



LB-OSJ-0460-NF Open Boundary Quad-Ridged Dual Polarization Horn Antenna 0.4-6GHz 12dB Gain N Type Female

Open Boundary Quad-Ridged Dual Polarization Horn Antenna Operating From 0.4GHz to 6GHz With a Nominal 12dB Gain With N Type Female Connector

### Product Information

SKU	LB-OSJ-0460-NF
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### Description

Open Boundary Quad-Ridged Dual Polarization Horn Antenna LB-OSJ-0460-NF, operating from 0.4 to 6GHz with a nominal 12dB gain and low VSWR 1.5:1 with N Type Female output connector. The model LB-OSJ-0460-NF has uniform gain through its frequency span, providing efficient performance characteristics and directionality. It can handle 50W continuously and 100W 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

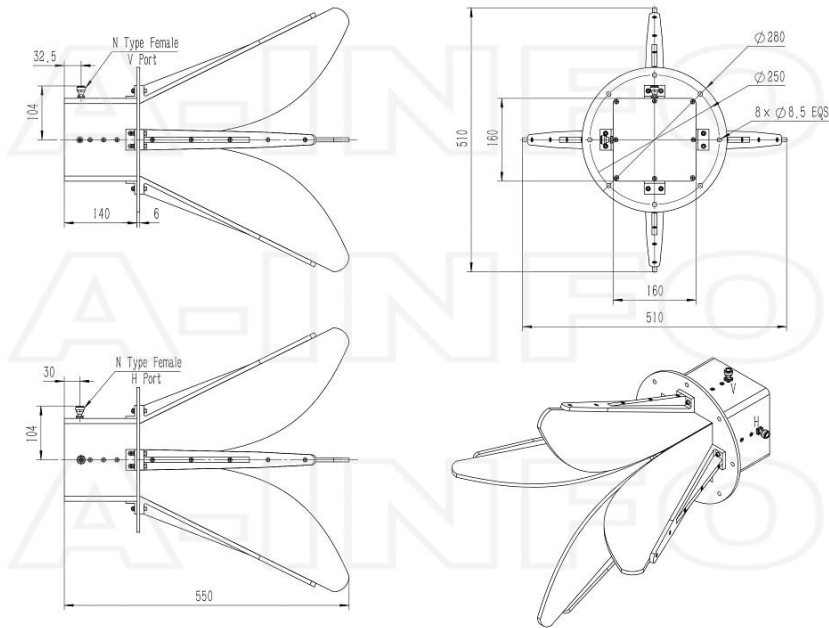
Electrical Specification		Interface	
Frequency, Min (GHz)	0.4	Output Type	Coaxial
Frequency, Max (GHz)	6	Connector	N Type
Gain, Typ (dBi)	12	Connector Gender	Female
Polarization	Dual Linear	Mechanical Specification	
3dB Beamwidth, E-Plane, Min (Deg.)	24	Body Material	Al
3dB Beamwidth, E-Plane, Max (Deg.)	90	Finish	Chemical Conversion Coating and Nickel Plated
3dB Beamwidth, H-Plane, Min (Deg.)	19	Size, W (mm)	510
3dB Beamwidth, H-Plane, Max (Deg.)	137	Size, H (mm)	510
Cross Pol. Isolation, Min (dB)	20	Size, L (mm)	550
Cross Pol. Isolation, Typ (dB)	30	Weight, (kg)	9.5
Port to Port Isolation, Min (dB)	20		
Port to Port Isolation, Typ (dB)	35		
VSWR, Typ	1.5:1		
Impedance, (Ohm)	50		
Power Handling, CW, (W)	50		
Power Handling, Peak, (W)	100		

## Additional Information

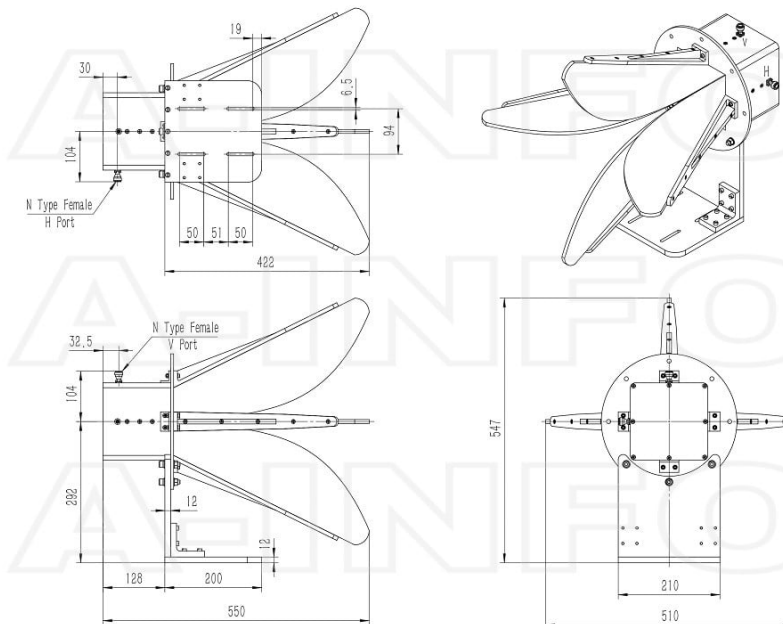
Application	General Purpose Indoor & Outdoor, Fixed	Solution for	Antenna Measurement Reflector Feed Far-field Measurement Planar Near-Field Measurement Cylindrical Near-Field Measurement Spherical Near-Field Measurement CATR System Intergration
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##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

N-Female Output (P/N: LB-OSJ-0460-NF)



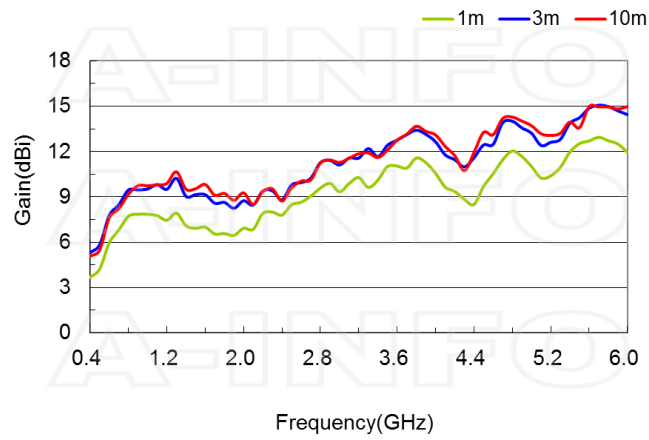
N-Female Output with L Type Mounting Bracket (Option, P/N: LB-OSJ-0460-L)



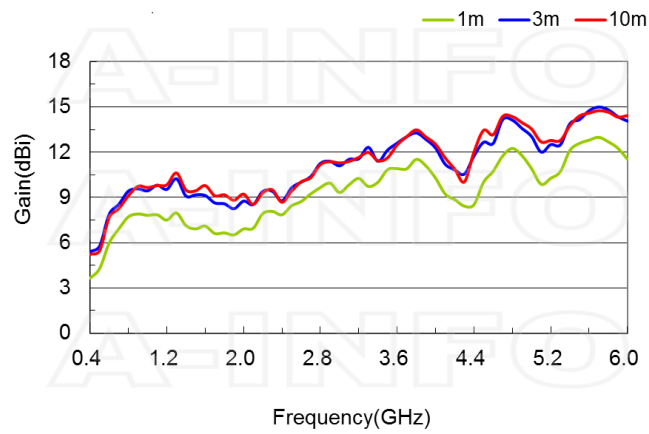
## Typical Test Results

### Gain

Port-H

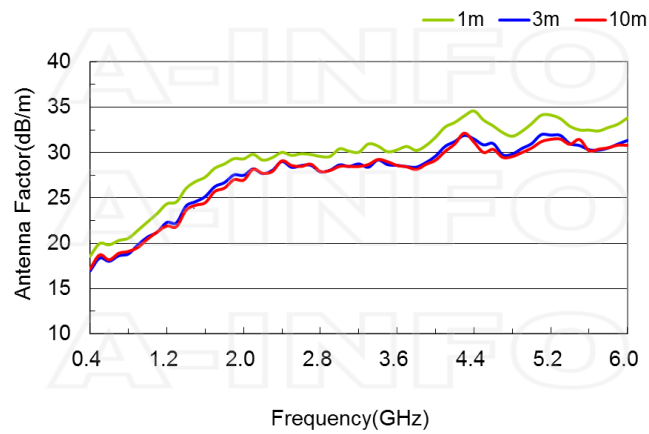


Port-V

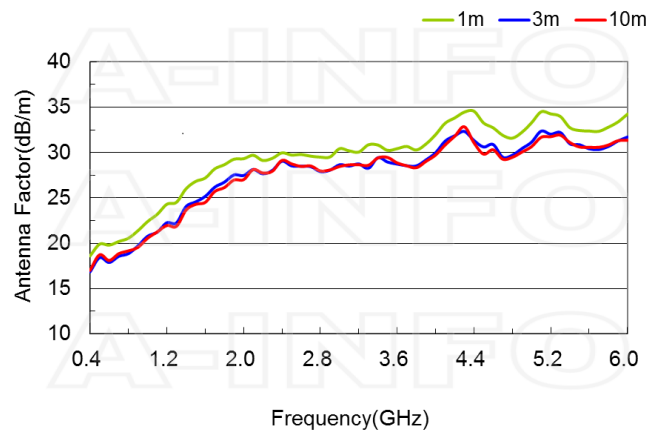


### Antenna Factor

Port-H



Port-V

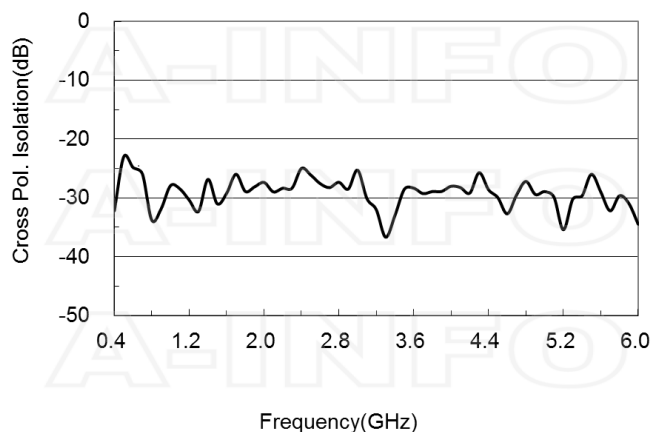


### Antenna Factor (Table)

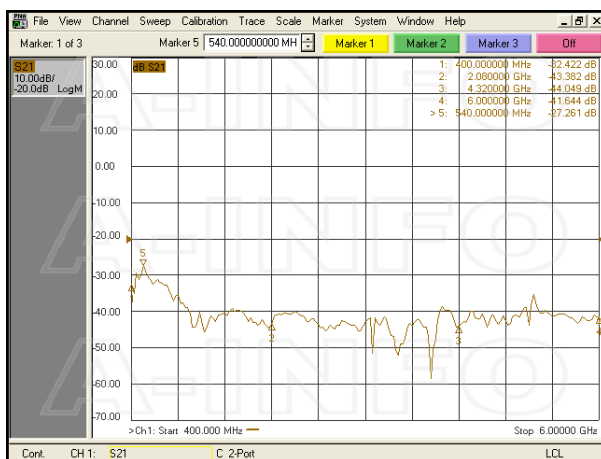
Horizontal Polarization						
Frequency (GHz)	1m		3m		10m	
	Gain(dBi)	AF(dB/m)	Gain(dBi)	AF(dB/m)	Gain(dBi)	AF(dB/m)
0.4	3.68	18.57	5.31	16.94	5.08	17.17
0.5	4.23	19.96	5.83	18.36	5.48	18.71
0.6	5.95	19.82	7.76	18.01	7.60	18.17
0.7	6.81	20.30	8.48	18.63	8.22	18.90
0.8	7.72	20.56	9.45	18.82	9.17	19.10
0.9	7.86	21.44	9.46	19.84	9.74	19.55
1.0	7.85	22.36	9.52	20.69	9.74	20.47
2.0	6.93	29.30	8.75	27.49	9.27	26.96
3.0	9.34	30.41	11.12	28.64	11.28	28.48
4.0	10.56	31.69	12.64	29.61	13.10	29.15
5.0	11.01	33.18	13.21	30.98	13.71	30.48
6.0	11.95	33.82	14.44	31.33	14.98	30.80

Vertical Polarization						
Frequency (GHz)	1m		3m		10m	
	Gain(dBi)	AF(dB/m)	Gain(dBi)	AF(dB/m)	Gain(dBi)	AF(dB/m)
0.4	3.65	18.60	5.41	16.84	5.24	17.02
0.5	4.29	19.90	5.78	18.41	5.46	18.72
0.6	5.98	19.79	7.89	17.88	7.67	18.10
0.7	6.92	20.20	8.55	18.57	8.26	18.85
0.8	7.72	20.55	9.42	18.85	9.11	19.16
0.9	7.90	21.39	9.57	19.73	9.74	19.56
1.0	7.82	22.39	9.44	20.77	9.66	20.55
2.0	6.91	29.32	8.76	27.47	9.22	27.01
3.0	9.33	30.42	11.10	28.65	11.29	28.47
4.0	10.28	31.97	12.27	29.98	12.53	29.73
5.0	10.91	33.28	13.04	31.15	13.54	30.65
6.0	11.53	34.24	14.06	31.71	14.43	31.35

## Cross Polarization Isolation

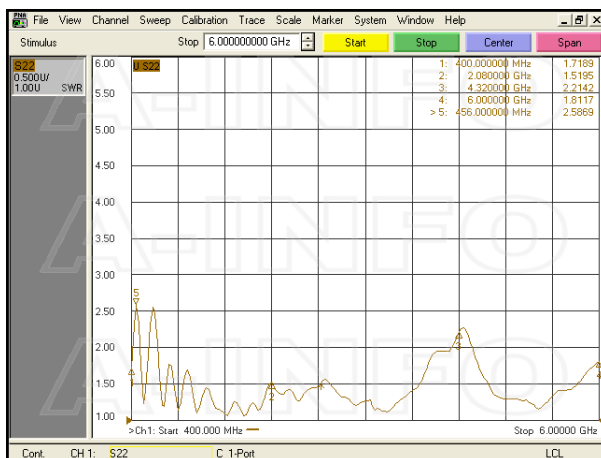


## Port to Port Isolation

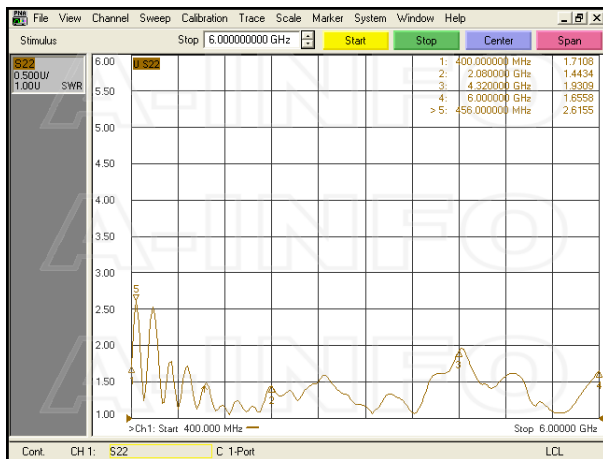


## VSWR

### Port-H

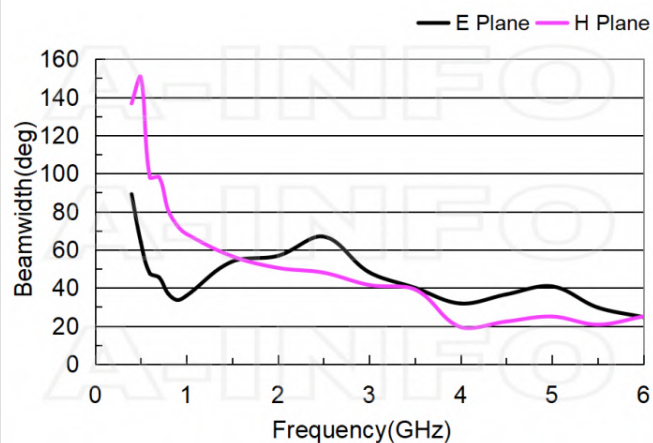


Port-V

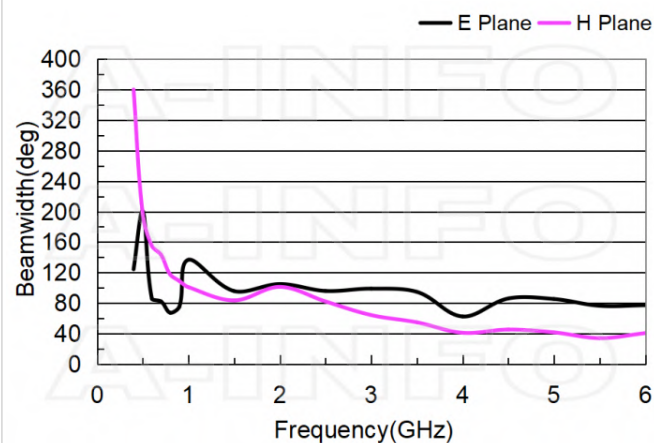


Beamwidth

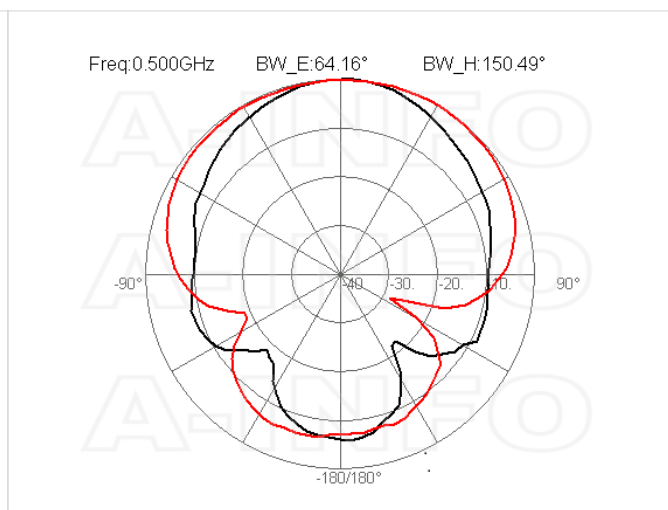
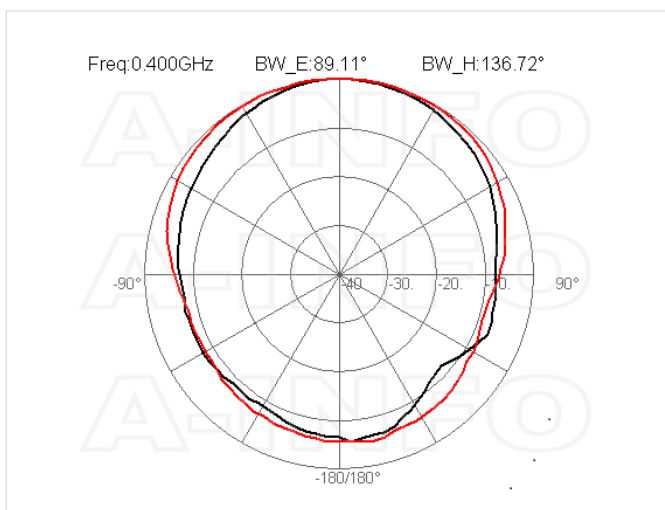
3dB Beamwidth

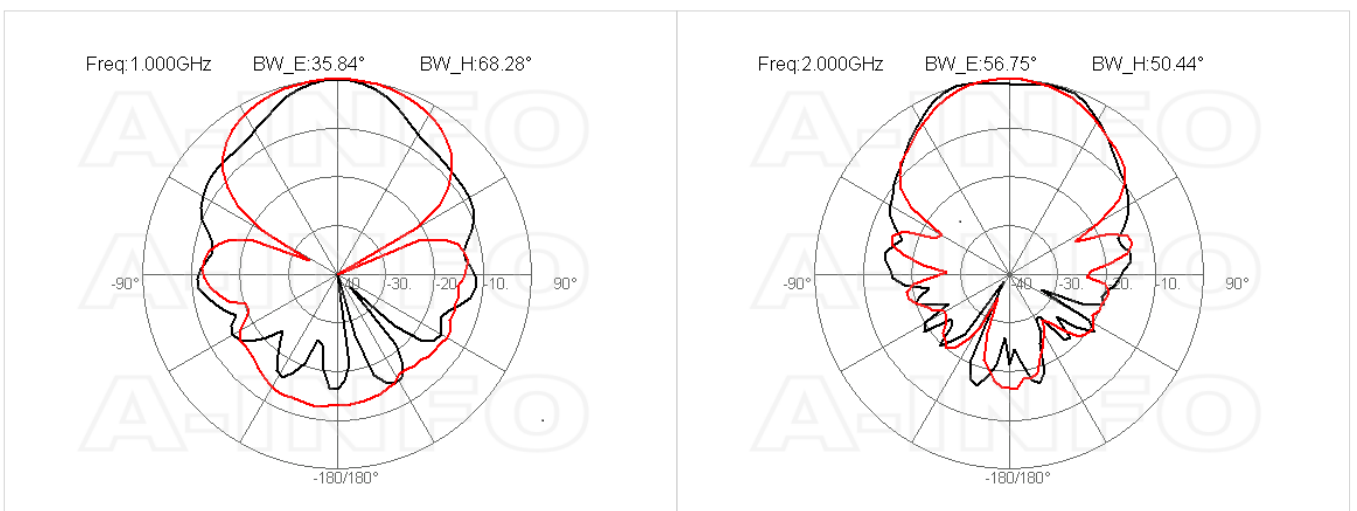
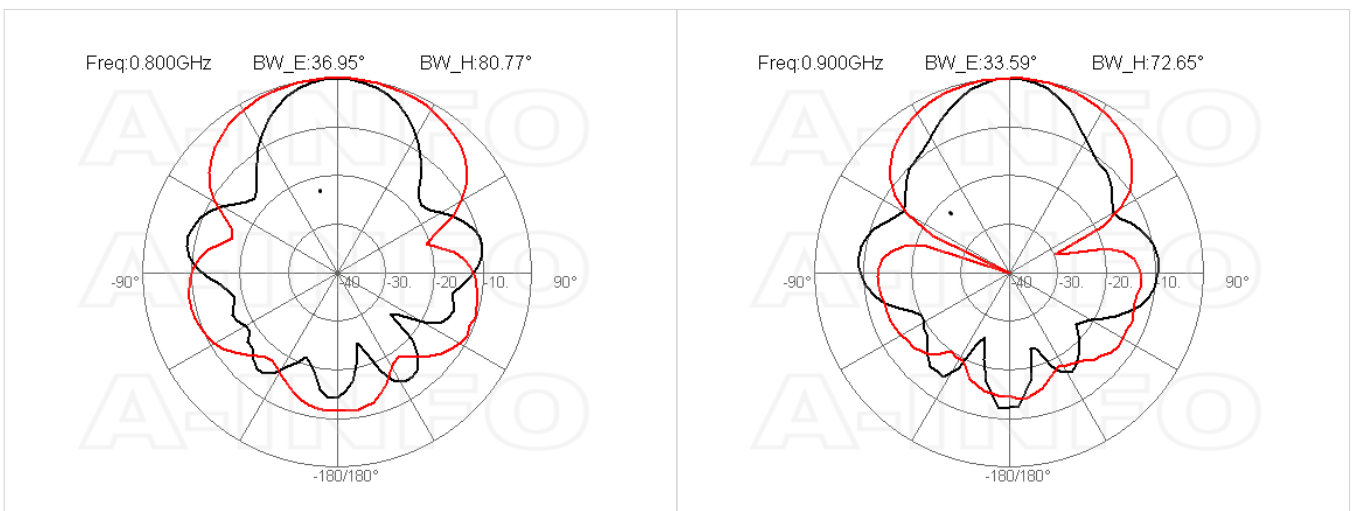
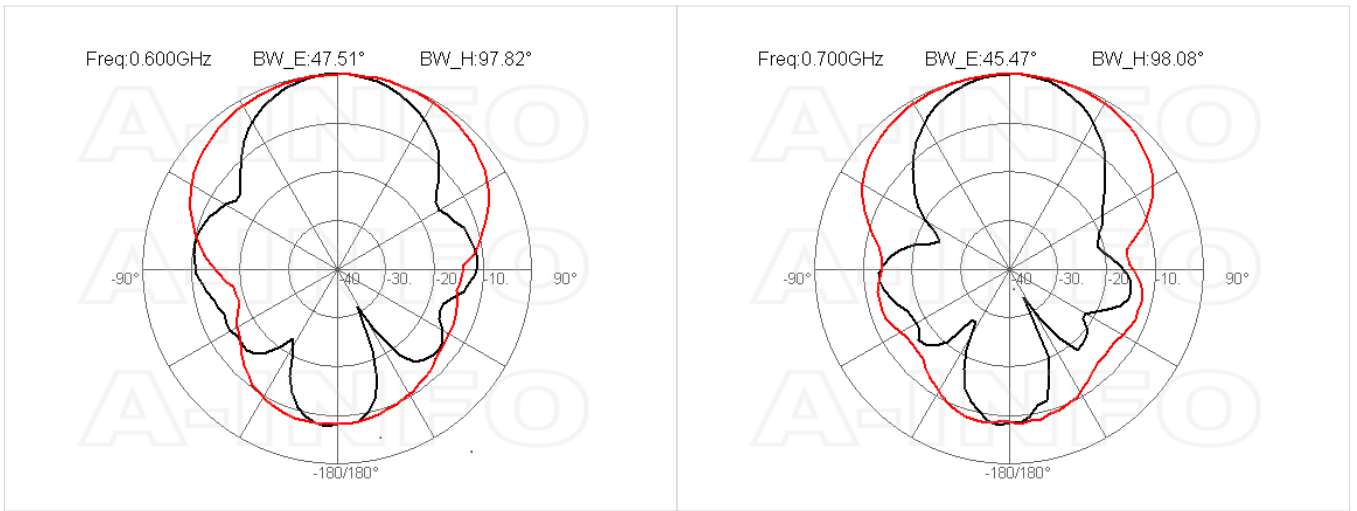


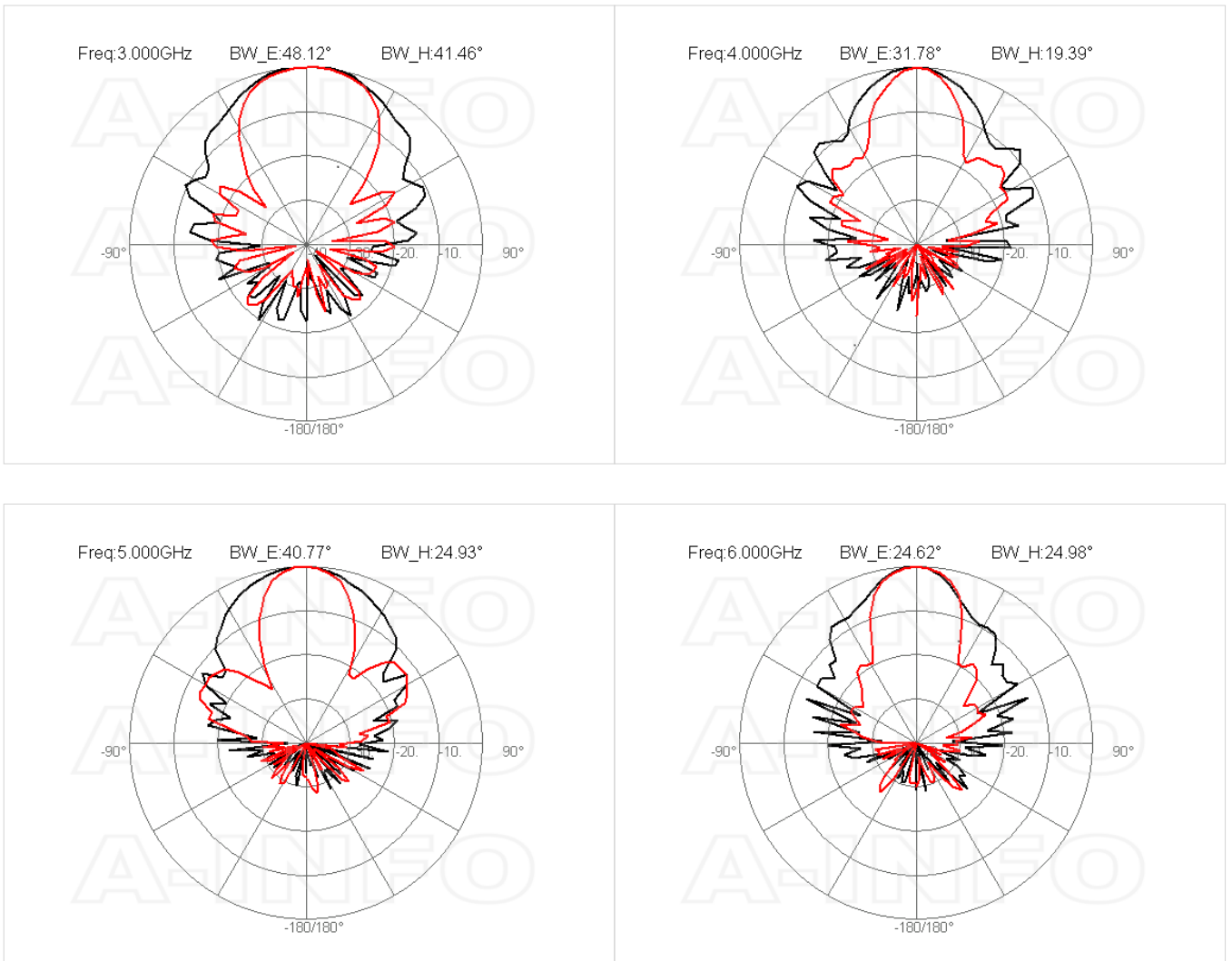
10dB Beamwidth



Pattern 1







## Related Products



LB-OSJ-0460-L L type mounting bracket



Carrying Case\_LB-OSJ-0460 Al Alloy Carrying Case



Tripod\_50Kg\_FA Al Alloy Tripod



Tripod\_50Kg+Pole Antenna\_FA Al Alloy Tripod



NM-NM-A050-1000 Flexible Cable Assembly 1000mm DC-18GHz N Male to N Male



NM-NM-A050-1500 Flexible Cable Assembly 1500mm DC-18GHz N Male to N Male



NM-NM-A050-2000 Flexible Cable Assembly 2000mm DC-18GHz N Male to N Male



NM-NM-A050-3000 Flexible Cable Assembly 3000mm DC-18GHz N Male to N Male



NM-NM-A050-5000 Flexible Cable Assembly 5000mm DC-18GHz N Male to N Male



NM-NM-A050-10000 Flexible Cable Assembly 10000mm DC-18GHz N Male to N Male



NM-NM-A050-20000 Flexible Cable Assembly 20000mm DC-18GHz N Male to N Male



NM-NM-A100-1000 Flexible Cable Assembly 1000mm DC-18GHz N Male to N Male



NM-NM-A100-1500 Flexible Cable Assembly 1500mm DC-18GHz N Male to N Male



NM-NM-A100-2000 Flexible Cable Assembly 2000mm DC-18GHz N Male to N Male



NM-NM-A100-3000 Flexible Cable Assembly 3000mm DC-18GHz N Male to N Male



NM-NM-A100-5000 Flexible Cable Assembly 5000mm DC-18GHz N Male to N Male



NM-NM-A100-10000 Flexible Cable Assembly 10000mm DC-18GHz N Male to N Male



NM-NM-A100-20000 Flexible Cable Assembly 20000mm DC-18GHz N Male to N Male

## Similar Products



LB-OSJ-0460-SF Open Boundary  
 Quad-Ridged Dual Polarization  
 Horn Antenna 0.4-6GHz 12dB  
 Gain SMA Female

## About this Datasheet

<ul style="list-style-type: none"> <li>● <b>Product Information</b></li> </ul> <p>Product Link:  <a href="https://www.ainfoinc.com/lb-osj-0460-nf-open-boundary-quad-ridged-dual-polarization-horn-antenna-0-4-6-ghz-12db-gain-n-type-female">https://www.ainfoinc.com/lb-osj-0460-nf-open-boundary-quad-ridged-dual-polarization-horn-antenna-0-4-6-ghz-12db-gain-n-type-female</a></p> <p>Data subject to change without notice.          © A-INFO INC. 2024. All Rights Reserved</p>	<ul style="list-style-type: none"> <li>● <b>Contact Us</b></li> </ul> <p>Address:          60 Tesla, Irvine, CA 92618, USA</p> <p>Website:  <a href="http://www.ainfoinc.com">www.ainfoinc.com</a></p> <p>Email:  <a href="mailto:sales@ainfoinc.com">sales@ainfoinc.com</a></p>	<ul style="list-style-type: none"> <li>● <b>Phone &amp; Fax</b></li> </ul> <p>Phone:          +1-949-639-9688          +1-949-639-9608</p> <p>Fax:          +1-949-639-9670</p>
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