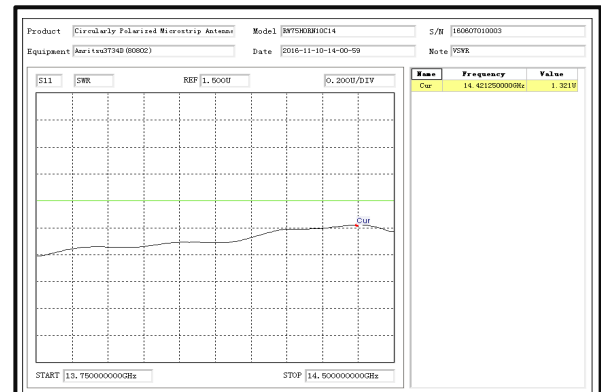
F=14.125GHz, Gain=8.93dB, Axis Ratio=2.80dB
H Plane BW: -3dB=17.04°, E Plane BW: -3dB=79.43°



F=14.5GHz, Gain=10.50dB, Axis Ratio=2.50dB
H Plane BW: -3dB=15.08°, E Plane BW: -3dB=76.52°



VSWR



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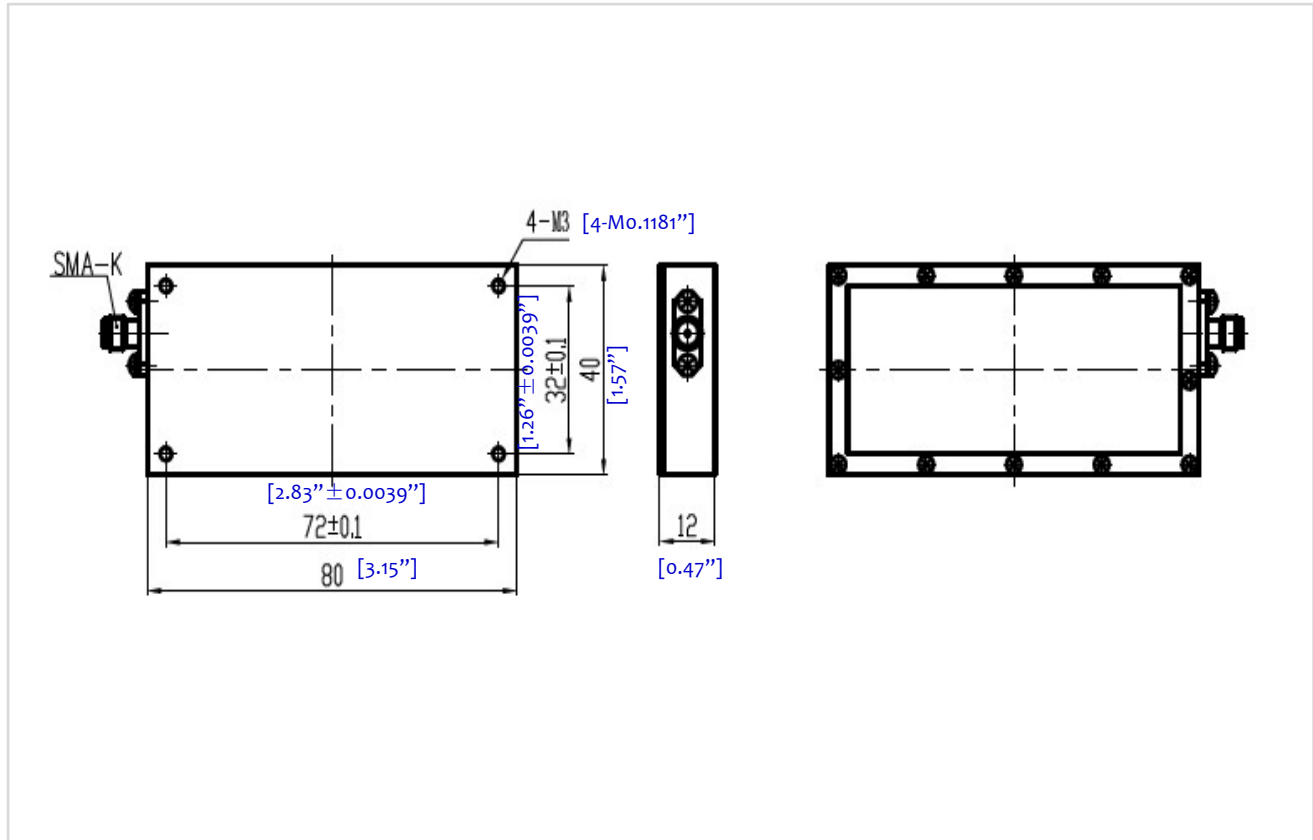
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Outline Drawing:

All Dimensions in mm [inches]



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