

2023



Antenna Technologies and Measurement Systems Product and Service Catalog



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Antenna Technologies and Measurement Systems

Product and Service
Catalog

2023



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Product and Service Catalog



Antenna Test and Research Center

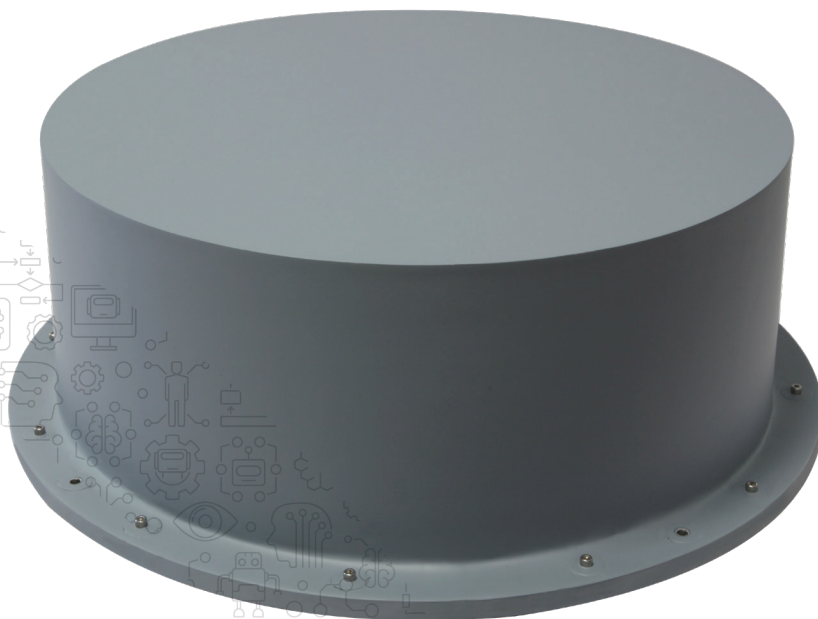
Antenna design, RCS analysis, test and measurement services are provided by the Antenna Test and Research Center of the TÜBİTAK-BİLGEM-BTE Antenna Technologies and Measurement Systems Department (ATAM) in order to meet the needs of our country with national resources at an appropriate time and cost.

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Broadband, 45° Slant Polarized Omnidirectional Biconical Antenna

Key Features

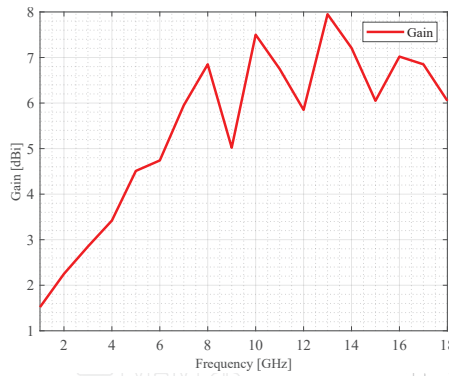
- Broadband
- High Efficiency
- Robust and Light Mechanical Design
- Fast and Easy Mounting



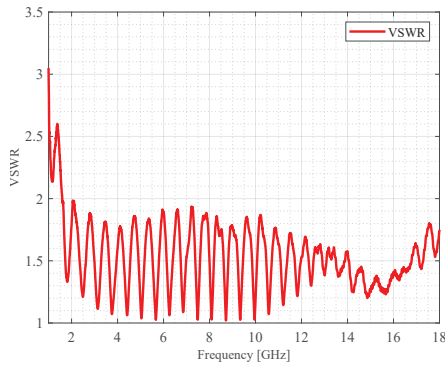
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	1-18
Gain (dBi)	1.52-7.95
Polarization	Slant 45°
VSWR	Typical 1.6; Max. <3.05
3 dB Beamwidth	70°-25° (Elevation)
RF Connection Type	Coaxial SMA Type Connector-Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	55 x 55 x 16.5
Weight (kg)	~ 7

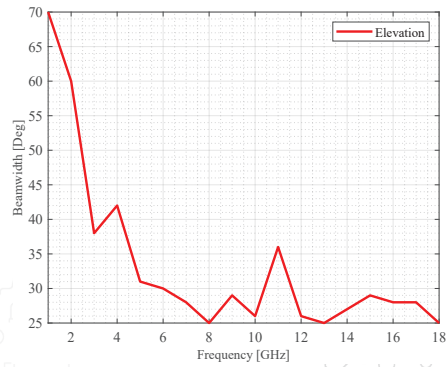
GAIN



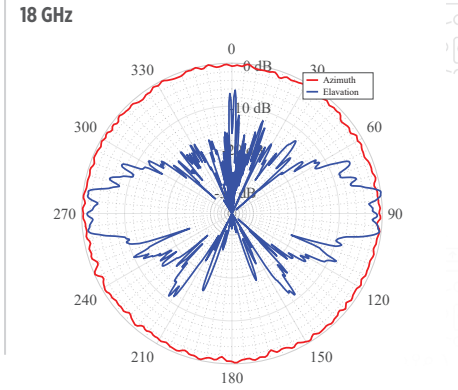
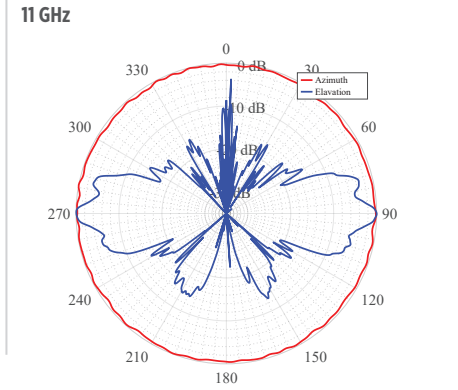
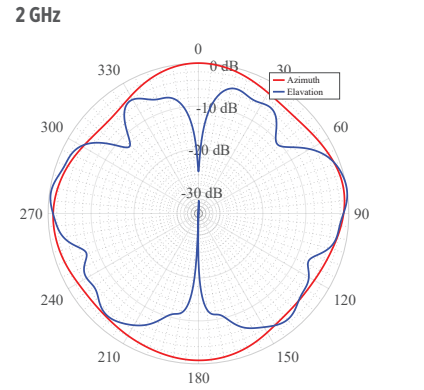
VSWR



BEAMWIDTH



RADIATION PATTERN RESULTS



Linear Polarized Bowtie Antenna

Key Features

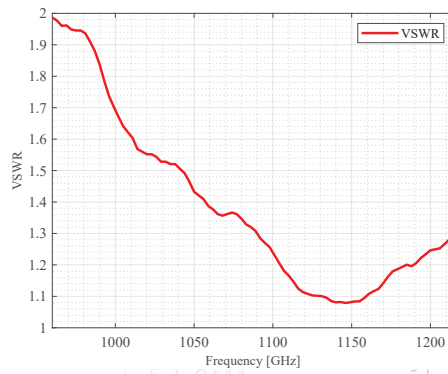
- Wide Beam
- Compact 2B Design
- Stable Radiation Pattern



ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	960-1215
Gain (dBi)	2.6
Polarization	Linear
VSWR	≤2.0
3 dB Beamwidth	Omnidirectional
RF Connection Type	Coaxial SMA Type Connector-Female (50 Ohm)

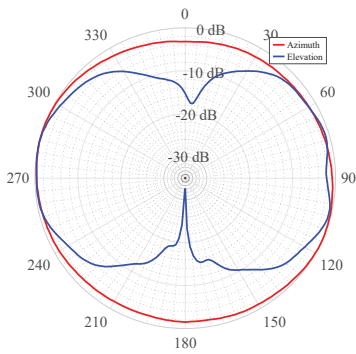
MECHANICAL PROPERTIES	
Size (D x G x Y) (mm)	165 x 99 x 1.575
Weight (gr)	~ 64

VSWR

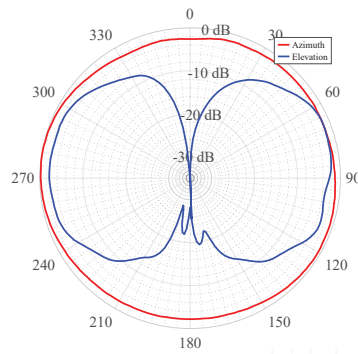


RADIATION PATTERN RESULTS

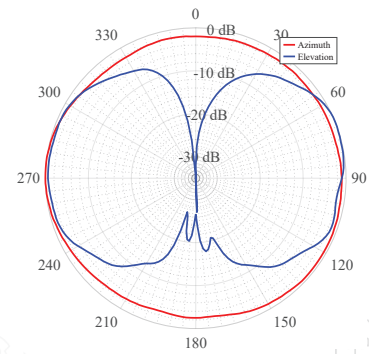
960 MHz



1100 MHz



1215 MHz



Linear Polarized FM Dipole Antenna

Key Features

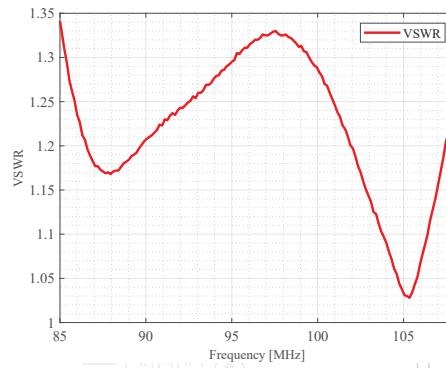
- Suitable For High RF power
- Wide Beam
- Robust Mechanical Design



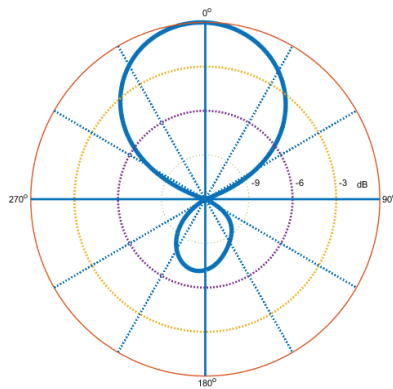
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	87.5-108
Gain (dBi)	2
Polarization	Linear
VSWR	≤ 1.3
Material	Stainless Steel
Input Connector	7/8" EIA (5 kW)

MECHANICAL PROPERTIES	
Size (DxWxH) (mm)	124.5 x 1367x 977
Weight (kg)	~9.75

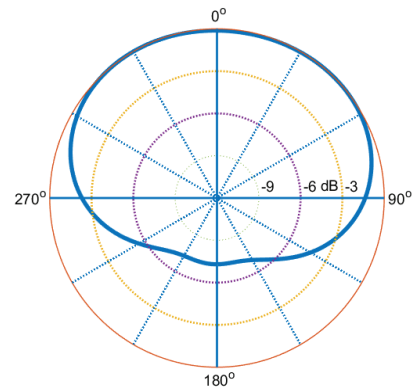
VSWR



RADIATION PATTERN RESULT 98 MHz E Plane



RADIATION PATTERN RESULT 98 MHz H Plane



Dual Band LTE Directional Antenna

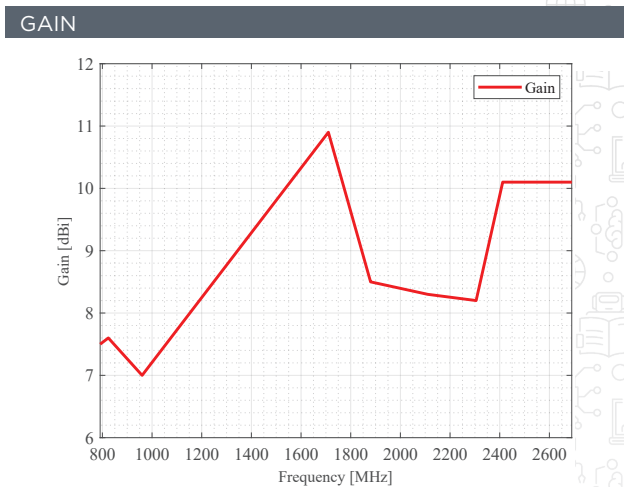
Key Features

- Low VSWR
- Sturdy Mechanical Design
- Adjustable Assembling



ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	790-2700
Gain (dBi)	7-9.84 (Max 10.8)
Polarization	Linear
RF Connection Type	Coaxial N Type Connector-Female (50 Ohm)

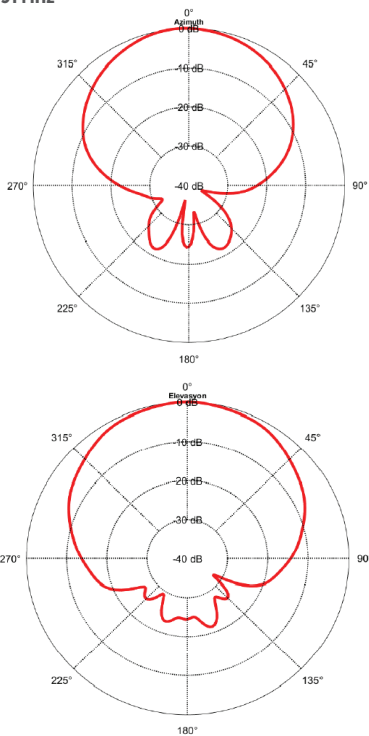
MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	234 x 234 x 72
Weight (g)	~ 920
Low PIM	≤ -140 dBc



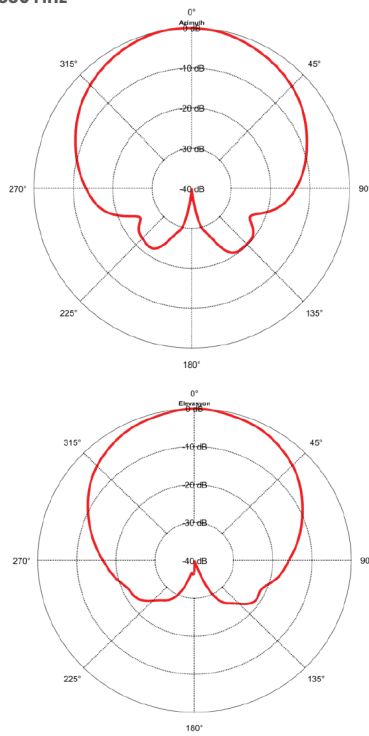
FREQUENCY BAND (MHz)	VSWR (Maks)
791-824	<1.9:1
824-894	<1.6:1
880-960	<2.3:1
1710-1880	<1.8:1
1880-2110	<1.3:1
2110-2305	<1.4:1
2305-2412	<1.5:1
2412-2700	<1.6:1

RADIATION PATTERN RESULTS

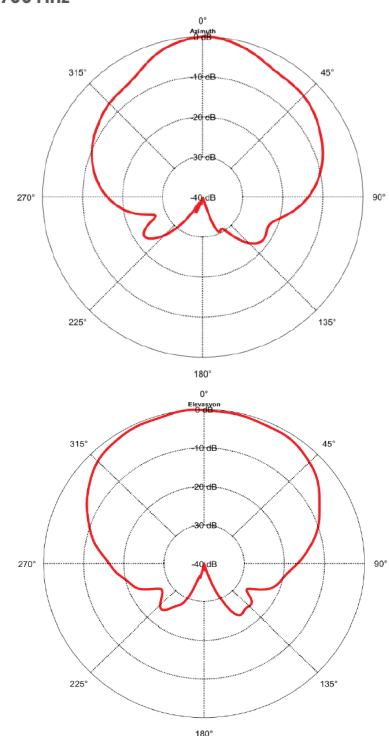
791 MHz



1880 MHz



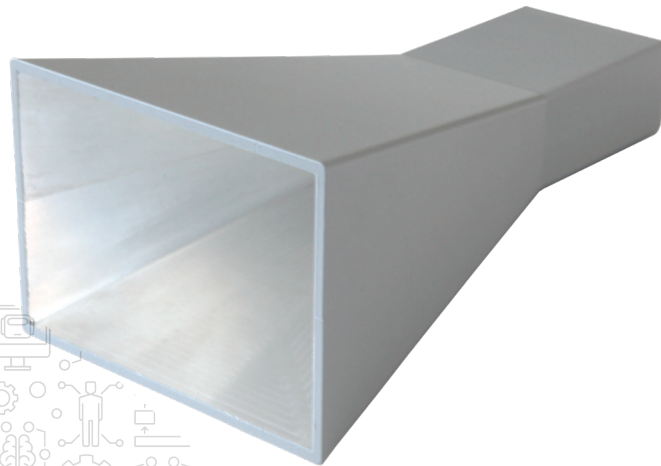
2700 MHz



Linear Polarized Horn Antenna

Key Features

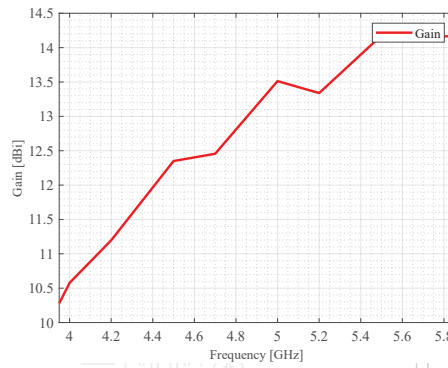
- Low VSWR
- Compact Design
- Robust Mechanical Design



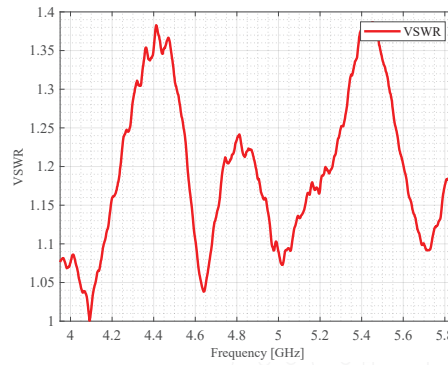
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	3.95-5.85
Gain (dBi)	10.3-14.2
Polarization	Linear
VSWR	≤ 1.4
3 dB Beamwidth	58° - 36° (Azimuth) 54° - 28° (Elevation)
RF Connection Type	Coaxial SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	106 x 76 x 195
Weight (g)	~ 500

GAIN

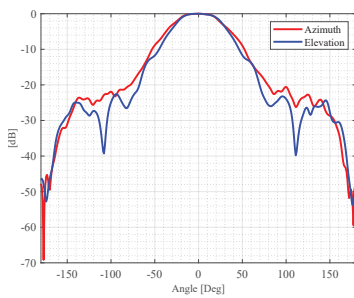


VSWR

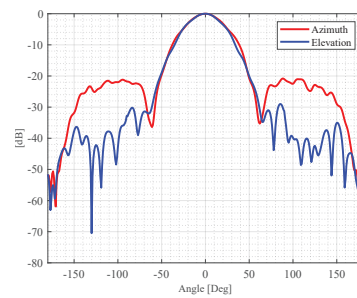


RADIATION PATTERN RESULTS

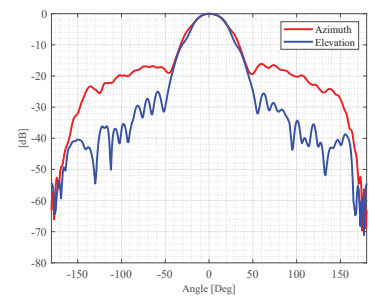
3.95 GHz



4.9 GHz



5.85 GHz



Linear Polarized Corrugated Horn Antenna

Key Features

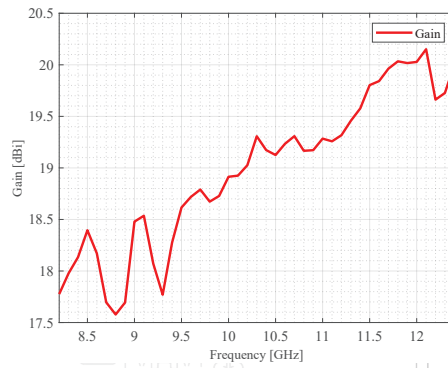
- Low VSWR
- Low Sidelobe Level
- Robust Mechanical Design



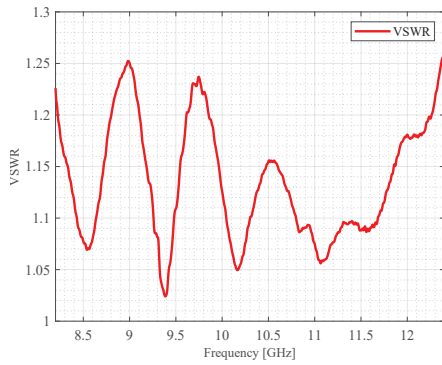
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	8.2-12.4
Gain (dBi)	18-20
Polarization	Linear
VSWR	≤ 1.25
3 dB Beamwidth	24.10° - 18.25° (Azimuth) 23.25° - 17.65° (Elevation)
RF Connection Type	Coaxial SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	143 x 143 x 280
Weight (g)	~ 800

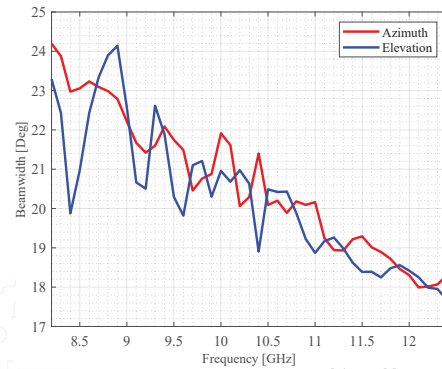
GAIN



VSWR

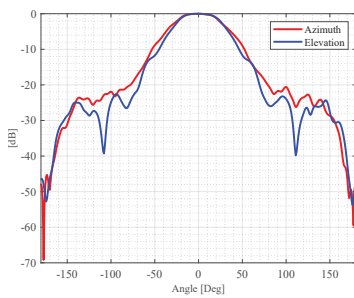


BEAMWIDTH

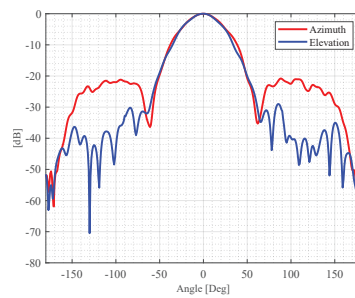


RADIATION PATTERN RESULTS

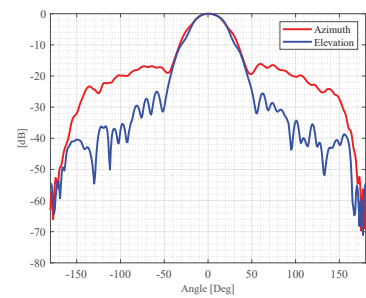
8.2 GHz



10.3 GHz

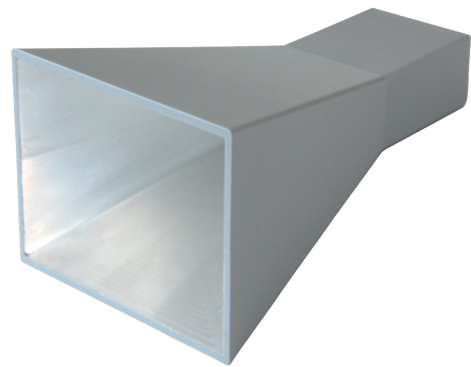
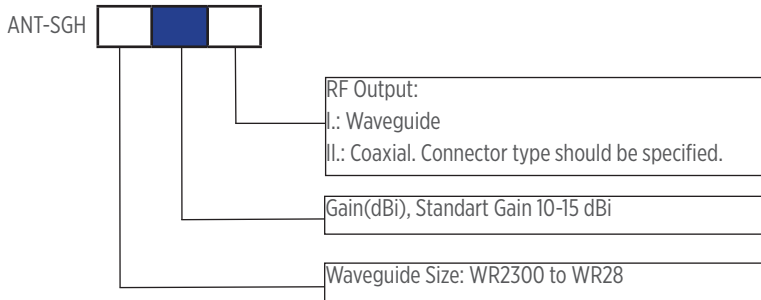


12.4 GHz



Standart Gain Horn Antennas

Example Antenna Code: ANT-SGH-2300-10-II



*Connector (II.) Types		
Sequence No.	Code	Definition
1	NF	N Tipi-Female
2	SF	SMA-Female
3	3.5F	3.5mm-Female
4	KF	2.92mm-Female
5	1.85F	1.85mm-Female
6	7.24F	2.4mm-Female

*The connector type will vary depending on the antenna's operating frequency band.

Model	Frequency (GHz)	Wave Guide	Gain (dBi)	Type	Model	Frequency (GHz)	Wave Guide	Gain (dBi)	Type		
ANT-SGH-2300-10-I	0.32-0.49	WR2300	10	I	ANT-SGH-159-10-I	4.90-7.05	WR159	10	I		
ANT-SGH-2300-10-II				II	ANT-SGH-159-10-II				II		
ANT-SGH-2100-10-I	0.35-0.53	WR2100	10	I	ANT-SGH-159-15-I				15	15	I
ANT-SGH-2100-10-II				II	ANT-SGH-159-15-II						II
ANT-SGH-1800-10-I	0.41-0.62	WR1800	10	I	ANT-SGH-137-10-I	5.85-8.20	WR137	10	I		
ANT-SGH-1800-10-II				II	ANT-SGH-137-10-II				II		
ANT-SGH-1500-10-I	0.49-0.75	WR1500	10	I	ANT-SGH-137-15-I				15	15	I
ANT-SGH-1500-10-II				II	ANT-SGH-137-15-II						II
ANT-SGH-1150-10-I	0.64-0.96	WR1150	10	I	ANT-SGH-112-10-I	7.05-10.0	WR112	10	I		
ANT-SGH-1150-10-II				II	ANT-SGH-112-10-II				II		
ANT-SGH-975-10-I	0.75-1.12	WR975	10	I	ANT-SGH-112-15-I				15	15	I
ANT-SGH-975-10-II				II	ANT-SGH-112-15-II						II
ANT-SGH-975-15-I				15	15	I	ANT-SGH-90-10-I	8.20-12.4	WR90	10	I
ANT-SGH-975-15-II						II	ANT-SGH-90-10-II				II
ANT-SGH-770-10-I	0.96-1.45	WR770	10	I	ANT-SGH-90-15-I	15	15				I
ANT-SGH-770-10-II				II	ANT-SGH-90-15-II						II
ANT-SGH-770-15-I				15	15	I	ANT-SGH-75-10-I	10.0-15.0	WR75	10	I
ANT-SGH-770-15-II						II	ANT-SGH-75-10-II				II
ANT-SGH-650-10-I	1.12-1.70	WR650	10	I	ANT-SGH-75-15-I	15	15				I
ANT-SGH-650-10-II				II	ANT-SGH-75-15-II						II
ANT-SGH-650-15-I				15	15	I	ANT-SGH-62-10-I	12.4-18.0	WR62	10	I
ANT-SGH-650-15-II						II	ANT-SGH-62-10-II				II
ANT-SGH-510-10-I	1.45-2.20	WR510	10	I	ANT-SGH-62-15-I	15	15				I
ANT-SGH-510-10-II				II	ANT-SGH-62-15-II						II
ANT-SGH-510-15-I				15	15	I	ANT-SGH-51-10-I	15.0-22.0	WR51	10	I
ANT-SGH-510-15-II						II	ANT-SGH-51-10-II				II
ANT-SGH-430-10-I	1.70-2.60	WR430	10	I	ANT-SGH-51-15-I	15	15				I
ANT-SGH-430-10-II				II	ANT-SGH-51-15-II						II
ANT-SGH-430-15-I				15	15	I	ANT-SGH-42-10-I	18.0-26.5	WR42	10	I
ANT-SGH-430-15-II						II	ANT-SGH-42-10-II				II
ANT-SGH-340-10-I	2.20-3.30	WR340	10	I	ANT-SGH-42-15-I	15	15				I
ANT-SGH-340-10-II				II	ANT-SGH-42-15-II						II
ANT-SGH-340-15-I				15	15	I	ANT-SGH-34-10-I	22.0-33.0	WR34	10	I
ANT-SGH-340-15-II						II	ANT-SGH-34-10-II				II
ANT-SGH-284-10-I	2.60-3.95	WR284	10	I	ANT-SGH-34-15-I	15	15				I
ANT-SGH-284-10-II				II	ANT-SGH-34-15-II						II
ANT-SGH-284-15-I				15	15	I	ANT-SGH-28-10-I	26.5-40.0	WR28	10	I
ANT-SGH-284-15-II						II	ANT-SGH-28-10-II				II
ANT-SGH-229-10-I	3.30-4.90	WR229	10	I	ANT-SGH-28-15-I	15	15				I
ANT-SGH-229-10-II				II	ANT-SGH-28-15-II						II
ANT-SGH-229-15-I				15	15	I					
ANT-SGH-229-15-II						II					
ANT-SGH-187-10-I	3.95-5.85	WR187	10	I							
ANT-SGH-187-10-II				II							
ANT-SGH-187-15-I				15	15	I					
ANT-SGH-187-15-II						II					

* Please contact us for designs with different gains and frequencies requested.

Steak Patch Antenna Array

Key Features

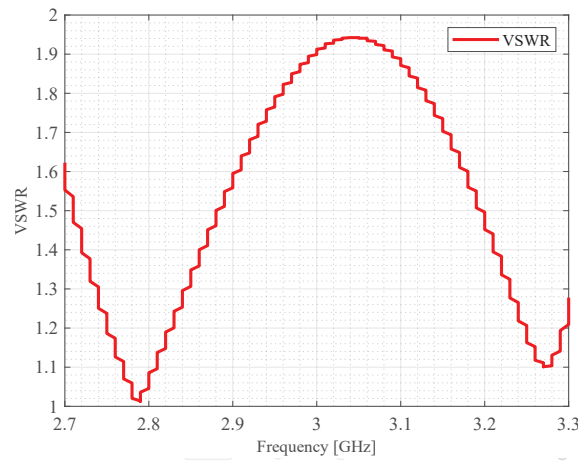
- Low VSWR
- High Gain



ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2.7-3.3
Gain (dBi)	16
Polarization	Linear
VSWR	≤ 1.9
3 dB Beamwidth	12.6° (Azimuth) 56° (Elevation)
RF Connection Type	Coaxial SMA Type Connector- Female (50 Ohm)

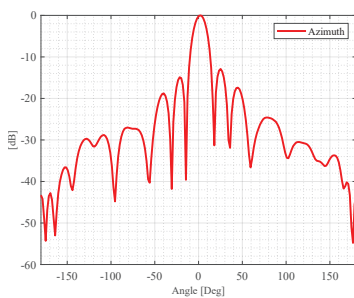
MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	400 x 100 x 10.5
Weight (g)	~ 342

VSWR

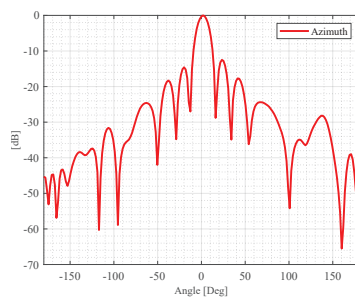


RADIATION PATTERN RESULTS

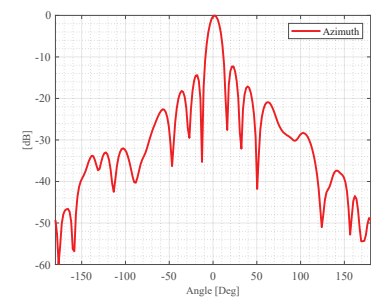
2.7 GHz



2.85 GHz



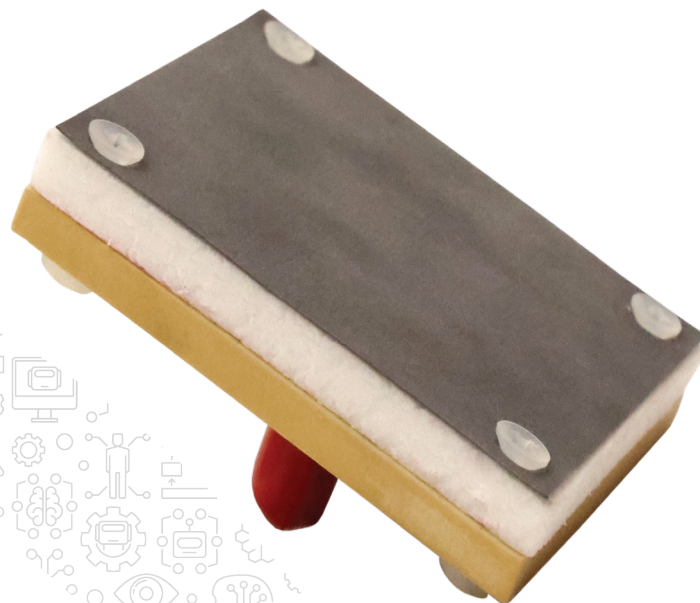
3 GHz



Steak Patch Antenna

Key Features

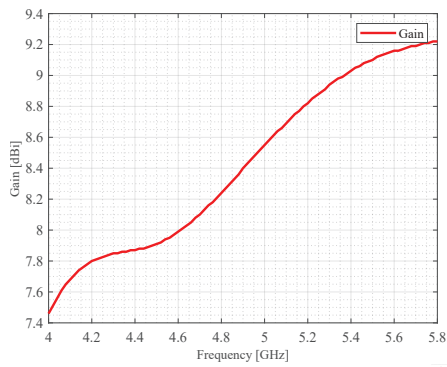
- Low VSWR
- High Gain



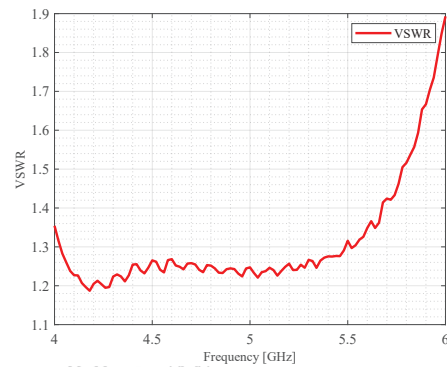
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	4-6
Gain (dBi)	8
Polarization	Linear
VSWR	≤ 2.0
3 dB Beamwidth	55° (Avg)
RF Connection Type	Coaxial SMA Type Connector-Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	55 x 55 x 9
Weight (gr)	~ 26

GAIN

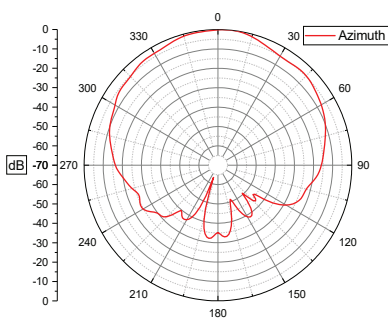


VSWR

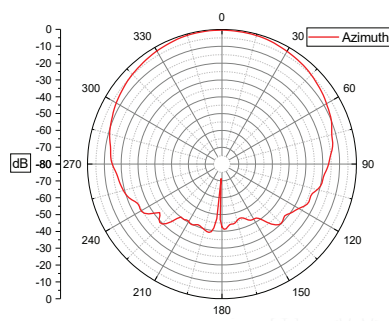


RADIATION PATTERN RESULTS

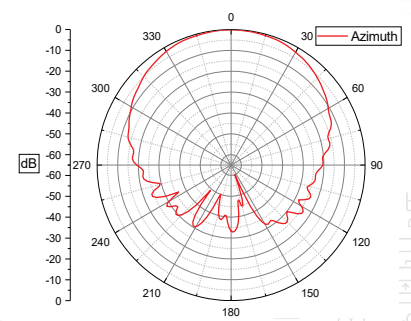
4 GHz



5 GHz



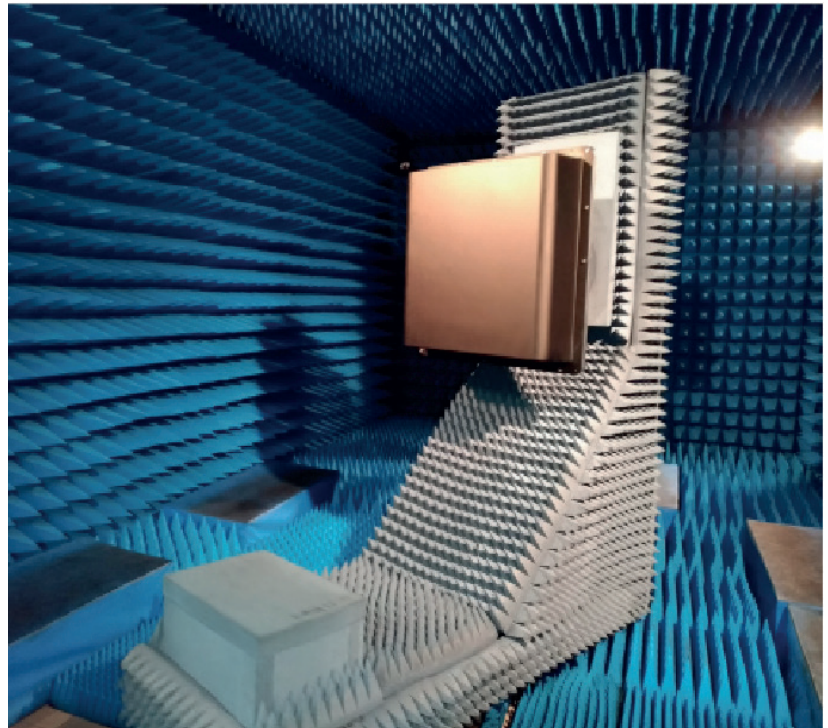
6 GHz



Planar Patch Antenna Array

Key Features

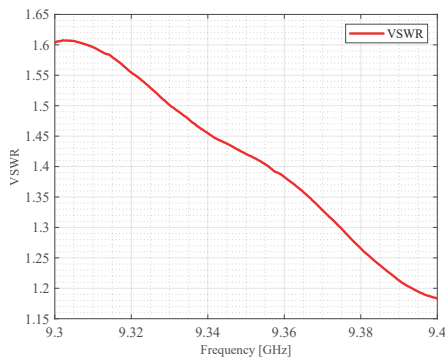
- Compliant with IP64 Standard
- High Gain
- High Isolation
- Robust Mechanical Design
- Mechanical Tilt Adjustment



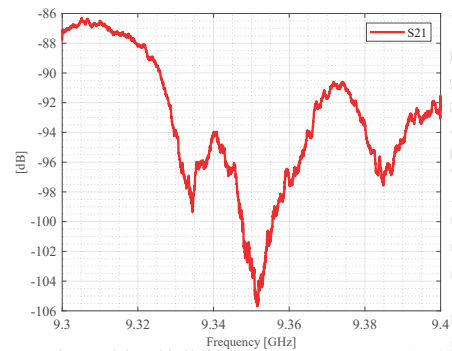
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	9.3 - 9.4
Gain (dBi) (@9.35 GHz)	24.85
3 dB Beamwidth (@9.35 GHz)	3.9° (Azimuth) 15° (Elevation)
Sidelobe Level (@9.35 GHz)	≤ -28.5 dB (Azimuth) ≤ -20 dB (Elevation)
XPD (dB) (minimum)	35

ELECTRICAL PROPERTIES	
Polarization	Horizontal
VSWR	< 1.5:1 (On 70% of the Band)
Isolation Between Antennas (@9.35 GHz)	> 100 dB
RF Connection Type	Coaxial SMA Type Connector-Female (50 Ohm)
MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	84 x 128 x 28

VSWR

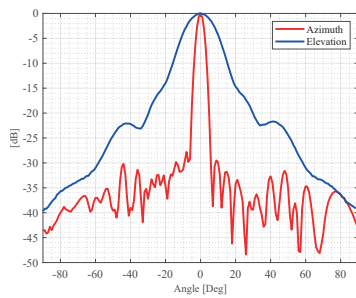


ISOLATION BETWEEN ANTENNAS

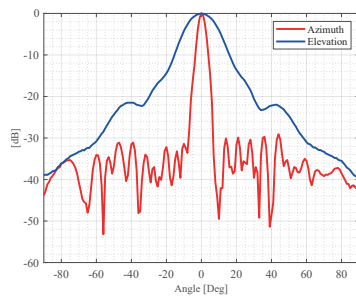


RADIATION PATTERN RESULTS

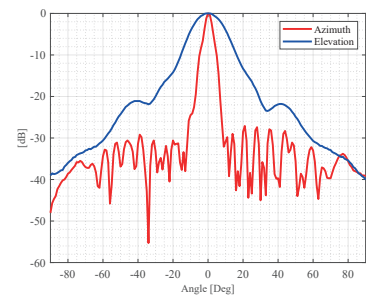
9.30 GHz



9.35 GHz



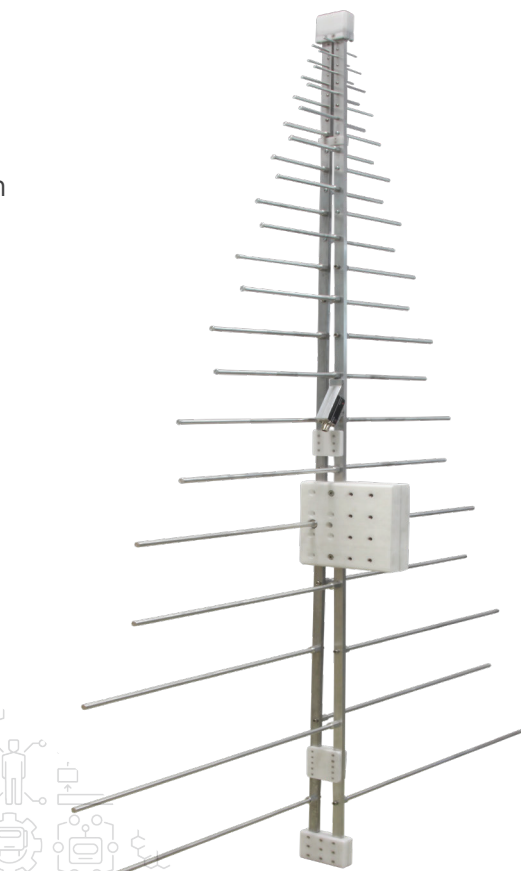
9.40 GHz



Linear Polarized Log Periodic Dipole Antenna

Key Features

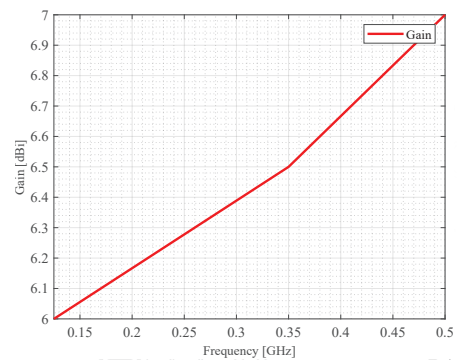
- Robust Mechanical Design
- Fast and Simply Installation



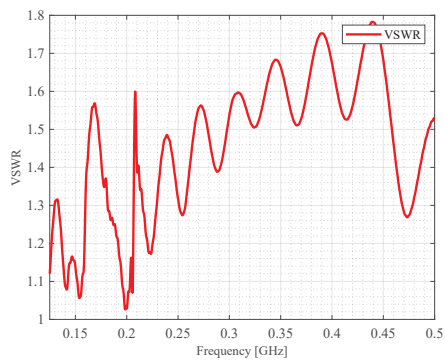
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	0.125-0.5
Gain (dBi)	6-7
Polarization	Linear
VSWR	< 2
3 dB Beamwidth	56° - 66° (Azimuth) 90° - 112° (Elevation)
RF Connection Type	N Type-Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	200 x 150 x 15
Weight (kg)	~ 8.5

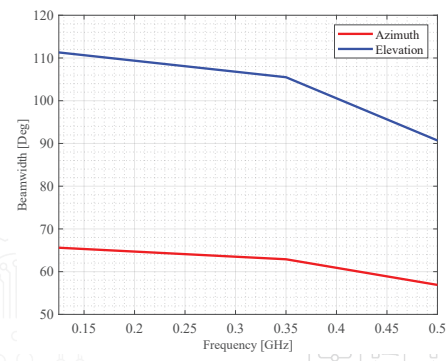
GAIN



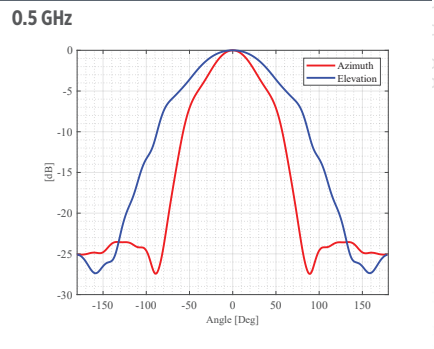
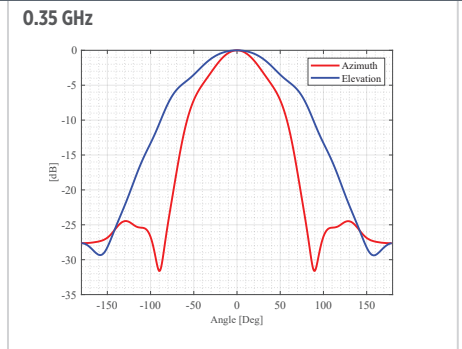
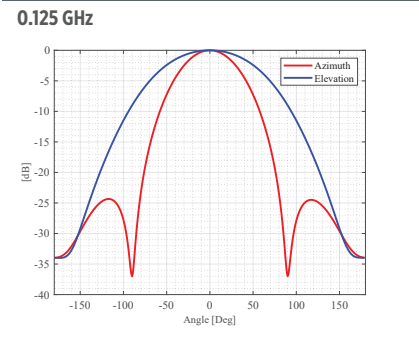
VSWR



BEAMWIDTH



RADIATION PATTERN RESULTS

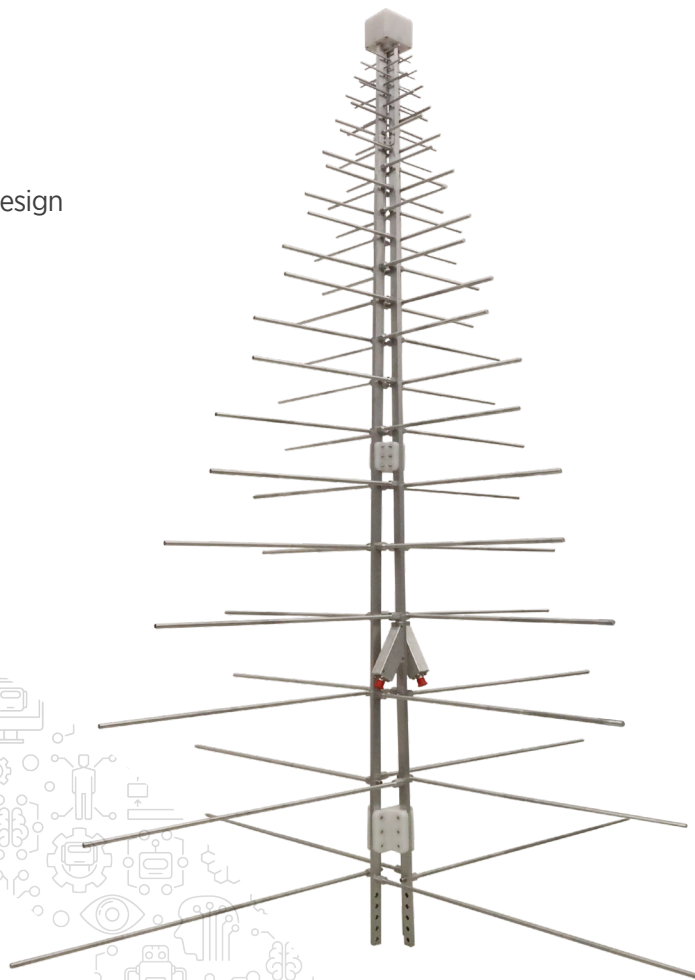


* The results of the antenna radiation patterns and beamwidths are the simulation results.

Dual Polarized Log Periodic Dipole Antenna

Key Features

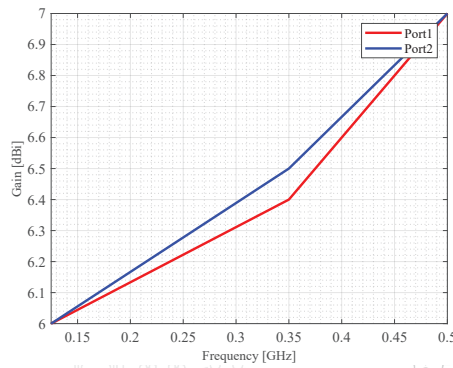
- Low VSWR
- Robust Mechanical Design



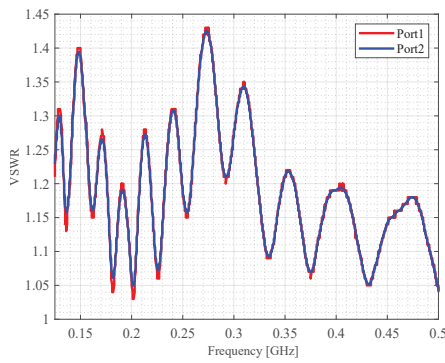
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	0.125-0.5
Gain (dBi)	6-7
Polarization	Linear
VSWR	< 1.45
3 dB Beamwidth	56° - 66° (Azimuth) (P1) 90° - 114° (Elevation) (P1) 90° - 114° (Azimuth) (P2) 56° - 66° (Elevation) (P2)
RF Connection Type	N Type-Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	200 x 150 x 150
Weight (connector not included) (kg)	~ 7.5

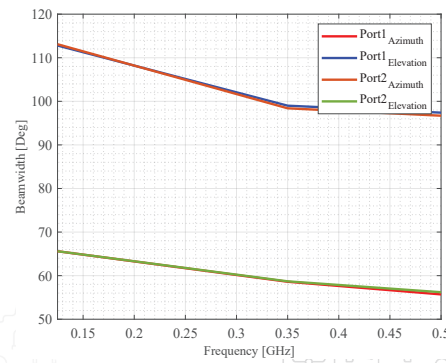
GAIN



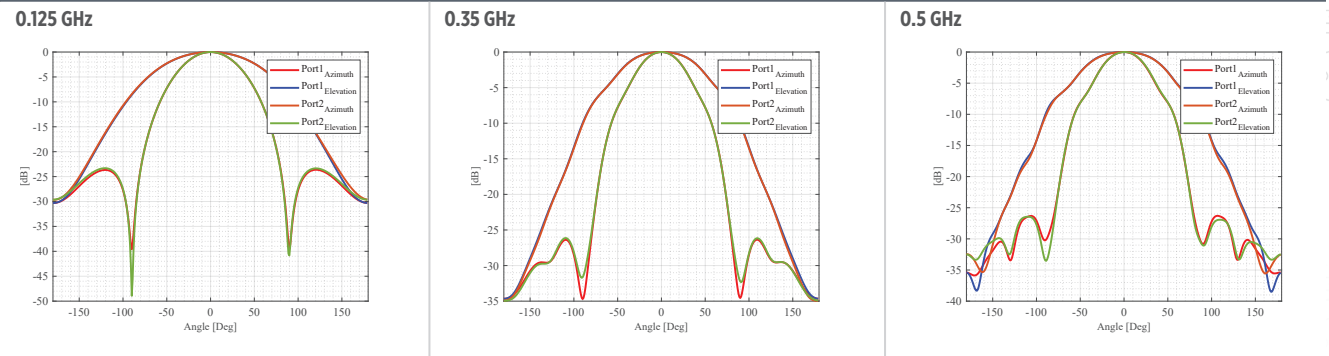
VSWR



BEAMWIDTH



RADIATION PATTERN RESULTS



* The results of the antenna radiation patterns and beamwidths are the simulation results.

Linear Polarized Log Periodic Antenna

Key Features

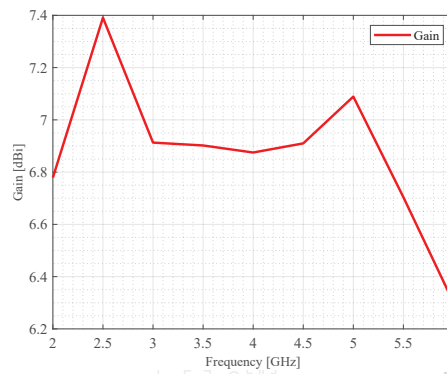
- Lightweight and Compact Design
- Stable Gain



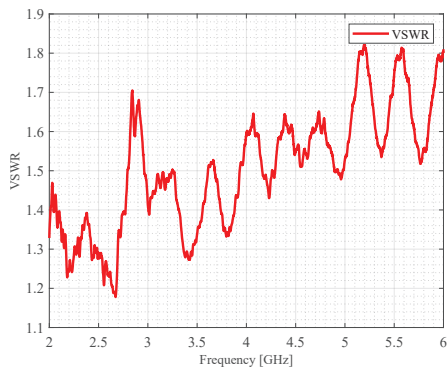
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2-6
Gain (dBi)	6-7
Polarization	Linear
VSWR	< 2.0
3 dB Beamwidth	50° - 59° (Azimuth) 59° - 76° (Elevation)
RF Connection Type	SMA Type-Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	27 x 15 x 7
Weight (g)	~ 190

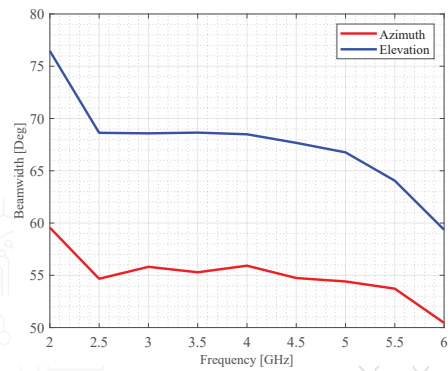
GAIN



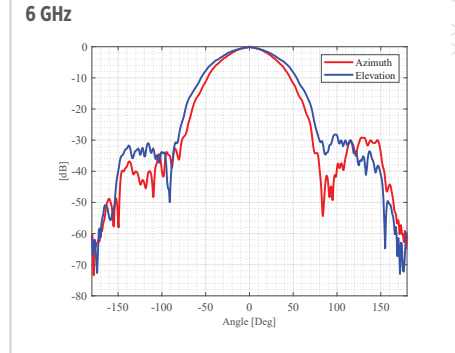
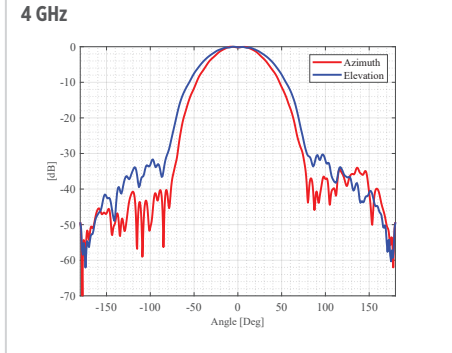
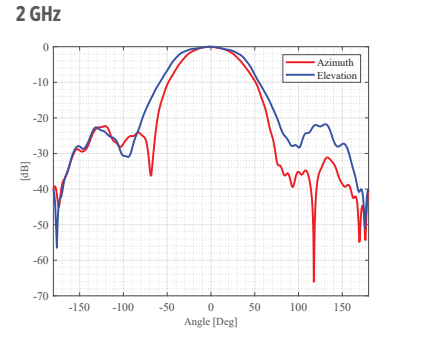
VSWR



BEAMWIDTH



RADIATION PATTERN RESULTS



ATAM

ANT-RA-ELP-1T18G

Broadband, Slant-Polarized Elliptical Paraboloid Reflector Antenna

Key Features

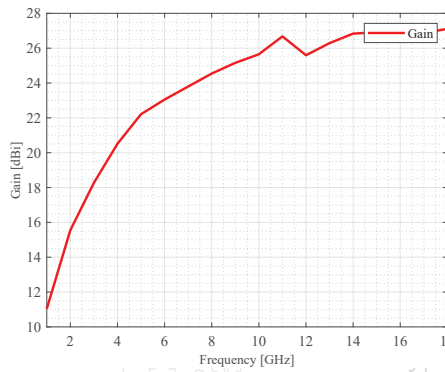
- Broadband
- Robust Mechanical Design
- Fast and Easy Mounting
- Tilt Mechanism in Elevation



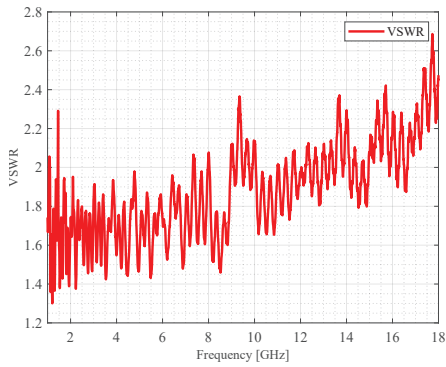
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	1-18
Gain (dBi)	11 - 27
Polarization	Slant 45°
VSWR	Typical 1.8; Maks. <2.7
3 dB Beamwidth	25.1° - 2.6° (Azimuth) 38° - 8° (Elevation)
RF Connection Type	Coaxial SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	40 x 60 x 90
Weight (kg)	~ 9

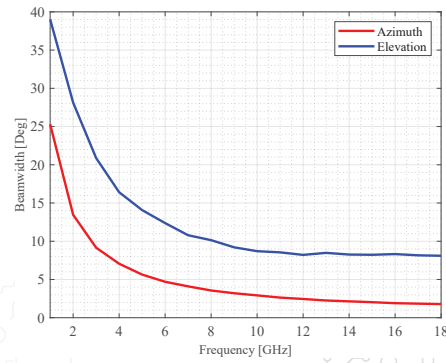
GAIN



VSWR

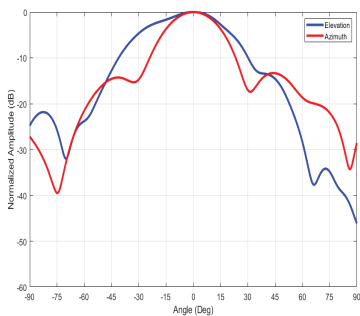


BEAMWIDTH

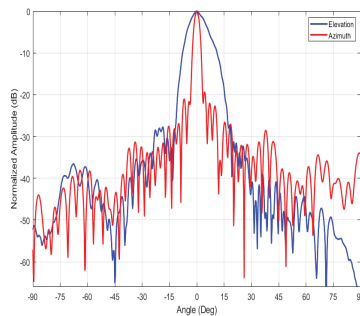


RADIATION PATTERN RESULTS

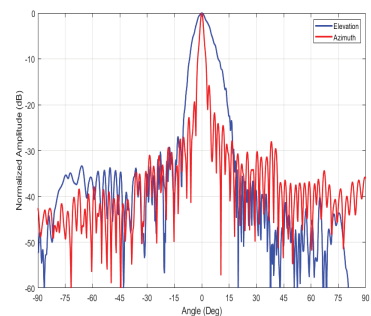
1 GHz



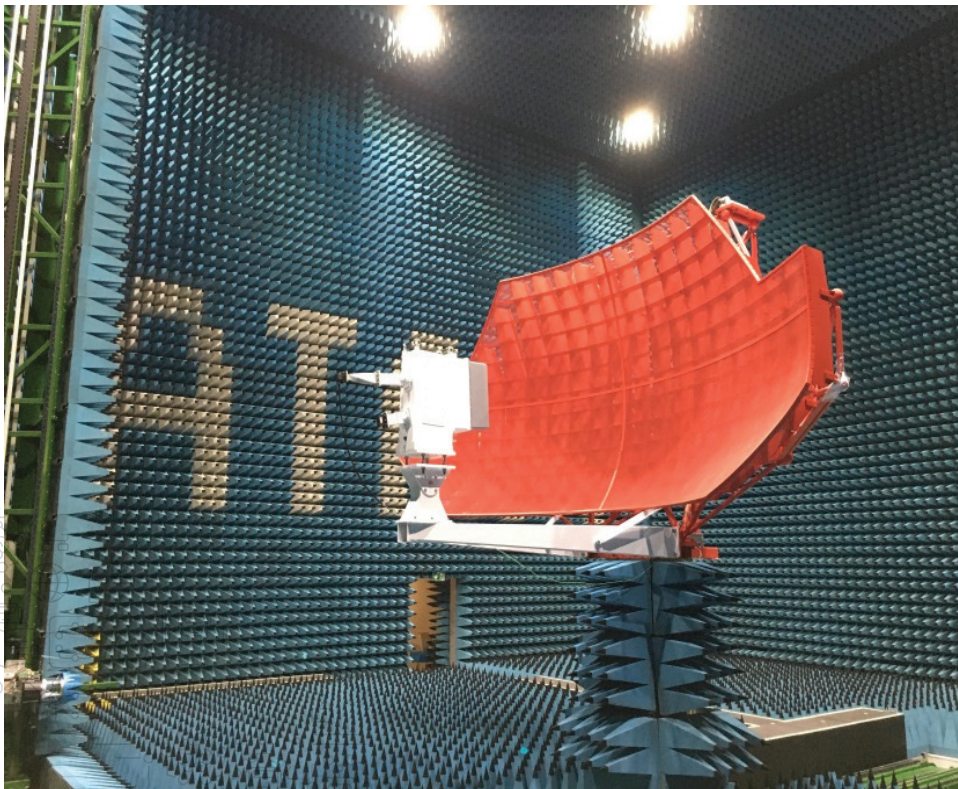
10 GHz



18 GHz

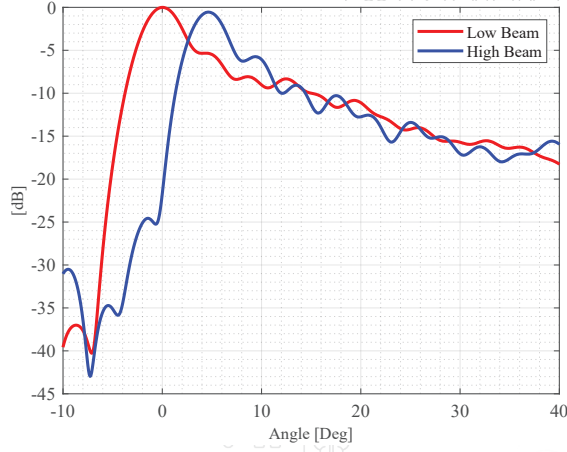


Dual Beam, Doubly Curved Reflector Antenna



RADIATION PATTERN RESULT (ELEVATION)

2.8 GHz



Primary Surveillance Radar Antenna Parameters

Operating Frequency (GHz)	2.7-2.9
Feed Antenna	Horn Antenna
Polarization (Selectable)	Circular or Linear (Horizontal)
Gain (dBi) (Nominal)	34 (Low Beam) / 33 (High Beam)
Dual Beam	Yes (Main (Low) Beam and Auxiliary (High) Beam)
Vertical Angle Difference Between Beams (Nominal)	4.7°
Vertical Radiation Diagram	Approximate Cosecant Square (Up to 40 Degrees)
Horizontal Beamwidth (Degrees) (Nominal)	1.4° (Low Beam) / 1.4° (High Beam)
Vertical Beamwidth (Degrees) (Nominal)	4.4° (Low Beam) / 4.0° (High Beam)
VSWR	< 1.5
ICR (Integrated Cancellation Ratio)	≥ 20 dB
Azimuth - Sidelobe Level (SLL)	≥ 25 dB
Antenna Dimension (Excluding Pedestal)	Width: 6.0 m Height: 3.0 m
Antenna Weight (Excluding Pedestal)	≈ 950 kg
Vertically Adjustable Elevation Angle (Degrees)	(-2°) - (+10°) (Manually Adjustable)

Reflector Antenna with Log Periodic Fed

Key Features

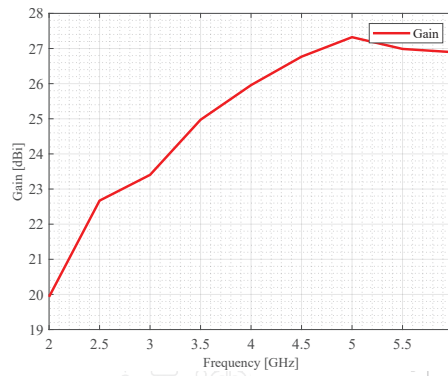
- Robust Mechanical Design
- Easy Connection Interface



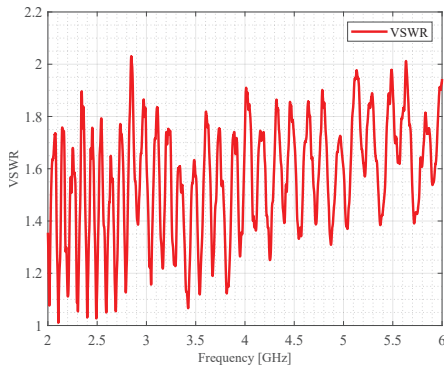
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2-6
Gain (dBi)	20-27
Polarization	Linear
VSWR	≤ 2.0
3 dB Beamwidth	11.4°-4° (Azimuth) 10.5°-4° (Elevation)
RF Connection Type	SMA Type-Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (Depth x Diameter) (cm)	69 x 85 Ø
Weight (kg)	~10.5

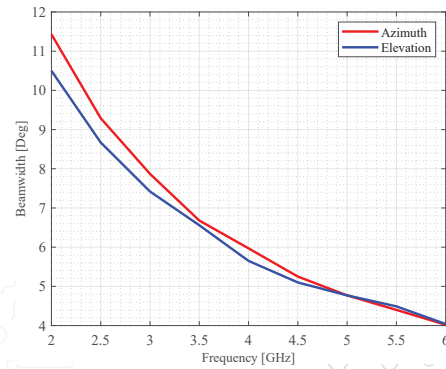
GAIN



VSWR

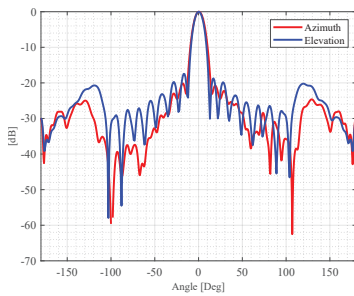


BEAMWIDTH

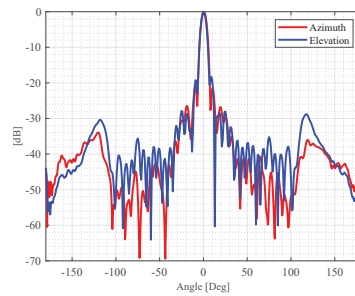


RADIATION PATTERN RESULTS

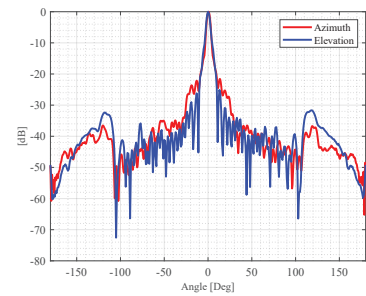
2 GHz



4 GHz



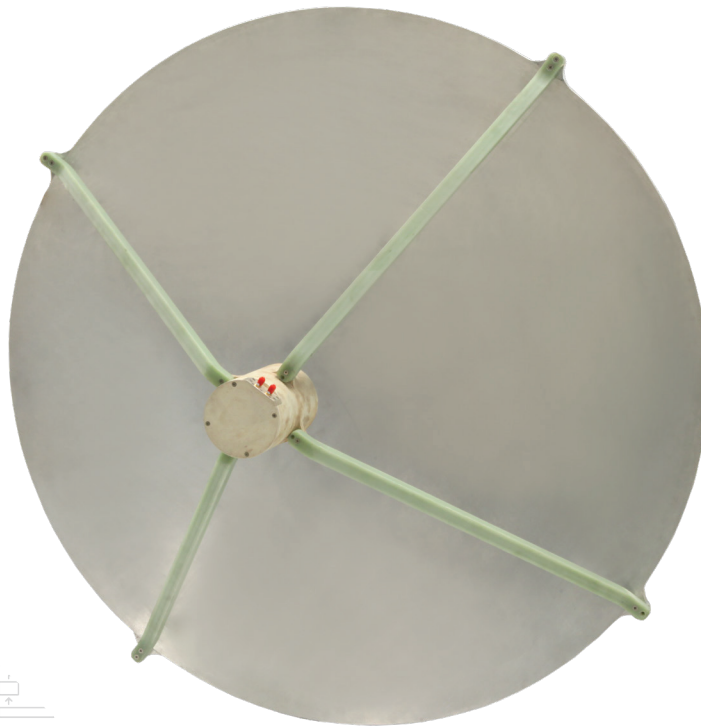
6 GHz



Dual Linear Polarized, Sinuous Fed Reflector Antenna with Low Sidelobe Level

Key Features

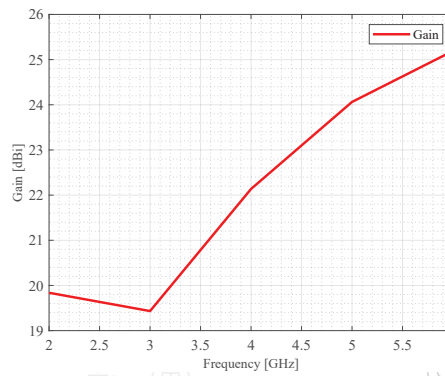
- Low Sidelobe Level
- High Gain
- Robust Mechanical Design
- Easy Mounting Interface



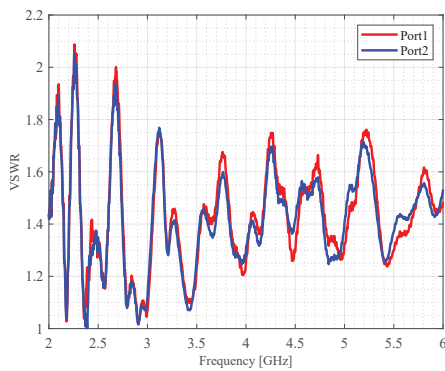
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2-6
Gain (dBi)	20-25 (Port1-Port2)
Polarization	Dual Linear
Sidelobe Level	Typical <-20 (Max -17)
VSWR	1.5 (Typical) (Max 2.1)
3 dB Beamwidth	10.2° - 3.2° (Azimuth) 9.6° - 3° (Elevation)
RF Connection Type	SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (Depth x Diameter) (mm)	549 x 1000 Ø
Weight (kg)	~ 28

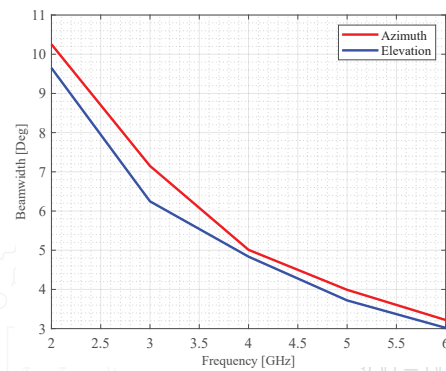
GAIN



VSWR

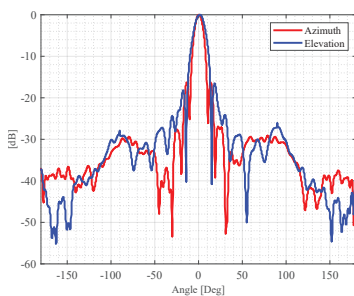


BEAMWIDTH

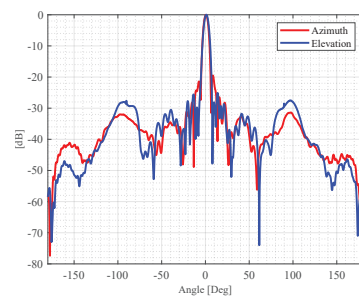


RADIATION PATTERN RESULTS

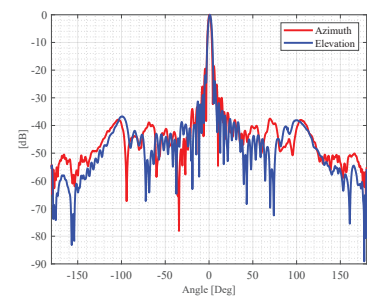
2 GHz



4 GHz



6 GHz



Horn Fed Parabolic Reflector Antenna

Key Features

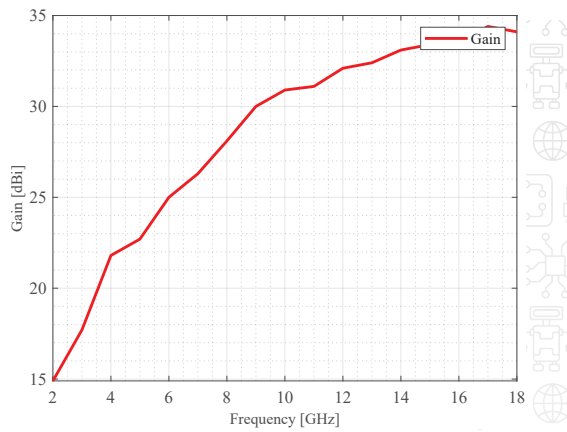
- High Gain
- Robust Mechanical Design
- Easy Assembling



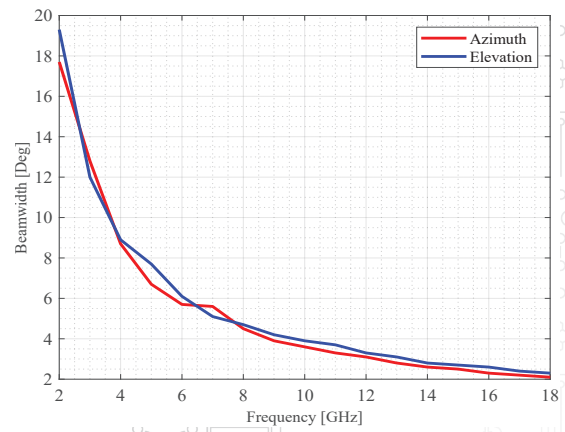
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2-18
Gain (dBi)	14.9-34.1
Polarization	Linear
VSWR	≤ 2 (Typical)
3 dB Beamwidth	17.7° – 2.1° (Azimuth) 19.3° – 2.3° (Elevation)
RF Connection Type	Coaxial N Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	48 x 51 x 54
Weight (g)	~ 4600

GAIN

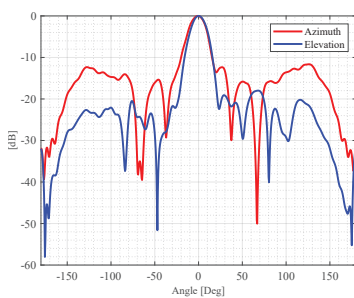


BEAMWIDTH

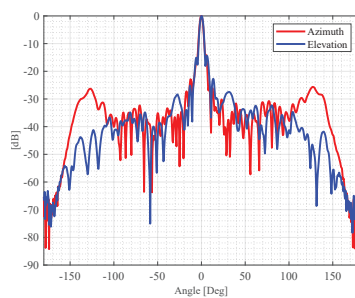


RADIATION PATTERN RESULTS

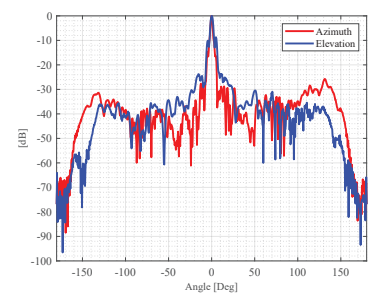
2 GHz



10 GHz



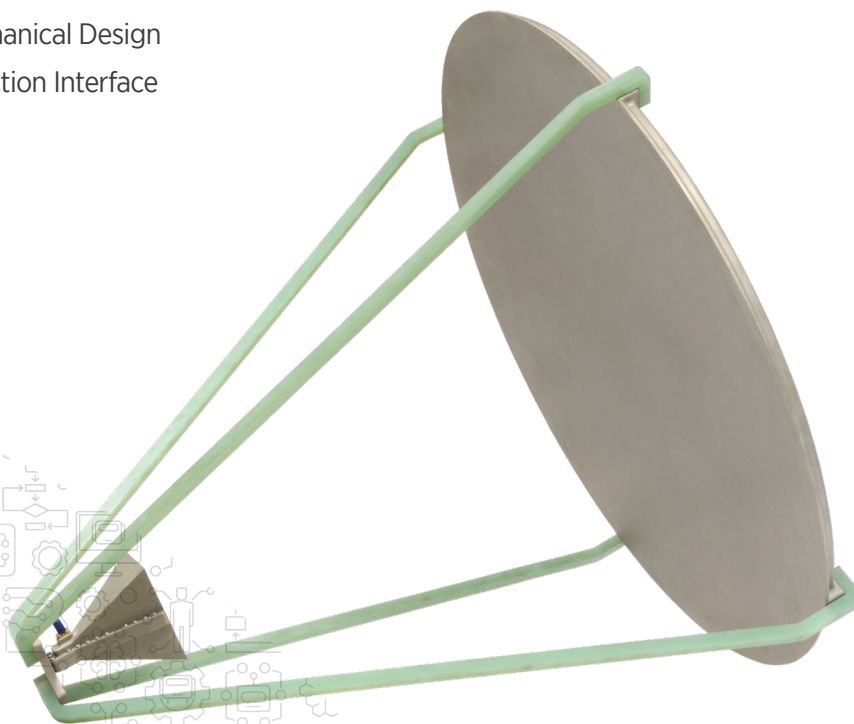
18 GHz



Horn Fed Parabolic Reflector Antenna

Key Features

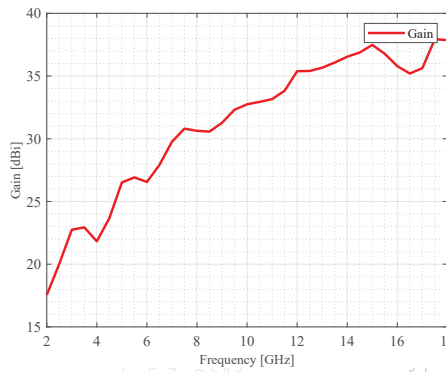
- Low VSWR
- Robust Mechanical Design
- Easy Connection Interface



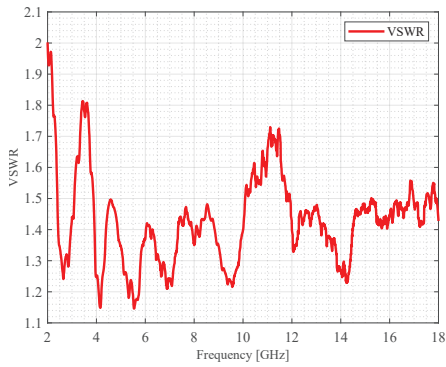
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2-18
Gain (dBi)	17.2-38
Polarization	Linear
VSWR	≤ 2.0
3 dB Beamwidth	15.2°-1.5° (Azimuth) 14.7°-1.6° (Elevation)
RF Connection Type	Coaxial SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (Depth x Diameter) (cm)	72 x 70 Ø
Weight (kg)	~7.5

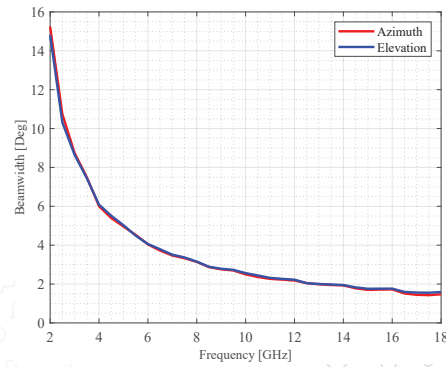
GAIN



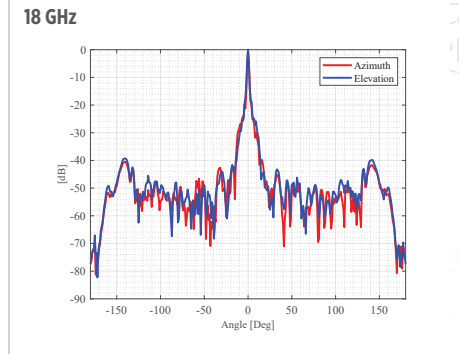
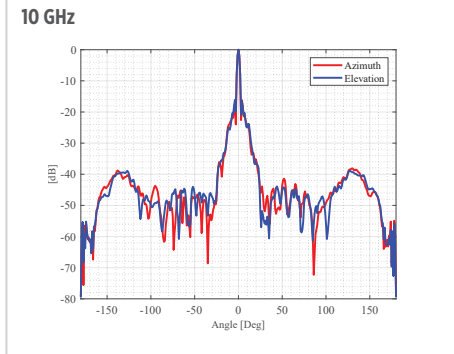
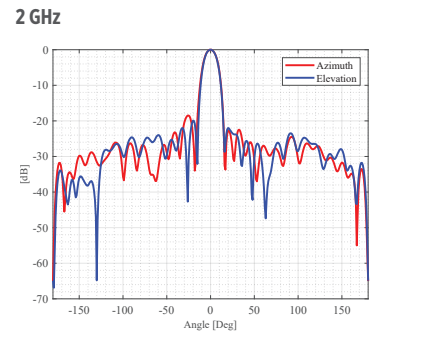
VSWR



BEAMWIDTH



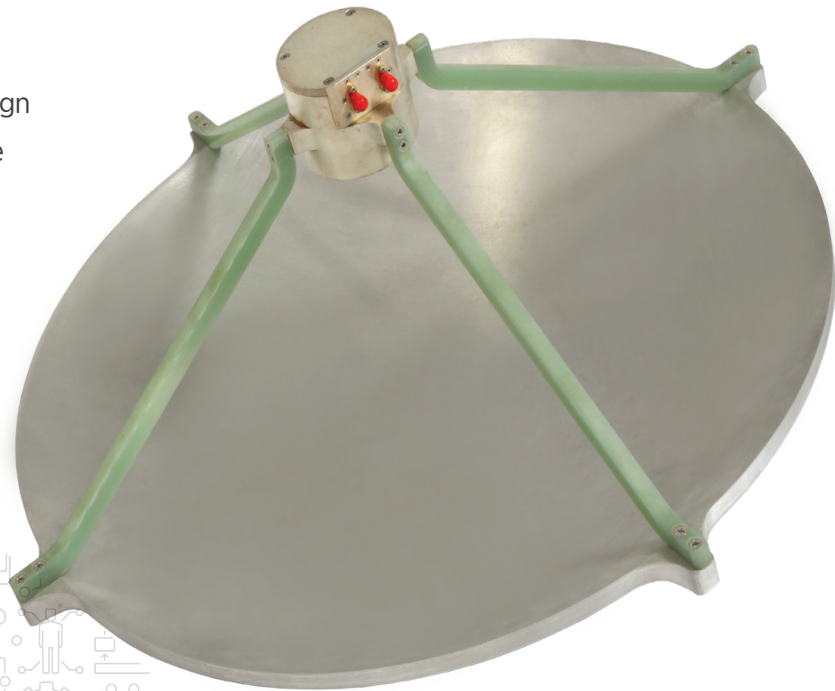
RADIATION PATTERN RESULTS



Dual Linear Polarized, Sinuous Fed Reflector Antenna with Low Sidelobe Level

Key Features

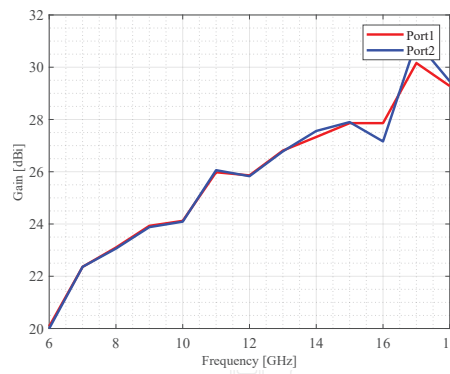
- Low Sidelobe Level
- High Gain
- Robust Mechanical Design
- Easy Mounting Interface



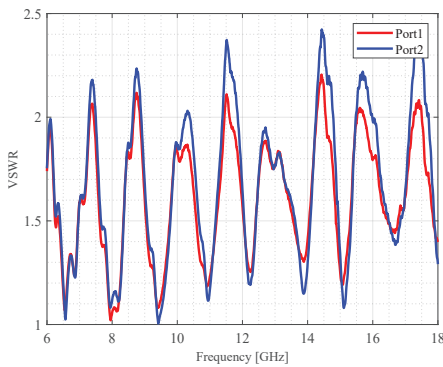
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	6-18
Gain (dBi)	20-30 (Port1-Port2)
Polarization	Dual Linear
Sidelobe Level	Typical <-20 (Max -17)
VSWR	2.0 (Typical) 2.5 (Max)
3 dB Beamwidth	6.9° - 2.1° 7.1° - 2.1° (Port1-Port2)
RF Connection Type	SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (Depth x Diameter) (mm)	266 x 500 Ø
Weight (kg)	~ 6

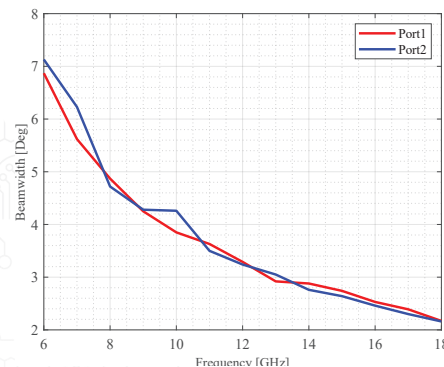
GAIN



VSWR

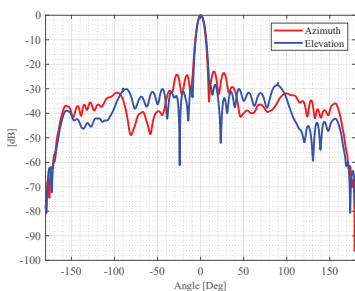


BEAMWIDTH

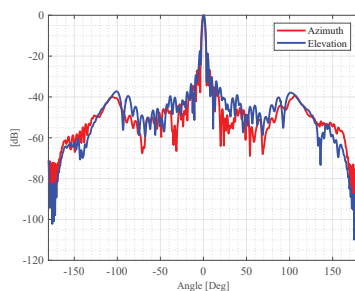


RADIATION PATTERN RESULTS

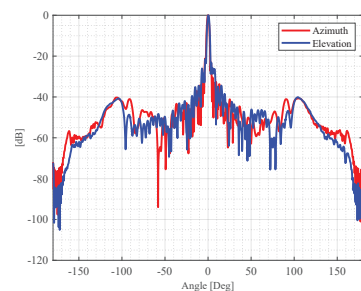
6 GHz



14 GHz



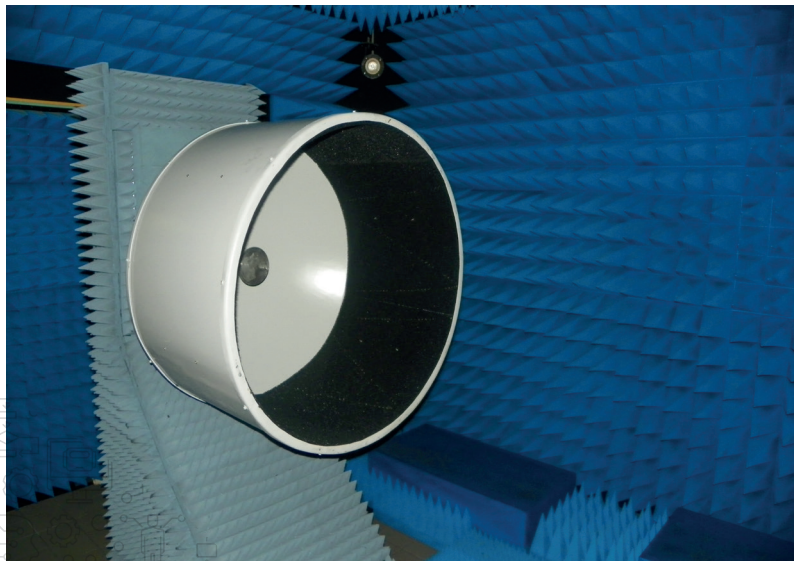
18 GHz



Splashplate Reflector Antenna

Key Features

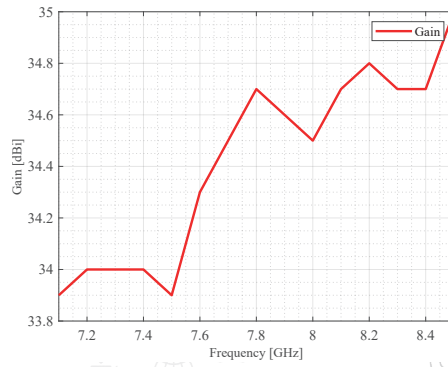
- High Gain
- Hat-fed



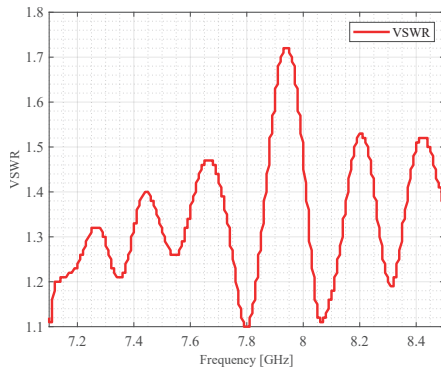
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	7.1-8.5
Gain (dBi) (Typical)	(7.1- 7.5 GHz) 34 (7.6- 8.0 GHz) 34.5 (8.1- 8.5 GHz) 34.8
Polarization	Linear
VSWR (Typical)	1.4
FBR (dB) (minimum)	55
XPD (dB) (minimum)	35

ELECTRICAL PROPERTIES	
3 dB Beamwidth (Typical)	(7.1- 7.5 GHz) (Azimuth) 2.9° (7.1- 7.5 GHz) (Elevation) 2.8° (7.6- 8.0 GHz) (Azimuth) 2.7° (7.6- 8.0 GHz) (Elevation) 2.7° (8.1- 8.5 GHz) (Azimuth) 2.6° (8.1- 8.5 GHz) (Elevation) 2.5°
RF Connection Type (Waveguide)	WR-112 UBR84 Flange
MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	151 x 100 x 100

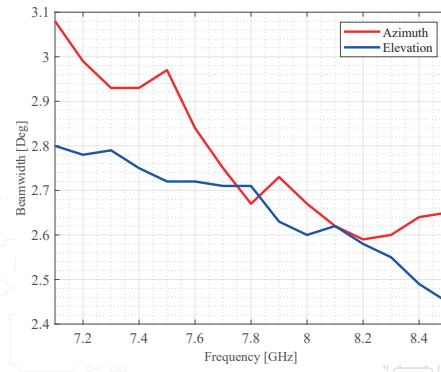
GAIN



VSWR

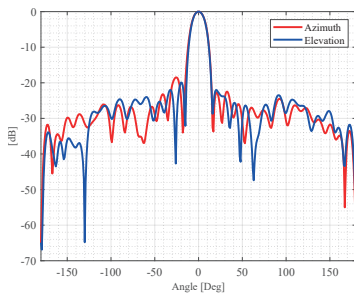


BEAMWIDTH

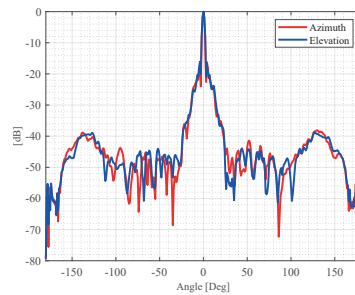


RADIATION PATTERN RESULTS

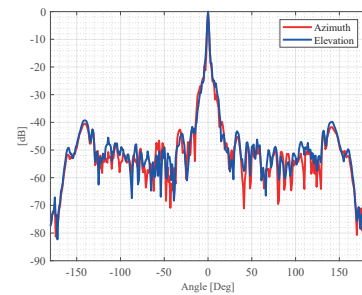
7.1 GHz



7.8 GHz



8.5 GHz



Circular Polarized, Broadband, Compact Spiral Antenna

Key Features

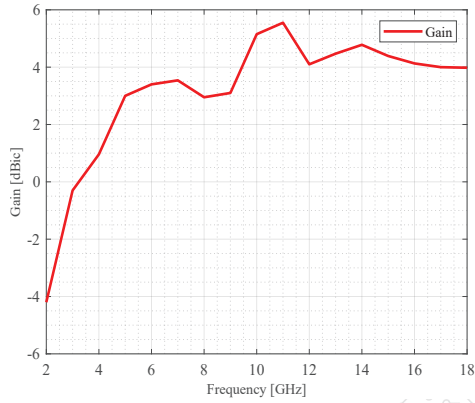
- Low Axial Ratio
- Compact Design

ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2-18
Gain (dBi)	(-4) - 3
Polarization	Circular
VSWR	2
Axial Ratio (dB)	< 2 (Line of Sight)
Axial Ratio	< 3 ($\pm 45^\circ$)
3 dB Beamwidth	avg. 75°
RF Connection Type	Coaxial SMA Type Connector-Female (50 Ohm)

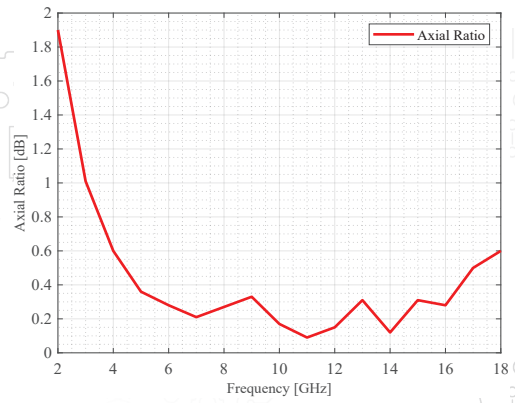
MECHANICAL PROPERTIES	
Size (Depth x Diameter) (mm)	68 \varnothing x 69
Weight (g)	~ 250



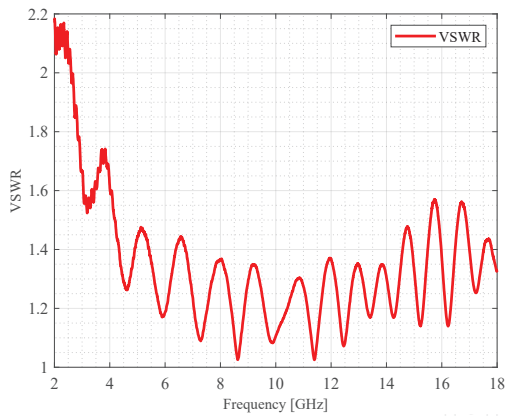
GAIN



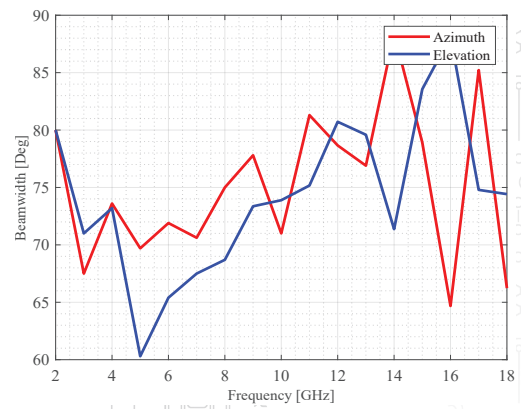
AXIAL RATIO



VSWR

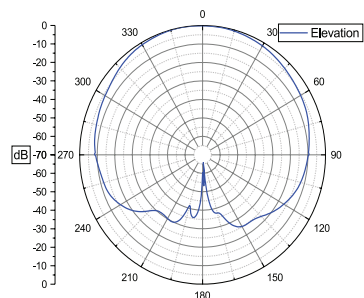
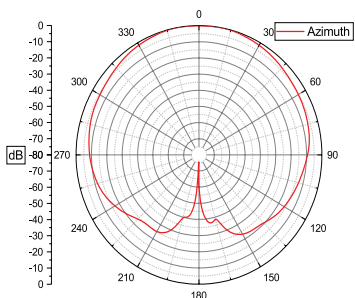


BEAMWIDTH

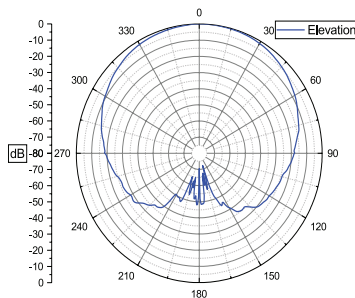
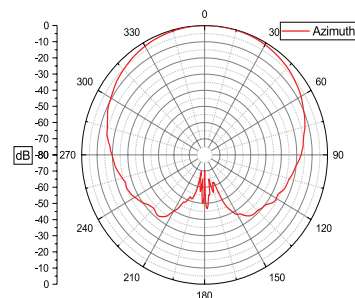


RADIATION PATTERN RESULTS

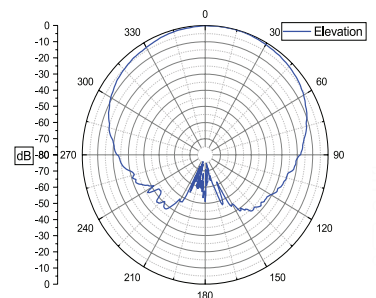
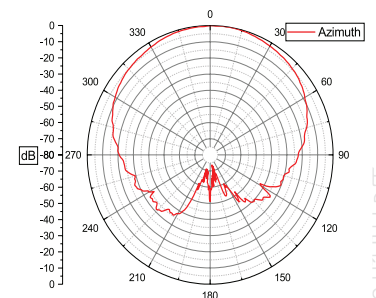
2 GHz



10 GHz



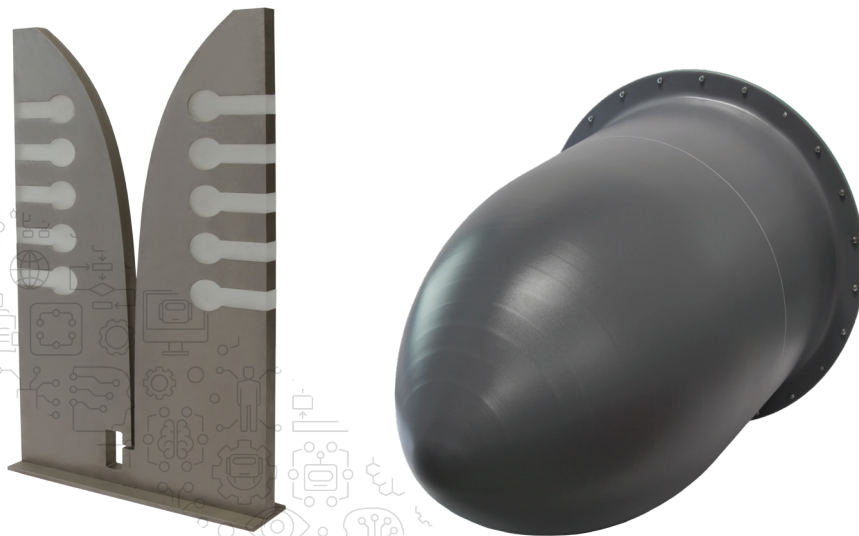
18 GHz



Linear Polarized Metal Vivaldi Antenna

Key Features

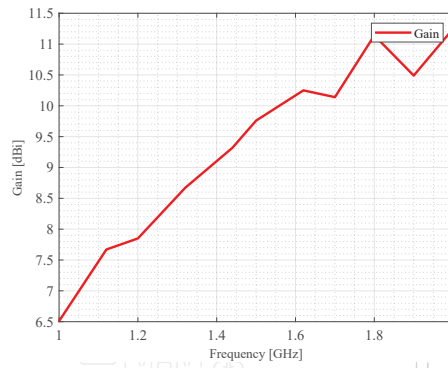
- Low VSWR
- High Gain
- Robust Mechanical Design



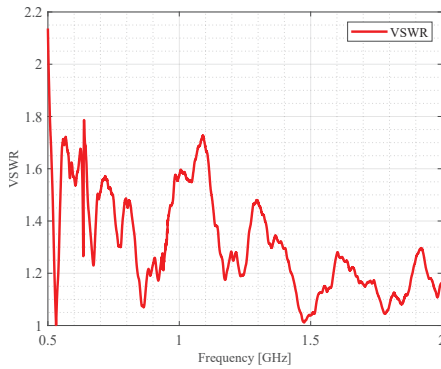
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	0.5-2
Gain (dBi)	6.2-10.2 (Max. 11 dBi)
Polarization	Linear
VSWR	≤ 1.4
3 dB Beamwidth	73°-43° (Azimuth) 77°-43° (Elevation)
RF Connection Type	Coaxial SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	522.8 x 270 x 16
Weight (g)	~ 2250

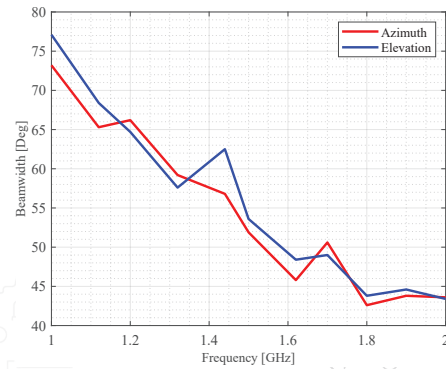
GAIN



VSWR

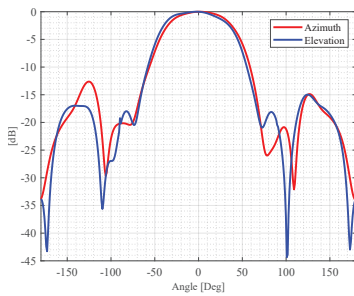


BEAMWIDTH

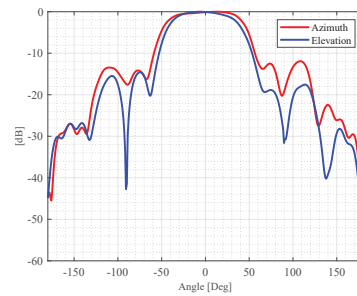


RADIATION PATTERN RESULTS

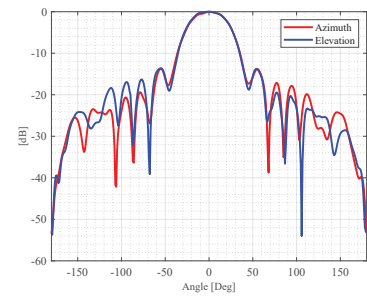
0.5 GHz



1 GHz



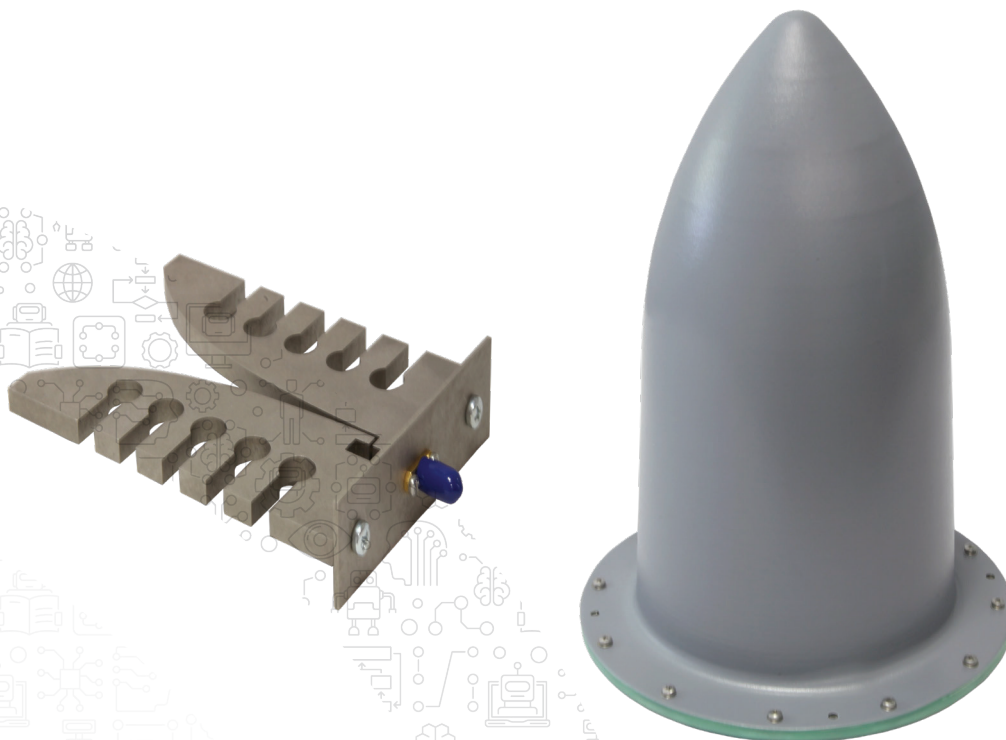
2 GHz



Linear Polarized Metal Vivaldi Antenna

Key Features

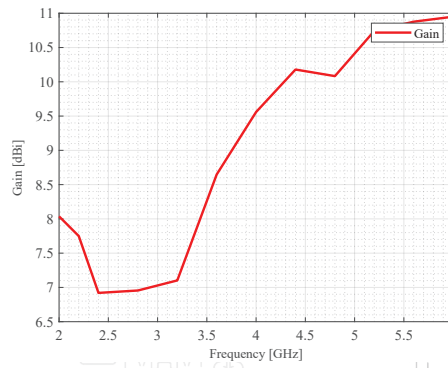
- Low VSWR
- High Gain
- Robust Mechanical Design



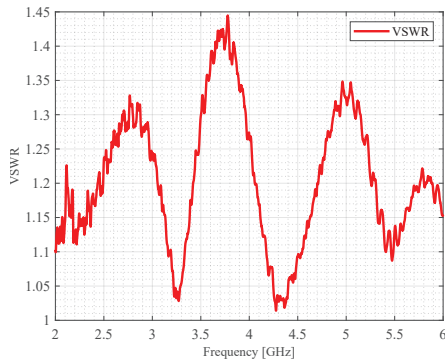
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2-6
Gain (dBi)	7-11
Polarization	Linear
VSWR	≤ 1.5
3 dB Beamwidth	80°-42° (Azimuth) 74°-40° (Elevation)
RF Connection Type	Coaxial SMA Type Connector- Female (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	132.4 x 94.2 x 6.35
Weight (g)	~ 170

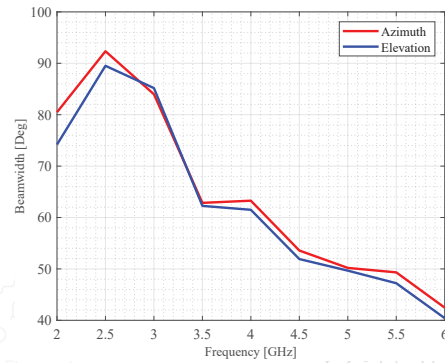
GAIN



VSWR

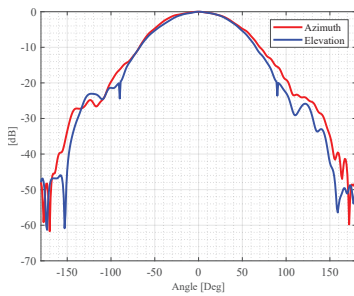


BEAMWIDTH

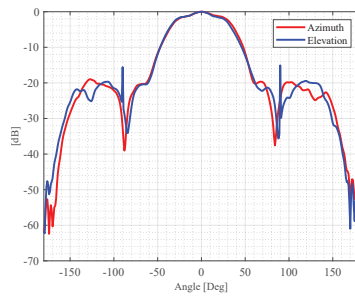


RADIATION PATTERN RESULTS

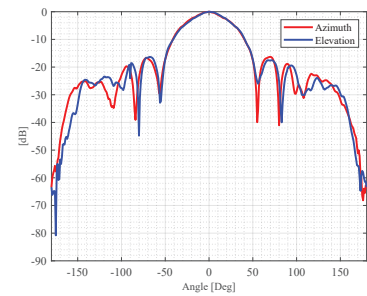
2 GHz



4 GHz



6 GHz



Linear Polarized Metal Vivaldi Antenna

Key Features

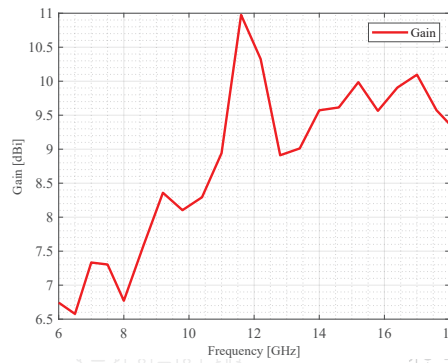
- Low VSWR
- High Gain
- Robust Mechanical Design



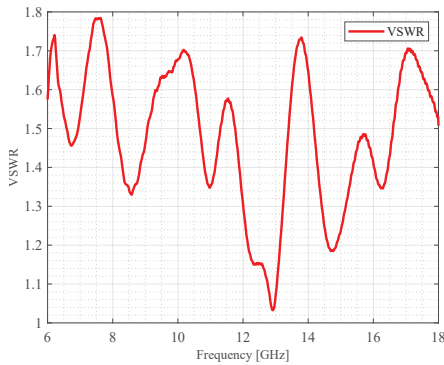
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	6-18
Gain (dBi)	7.5-9.5 (Max. 11 dBi)
Polarization	Linear
VSWR	≤ 1.8
3 dB Beamwidth	88°-50° (Azimuth) 84°-46° (Elevation)
RF Connection Type	Coaxial SMP Type Connector- male (50 Ohm)

MECHANICAL PROPERTIES	
Size (D x W x H) (mm)	52.8 x 33.2 x 3
Weight (g)	~ 15

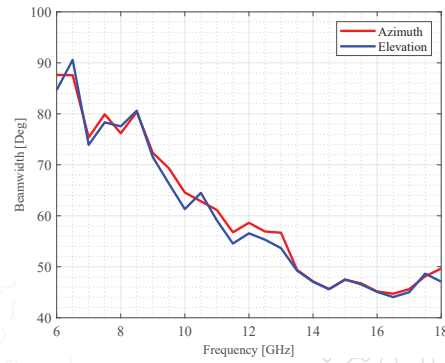
GAIN



VSWR

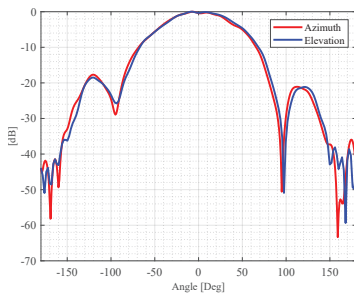


BEAMWIDTH

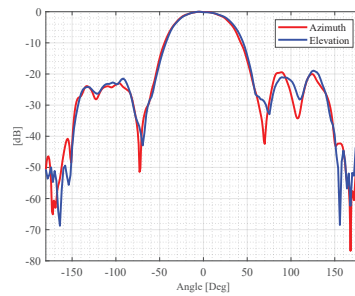


RADIATION PATTERN RESULTS

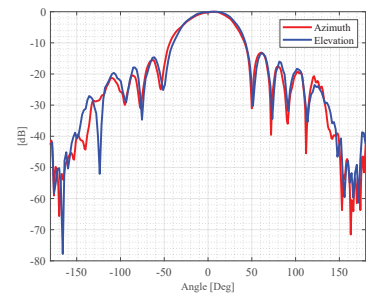
6 GHz



12 GHz



18 GHz



Linear Polarized Slot Waveguide Antenna

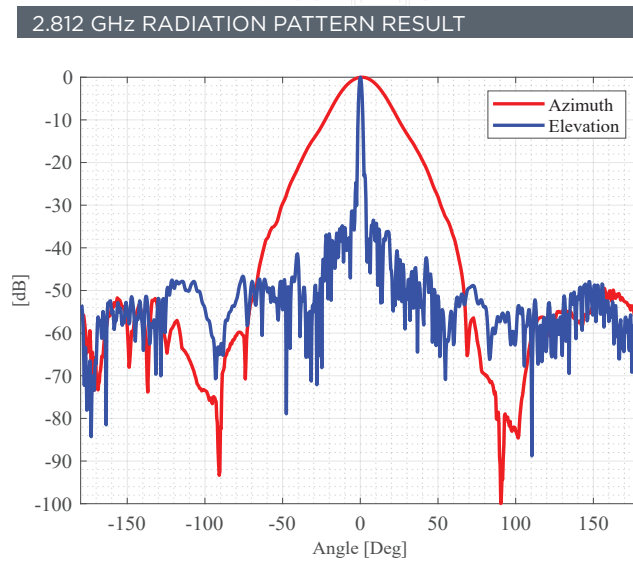
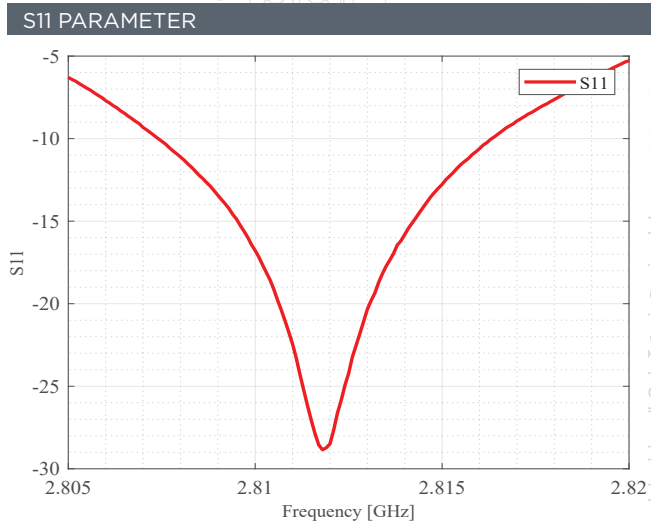
Key Features

- Low VSWR
- Robust Mechanical Design
- Easy Connection Interface
- Horizontal Polarized
- Low Sidelobe Level



ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	2.8
Gain (dBi)	28
Polarization	Horizontal
VSWR	≤ 2.0
3 dB Beamwidth	1.8° (Azimuth) 25° (Elevation)
RF Connection Type	Waveguide
Sidelobe Level (dB)	≤ 25

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	415 x 179 x 42
Weight (kg)	~ 57.5



Horizontal Polarized, Slotted Waveguide Antenna

Key Features

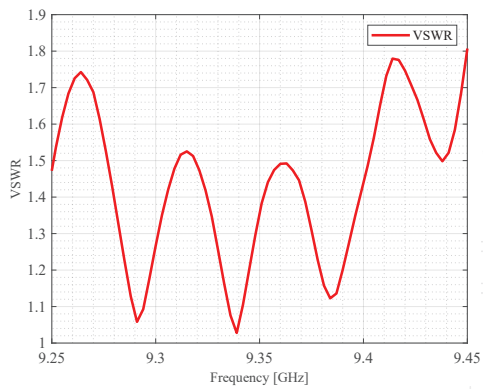
- Low VSWR
- Narrow Beam Width on Horizontal Axis
- Robust Mechanical Design
- Low Sidelobe Level



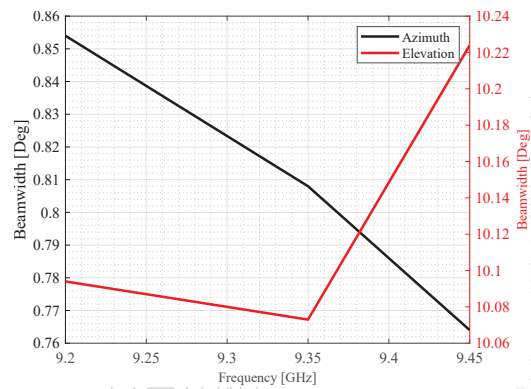
ELECTRICAL PROPERTIES	
Operating Frequency (GHz)	9.25-9.45
Gain (dBi)	34
Polarization	Linear
VSWR	≤ 1.8
RF Connection Type	WR90 Waveguide
Sidelobe Level (dB)	≤ -25

MECHANICAL PROPERTIES	
Size (D x W x H) (cm)	304 x 27,5 x 13
Weight (kg)	~ 25

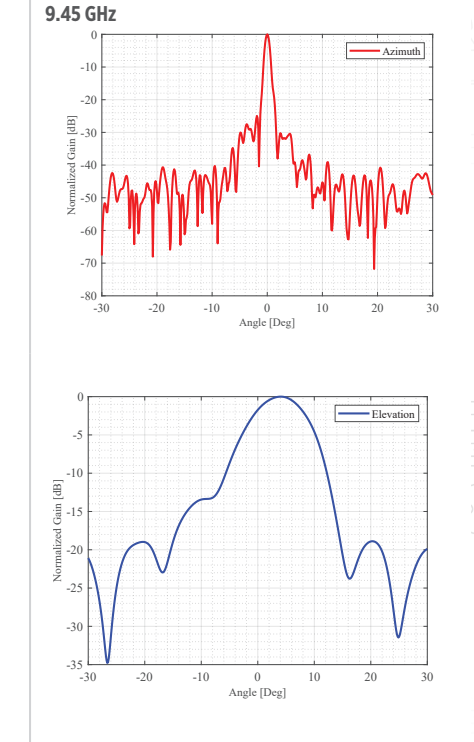
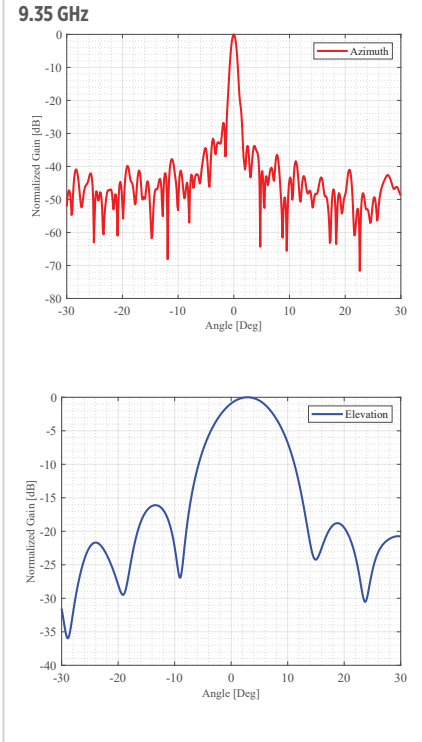
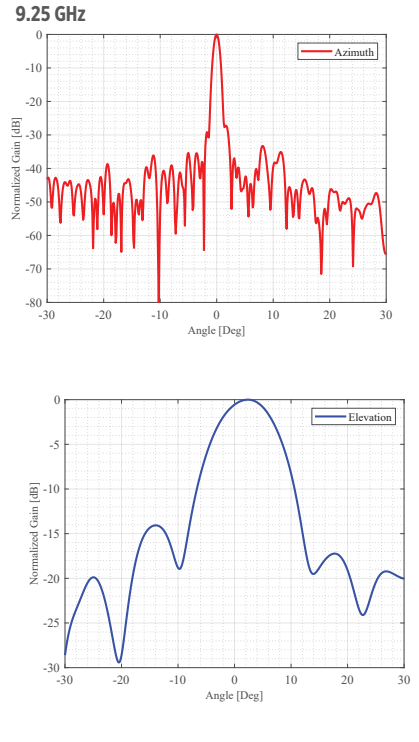
VSWR



BEAMWIDTH



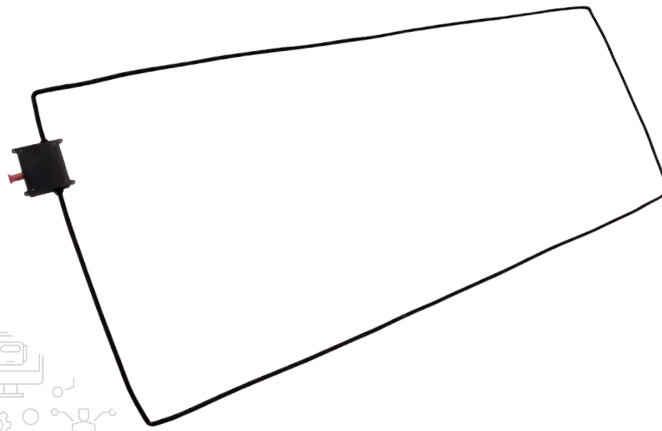
RADIATION PATTERN RESULTS



Surface Compatible Compact HF Loop Antenna

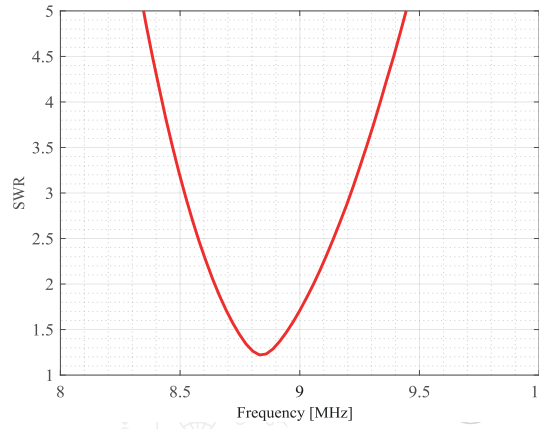
Key Features

- Wideband and Narrowband Design
- Flexible and Insulated Antenna Element
- MIL-STD-810G Certified
- DO-160G Certified
- * Licensed by ESEN System company.

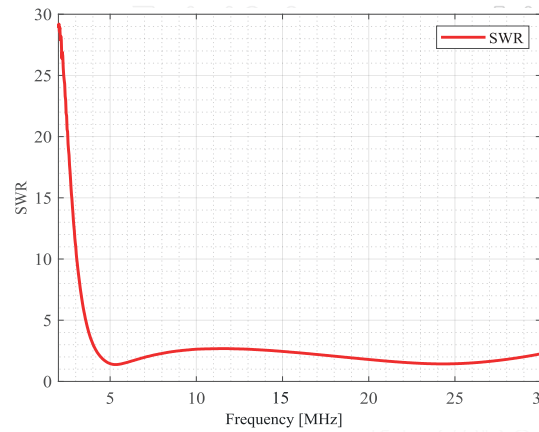


GENERAL PROPERTIES	
Operating Frequency (MHz)	2-30
Polarization	Linear
Power Endurance	500 Watt
Operating Temperature Range	(-35°)-(+80°)
RF Connection Type	Coaxial SMA Type Connector-Female (50 Ohm)

RESONANCE



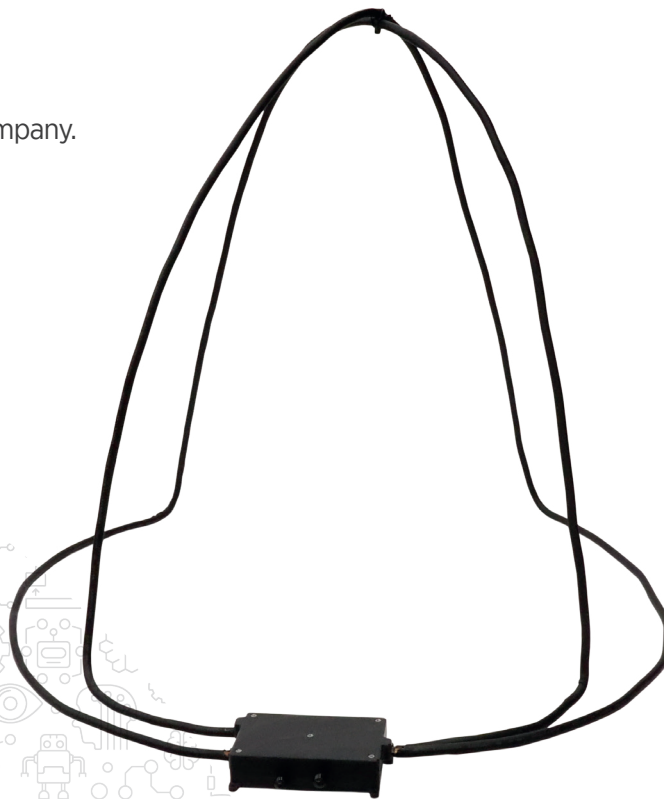
WIDEBAND



Surface Compatible Compact HF Crossed-Loop Antenna

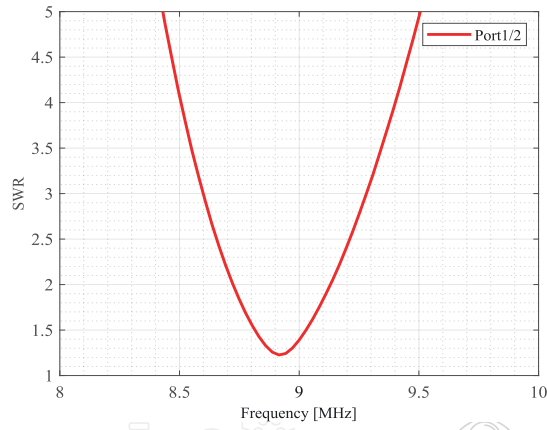
Key Features

- Suitable Geometry for Aircraft Nose Radome
- Wideband and Narrowband Design
- Flexible and Insulated Antenna Element
- MIL-STD-810G Certified
- DO-160G Certified
- * Licensed by ESEN System company.

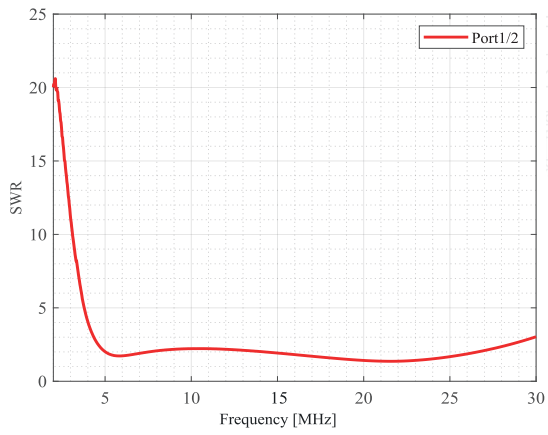


GENERAL PROPERTIES	
Operating Frequency (MHz)	2-30
Polarization	Linear
Power Endurance	500 Watt
Operating Temperature Range	(-35°)-(+80°)
RF Connection Type	Coaxial SMA Type Connector-Female (50 Ohm)

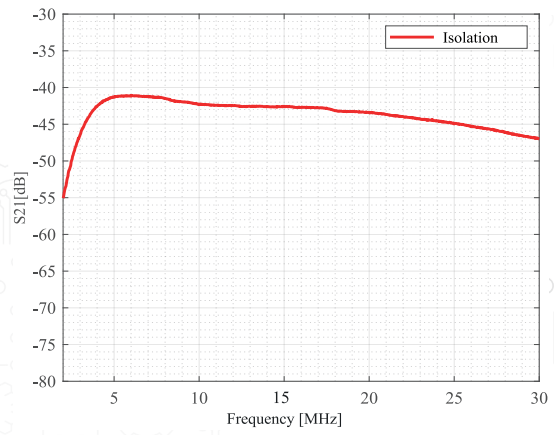
RESONANCE



WIDEBAND



ISOLATION



ATAM-RADOM

Radome design, analysis and production can be done in any geometric forms suitable for the applications in the requested frequency ranges. Additionally transmission performance of the radome wall are able to measured.



Cylindrical Radome

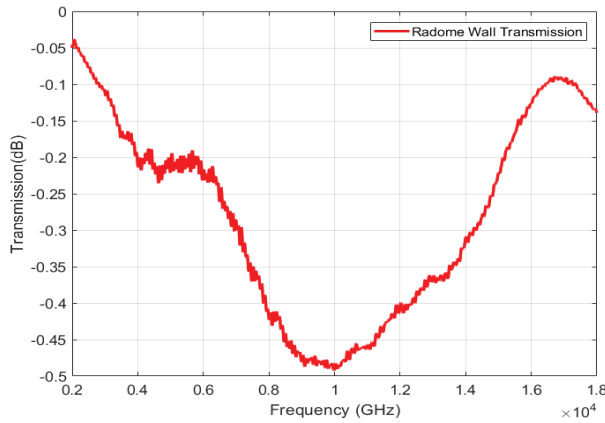
Key Features

- Robustness Against Harsh Environmental Conditions
- A-Type Sandwich Structure
- Easy Transport and Assembly
- Low Loss

PROPERTIES	
*Operating Frequency (GHz)	1-18
Transmission (dB)	Typical -0.25 dB; Max. > -0.5 dB
Weight (kg)	16.260
Size (D x W x H) (cm)	120 x 120 x 121
Colour Code	RAL7001 (Optional)

* Please contact for other frequency bands.

TRANSMISSION

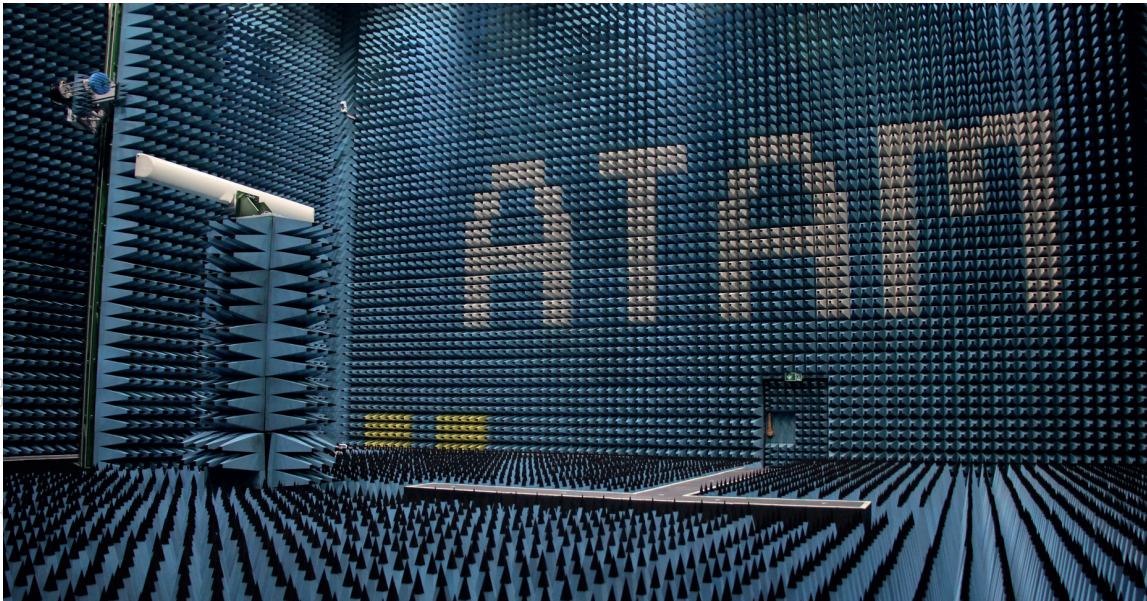


ATAM - PNF/CNF

Planar and Cylindrical Near Field Antenna Measurement Laboratory

Antenna Test and Research Center

Established at TUBITAK BILGEM Antenna Test and Research Center (ATAM) in 2019 March; Planar and Cylindrical Near Field Antenna Measurement System provides international antenna testing and evaluation service for variety of industries (defense, aerospace, telecommunications et. al.) and research activities.



Technical Properties

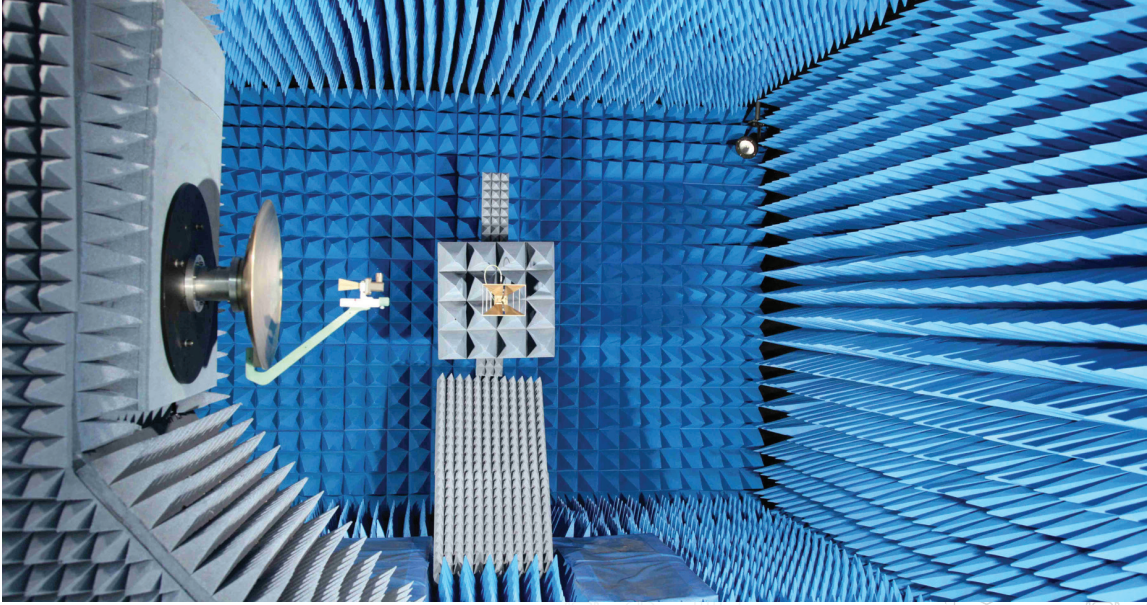
Dimensions of Test Chamber	17 x 18 x 13 m (L x W x H)
Antenna Under Test (AUT) Profile	Directive or High Gain
Maximum AUT Dimensions	8 m
Maximum Weight of AUT	4000 Kg (4tons)
Scan Area	Planar and Cylindrical
Frequency	0.5 GHz - 40 GHz

ATAM - SNF

Spherical Near Field Antenna Measurement Laboratory

Antenna Test and Research Center

Established at TUBITAK BILGEM Antenna Test and Research Center (ATAM) in 2011; Spherical Near Field Antenna Measurement System Provides international antenna testing and evaluation service for variety of industries (defense, aerospace, telecommunications et. al.) and research activities.



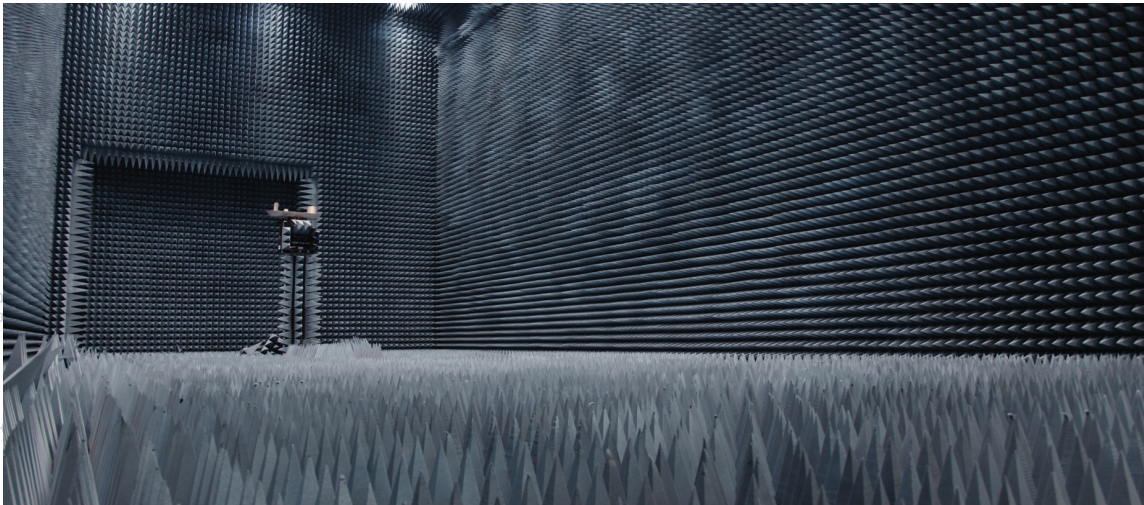
Technical Properties

Dimensions of Test Chamber	8 x 5 x 4.50 m (L x W x H)
Antenna Under Test (AUT) Profile	Low or Medium Gain
Maximum AUT Dimensions	1.5 m
Maximum Weight of AUT	75 Kg
Scan Area	Full Spherical
Frequency	0.75 GHz – 40 GHz

ATAM - NFRCS

Near Field Radar Cross Section Measurement Laboratory

Recently established at TUBITAK BILGEM Antenna Test and Research Center (ATAM) in 2019; Near Field Radar Cross Section Measurement System provides international radar stealth ability testing and evaluation service for variety of industries (military or commercial sector in defense industries et. al.) and research activities.



Technical Properties

Dimensions of Test Chamber	30 x 14 x 14 m (L x W x H)
Maximum Target Dimensions	10 m
Maximum Weight of Target	2000 Kg (10 tons with ceiling crane)
Angular Intervals	Azimuth: 0°-360° Elevation: ±45°(@2 Tons) ±90°(<1 Ton)
Frequency	0.2 GHz - 40 GHz
Polarization	VV, VH, HV, HH
Uncertainty of Measurement	±2 dB

ATAM - RCS

Near Field Radar Cross Section Measurement Laboratory's Capabilities

- High Frequency Analysis Capability
- Monostatic/Bistatic RCS and Range Profile Analysis
- Scattering Center Calculation
- High Resolution SAR/ISAR Display
- Analysis Capability for Platforms Covered with Metallic or Dielectric Materials
- Monostatic-Bistatic Equivalence Analysis
- Actual Size or Scaled Platform Analysis
- Native and Original Software

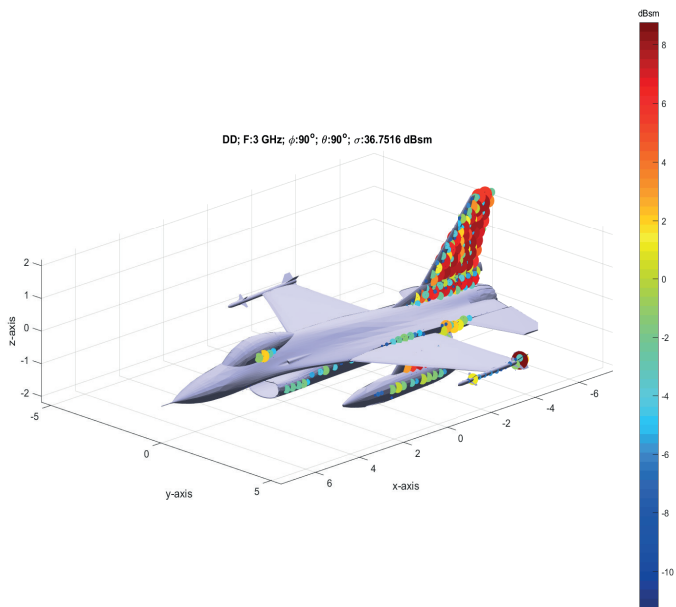


ATAM

RCS CAPABILITIES

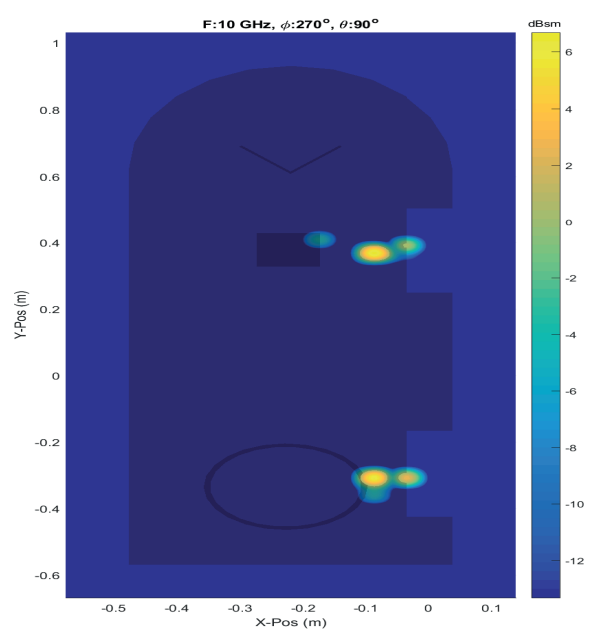
SCATTERING CENTER DISPLAY

With the scattering center calculation, the regions of the platforms that increase the radar visibility are determined in 3D. Scattering centers are critical in low RCS platform design.

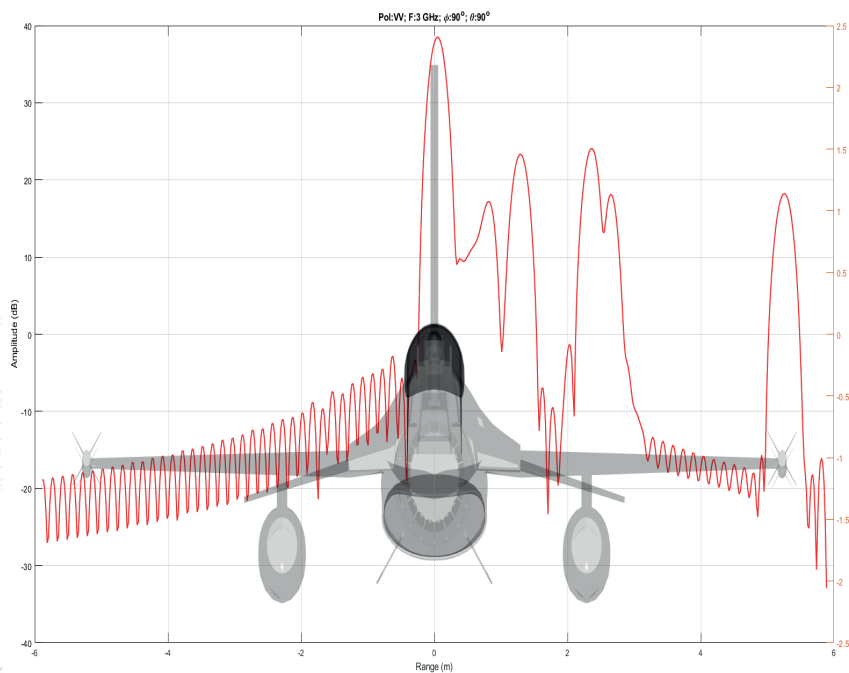


ISAR DISPLAY

Through ISAR imaging analysis, the image of the platforms on the radar screen is calculated in 2 or 3 dimensions.



RANGE PROFILE



Through the range profile calculation, the reflection values of the platforms depending on the distance are obtained. These values are critical in low RCS platform design.



