Commercial

HASCALL-DENKE

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THE WORLD'S ANTENNA SOURCE.

43-47 MHz
LB44R

Railroad Antenna

The LB44R railroad antenna is designed to be used in commercial railroad applications such as: PTC "Positive Train Control", yard/fleet maintenance, and rail service agencies.

Robust and tough, this antenna is housed in a thick fiberglass radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

- **Low VSWR**
- **Shock & Vibration rated: EN 61373, MIL-810G, & IEEE 1478**

Mounting Bracket sold separately.

Made in the USA
ISO 9001:2015 Certified
(1Y09400)

P.O. Box 909, Palmetto, Florida 34220-0909
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43-47 MHz
LB44R

Railroad Antenna

Specifications

ELECTRICAL:

Frequency Range:	43-47 MHz
Gain:	1.0 dBi
VSWR:	< 2.0:1
Input Impedance:	50 Ω Nominal
Power:	100 Watts Max
Polarization:	Vertical
Radiation Pattern:	Azimuth: 360° Elevation: 68°
Input Connector:	Type N Female

MECHANICAL:

Overall Height:	91 in. (2.31 m)
Radome Diameter:	1.75 in. (45 mm) OD
Net Weight:	7 lb. (3.18 kg) 13 lb. (5.90 kg) With Mount
Maximum Wind Load:	130 mph (209 km/h)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Off White (Other colors available.)
Water Intrusion:	Gas Pass (Vented)
Shock & Vibration:	EN 61373, MIL-810G, IEEE 1478
Mounting:	HDM001 (1Y09250) Fits Mast Pipe Dia. 2" - 3" (50.8 - 76.2 mm)

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(1Y09400)

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HASCALL-DENKE
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150-162 & 1575.42 MHz
MVDP150-162-GPS

Fleet Commander VHF & GPS

The MVDP150-162-GPS antenna is designed to be used in commercial, military, or private fleet communication systems where reliability is needed most. This antenna works with all radios within the 150-162 MHz band and 1575.42 GPS band.

The antenna is designed to provide maximum Data, Video & Voice performance in a wide range of applications.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance. It has two separate cable inputs, one for the VHF radio and the other for the GPS.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

- **Dual Input**
- **Low VSWR**
- **Built for Shock & Vibration**
- **Fleet Ready**
- **Simple Installation**

Made in the USA
ISO 9001:2015 Certified
(1Y14700)

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HASCALL-DENKE
THE WORLD'S ANTENNA SOURCE.

150-162 & 1575.42 MHz
MVDP150-162-GPS

Fleet Commander VHF & GPS

Specifications

ELECTRICAL:

Frequency Range:	150-162 MHz (VHF) 1575.42 MHz (GPS)
Gain:	3.0 ~ 5.0 dBi (VHF) 30 dBi (GPS)
Operating Voltage:	3 ~ 5V (GPS)
VSWR:	< 2.0:1 Typical
Input Impedance:	50 Ω Nominal
Power:	100 Watts
Polarization:	Vertical (VHF) Right Hand Circular (GPS)
Input Connector:	Type SMA Male

MECHANICAL:

Overall Height:	6 in. (152 mm)
Diameter:	4.4 in. (112 mm) OD
Net Weight:	1 lb. (0.45 kg)
Maximum Wind Load:	150 mph (241 km/h)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Black (Other colors available.)
Mounting:	4X 1/4-28UNF Threaded Holes

Made in the USA
ISO 9001:2015 Certified
(1Y14700)

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HASCALL-DENKE
THE WORLD'S ANTENNA SOURCE.

152-180 MHz
FXCL152-180

Omnidirectional Antenna

The FXCL152-180antenna is designed to be used in public safety, commercial, military and other applications where reliability is needed most. This antenna works with all radios within the 152-180 MHz band.

Being "ground independent", this antenna can be used on all types of structures (metal or non-metal) with no degradation in performance.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick fiberglass radome double reinforced at the base and is constructed from corrosion resistant materials for reliability in the harshest environments.

Made in the USA
ISO 9001:2015 Certified
(1Y30250)

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HASCALL-DENKE
THE WORLD'S ANTENNA SOURCE.

152-180 MHz
FXCL152-180

Omnidirectional Antenna

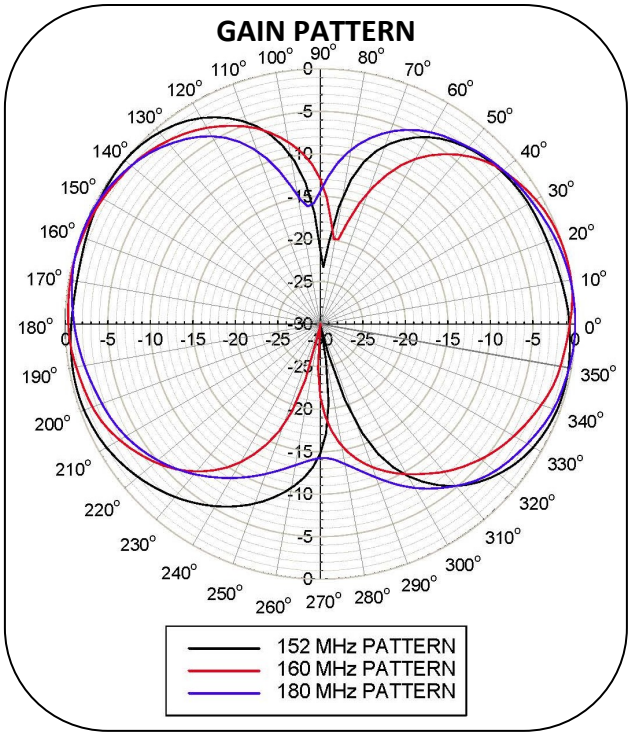
Specifications

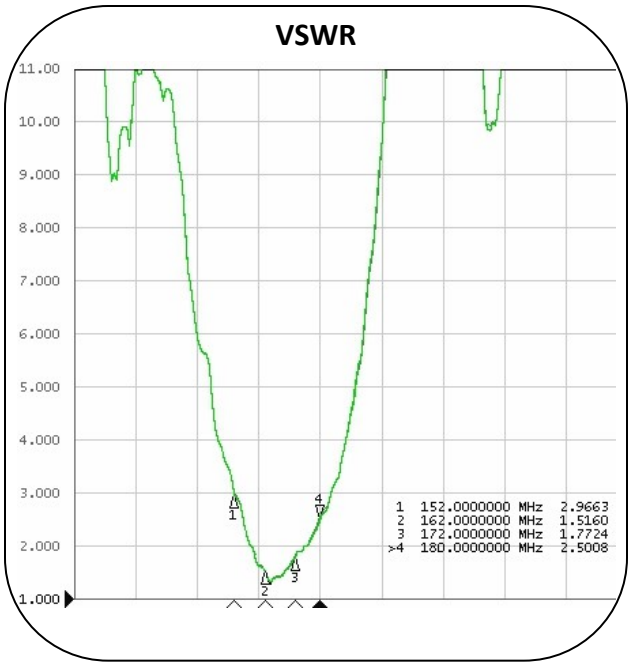
ELECTRICAL:

Frequency Range:	152-180 MHz
Gain:	3 dBi
VSWR:	1.5:1 Typical
Input Impedance:	50 Ω Nominal
Power:	150 Watts
Polarization:	Vertical
Radiation Pattern:	Azimuth: 360° Elevation: 20°
Input Connector:	Type N Female

MECHANICAL:

Overall Height:	78 in. (1.98 m)
Radome Diameter:	2 in. (50 mm)
Maximum Wind Load:	150 mph (241 km/h)
Net Weight:	4 lb. (1.54 kg)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	White
Mount:	HDM001





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(1Y30250)

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155.34 MHz
FXCL155-3

Search and Rescue Antenna

The FXCL155-3 antenna is designed to be used in search and rescue, forestry, and other rugged environment applications. This antenna works with all radios at the 155.34 MHz band.

Robust and tough, this antenna is housed in a thick fiberglass radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

- **Low VSWR**
- **Shock & Vibration rated: EN 61373, MIL -810G, & IEEE 1478**

Mounting Bracket sold separately.

Made in the USA
ISO 9001:2015 Certified
(1Y33150)

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155.34 MHz
FXCL155-3

Search and Rescue Antenna

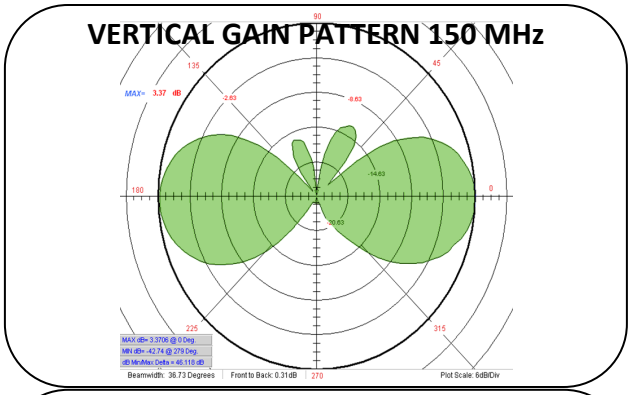
Specifications

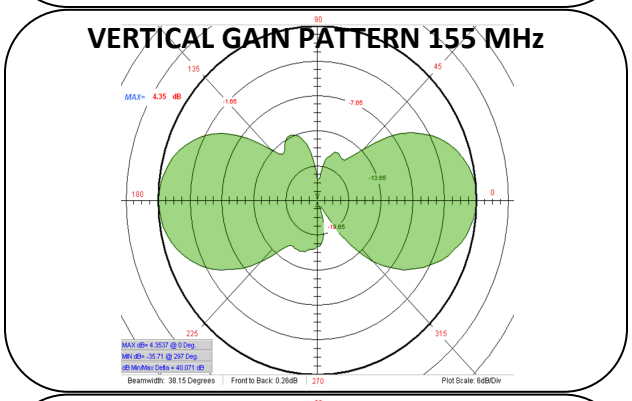
ELECTRICAL:

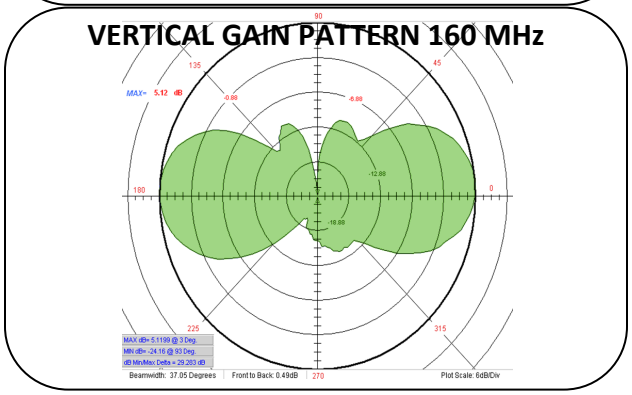
Frequency Range:	155.34 MHz +/- 5 MHz
Gain:	3.0 dBi +/-0.5
VSWR:	<2.0:1
Input Impedance:	50 Ω Nominal
Power:	100 Watts PEP
Polarization:	Vertical
Radiation Pattern:	Azimuth: 360° Elevation: 68°
Input Connector:	Type N Female

MECHANICAL:

Overall Height:	70 in. (2.44 m)
Radome Diameter:	1.75 in. (45 mm) OD
Net Weight:	7.5 lb. (3.40 kg) 13.5 lb. (6.12 kg) With Mount
Maximum Wind Load:	130 mph (209 km/h)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Off White (Other colors available.)
Water Intrusion:	Gas Pass (Vented)
Shock & Vibration:	EN 61373, MIL-810G, IEEE 1478
Mounting:	HDM002 (1Y09300) Fits Mast Pipe Dia. 2" - 3" (50.8 - 76.2 mm)







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(1Y33150)

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217-223 MHz
HDMO217-223

HDMO Rail Master Omni Antenna

The HDMO217-223 antenna is designed to be used in commercial, military and other applications where reliability is needed most. This antenna works with all radios within the 217-223 MHz band.

The antenna is designed to provide maximum Data, Video & Voice performance in a wide range of applications.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

- **Low VSWR**
- **Shock & Vibration: EN 61373, MIL-810G, IEEE 1478**
- **Ingress Protection: IP67**

Mounting Bracket sold separately.

Made in the USA

ISO 9001:20 Certified

(1Y27950)

Made in the USA

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217-223 MHz
HDMO217-223

HDMO Rail Master Omni Antenna

Specifications

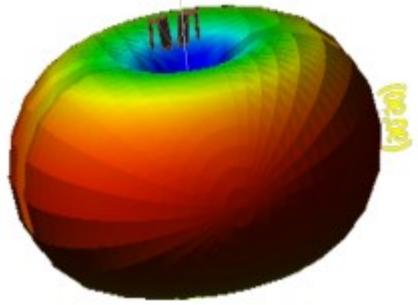
ELECTRICAL:

Frequency Range:	217-223 MHz
Gain:	> Unity Typical
VSWR:	< 2.0:1 Typical
Input Impedance:	50 Ω Nominal
Power:	100 Watts Max
Polarization:	Vertical Linear
Input Connector:	NMO

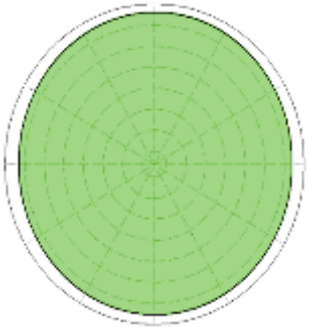
MECHANICAL:

Overall Height:	4.5 in. (114 mm)
Diameter:	2.6 in. (66 mm) OD
Net Weight:	1 lb. (0.45 kg)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Shock & Vibration:	EN 61373, MIL-810G, IEEE 1478
Ingress Protection:	IP67
Color:	Black/Green/Tan/Grey
Mounting:	NMO

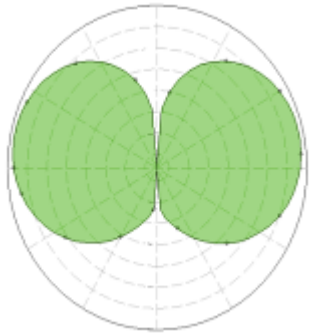
3D REFERENCE



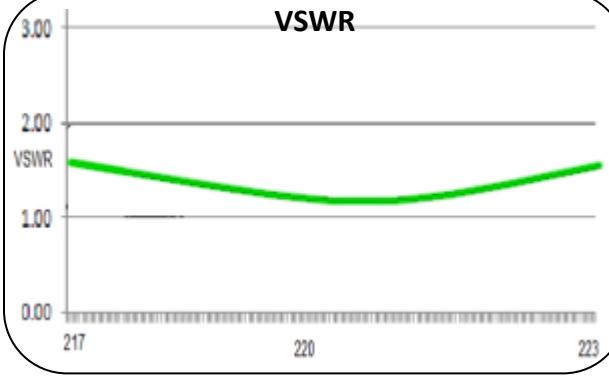
H-PLANE / AZIMUTH



E-PLANE / ELEVATION



VSWR



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445-465 MHz
TTA450ES-2

EOT Antenna #TTA450ES-2

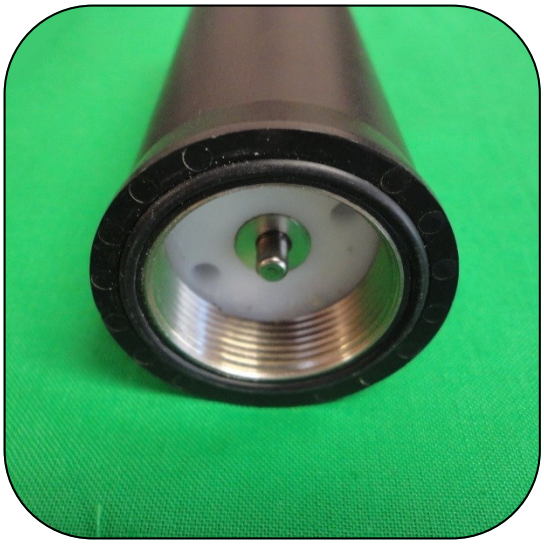
The TTA450ES-2 antenna is designed to be used in commercial, military or private fleet communication systems where reliability is needed most. This antenna works with all radios within the 445-465 MHz band.

The antenna is designed to provide maximum Data, Video & Voice performance in a wide range of applications.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

- **Low VSWR**
- **High Strength Xenoy Radome**
- **Built for Shock & Vibration**
- **Simple Installation**



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(1Y10650)

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EOT Antenna #TTA450ES-2

Specifications

ELECTRICAL:

Frequency Range:	445-465 MHz
Gain:	1.0 dBi Over Ground Plane
VSWR:	1.5:1 Typical
Input Impedance:	50 Ω Nominal
Polarization:	Vertical
Input Connector:	NMO

MECHANICAL:

Overall Height:	4 in. (101 mm)
Diameter:	1.5 in. (38.1 mm) OD
Maximum Wind Load:	150 mph (241 km/h)
Net Weight:	0.4 lb. (0.19 kg)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Black (Other colors available.)
Mounting:	NMO

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450-464 & 1575.42 MHz
MVDP450-464-GPS

Fleet Commander UHF & GPS

The MVDP450-464-GPS antenna is designed to be used in commercial, military, or private fleet communication systems where reliability is needed most. This antenna works with all radios within the 450-464 MHz band and 1575.42 GPS band plus Glonass.

The antenna is designed to provide maximum Data, Video & Voice performance in a wide range of applications.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance. It has two separate cable inputs, one for the UHF radio and the other for the GPS.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

- **Dual Input**
- **Low VSWR**
- **Built for Shock & Vibration**
- **Fleet Ready**
- **Simple Installation**

Made in the USA
ISO 9001:2015 Certified
(1Y14650)

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450-464 & 1575.42 MHz
MVDP450-464-GPS

Fleet Commander UHF & GPS

Specifications

ELECTRICAL:

Frequency Range:	450 - 464 MHz (UHF) 1575.42 MHz (GPS)
Gain:	3.0 ~ 5.0 dBi (UHF) 30 dBi (GPS)
Operating Voltage:	3 ~ 5V (GPS)
VSWR:	< 2.0:1 Typical
Input Impedance:	50 Ω Nominal
Power:	100 Watts
Polarization:	Vertical (UHF) Right Hand Circular (GPS)
Input Connector:	Type SMA Female

MECHANICAL:

Overall Height:	6.45 in. (164 mm)
Diameter:	2.6 in. (66 mm) OD
Net Weight:	0.4 lb. (0.19 kg)
Maximum Wind Load:	150 mph (241 km/h)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Black (Other colors available.)
Mounting:	NMO Thru UNF Threaded Base X4

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(1Y14650)

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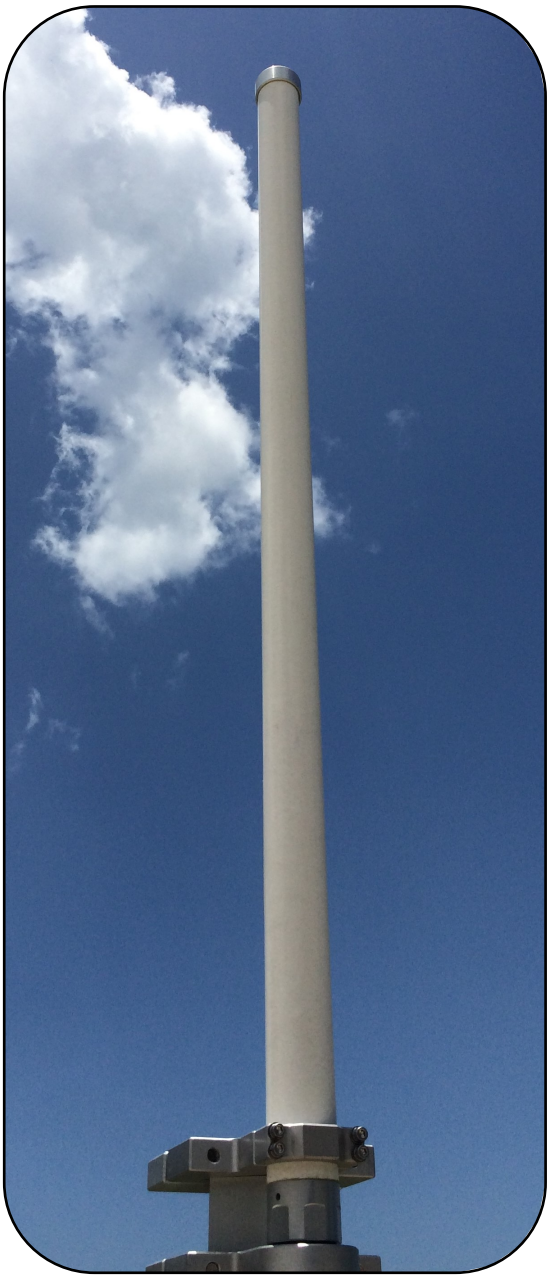
460-480 MHz
FXCL460-480

Omnidirectional Antenna



The FXCL460-480 antenna is designed to be used in public safety, commercial, military and other applications where reliability is needed most. This antenna works with all radios within the 460-480 MHz band.

Being "ground independent", this antenna can be used on all types of structures (metal or non-metal) with no degradation in performance.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick fiberglass radome double reinforced at the base and is constructed from corrosion resistant materials for reliability in the harshest environments.

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(1Y30300)

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460-480 MHz
FXCL460-480

Omnidirectional Antenna

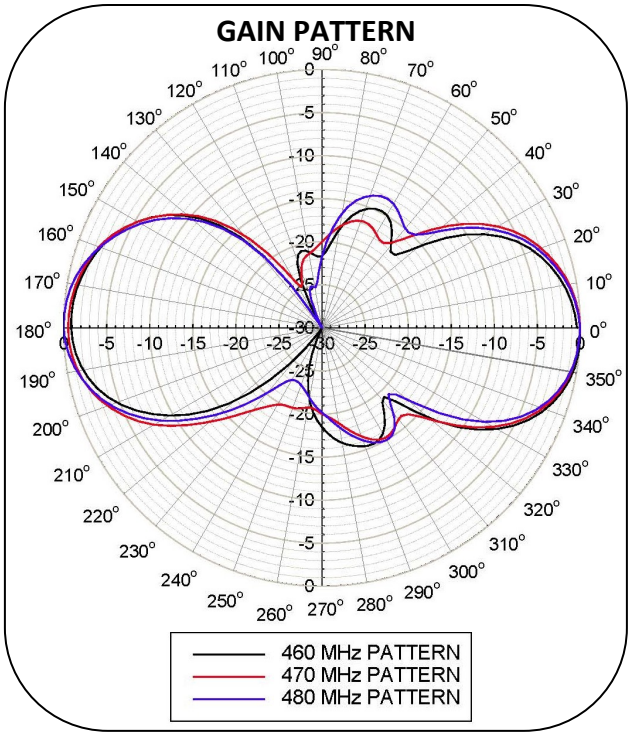
Specifications

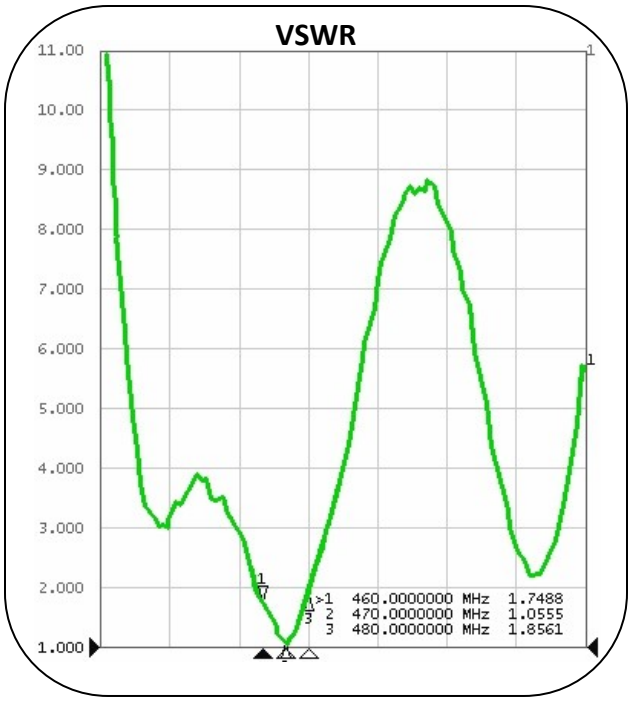
ELECTRICAL:

Frequency Range:	460-480 MHz
Gain:	5 dBi
VSWR:	< 1.5:1 Typical
Input Impedance:	50 Ω Nominal
Power:	150 Watts
Polarization:	Vertical
Radiation Pattern:	Azimuth: 360° Elevation: 16°
Input Connector:	Type N Female

MECHANICAL:

Overall Height:	44 in. (1.12 m)
Radome Diameter:	2 in. (50.8 mm)
Maximum Wind Load:	150 mph (241 km/h)
Net Weight:	2.5 lb. (1.2 kg) Max
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	White
Mounts:	HDM001





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698-2700 MHz
FXMIMO698-2700

Industrial MIMO Antenna

The FXMIMO698-2700 antenna is designed to be used in commercial, military, or private fleet communication systems where reliability is needed most. This antenna works with all radios within the 698-2700 MHz band.

This antenna is designed for high durability and reliability when high quality communication is required.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

- **Dual Input MIMO**
- **Locomotive Ready**
- **High Quality Reception**
- **High Strength Xenoy Radome**
- **Heavy Duty Base**
- **Built for Shock, Vibration, & Temp**
- **Simple Installation**
- **Pass Thru NMO (For Mounting)**

NMO-T Pass Thru Mount sold separately.

Made in the USA
ISO 9001:2015 Certified
(1Y21350)

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698-2700 MHz
FXMIMO698-2700

Industrial MIMO Antenna

Specifications

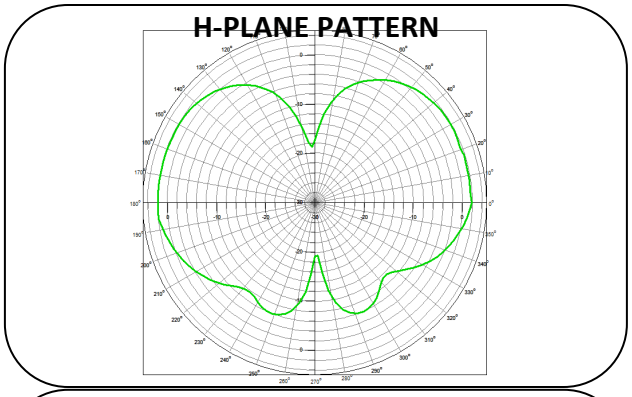
ELECTRICAL:

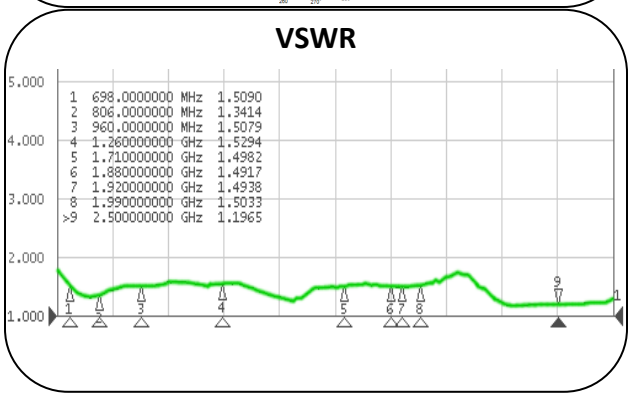
Frequency Range:	698-2700 MHz (Each Input)
Gain:	2.0 ~ 4.0 dBi +/- .5
VSWR:	< 2.0:1 Typical (In Bands)
Input Impedance:	50 Ω Nominal
Polarization:	Vertical
Input Connector:	(2) Type SMA Male
Coax:	RF195
Coax Length:	1 ft. (.30 m) Standard (Other Lengths Available)

MECHANICAL:

Overall Height:	4.5 in. (114 mm)
Diameter:	2.6 in. (66 mm) OD
Net Weight:	0.4 lb. (0.19 kg)
Maximum Wind Load:	150 mph (241 km/h)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Black (Other colors available.)
Mounting:	NMO Pass Thru*

*P/N: NMO-T Sold Separately





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(1Y21350)

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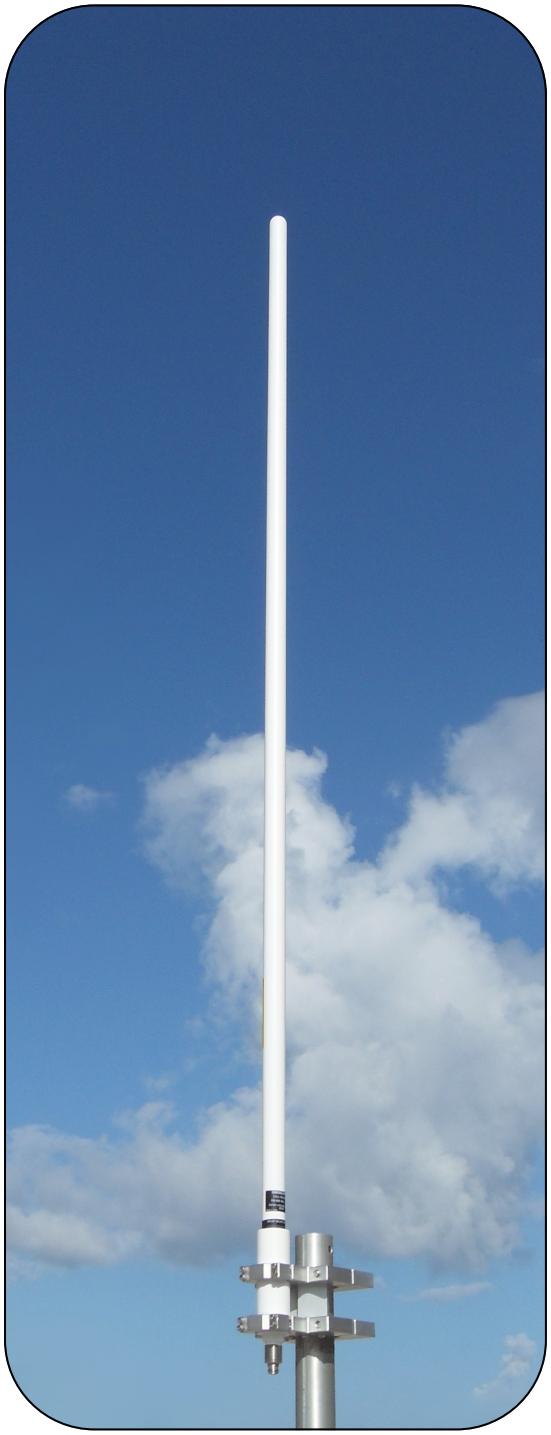
750-800 MHz
FXCL750-800-9

Omnidirectional Antenna



The FXCL750-800-9 antenna is designed to be used in military, commercial, and other applications where reliability is needed most. This antenna works with all radios within the 750-800 MHz band.

Being "ground independent", this antenna can be used on all types of structures (metal or non-metal) with no degradation in performance.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick fiberglass radome double reinforced at the base and is constructed from corrosion resistant materials for reliability in the harshest environments.

Made in the USA
ISO 9001:2015 Certified
(1Y25950)

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THE WORLD'S ANTENNA SOURCE.

750-800 MHz
FXCL750-800-9

Omnidirectional Antenna

Specifications

ELECTRICAL:

Frequency Range:	750-800 MHz
Gain:	9 dBi +/-.5
VSWR:	2.0:1 Typical
Input Impedance:	50 Ω Nominal
Power:	25 Watts
Polarization:	Vertical
Radiation Pattern:	Azimuth: 360° Elevation: 20°
Input Connector:	Type N Female

MECHANICAL:

Overall Height:	75 in. (1.9 m)
Radome Diameter:	1.25 in. (31.8 mm)
Maximum Wind Load:	150 mph (241 km/h)
Net Weight:	3.4 lb. (1.54 kg)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	White

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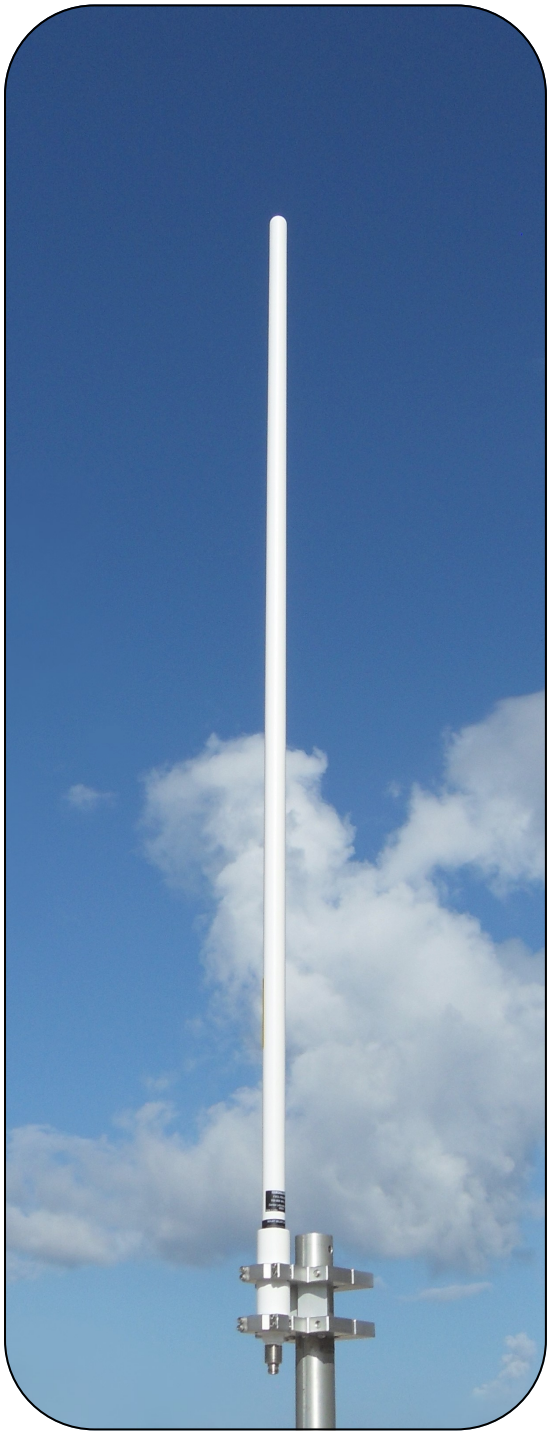
870-960 MHz
FXCL870-960-8

Omnidirectional Antenna



The FXCL870-960-8 antenna is designed to be used in military, commercial, and other applications where reliability is needed most. This antenna works with all radios within the 870-960 MHz band.

Being "ground independent", this antenna can be used on all types of structures (metal or non-metal) with no degradation in performance.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick fiberglass radome double reinforced at the base and is constructed from corrosion resistant materials for reliability in the harshest environments.

Made in the USA
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(1Y28250)

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870-960 MHz
FXCL870-960-8

Omnidirectional Antenna

Specifications

ELECTRICAL:

Frequency Range:	870-960 MHz
Gain:	8 dBi
VSWR:	< 1.5:1 Typical
Intermodulation:	-150 dBc
Input Impedance:	50 Ω Nominal
Power:	100 Watts, Max Input
Optional:	500 Watts, Max Input*
Polarization:	Vertical
Radiation Pattern:	Azimuth: 360° Elevation: 16°
Input Connector:	Type N Female

MECHANICAL:

Overall Height:	60 in. (1.5 m)
Radome Diameter:	2 in. (50.8 mm)
Maximum Wind Load:	150 mph (241 km/h)
Net Weight:	12 lb. (5.44 kg) Max
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	White
Mounts:	UM008
500 Watt Option:	FXCL870-960-8AB (1Y28350)

**Specifications are subject to change without prior notice.

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(1Y28250)

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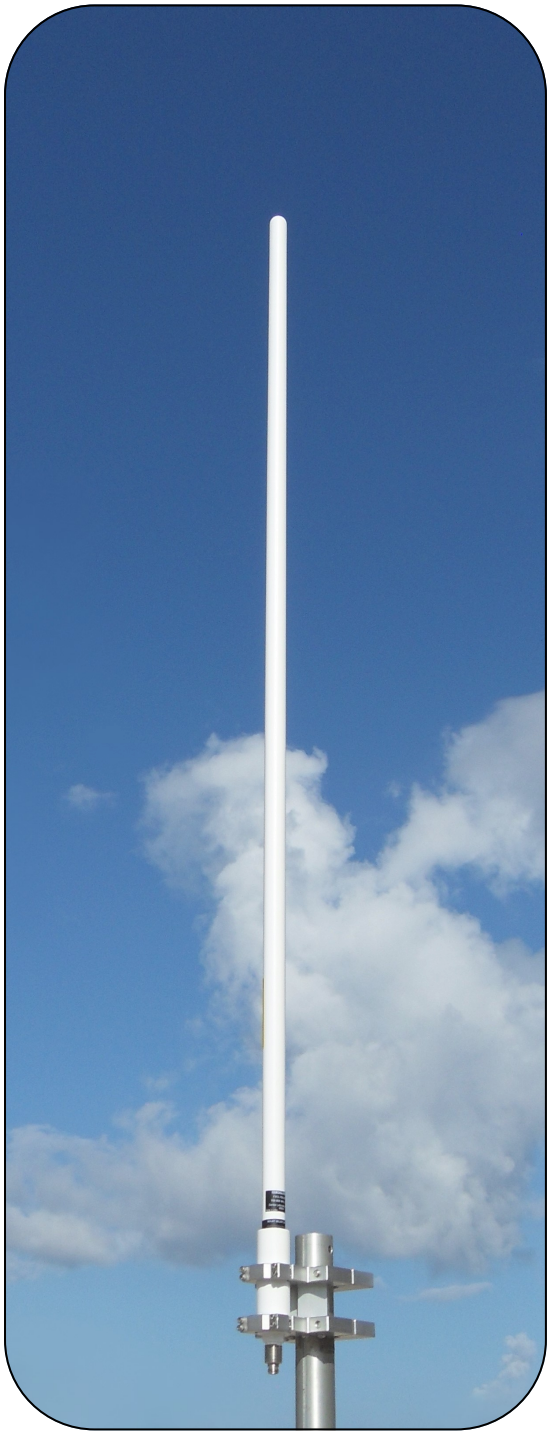
870-960 MHz
FXCL870-960-11

Omnidirectional Antenna



The FXCL870-960-11 antenna is designed to be used in military, commercial, and other applications where reliability is needed most. This antenna works with all radios within the 870-960 MHz band.

Being "ground independent", this antenna can be used on all types of structures (metal or non-metal) with no degradation in performance.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick fiberglass radome double reinforced at the base and is constructed from corrosion resistant materials for reliability in the harshest environments.

Made in the USA
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(1Y28300)

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870-960 MHz
FXCL870-960-11

Omnidirectional Antenna

Specifications

ELECTRICAL:

Frequency Range:	870-960 MHz
Gain:	11 dBi
VSWR:	< 1.5:1 Typical
Intermodulation:	-150 dBc
Input Impedance:	50 Ω Nominal
Power:	100 Watts, Max Input
Optional:	500 Watts, Max Input
Polarization:	Vertical
Radiation Pattern:	Azimuth: 360° Elevation: 8°
Input Connector:	Type N Female

MECHANICAL:

Overall Height:	128 in. (3.3 m)
Radome Diameter:	2 in. (50.8 mm)
Maximum Wind Load:	150 mph (241 km/h)
Net Weight:	17 lb. (7.7 kg) Max
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	White
Mounts:	UM008
500 Watt Option:	FXCL870-960-11AB (1Y28300)

**Specifications are subject to change without prior notice.

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(1Y28300)

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1575.42/1602 & 2320-2360 MHz
MVDPXMS

XM/Sirius-GPS Receiver Antenna

The MVDPXMS antenna is designed to be used in commercial, military, private and other communication systems where reliability is needed most. This antenna works with all radios within the Sirius/XM and GPS bands.

The antenna is designed to provide maximum Data, Video & Voice performance in a wide range of applications.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments. The base of the antenna has two separate TNC inputs, One for the Sirius/XM radio, the other for the GPS.

- **High Quality Reception**
- **High Strength Xenoy Radome**
- **Heavy Duty Base Plate**
- **Built for Shock & Vibration**
- **Sirius/XM & GPS**

UM004AB Mounting Bracket sold separately.

Made in the USA
ISO 9001:2015 Certified
(1Y12450)

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1575.42/1602 & 2320-2360 MHz
MVDPXMS

XM/Sirius-GPS Receiver Antenna

Specifications

ELECTRICAL:

Frequency Range:	1575.42 / 1602 MHz (GPS) 2320-2360 MHz (Sirius/XM)
Gain:	34 dB (GPS) 34 dB (Sirius/XM)
VSWR:	< 2.0:1 Typical
Operating Voltage:	3 ~ 5 V (GPS)
Input Impedance:	50 Ω Nominal
Polarization:	Right Hand Circular
Input Connector:	**(2)** Type TNC Female

MECHANICAL:

Overall Height:	6 in. (152 mm)
Diameter:	4.4 in. (112 mm) OD
Net Weight:	1 lb. (0.45 kg)
Maximum Wind Load:	150 mph (241 km/h)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Black (Other colors available.)
Mounting:	2X 1/4-28UNF Threaded Holes in Base or UM004AB Mounting Bracket (sold separately).

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Made in the USA
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(1Y12450)

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1575.42/1602 & 2320-2360 MHz
MVDPXMS-GLONASS

XM/Sirius-GPS Receiver Antenna

The MVDPXMS antenna is designed to be used in commercial, military, private and other communication systems where reliability is needed most. This antenna works with all radios within the Sirius/XM and GPS-GLONASS bands.

The antenna is designed to provide maximum Data, Video & Voice performance in a wide range of applications.

The antenna is provided with state-of-the-art radiating elements essential for maximum reliability and superior performance.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments. The base of the antenna has two separate TNC inputs, One for the Sirius/XM radio, the other for the GPS.

- **High Quality Reception**
- **High Strength Xenoy Radome**
- **Heavy Duty Base Plate**
- **Built for Shock & Vibration**
- **Sirius/XM & GPS-GLONASS**

UM004AB Mounting Bracket sold separately.

Made in the USA
ISO 9001:2015 Certified
(1Y24100)

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1575.42/1602 & 2320-2360 MHz
MVDPXMS-GLONASS

XM/Sirius-GPS Receiver Antenna

Specifications

ELECTRICAL:

Frequency Range:	1575.42 / 1602 MHz (GPS) 2320-2360 MHz (Sirius/XM)
Gain:	34 dB (GPS) 34 dB (Sirius/XM)
VSWR:	< 2.0:1 Typical
Operating Voltage:	3 ~ 5 V (GPS)
Input Impedance:	50 Ω Nominal
Polarization:	Right Hand Circular
Input Connector:	**(2)** Type TNC Female

MECHANICAL:

Overall Height:	6 in. (152 mm)
Diameter:	4.4 in. (112 mm) OD
Net Weight:	1 lb. (0.45 kg)
Maximum Wind Load:	150 mph (241 km/h)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Black (Other colors available.)
Mounting:	2X 1/4-28UNF Threaded Holes in Base or UM004AB Mounting Bracket (sold separately).

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1575-1606 MHz
HD-GPS-TIMING

GPS & Timing Antenna

The HD-GPS-TIMING antenna covers the GPS L1, GLONASS L1 and SBAS (WAAS, EGNOS, & MSAS) bands from 1575-1606 MHz. It can be ordered in an NMO mount or with a threaded section for pass thru mounting with a pigtail.

The antenna has a two stage low noise amplifier (LNA) with a mid-section SAW filter. It can be ordered with a tight pre-filter for protection against saturation by high level sub-harmonics and L-Band signals.

Robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant materials for reliability in the harshest environments.

Applications Include:

- **Military & Private Security**
- **Law Enforcement & Public Safety**
- **PTC / Rail**
- **Mining, Construction & Agriculture**
- **Fleet Management & Asset Tracking**

Benefits Include:

- **Increase System Accuracy**
- **High Signal to Noise Ratio**
- **Strong out of Band Rejection**
- **RoHS Compliant**

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ISO 9001:2015 Certified
(1Y27400)

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1575-1606 MHz
HD-GPS-TIMING

GPS & Timing Antenna

Specifications

ELECTRICAL:

Frequency Range:	1575-1606 MHz
LNA Gain:	28 dB +/-.5
Antenna Gain:	4.5 dBic (with 100mm ground plane.)
Axial Ratio:	≤ 4 dB @ 1590 MHz, 8 dB typical @ band edges.
VSWR:	< 1.5:1 Typical
Polarization:	RHCP
Input Impedance:	50 Ω Nominal
Power:	2.5 to 16 VDC
Supply Current:	10 mA max.
ESD Circuit Protection:	15 kV air discharge
Input Connector:	NMO or SMA Male (Others Available)

MECHANICAL:

Overall Height:	1.88 in. (48 mm) NMO 0.92 in. (24 mm) Surface Mount
Overall Diameter:	2.13 in. (54 mm)
Maximum Wind Load:	125 mph (201 km/h)
Net Weight:	5 oz. (142 g)
Operational Temps:	-40° to +185°F (-40° to +85°C)
Color:	Black/Green/Tan/Grey/White
Coax Length:	Specified at time of purchase.
Mounting:	NMO Deck Mount/Surface Mag Base Available

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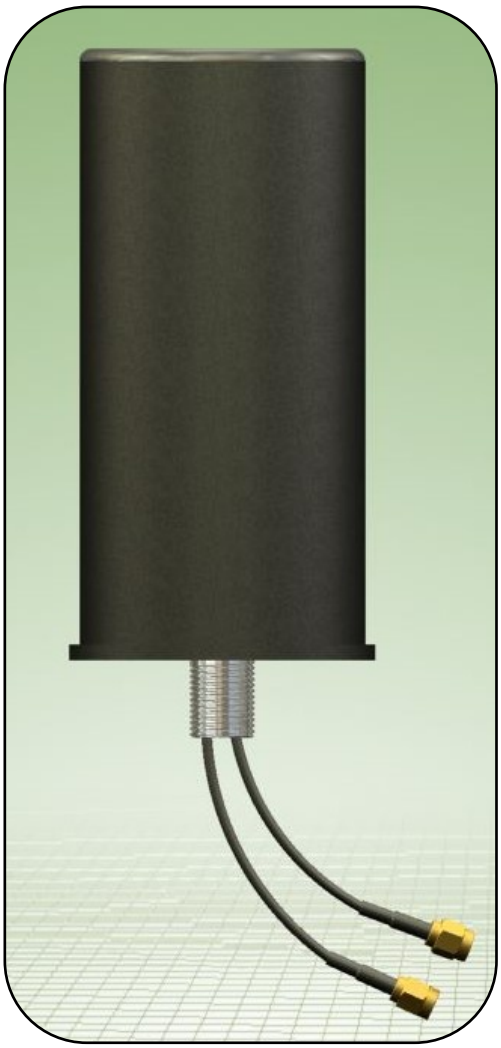
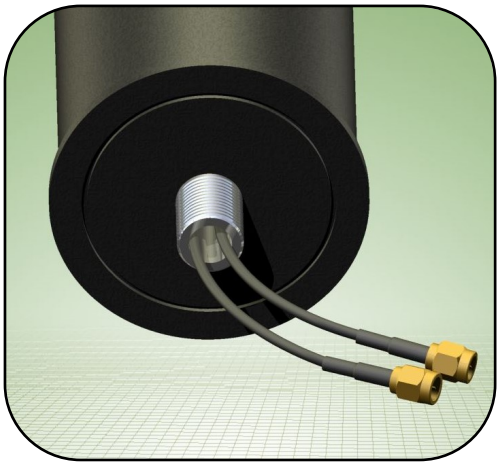
4400-5000MHz
MVDP4.4-5.0-6-DAB

Dual Polarized Antenna





Hascall-Denke leads the market with state of the art military designs that are now available to the commercial industry.

The MVDP4.4-5.0-6-DAB is a low profile antenna that supports extreme high volume data rates, equal bit data streams and true dual polarization. Utilizing two separate inputs, ground plane independence, and superior isolation this antenna has the best overall beam width per size for on the move connection reliability and forward looking to the next node.

- **True Dual Polarization**
- **Vertical & Horizontal Inputs**
- **Supports Equal Bit Data Streams**
- **Next Node Connection**
- **Forward Looking**
- **Superior Port-to-Port Isolation**
- **Ground Plane Independence**
- **Low Profile**
- **Fixed or Mobile**

- **Ask us about our Access Point Antennas (Horizontal and Vertical Combination)**

Made in the USA
ISO 9001:2015 Certified
(1Y31600)

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THE WORLD'S ANTENNA SOURCE.

4400-5000MHz
MVDP4.4-5.0-6-DAB

Dual Polarized Antenna

Specifications

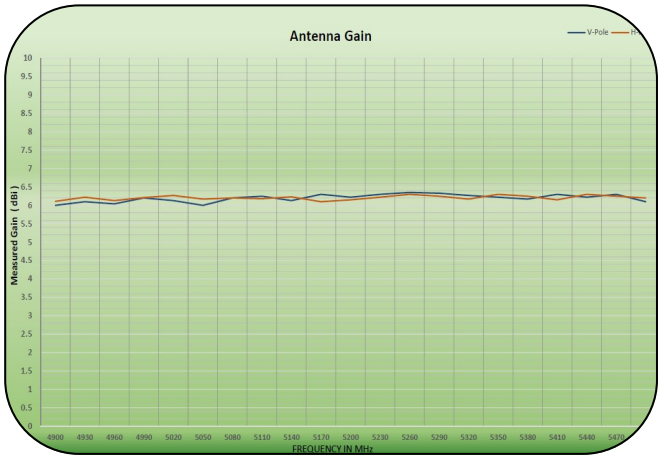
ELECTRICAL:

Frequency Ranges:	4400-5000MHz
Gain:	6 dBi +/- .5
VSWR:	< 2:1
Input Impedance:	50 Ω Nominal
Power:	20 Watts Max
Polarization:	Dual (Vertical & Horizontal)
Radiation Pattern:	Azimuth: Omni Elevation: 30°
Input Connector x2:	Type N, SMA, (others available)

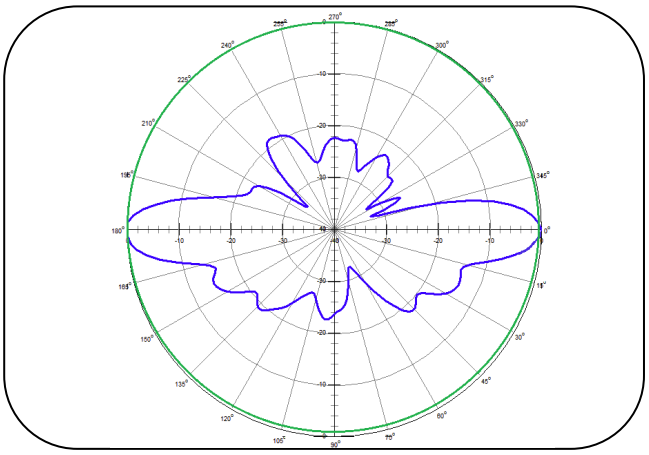
MECHANICAL:

Overall Height:	5.9 in. (149mm)
Width:	2.75 in. (69mm)
Net Weight:	1 lbs. (.45kg)
Compliance:	Built to meet: MIL-STD-810F
Color:	White, Gray, Black Other colors available
Mounting:	Stainless Stud W/Nut (requires .625-.75 thru hole)
Windloading:	175 Mph

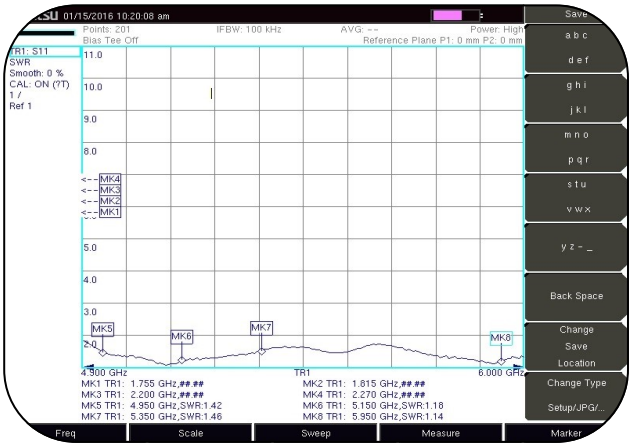
Antenna Gain



Antenna Patterns



Antenna VSWR



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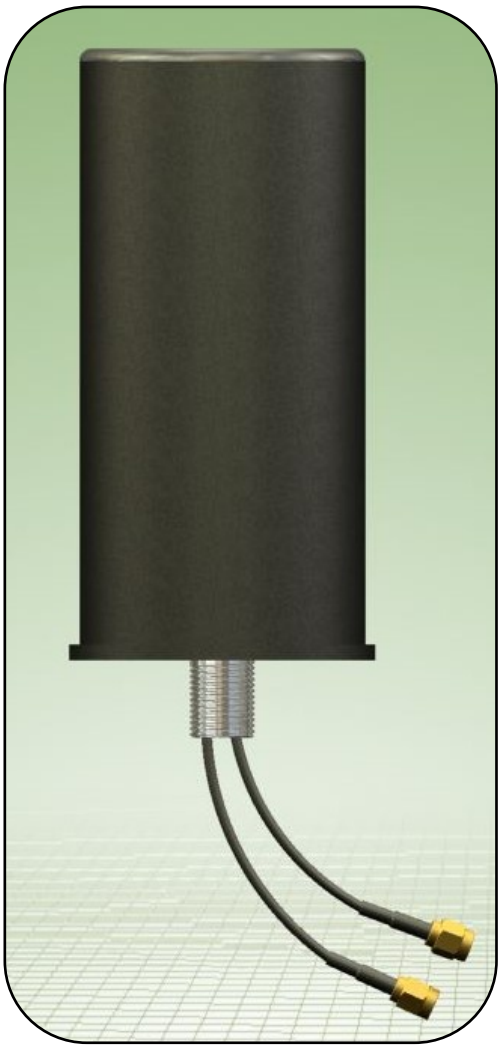
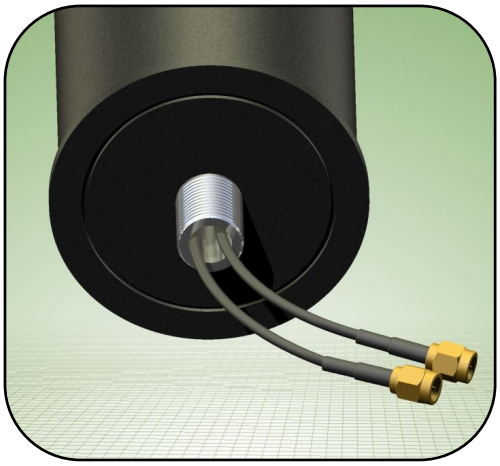
4400-6000MHz
MVDP4.4-6.0-7-D

Dual Polarized Antenna





Hascall-Denke leads the market with state of the art military designs that are now available to the commercial industry.

The MVDP4.4-6.0-7-D is a low profile antenna that supports extreme high volume data rates, equal bit data streams and true dual polarization. Utilizing two separate inputs, ground plane independence, and superior isolation this antenna has the best overall beam width per size for on the move connection reliability and forward looking to the next node.

- **True Dual Polarization**
- **Vertical & Horizontal Inputs**
- **Supports Equal Bit Data Streams**
- **Next Node Connection**
- **Forward Looking**
- **Superior Port-to-Port Isolation**
- **Ground Plane Independence**
- **Low Profile**
- **Fixed or Mobile**

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4400-6000MHz
MVDP4.4-6.0-7-D

Dual Polarized Antenna

Specifications

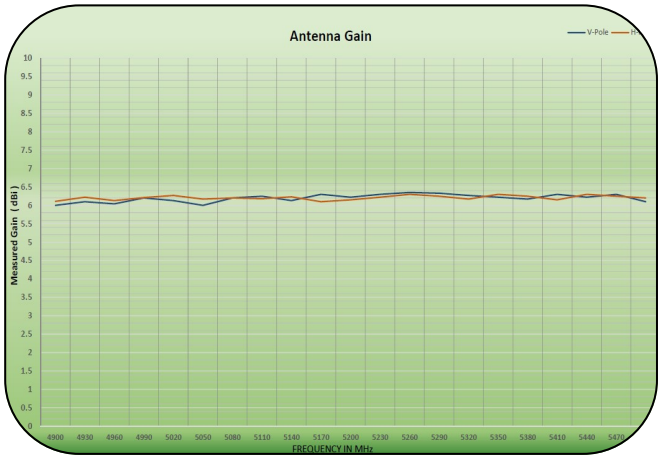
ELECTRICAL:

Frequency Ranges:	4400-6000 MHz
Gain:	7 dBi +/- .5
VSWR:	< 2:1
Input Impedance:	50 Ω Nominal
Power:	20 Watts Max
Polarization:	Dual (Vertical & Horizontal)
Radiation Pattern:	Azimuth: Omni Elevation: 30°
Input Connector x2:	SMA Male (others available)

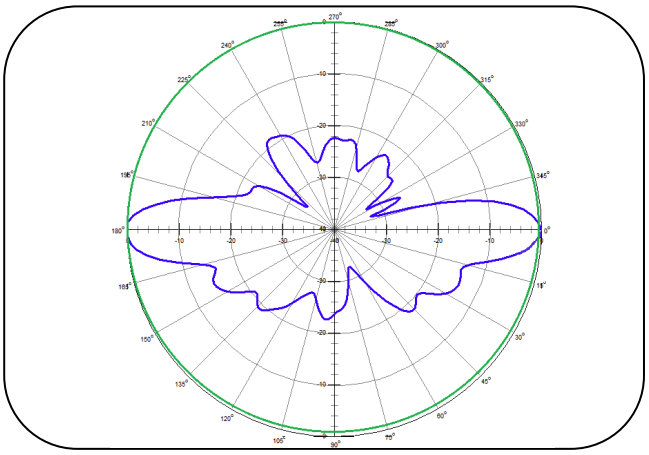
MECHANICAL:

Overall Height:	10 in. (254mm)
Width:	2.75 in. (70mm)
Net Weight:	2 lbs. (.45kg)
Compliance:	Built to meet: MIL-STD-810F
Color:	White, Gray, Black Other colors available
Mounting:	Stainless Stud W/Nut (requires .625-.75 thru hole)
Windloading:	175 Mph

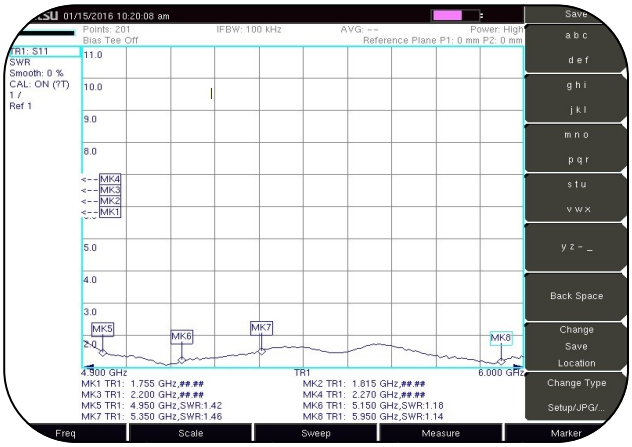
Antenna Gain



Antenna Patterns



Antenna VSWR



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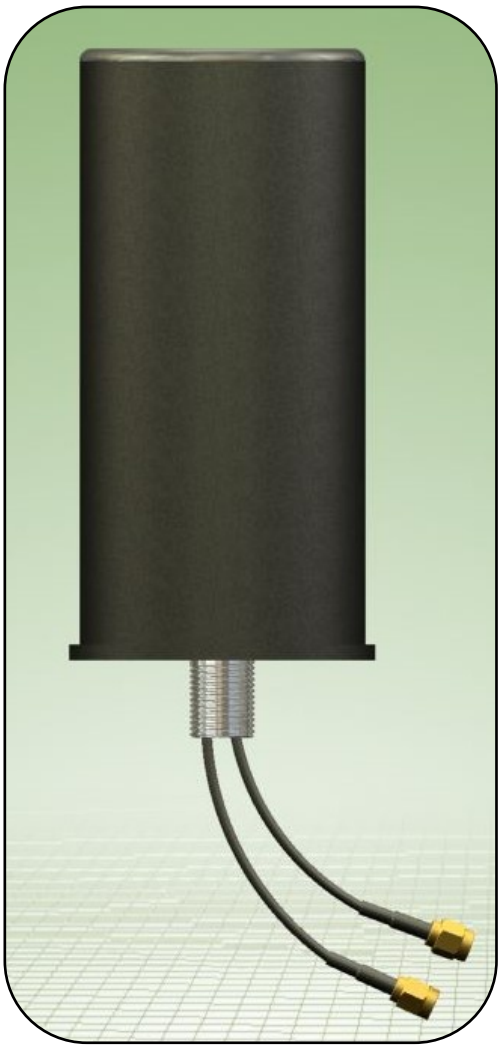
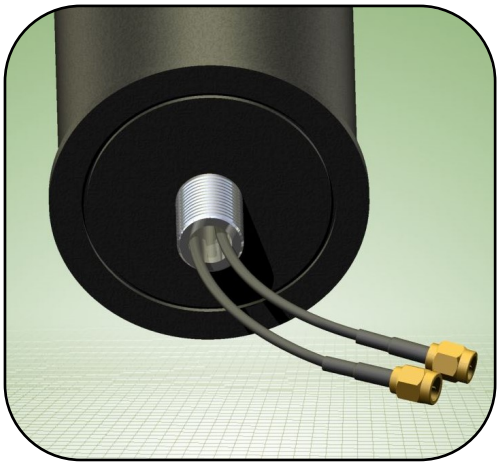
4900-6000MHz
MVDP4.9-6.0-6-D

Dual Polarized Antenna





Hascall-Denke leads the market with state of the art military designs that are now available to the commercial industry.

The MVDP4.9-6.0-6-D is a low profile antenna that supports extreme high volume data rates, equal bit data streams and true dual polarization. Utilizing two separate inputs, ground plane independence, and superior isolation this antenna has the best overall beam width per size for on the move connection reliability and forward looking to the next node.

- **True Dual Polarization**
- **Vertical & Horizontal Inputs**
- **Supports Equal Bit Data Streams**
- **Next Node Connection**
- **Forward Looking**
- **Superior Port-to-Port Isolation**
- **Ground Plane Independence**
- **Low Profile**
- **Fixed or Mobile**

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Made in the USA
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(1Y29350)

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4900-6000MHz
MVDP4.9-6.0-6-D

Dual Polarized Antenna

Specifications

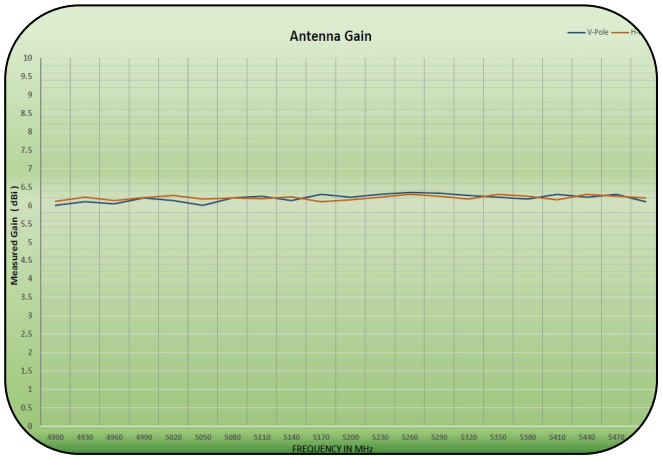
ELECTRICAL:

Frequency Ranges:	4900-6000 MHz
Gain:	6 dBi +/- .5
VSWR:	< 2:1
Input Impedance:	50 Ω Nominal
Power:	20 Watts Max
Polarization:	Dual (Vertical & Horizontal)
Radiation Pattern:	Azimuth: Omni Elevation: 30°
Input Connector x2:	Type N, SMA, (others available)

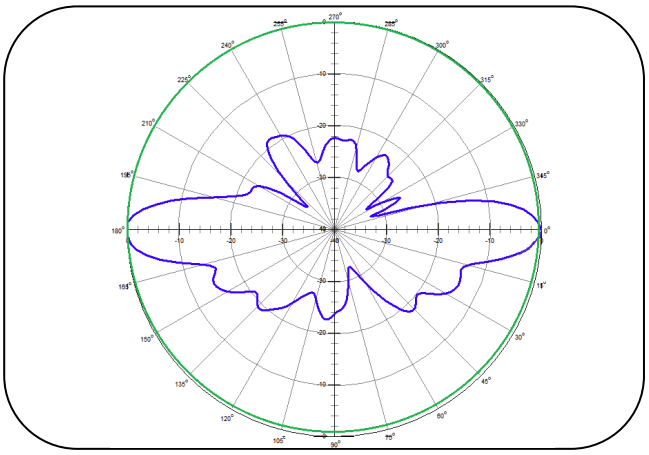
MECHANICAL:

Overall Height:	5.9 in. (149mm)
Width:	2.75 in. (69mm)
Net Weight:	1 lbs. (.45kg)
Compliance:	Built to meet: MIL-STD-810F
Color:	White, Gray, Black Other colors available
Mounting:	Stainless Stud W/Nut (requires .625-.75 thru hole)
Windloading:	175 Mph

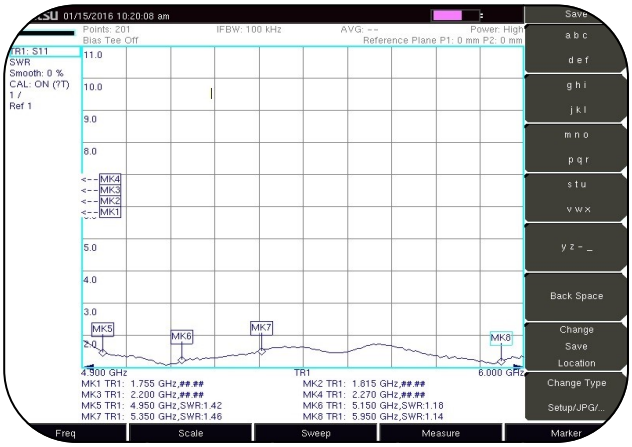
Antenna Gain



Antenna Patterns



Antenna VSWR



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