



LB-SJ-40400-2.4F Broadband Dual Polarization Horn Antenna 4-40GHz  
12dB Gain 2.4mm Female

Broadband Dual Polarization Horn Antenna Operating From 4GHz to 40GHz With a Nominal 12dB Gain With 2.4mm Female Connector

### Product Information

SKU	LB-SJ-40400-2.4F	Patents	US D975690 (USA)
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### Description

Broadband Dual Polarization Horn Antenna LB-SJ-40400-2.4F, operating from 4 to 40GHz with a nominal 12dB gain and low VSWR 1.5:1 with 2.4mm Female output connector. The model LB-SJ-40400-2.4F has uniform gain through its frequency span, providing efficient performance characteristics and directionality. It can handle 10W continuously and 20W peak power. Constructed of lightweight corrosion-resistant aluminum, the antenna will provide years of trouble-free indoor and outdoor service. This horn antenna has dual linear polarization and ideally suited for EMI testing, direction finding, surveillance, antenna gain and pattern measurements and other applications.

## Technical Specification

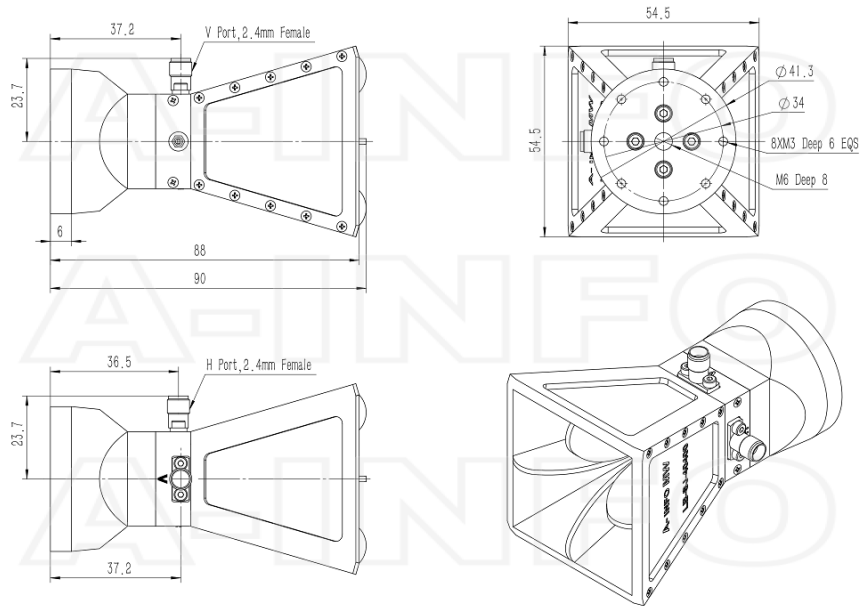
Electrical Specification		Interface	
Frequency, Min (GHz)	4	Output Type	Coaxial
Frequency, Max (GHz)	40	Connector	2.4mm
Gain, Typ (dBi)	12	Connector Gender	Female
Polarization	Dual Linear	Mechanical Specification	
3dB Beamwidth, E-Plane, Min (Deg.)	28	Body Material	Al
3dB Beamwidth, E-Plane, Max (Deg.)	85	Finish	Chemical Conversion Coating
3dB Beamwidth, H-Plane, Min (Deg.)	18	Size, W (mm)	54.5
3dB Beamwidth, H-Plane, Max (Deg.)	94	Size, H (mm)	54.5
Cross Pol. Isolation, Min (dB)	20	Size, L (mm)	90
Cross Pol. Isolation, Typ (dB)	30	Weight, (kg)	0.15
Port to Port Isolation, Min (dB)	20		
Port to Port Isolation, Typ (dB)	30		
VSWR, Typ	1.5:1		
VSWR, Max	2.5:1		
Impedance, (Ohm)	50		
Power Handling, CW, (W)	10		
Power Handling, Peak, (W)	20		

## Additional Information

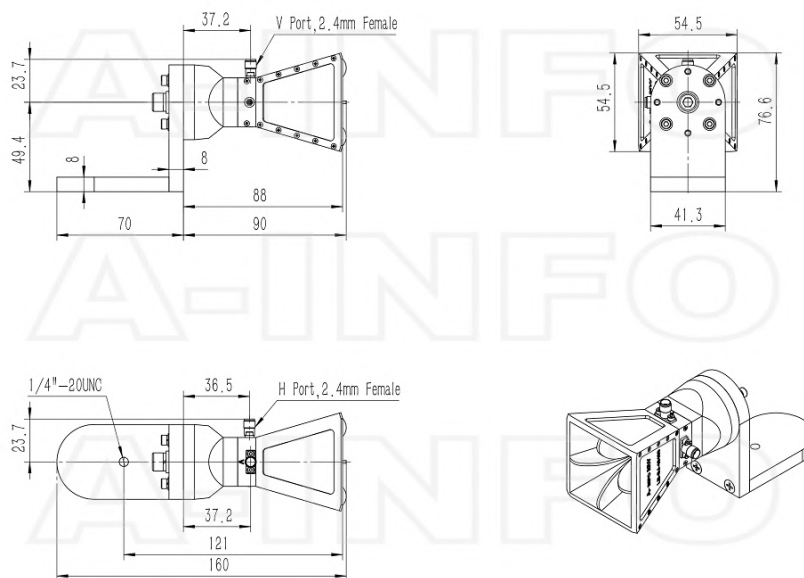
Application	General Purpose Indoor & Outdoor, Fixed	Solution for	Antenna Measurement Reflector Feed Far-field Measurement Planar Near-Field Measurement Cylindrical Near-Field Measurement Spherical Near-Field Measurement CATR System Intergration
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## Outline Drawing

2.4mm-Female Output (P/N: LB-SJ-40400-2.4F)

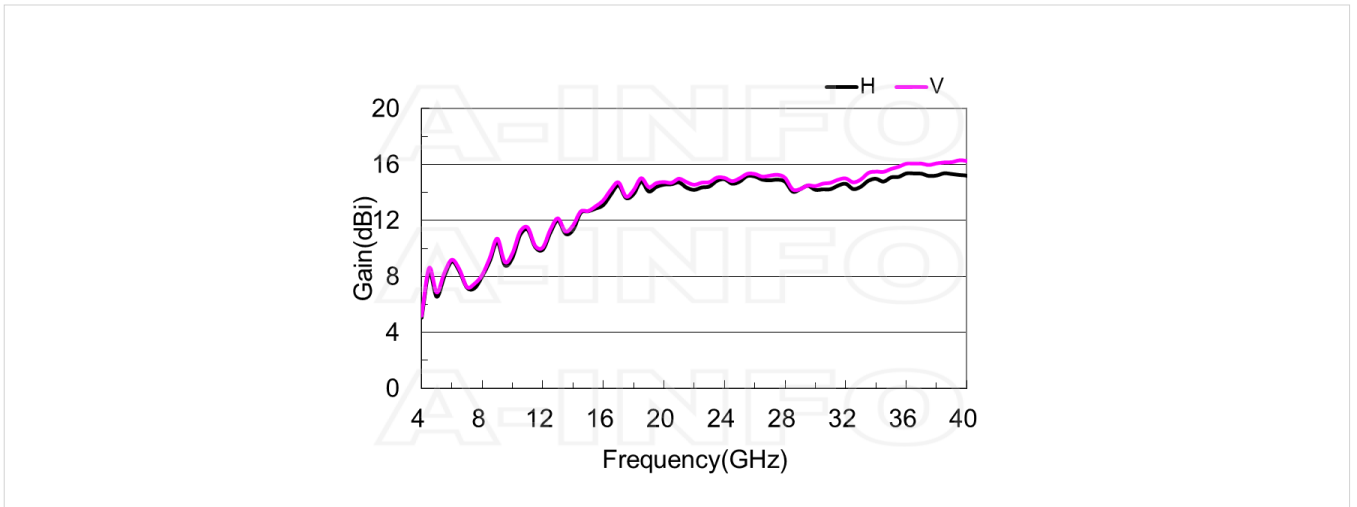


2.4mm-Female Output with L Type Mounting Bracket (Option, P/N: LB-20180-L)

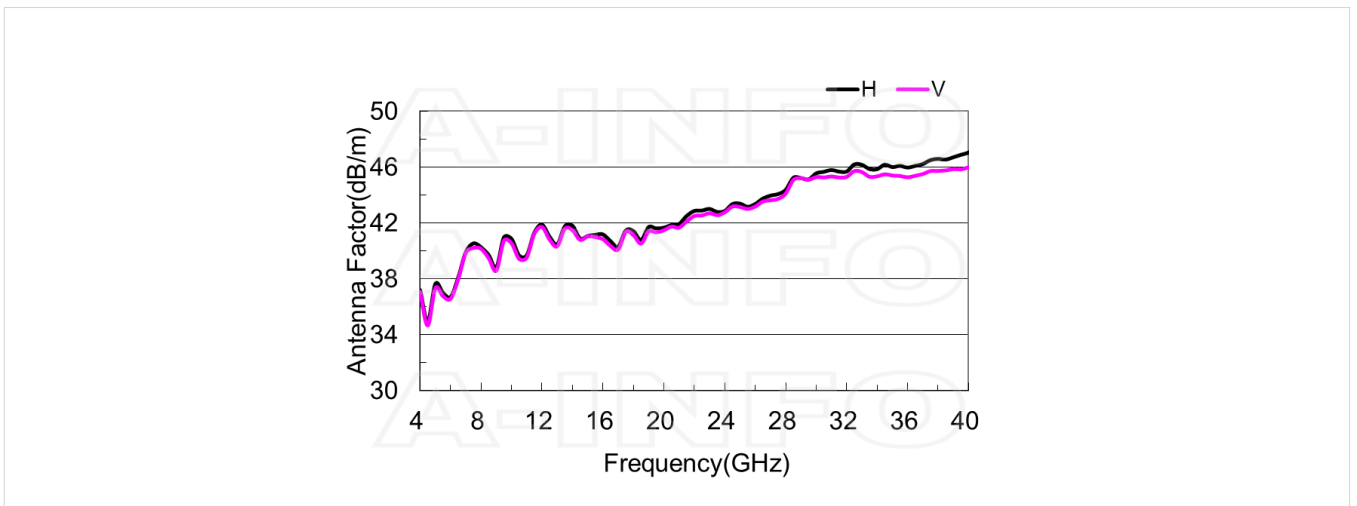


## Typical Test Results

### Gain



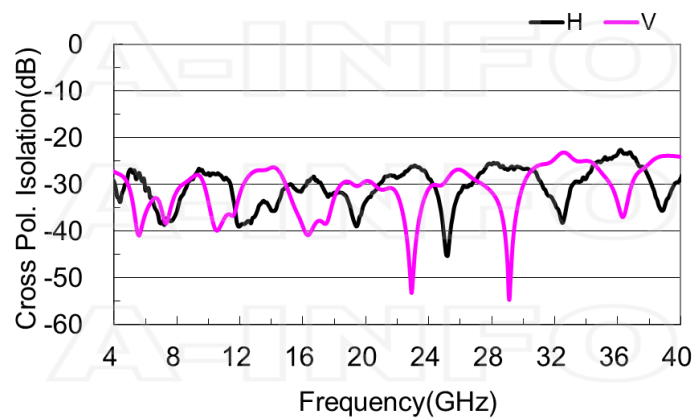
### Antenna Factor



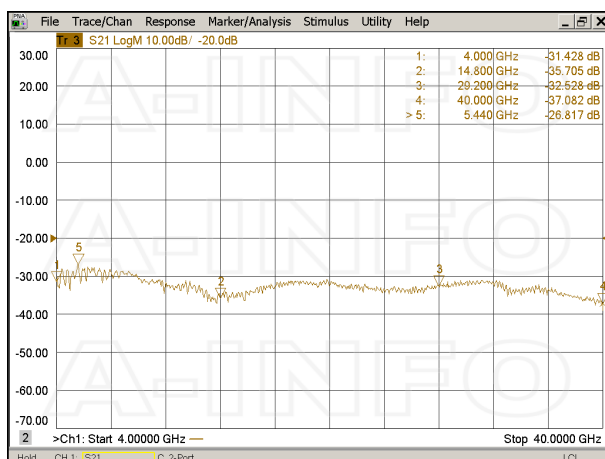
## Antenna Factor (Table)

Frequency(GHz)	Horizontal		Vertical	
	Gain(dBi)	AF(dB/m)	Gain(dBi)	AF(dB/m)
4.0	5.05	37.20	5.19	37.06
5.0	6.55	37.64	6.86	37.33
6.0	9.07	36.70	9.20	36.58
7.0	7.20	39.91	7.24	39.87
8.0	8.01	40.26	8.11	40.16
9.0	10.48	38.81	10.71	38.59
10.0	9.34	40.87	9.66	40.55
12.0	9.91	41.88	10.07	41.72
14.0	11.32	41.81	11.65	41.49
16.0	13.10	41.19	13.45	40.84
18.0	13.89	41.43	14.18	41.14
20.0	14.56	41.67	14.75	41.48
22.0	14.19	42.87	14.55	42.51
24.0	14.95	42.87	15.05	42.77
26.0	15.15	43.36	15.32	43.18
28.0	14.77	44.38	15.04	44.11
30.0	14.19	45.56	14.46	45.30
32.0	14.62	45.69	15.00	45.31
34.0	14.98	45.86	15.49	45.35
36.0	15.36	45.98	16.06	45.28
38.0	15.21	46.59	16.08	45.73
40.0	15.20	47.06	16.25	46.00

## Cross Polarization Isolation

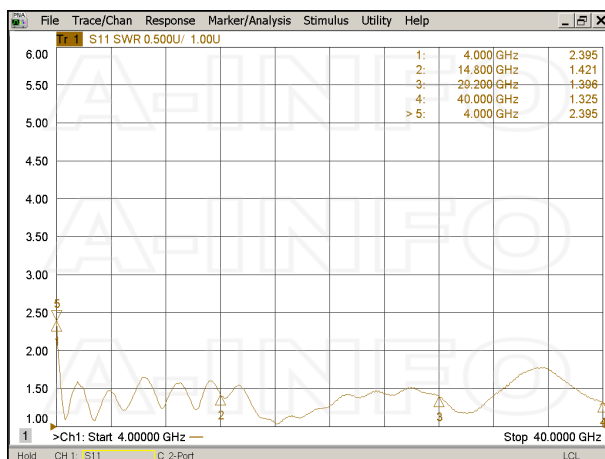


### Port to Port Isolation

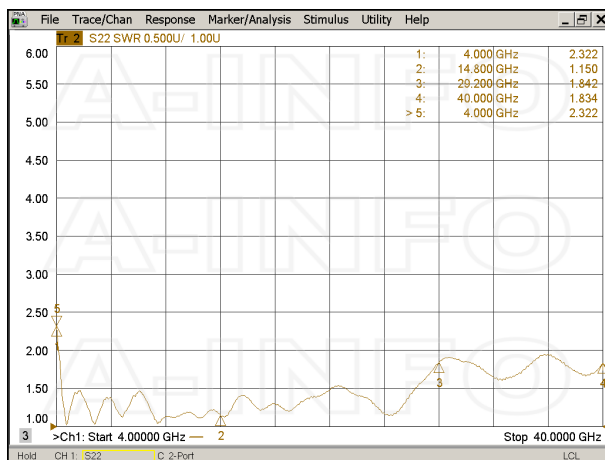


### VSWR

#### Port-H

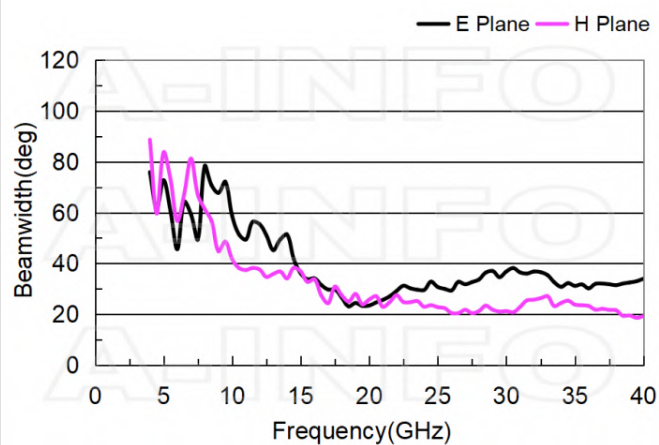


#### Port-V

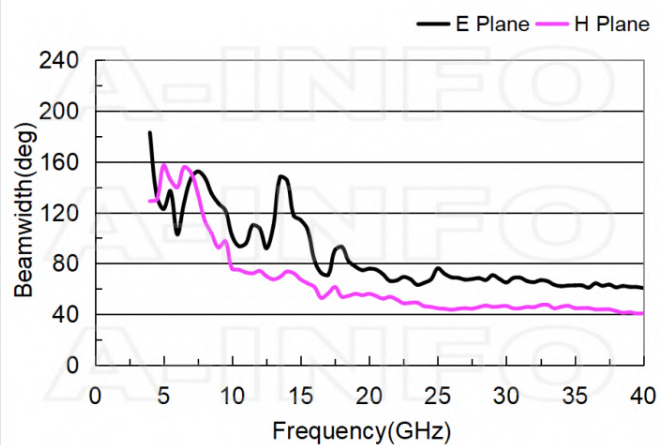


## Beamwidth

3dB Beamwidth

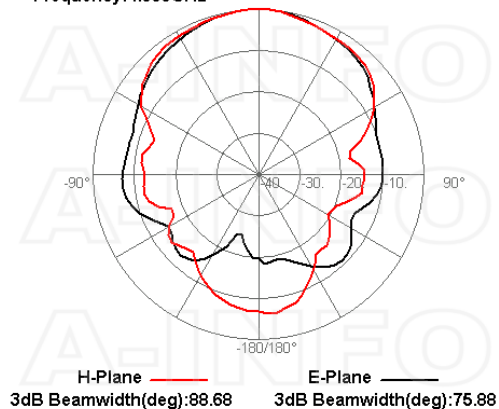


10dB Beamwidth

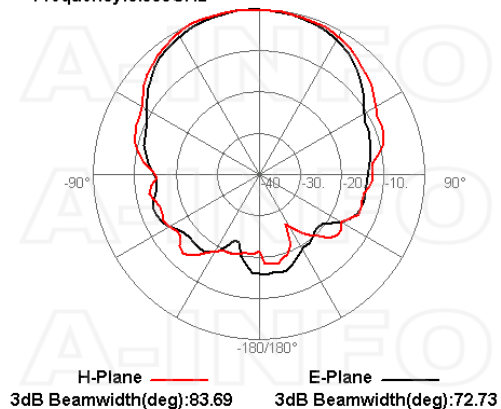


## Pattern 1

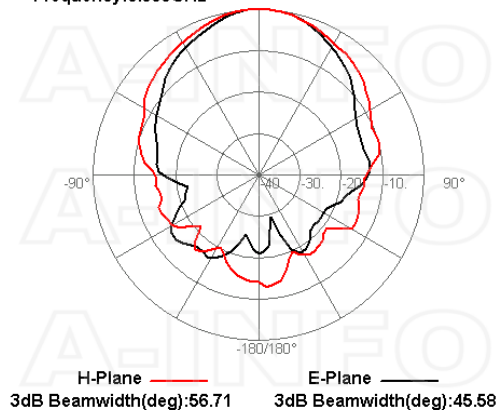
Frequency:4.000GHz



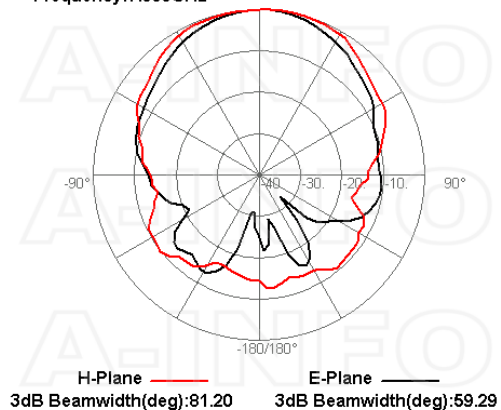
Frequency:5.000GHz



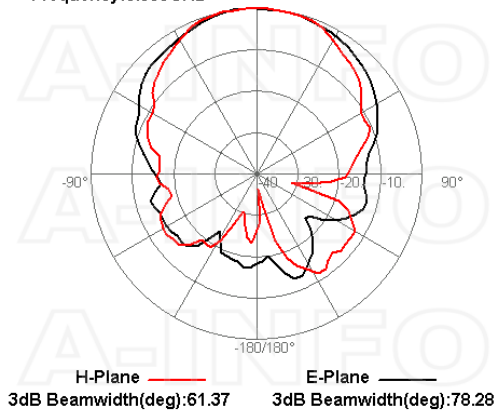
Frequency:6.000GHz



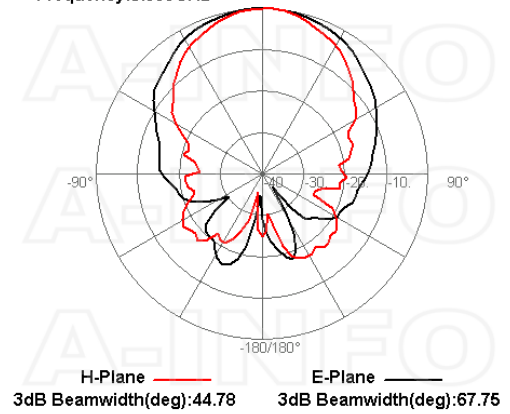
Frequency:7.000GHz



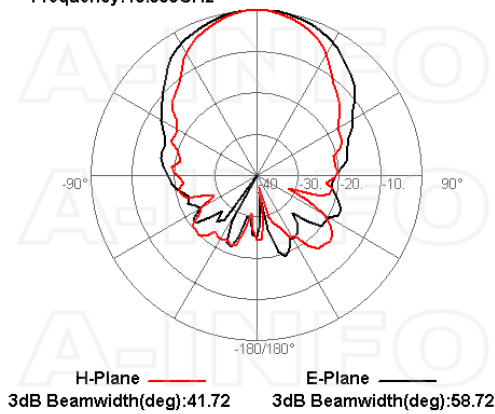
Frequency:8.000GHz



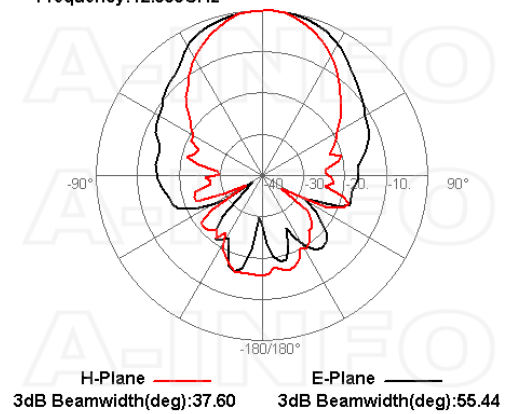
Frequency:9.000GHz



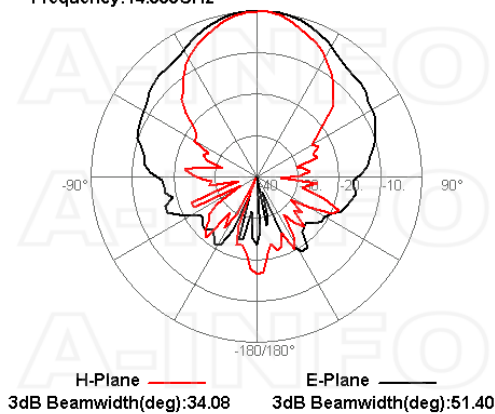
Frequency:10.000GHz



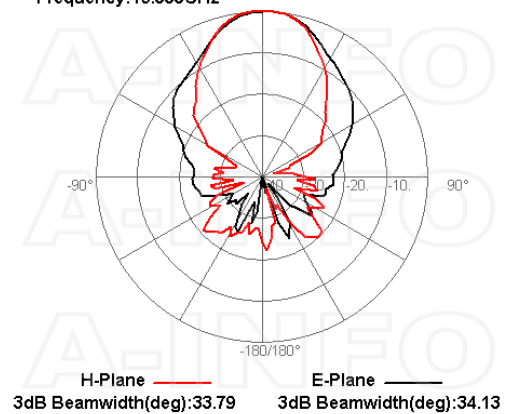
Frequency:12.000GHz



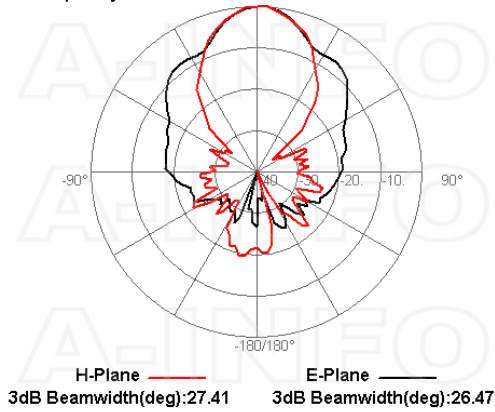
Frequency:14.000GHz



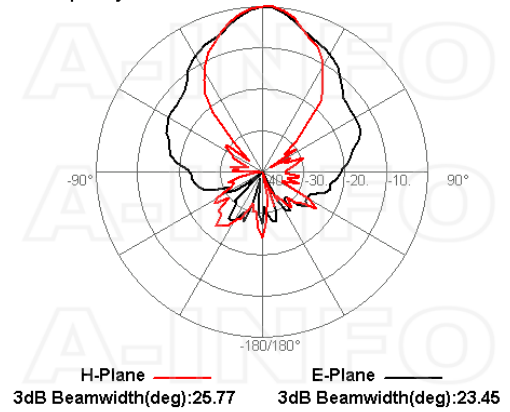
Frequency:16.000GHz



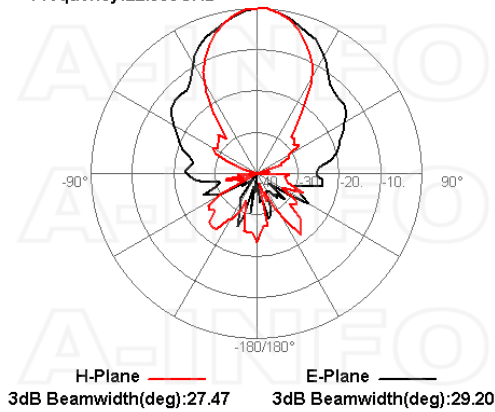
Frequency:18.000GHz



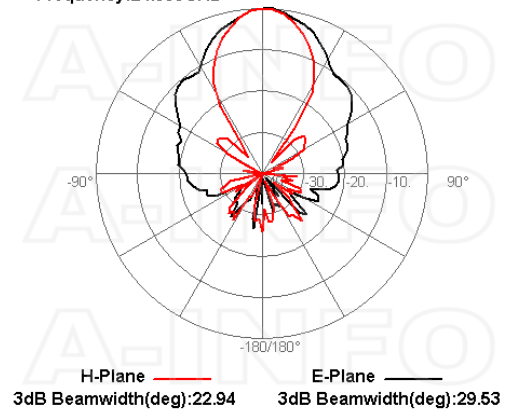
Frequency:20.000GHz



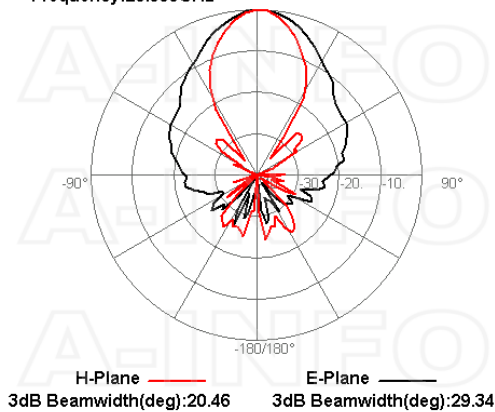
Frequency:22.000GHz



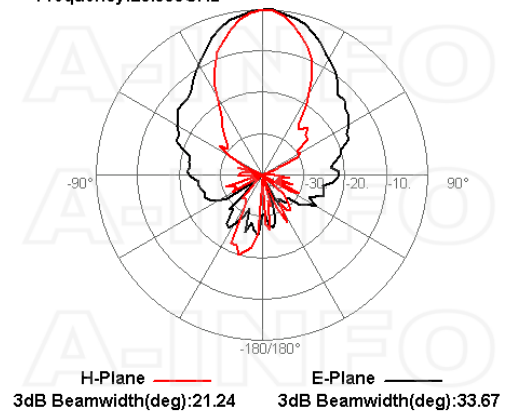
Frequency:24.000GHz



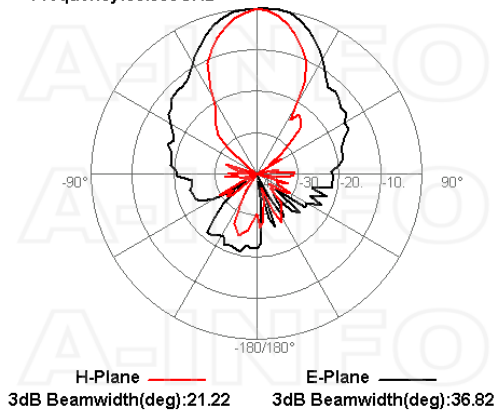
Frequency:26.000GHz



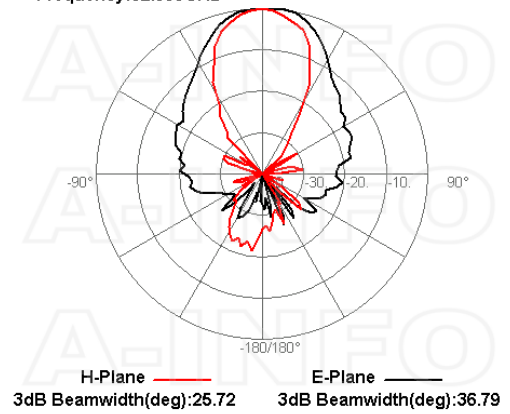
Frequency:28.000GHz



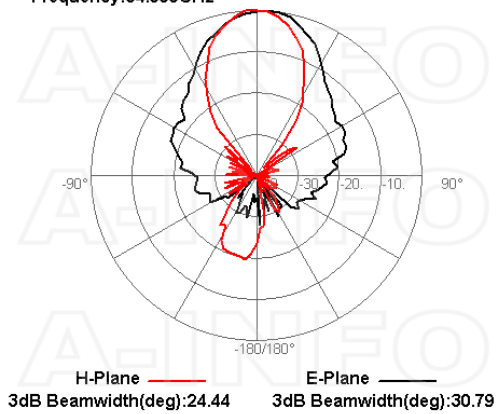
Frequency:30.000GHz



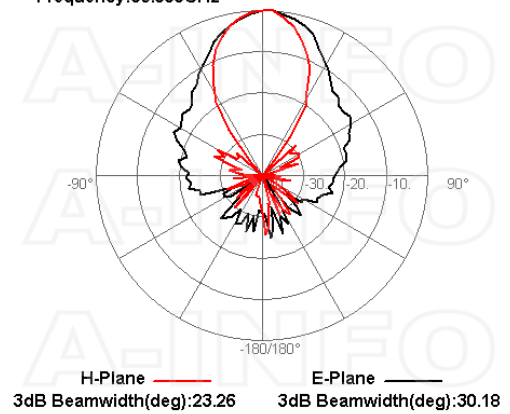
Frequency:32.000GHz



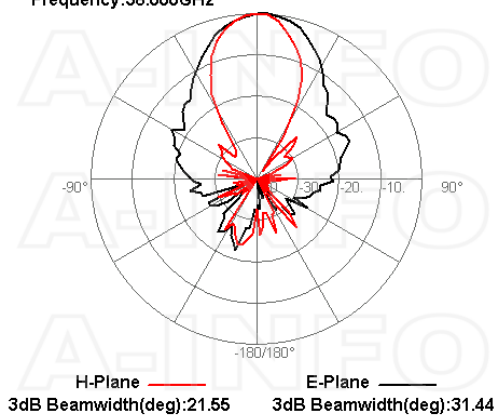
Frequency:34.000GHz



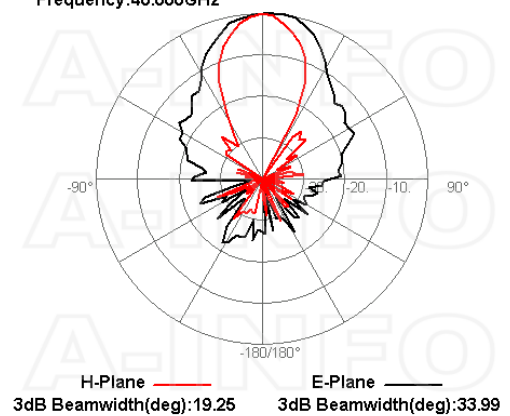
Frequency:36.000GHz



Frequency:38.000GHz



Frequency:40.000GHz



## Related Products



LB-20180-L L Type Mounting Bracket



Tripod\_15Kg Al Alloy Tripod



3033HL Wooden Tripod



3033QM Wooden Tripod Metalfree



Carrying Case\_LB-SJ-40400 Al Alloy Carrying Case



2.4M-2.4M-A050-500 Flexible Cable Assembly 500mm DC-40GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-A050-1000 Flexible Cable Assembly 1000mm DC-40GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-A050-1500 Flexible Cable Assembly 1500mm DC-40GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-A050-2000 Flexible Cable Assembly 2000mm DC-40GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-A050-3000 Flexible Cable Assembly 3000mm DC-40GHz 2.4mm Male to 2.4mm Male



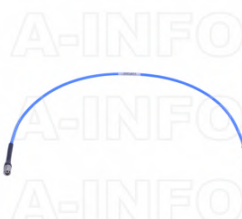
2.4M-2.4M-A050-5000 Flexible Cable Assembly 5000mm DC-40GHz 2.4mm Male to 2.4mm Male



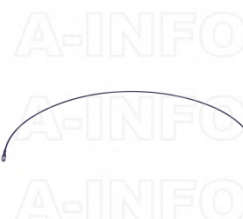
2.4M-2.4M-A050-10000 Flexible Cable Assembly 10000mm DC-40GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-300 Flexible Cable Assembly 300mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-500 Flexible Cable Assembly 500mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-1000 Flexible Cable Assembly 1000mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-1500 Flexible Cable Assembly 1500mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-2000 Flexible Cable Assembly 2000mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-3000 Flexible Cable Assembly 3000mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-5000 Flexible Cable Assembly 5000mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4M-B020-10000 Flexible Cable Assembly 10000mm DC-50GHz 2.4mm Male to 2.4mm Male



2.4M-2.4F-B020S-500 Flexible Cable Assembly 500mm DC-50GHz 2.4mm Male to 2.4mm Female



2.4M-2.4F-B020S-1000 Flexible Cable Assembly 1000mm DC-50GHz 2.4mm Male to 2.4mm Female



2.4M-2.4F-B020S-1500 Flexible Cable Assembly 1500mm DC-50GHz 2.4mm Male to 2.4mm Female



2.4M-2.4F-B020S-2000 Flexible Cable Assembly 2000mm DC-50GHz 2.4mm Male to 2.4mm Female



2.4M-2.4F-B020S-3000 Flexible Cable Assembly 3000mm DC-50GHz 2.4mm Male to 2.4mm Female



2.4M-2.4F-B020S-5000 Flexible Cable Assembly 5000mm DC-50GHz 2.4mm Male to 2.4mm Female



2.4M-2.4F-B020S-10000 Flexible Cable Assembly 10000mm DC-50GHz 2.4mm Male to 2.4mm Female

### About this Datasheet

<ul style="list-style-type: none"> <li>● <b>Product Information</b> Product Link: <a href="https://www.ainfoinc.com/lb-sj-40400-2-4f-broadband-dual-polarization-horn-antenna-4-40-ghz-12db-gain-2-4mm-female">https://www.ainfoinc.com/lb-sj-40400-2-4f-broadband-dual-polarization-horn-antenna-4-40-ghz-12db-gain-2-4mm-female</a> Data subject to change without notice. © A-INFO INC. 2024. All Rights Reserved</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Contact Us</b> Address: 60 Tesla, Irvine, CA 92618, USA  Website: <a href="http://www.ainfoinc.com">www.ainfoinc.com</a>  Email: <a href="mailto:sales@ainfoinc.com">sales@ainfoinc.com</a></li> </ul>	<ul style="list-style-type: none"> <li>● <b>Phone &amp; Fax</b> Phone: +1-949-639-9688 +1-949-639-9608  Fax: +1-949-639-9670</li> </ul>
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