



# **HASCALL-DENKĒ**

THE WORLD'S ANTENNA SOURCE.

## **SHADOW SERIES**

**Mobile Ad-Hoc Network Antenna kit**

**Optimized for TSM™ Waveform**

**Supports**

**TW-950/900, AN/PRC-163, AN/PRC-148C**

**Radios**



# HD-BAK-1 HD-BAK-1AB Banded Antenna Kit

The Hascall-Denke Banded Antenna Kit (HD-BAK) was designed to give radio operators more flexibility in congested and contested Radio Frequency (RF) environments. The antennas cover L/UHF - U/UHF L and S bands.

The antennas in the kit are optimized specifically for the TSM-X™ waveform maximizing reliable throughput and extended range. The HD-BAK supports the TW-950/900, AN/PRC-163, AN/PRC-148C IMBITR and other Mobile Ad-Hoc Networking (MANET) radios.

## Features

- Use on multiple radio platforms
- Operator flexibility
- Optimized performance
- Extended range



**\*\*All information on this product and the product itself is the property of and is proprietary to Hascall-Denke.**

**\*\*Specifications are subject to change without prior notice.**

**Made in the USA**

**[www.hascall-denke.com](http://www.hascall-denke.com)**

**1Y45350 / 1Y45350A**

**ISO 9001 Certified  
Form F042, Rev: A**

**12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139**





**HD-BAK-1**  
**HD-BAK-1AB**  
**Banded Antenna Kit**

**Kit Consists of:**

Part #	Model Number	Frequency	VSWR	Gain	Design
1Y43300	MPDP1.25-1.45-4	1250-1450MHz	<2:1	4dBi	Dipole
1Y43350	MPDP 1.75-1.85-4	1750-1850MHz	<2:1	4dBi	Dipole
1Y43400	MPDP2.2-2.35-4	2200-2350MHz	<2:1	4dBi	Dipole
1Y38700	MPDP675X4	675-2600MHz	2.5: 1Max	0-2dBi	Dipole
1Y38350	MPMP225X2AD	225-450MHz	3.0:1 Max	1.5 - 2dBi	Monopole

**Specifications when stowed**

Length	~ 17.5"
Width	~ 2.5"
Weight	1.8Lb

Bag Color	Part Number	Model Number
Black	1Y45350	HD BAK-1
Coyote Brown	1Y45350A	HD BAK-1AB

\*\* Bag—Berry Compliant

\*\* Antennas—Designed and Manufactured in the USA

**Made in the USA**

[www.hascall-denke.com](http://www.hascall-denke.com)

**1Y45350 / 1Y45350A**

**ISO 9001 Certified**  
**Form F042, Rev: A**

**12285 U.S. Highway 41 N., Palmetto, FL 34221**  
**1-800-473-2139**







# HD-BAK-2 HD-BAK-2AB Banded Antenna Kit

The Hascall-Denke Banded Antenna Kit (HD-BAK) was designed to give radio operators more flexibility in congested and contested Radio Frequency (RF) environments. The antennas cover U/UHF L and S bands.

The antennas in the kit are optimized specifically for the TSM-X™ waveform maximizing reliable throughput and extended range. The HD-BAK supports the TW-950/900, AN/PRC-163, AN/PRC-148C IMBITR and other Mobile Ad-Hoc Networking (MANET) radios.

## Features

- Use on multiple radio platforms
- Operator flexibility
- Optimized performance
- Extended range



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and is proprietary to Hascall-Denke.**

**Made in the USA**

**[www.hascall-denke.com](http://www.hascall-denke.com)**

**1Y45400 / 1Y45400A**

**ISO 9001 Certified  
Form F042, Rev: A**

**12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139**







**HD-BAK-2**  
**HD-BAK-2AB**  
**Banded Antenna Kit**

**Kit Consists of:**

Part #	Model Number	Frequency	VSWR	Gain	Design
1Y43300	MPDP1.25-1.45-4	1250-1450MHz	<2:1	4dBi	Dipole
1Y43350	MPDP 1.75-1.85-4	1750-1850MHz	<2:1	4dBi	Dipole
1Y43400	MPDP2.2-2.35-4	2200-2350MHz	<2:1	4dBi	Dipole
1Y38700	MPDP675X4	675-2600MHz	2.5: 1Max	0-2dBi	Dipole
1Y35100	MPDP1755-1815/2200-2270-4	1755-1810/2200-2270MHz	<2:1	4dBi	Dipole

**Specifications when stowed**

Length	~ 17.5"
Width	~ 2.5"
Weight	1.9Lb

Bag Color	Part Number	Model Number
Black	1Y45350	HD BAK-2
Coyote Brown	1Y45350A	HD BAK-2AB

\*\* Bag—Berry Compliant

\*\* Antennas—Designed and Manufactured in the USA

**Made in the USA**

[www.hascall-denke.com](http://www.hascall-denke.com)

**1Y45400 / 1Y45400A**

**ISO 9001 Certified**  
**Form F042, Rev: A**

**12285 U.S. Highway 41 N., Palmetto, FL 34221**  
**1-800-473-2139**





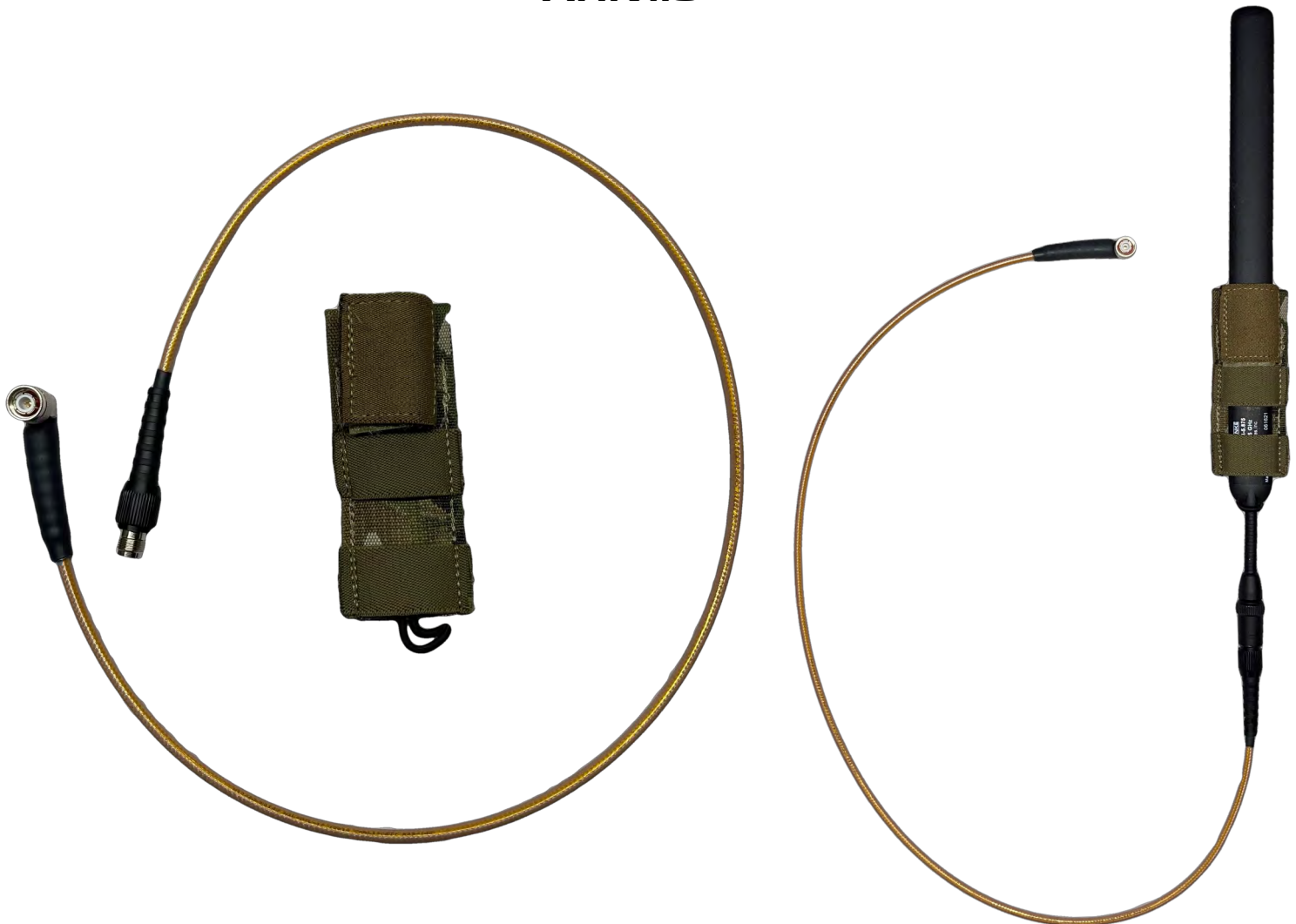
## ARK1.5 Antenna Relocation Kit

The Hascall-Denke Antenna Relocation Kit ARK1.5 was designed to give radio operators more flexibility in relocating their antenna from the radio.

The ARK1.5 snap less Mollie designed antenna pouch is Berry Compliant and supplied with a 3' RG-142 RF cable with a 90° right angle TNC Male connector for the radio and TNC Female connector for the antenna.

**The ARK1.5 does not include the antenna.**

### ARK1.5



**\*\*All information on this product and the product itself is the property of and is proprietary to Hascall-Denke.**

**\*\*Specifications are subject to change without prior notice.**

**Antenna Sold Separately**

**Made in the USA**

**[www.hascall-denke.com](http://www.hascall-denke.com)**

**1Y54050**

**ISO 9001 Certified  
Form F042, Rev: A**

**12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139**





**HD-BWAK675X4**

**HD-BWAC001**

## **Body Worn Antenna Kit**

The Hascall-Denke Body Worn Antenna Kit HD-BWAK675X4 was designed to give radio operators more flexibility in relocating their antenna from the radio.

The antenna supplied with the kit is optimized specifically for the TSM-X™ waveform maximizing reliable throughput and extended range. The HD-BWAK675X4 supports the TW-950/900, AN/PRC-163, AN/PRC-148C IMBITR and other Mobile Ad-Hoc Networking (MANET) radios.

The Hascall-Denke Body Worn Antenna Case HDBWAC001 is available for operators that have existing MPDP675X4 or BWDP675X4 antennas. The antenna case is supplied with a 3' TNC "M" to TNC "F" cable for easy antenna relocation.

### **HD-BWAK675X4**



### **HD-BWAC001**



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**\*\*Specifications are subject to change without prior notice.**

**Made in the USA**

**[www.hascall-denke.com](http://www.hascall-denke.com)**

**1Y48700 /1Y48750**

**ISO 9001 Certified  
Form F042, Rev: A**

**12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139**







**HD-BWAK675X4**

**HD-BWAC001**

**Body Worn Antenna Kit**

**HD-BWAK675X4 Kit Consists of:**

BWDP675X4 Antenna
3' TNC "M" to TNC "F" cable
Antenna Case

Part #	Model Number	Color
1Y48750	HD-BWAK675X4	Black
1Y48750A	HD-BWAK675X4AB	Coyote Brown
1Y48750B	HD-BWAK675X4AC	OCP

**HD-BWAC001 Consists of:**

3' TNC "M" to TNC "F" cable
Antenna Case

Part #	Model Number	Color
1Y48700	HD-BWAC001	Black
1Y48700A	HD-BWAC001AB	Coyote Brown
1Y48700B	HD-BWAC001AC	OCP

\*\* Case—Berry Compliant

\*\* Antenna—Designed and Manufactured in the USA

**Made in the USA**

[www.hascall-denke.com](http://www.hascall-denke.com)

**1Y48700 /1Y48750**

**ISO 9001 Certified  
Form F042, Rev: A**

**12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139**



The MPMP225-4AD antenna is designed to be used with radio systems operating in the 225-450MHz band.

The antenna is designed with a state of the art matching unit for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



### Features

- Lightweight
- Low Vertical Signature
- Adaptable to other platforms

### Electrical Specifications

Frequency	225-450MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3.0:1 Max
Gain	+1.5 ~ +2dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	10 Watts
Connector	TNC-M

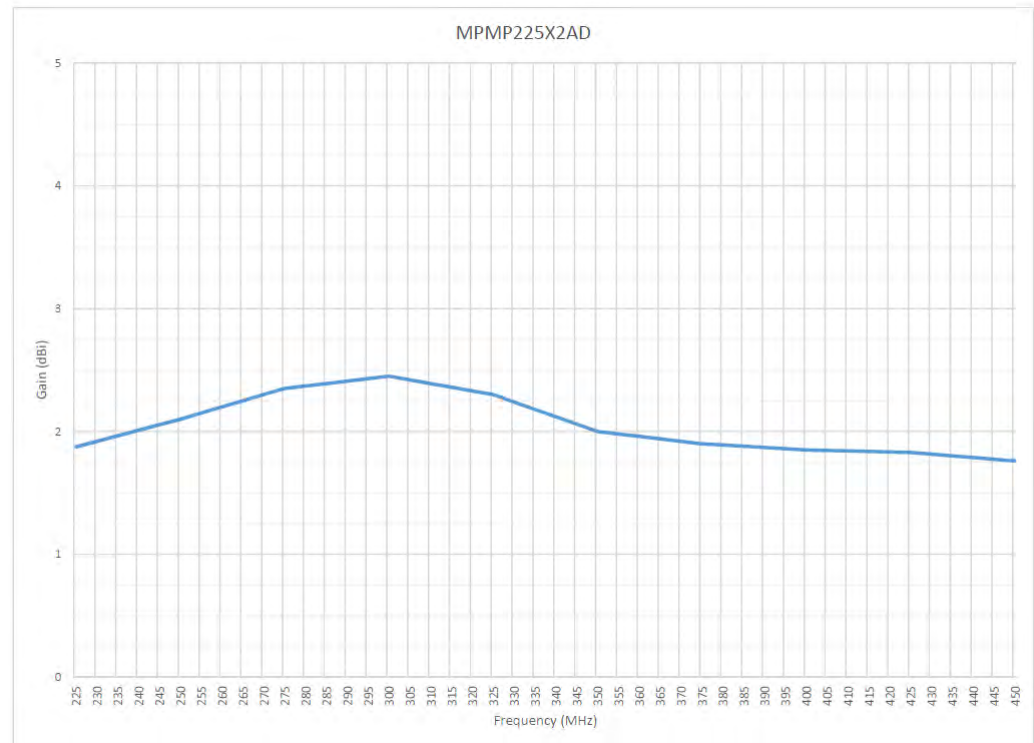
### Mechanical Specifications

Design	Monopole
Height	10.25in. (.26m)
Radome	Flexible Whip
Weight	2oz. (57g)
Color	Black

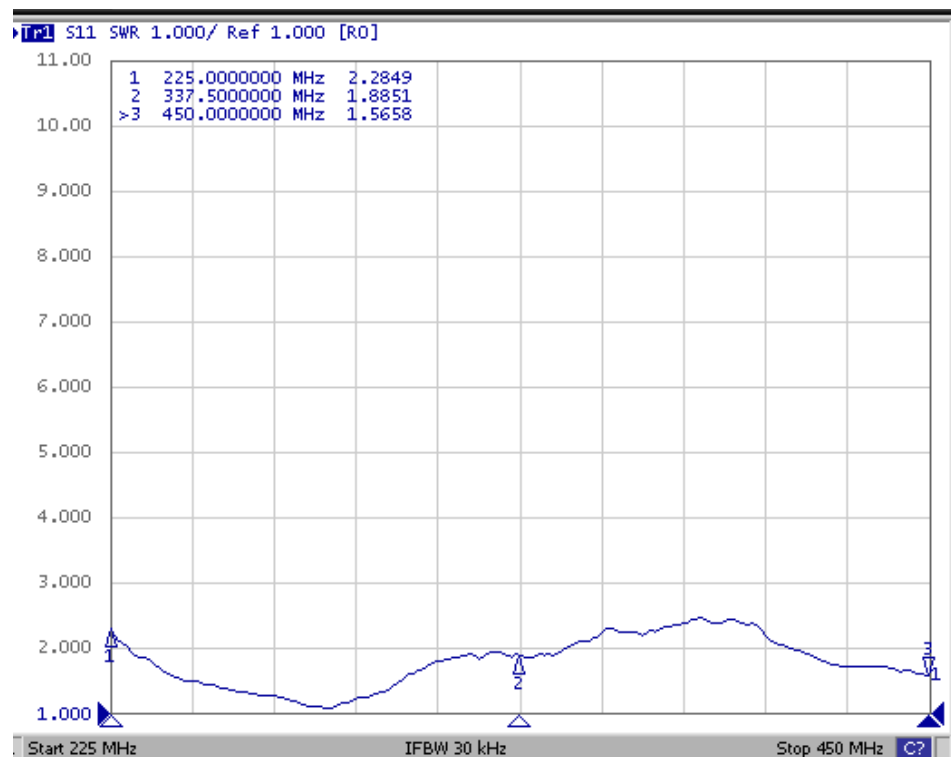
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\*\*Specifications are subject to change without prior notice.

**Gain**



**VSWR**





The MPMP225X2AE antenna is designed to be used with radio systems operating in the 225-450MHz band.

The antenna is designed with a state of the art matching unit for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



Fully Extended

10"

Collapsed

5½"

### Features

- Flexible
- Lightweight
- Low Vertical Signature
- Adaptable to other platforms

### Electrical Specifications

Frequency	225-450MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3.0:1 Max
Gain	+1.5 ~ +2dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	10 Watts
Connector	TNC-M

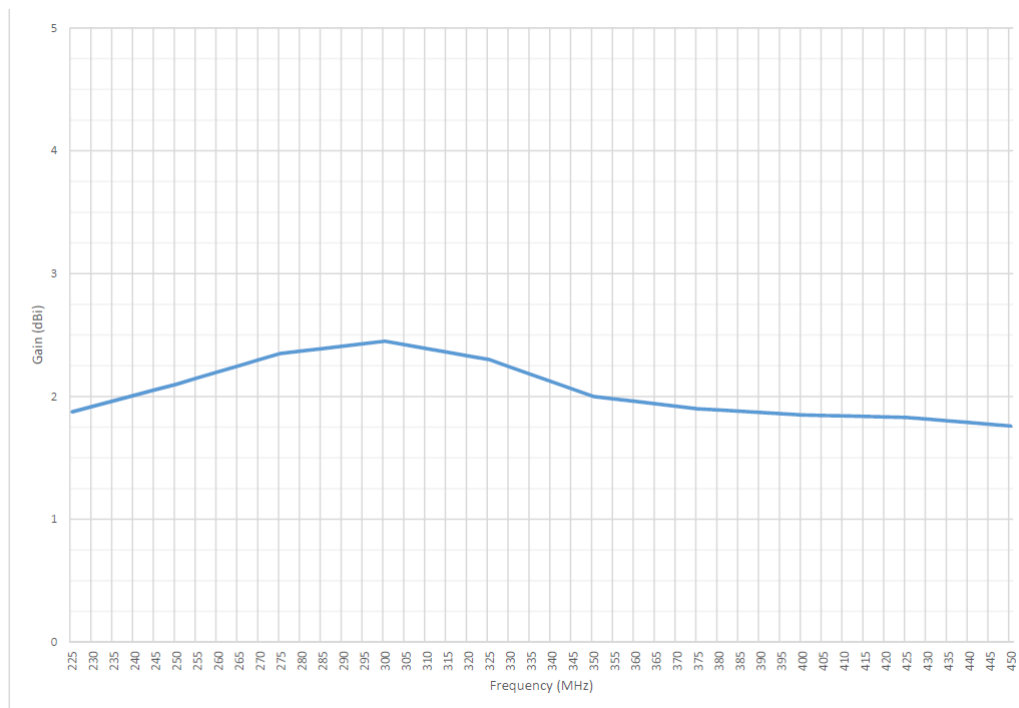
### Mechanical Specifications

Design	Monopole
Height	10in. (.3m)
Radome	Flexible Whip
Weight	2oz. (.06kg)
Color	Black

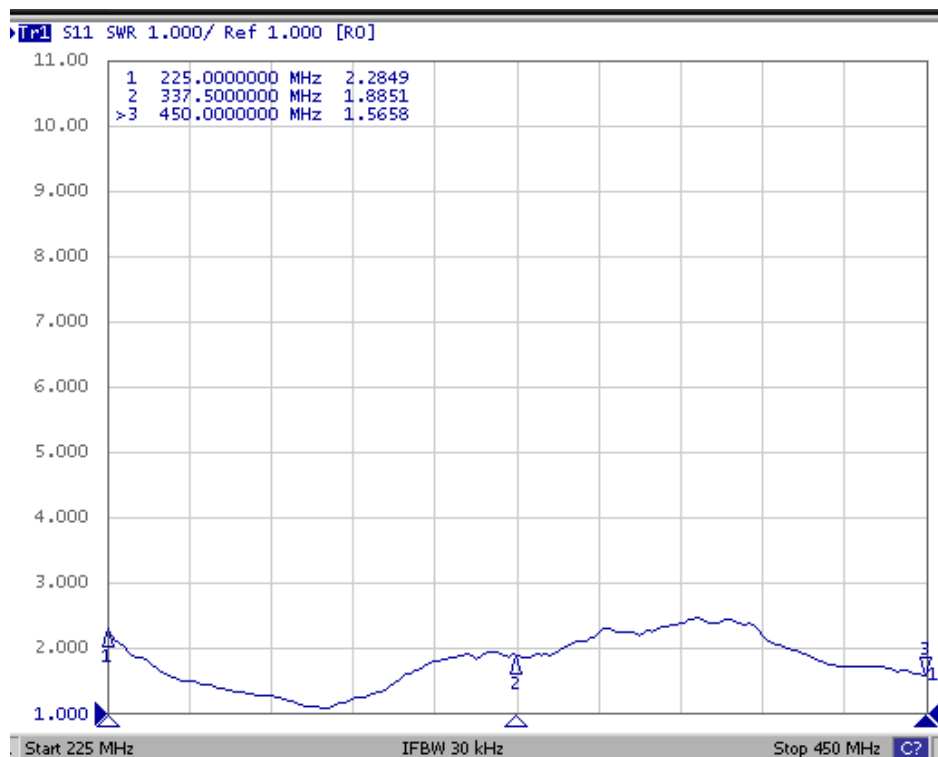
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\*\*Specifications are subject to change without prior notice.

## Gain



## VSWR



The BWDP225-450 antenna is designed to be used with radio systems operating in the 225-450MHz band.

The antenna is designed with a state of the art matching unit for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



### Features

- Lightweight
- Low Vertical Signature
- Adaptable to other platforms

### Electrical Specifications

Frequency	225-450MHz
Polarization	Vertical
Impedance	50Ω
VSWR	2.5:1 Max
Gain	+1.5 ~ +2dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	10 Watts
Connector	TNC-M

### Mechanical Specifications

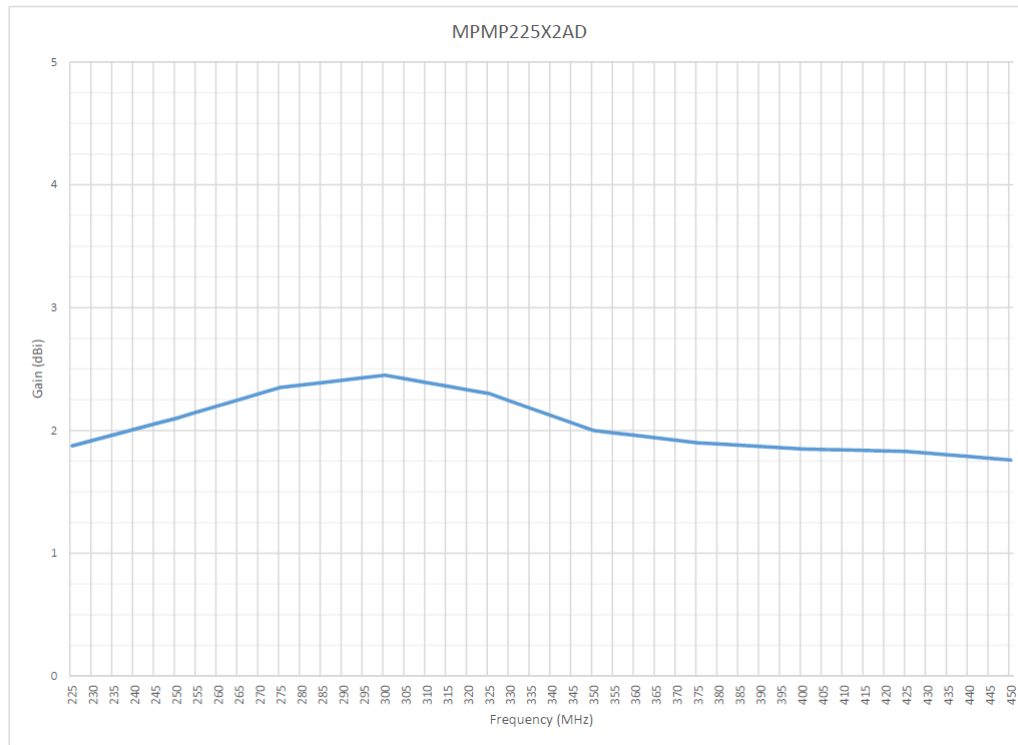
Design	Dipole
Height	10.25in. (.26m)
Radome	Flexible Whip
Weight	2oz. (57g)
Color	Black

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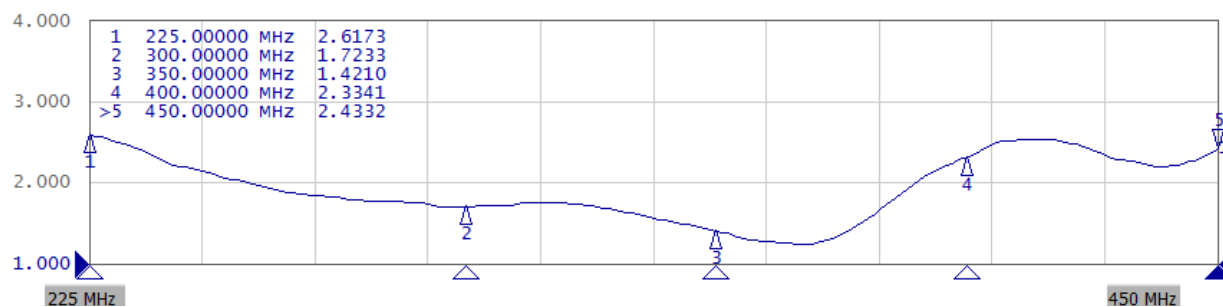
**\*\*Specifications are subject to change without prior notice.**



## Gain



## VSWR



The MPDP675X4 Multi-Band antenna is designed to be used with multiple radio and LTE/4G communications systems operating in the 675-2600MHz band with one input.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

### Features

- Broadband
- LTE/4G
- Low VSWR
- Adaptable to multiple communication platforms
- 360° Rotating Gooseneck

### Electrical Specifications

Frequency	675-2600MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3.0:1 Max
Gain	-1 ~ +2dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	20 Watts PEP
Connector	TNC-M

### Mechanical Specifications

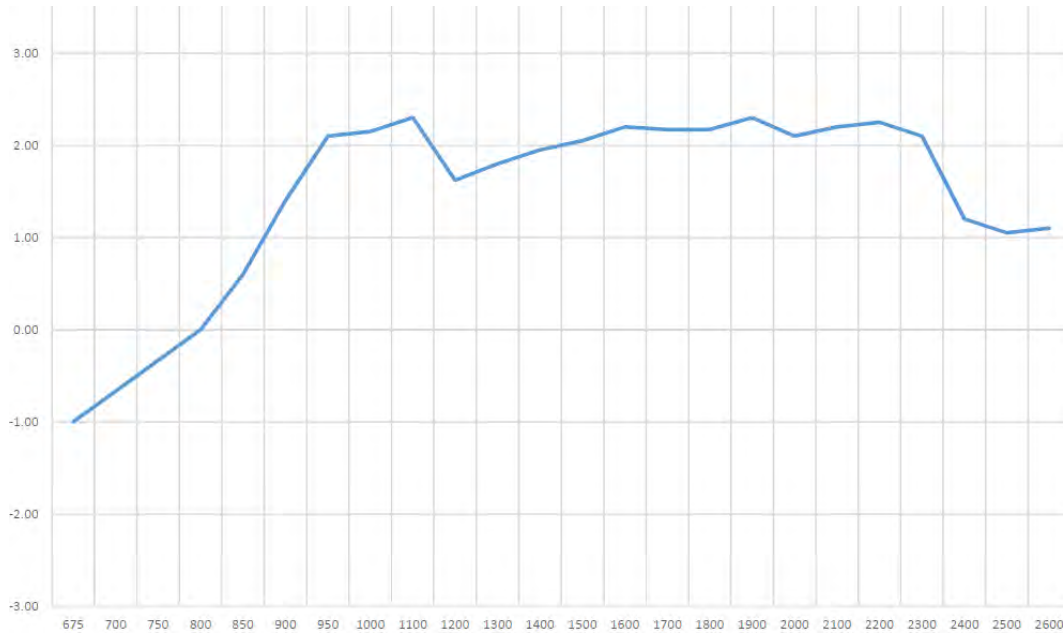
Design	Dipole
Height	11-3/8 in. (.29m)
Width	2.25in. (57mm)
Radome	Xenoy®
Weight	6oz. (170g)
Color	Black/Green/Tan/Grey

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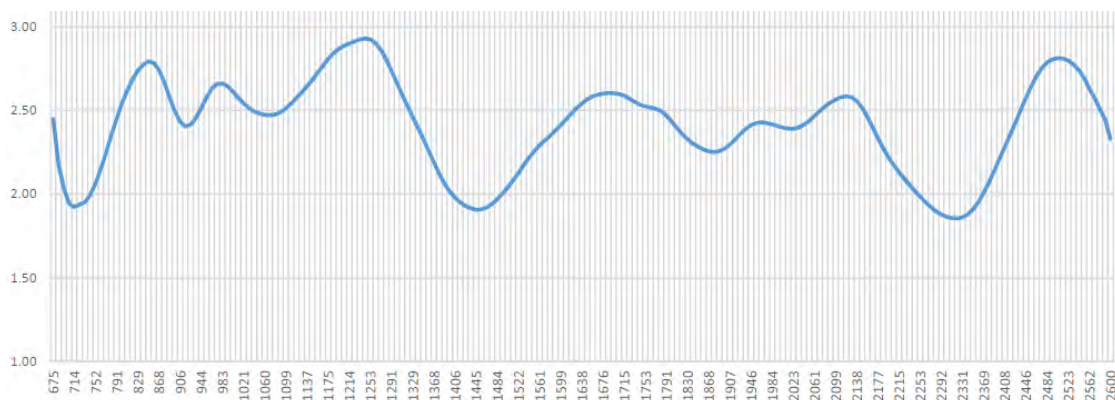
\*\*Specifications are subject to change without prior notice.



### Gain



### VSWR





The BWDP675X4 Multi-Band antenna is designed to be used with multiple radio and LTE/4G communications systems operating in the 675-2600MHz band with one input.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

### Features

- Broadband
- LTE/4G
- Low VSWR
- Adaptable to multiple communication platforms
- Detachable 3' Cable Included

### Electrical Specifications

Frequency	675-2600MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3:1 Max
Gain	-1 ~ +2dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	20 Watts PEP
Connector	TNC-M

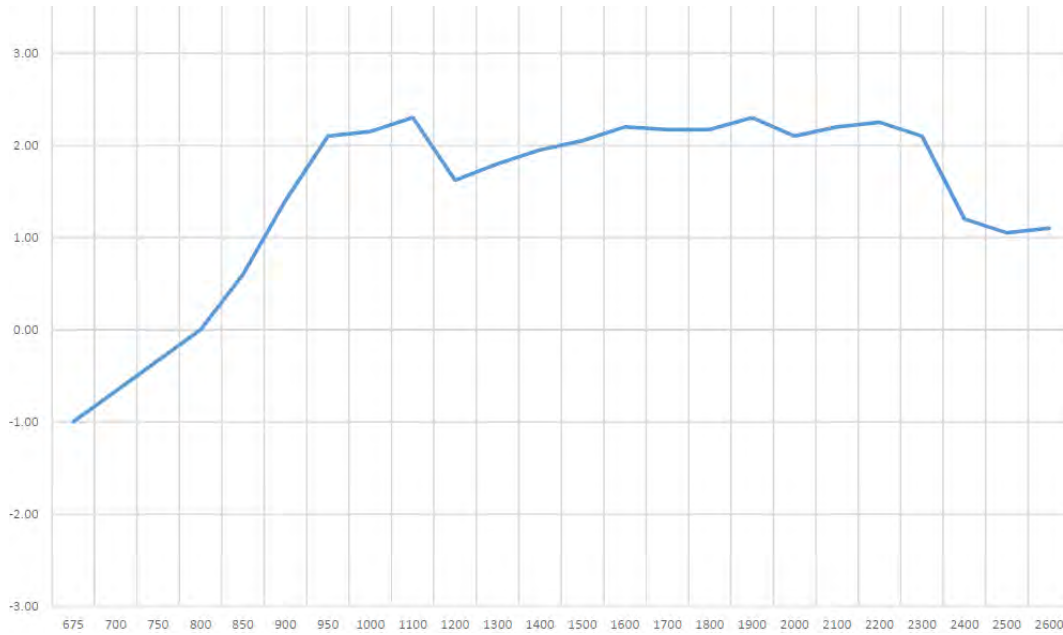
### Mechanical Specifications

Design	Dipole
Height	7.75 in. (197mm)
Width	2.25in. (57mm)
Radome	Xenoy®
Weight	.38lbs. Including Cable (.17kg)
Cable Length	38in (.97m)
Color	Black/Green/Tan/Grey

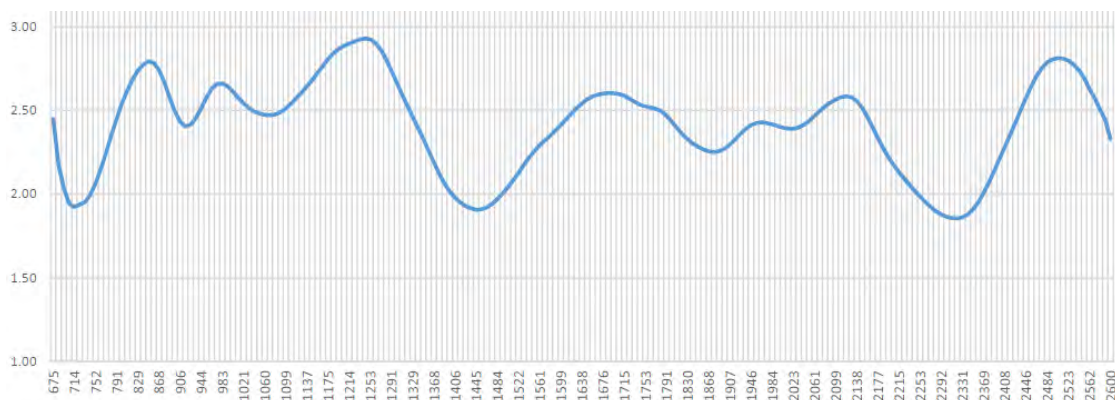
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\*\*Specifications are subject to change without prior notice.

## Gain



## VSWR





**BWDP675X4AB**

**675-2600MHz**

## **Bodyworn U/L/S Multi-Band Antenna**

The BWDP675X4AB Multi-Band antenna is designed to be used with multiple radio and LTE/4G communications systems operating in the 675-2600MHz band with one input.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



### **Features**

- Broadband
- LTE/4G
- Low VSWR
- Adaptable to multiple communication platforms

### **Electrical Specifications**

Frequency	675-2600MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3:1 Max
Gain	-1 ~ +2dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	20 Watts PEP
Connector	TNC-M

### **Mechanical Specifications**

Design	Dipole
Height	7.75 in. (197mm)
Width	2.25in. (57mm)
Radome	Xenoy®
Weight	.25lbs. (.11kg)
Color	Black/Green/Tan/Grey

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\*\*Specifications are subject to change without prior notice.

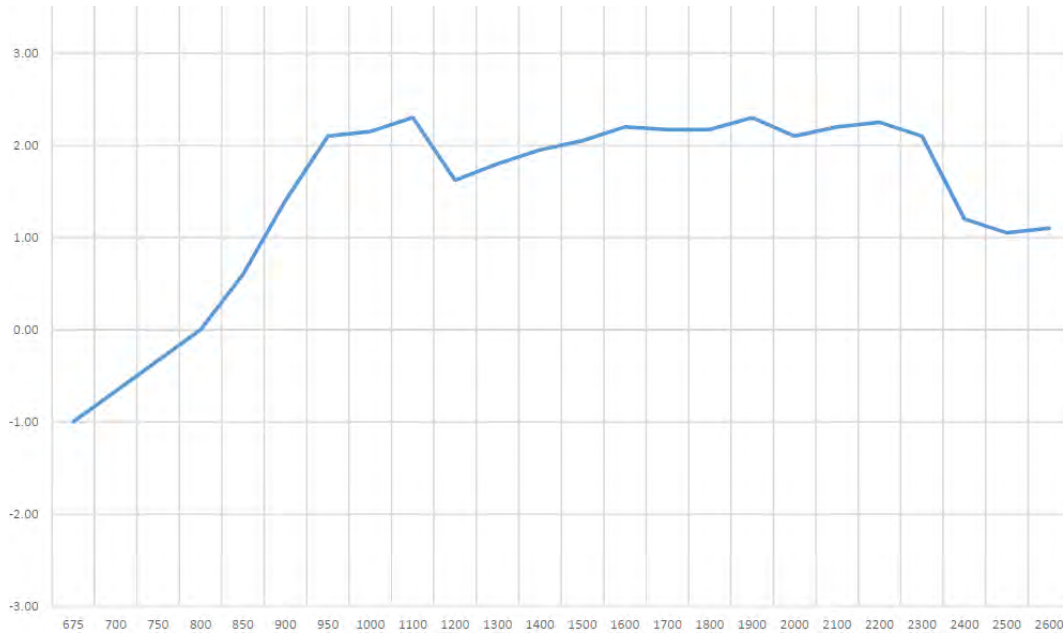
**Made in the USA**  
**ISO 9001 Certified**  
**Form F042, Rev: A**

**www.hascall-denke.com**  
**12285 U.S. Highway 41 N., Palmetto, FL 34221**  
**1-800-473-2139**

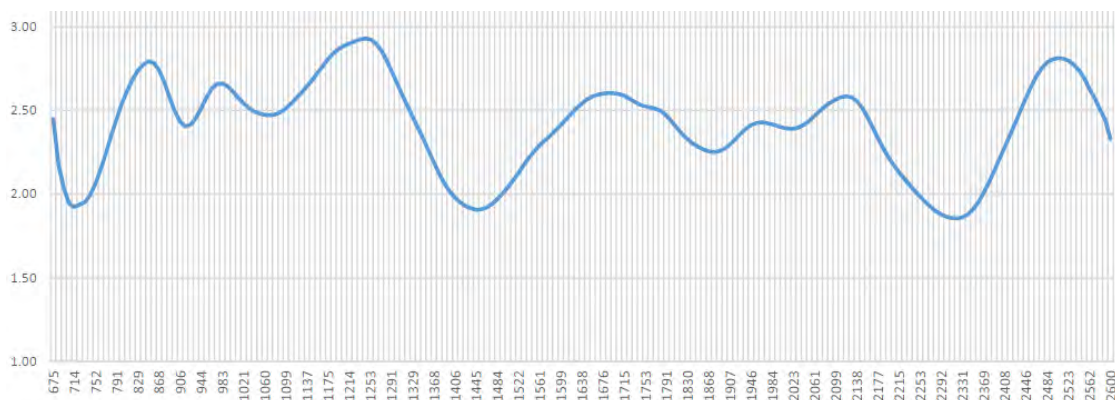
**1Y39400B**



## Gain



## VSWR



The MPDP1.25-1.45-4 antenna is designed to be used with radio systems operating in the 1250-1450MHz band. The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



### Features

- IP 68
- VSWR <2:1
- 360° Rotating Gooseneck
- Consistent Gain across the band
- Adaptable to other platforms

### Electrical Specifications

Frequency	1250-1450MHz
Polarization	Vertical
Impedance	50Ω
VSWR	<2:1 Typical
Gain	4dBi +.5
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	20 Watts
Connector	TNC-M

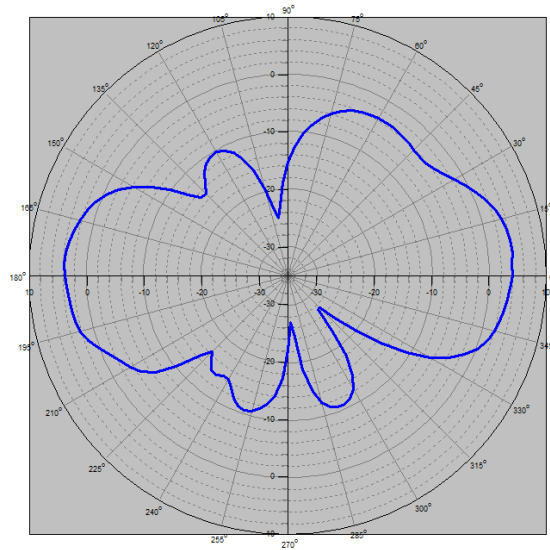
### Mechanical Specifications

Design	Dipole
Height	15.9 in. (.4 m)
Radome	1.12in. X.5 in. Oval
Weight	4.5oz. (128 g)
Color	Black/Green/Tan/Grey

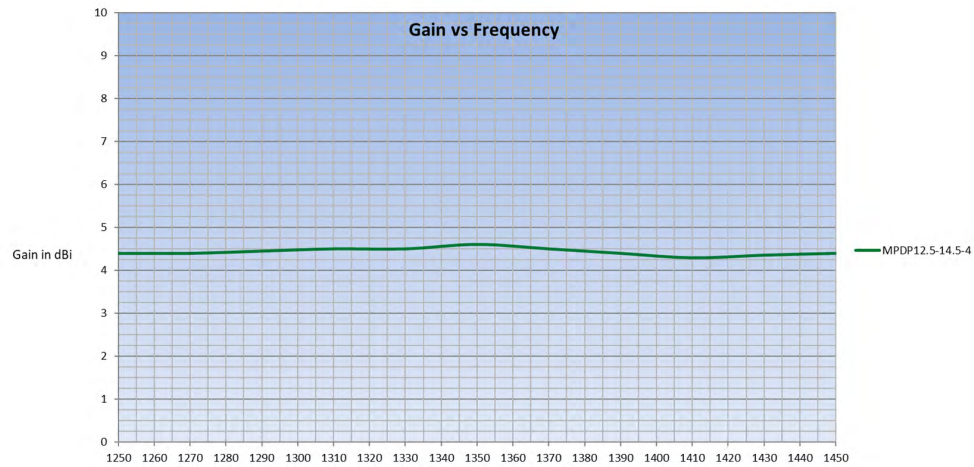
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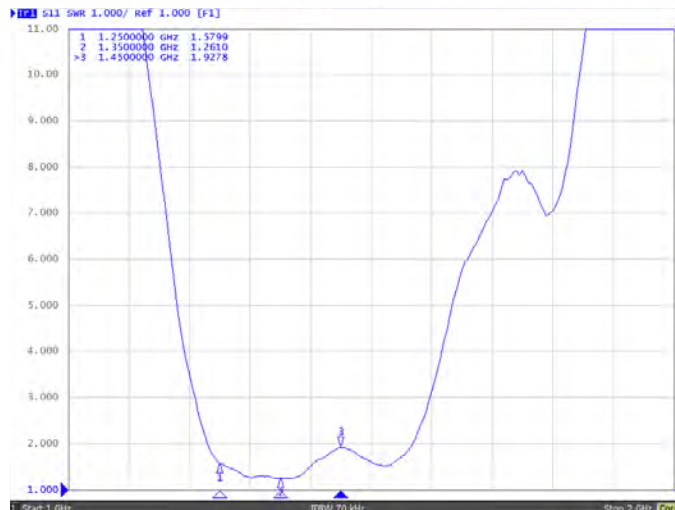
## Pattern Reference



## Gain



## VSWR





The MPDP1.75-1.85-4 antenna is designed to be used with radio systems operating in the 1750-1850MHz band. The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



### Features

- IP 68
- VSWR <2:1
- 360° Rotating Gooseneck
- Consistent Gain across the band
- Adaptable to other platforms

### Electrical Specifications

Frequency	1750-1850MHz
Polarization	Vertical
Impedance	50Ω
VSWR	<2:1 Typical
Gain	4dBi +.5
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	20 Watts
Connector	TNC-M

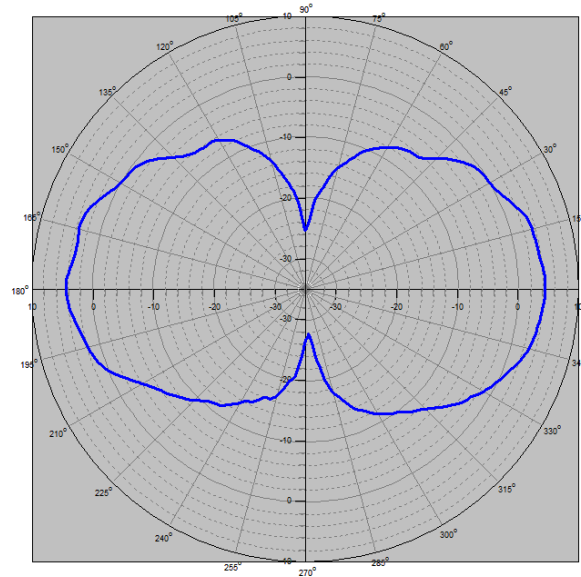
### Mechanical Specifications

Design	Dipole
Height	13-1/8 in. (.33m)
Radome	1.12in. X.5 in. Oval
Weight	4oz. (112 g)
Color	Black/Green/Tan/Grey

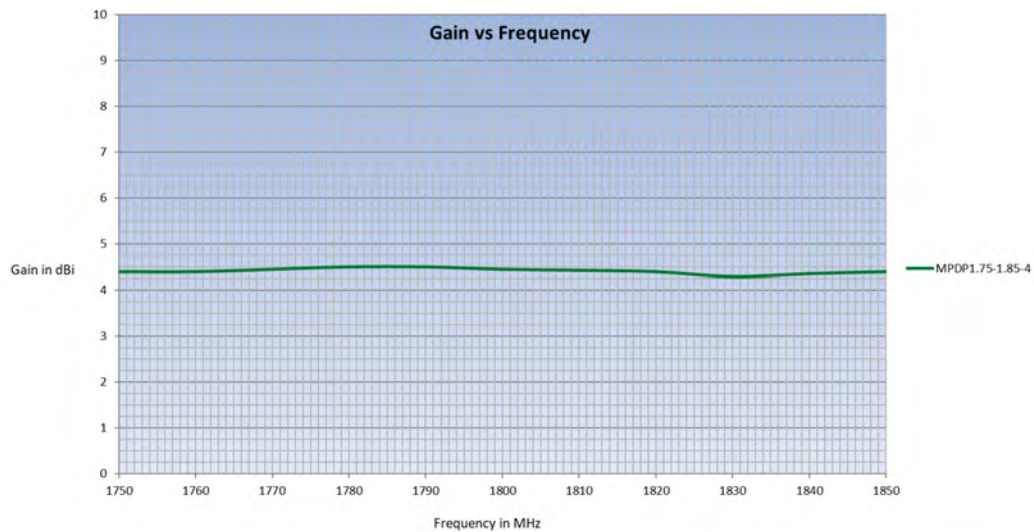
**\*\*All information on this product and the product itself is the property of and is proprietary to Hascall-Denke.**

**\*\*Specifications are subject to change without prior notice.**

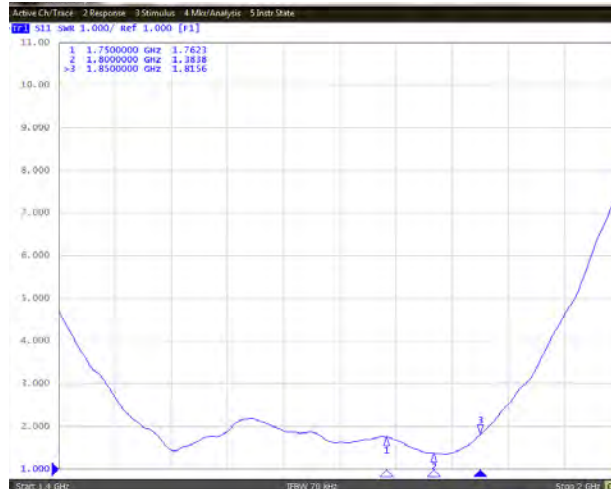
#### Pattern Reference



#### Gain



#### VSWR





# MPDP1755-1815/2200-2270-4AB

## 1755-1815 & 2200-2270MHz

### Handheld L/S Dual Band Antenna

The MPDP1755-1815/2200-2270-4AB antenna is designed to be used with Mobile Ad-Hoc Networking (MANET) radio systems. This antenna has been optimized for the Trellisware® TSM™ Waveform and other radios that operate in the 1755-1815 & 2200-2270MHz bands.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

#### Features

- IP 68
- VSWR <2:1
- 360° Rotating Gooseneck
- Consistent Gain across the band
- Adaptable to other platforms

#### Electrical Specifications

Frequency	1755-1815 / 2200-2270MHz
Polarization	Vertical
Impedance	50Ω
VSWR	<2:1 Typical
Gain	4dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	25 Watts PEP
Connector	TNC-M

#### Mechanical Specifications

Design	Dipole
Height	12 in. (.3 m)
Radome	1.12in. X.5 in. Oval
Weight	3.7 oz. (105 g)
Color	Black/Green/Tan/Grey



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\*\*Specifications are subject to change without prior notice.

Made in the USA

[www.hascall-denke.com](http://www.hascall-denke.com)

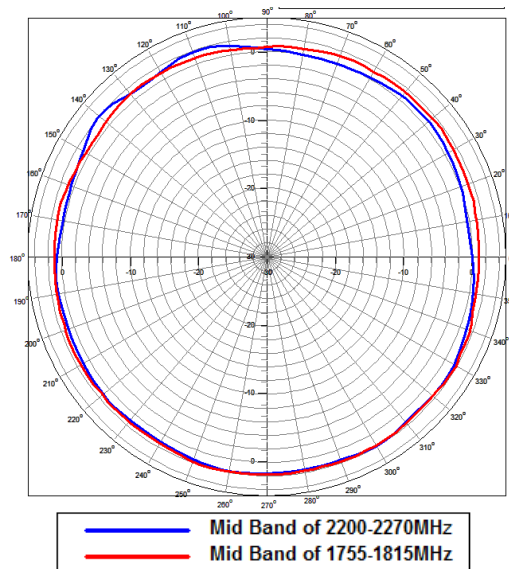
1Y35100

ISO 9001 Certified  
Form F042, Rev: A

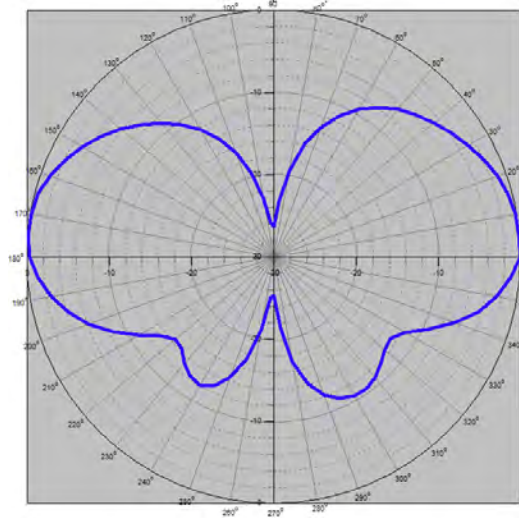
12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139



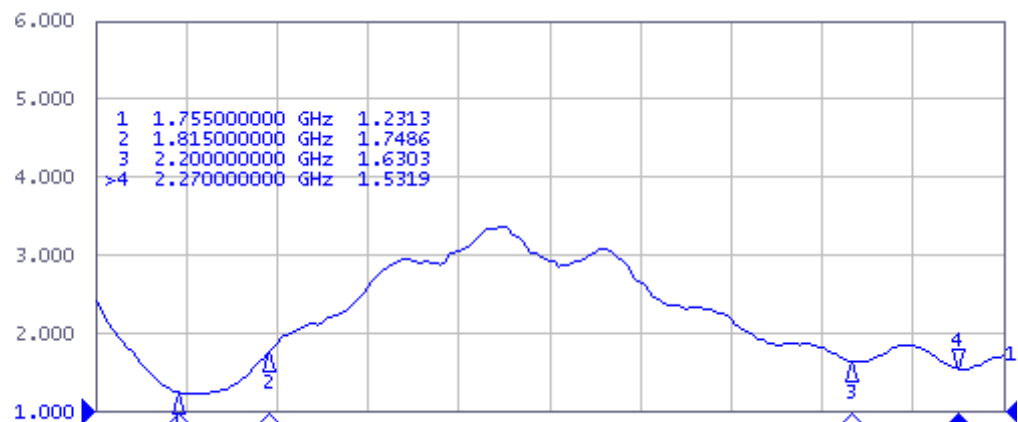
#### H-Plane



#### E-Plane



#### VSWR





# MPDP1755-1815/2200-2270-4AC

## 1755-1815 & 2200-2270MHz

### Handheld L/S Dual Band Antenna

The MPDP1755-1815/2200-2270-4AC antenna is designed to be used with Mobile Ad-Hoc Networking (MANET) radio systems. This antenna has been optimized for the Trellisware® TSM™ Waveform and other radios that operate in the 1755-1815 & 2200-2270MHz bands.

The antenna features an integrated bandpass filter to help eliminate out of band interference when used with the Thales AN/PRC-148C IMBITR®. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

#### Features

- IP 68
- VSWR <2:1
- 360° Rotating Gooseneck
- Consistent Gain across the band
- Adaptable to other platforms

#### Electrical Specifications

Frequency	1755-1815 / 2200-2270MHz
Polarization	Vertical
Impedance	50Ω
VSWR	<2:1 Typical
Gain	4dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	25 Watts PEP
Connector	TNC-M

#### Mechanical Specifications

Design	Dipole
Height	12 in. (.3 m)
Radome	1.12in. X.5 in. Oval
Weight	3.7 oz. (105 g)
Color	Black/Green/Tan/Grey

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\*\*Specifications are subject to change without prior notice.



Made in the USA

ISO 9001 Certified  
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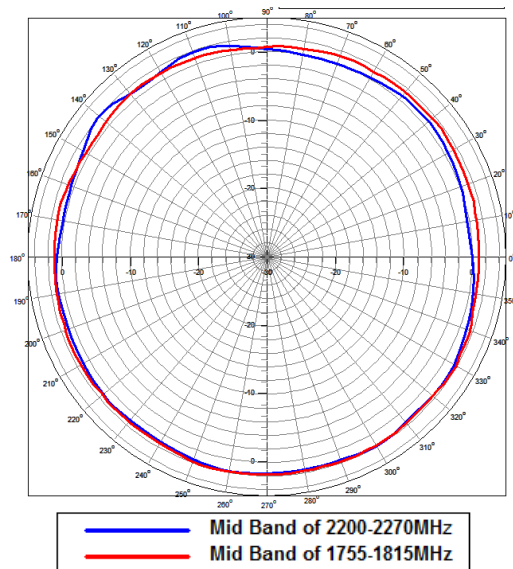
[www.hascall-denke.com](http://www.hascall-denke.com)

12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139

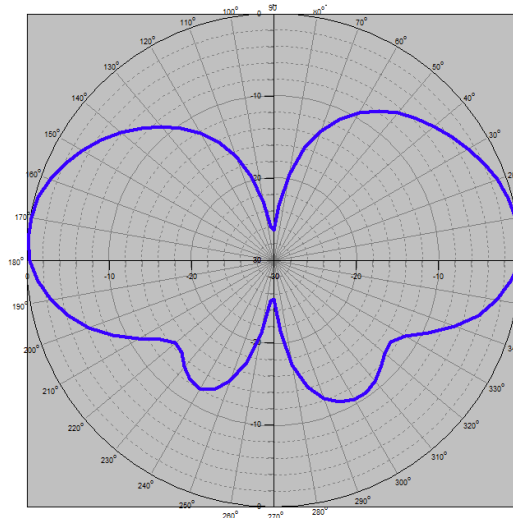
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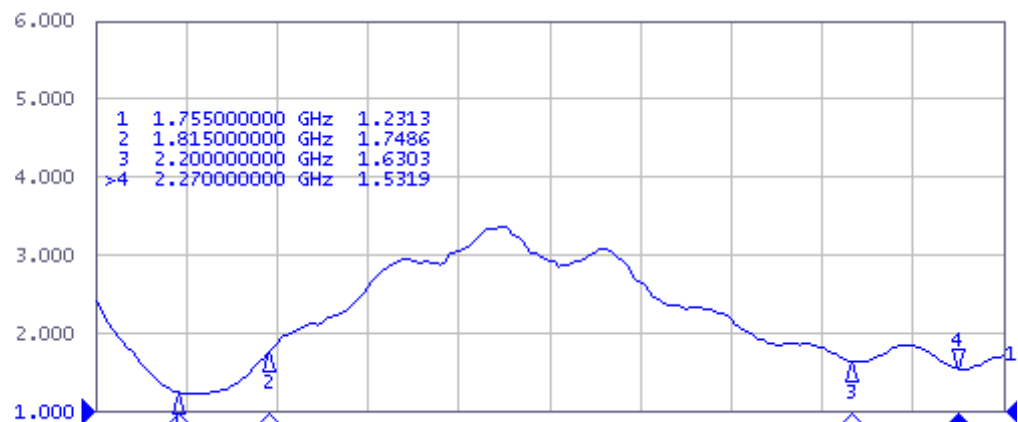
#### H-Plane



#### E-Plane



#### VSWR







# MPDP1755-1850/2200-2270-7

## 1755-1850 & 2200-2270MHz

### Handheld L/S Dual Band Antenna

The MPDP1755-1850/2200-2270-7 antenna is designed to be used with Mobile Ad-Hoc Networking (MANET) radio systems. This antenna has been optimized for the Trellisware® TSM™ Waveform and other radios that operate in the 1755-1850 & 2200-2270MHz bands.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



#### Features

- IP 68
- VSWR <2:1
- 360° Rotating Gooseneck
- Consistent High-Gain across the band
- Adaptable to other platforms

#### Electrical Specifications

Frequency	1755-1850 / 2200-2270MHz
Polarization	Vertical
Impedance	50Ω
VSWR	<2:1 Typical
Gain	7dBi
Pattern	Omni Directional Azimuth 360° Elevation 22°
Power	25 Watts PEP
Connector	TNC-M

#### Mechanical Specifications

Design	Dipole
Height	21.25 in.
Radome	1.12in. X.5 in. Oval
Weight	5.28oz. (150 g)
Color	Black/Green/Tan/Grey

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\*\*Specifications are subject to change without prior notice.

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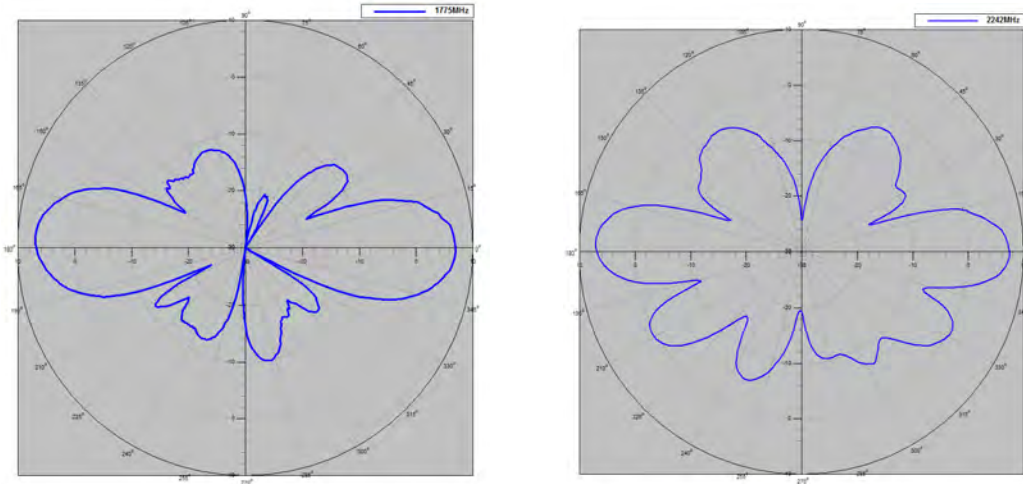
[www.hascall-denke.com](http://www.hascall-denke.com)

12285 U.S. Highway 41 N., Palmetto, FL 34221  
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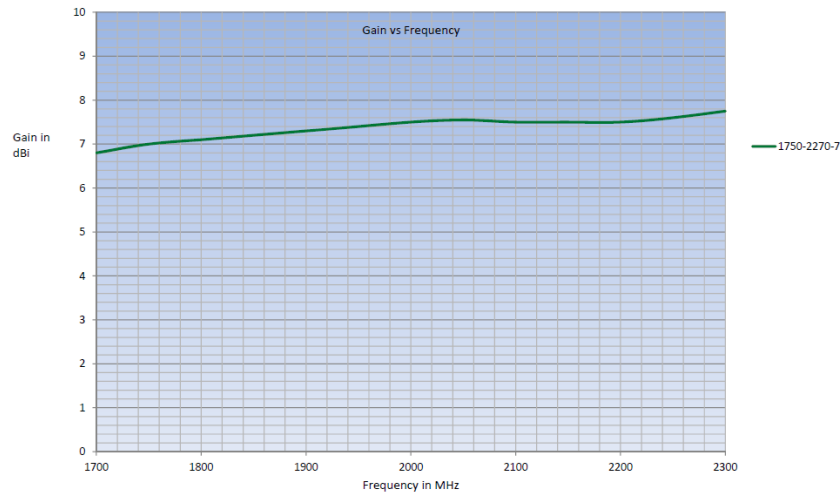
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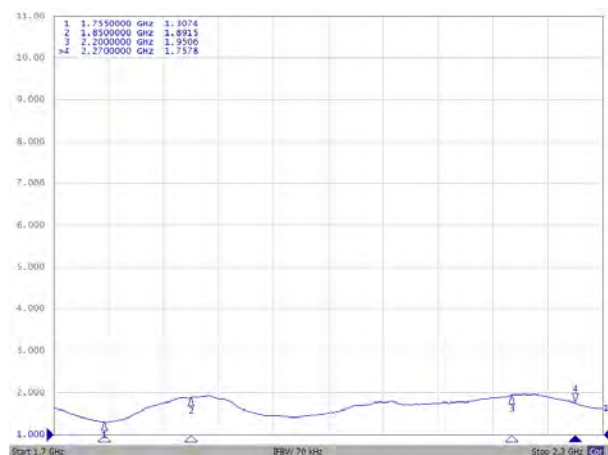
## Patterns



## Gain



## VSWR



The MPDP2.2-2.35-4 antenna is designed to be used with radio systems operating in the 2200-2350MHz band.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



### Features

- IP 68
- VSWR <2:1
- 360° Rotating Gooseneck
- Consistent Gain across the band
- Adaptable to other platforms

### Electrical Specifications

Frequency	2200-2350MHz
Polarization	Vertical
Impedance	50Ω
VSWR	<2:1 Typical
Gain	4dBi +.5
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	20 Watts
Connector	TNC-M

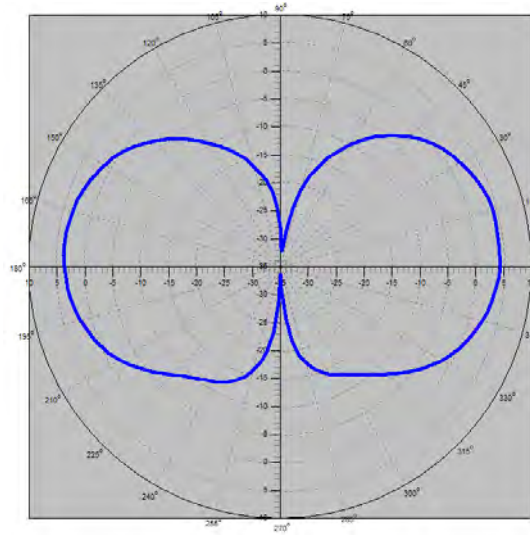
### Mechanical Specifications

Design	Dipole
Height	12 in. (.3 m)
Radome	1.12in. X.5 in. Oval
Weight	3.7 oz. (105 g)
Color	Black/Green/Tan/Grey

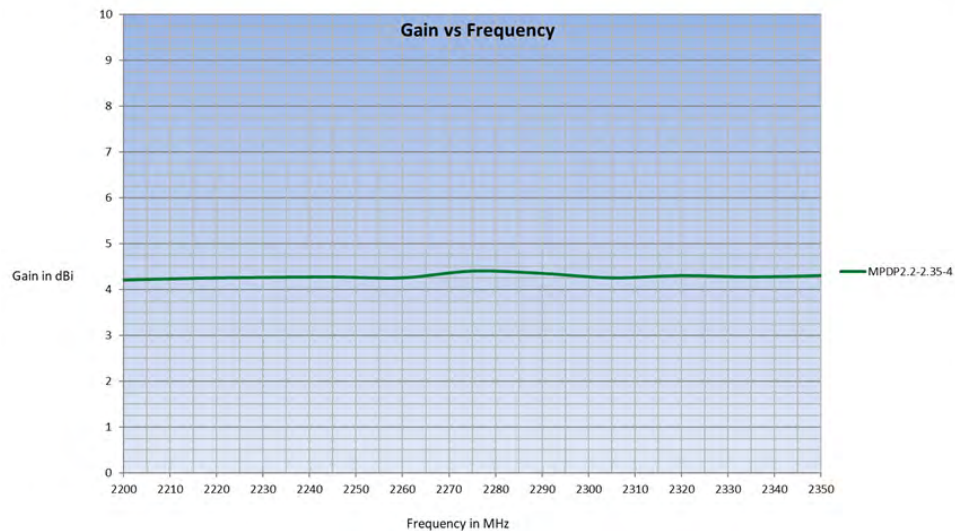
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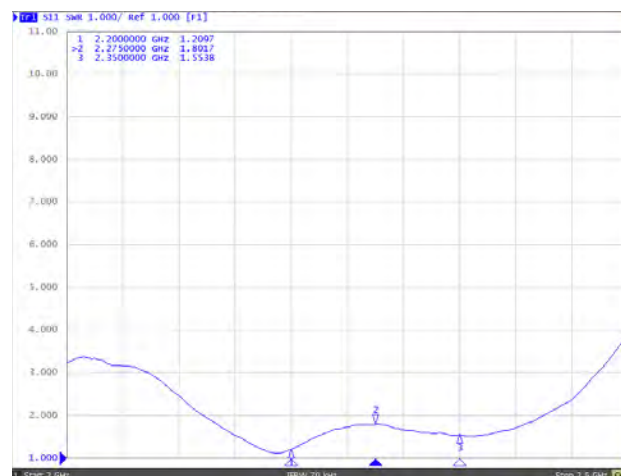
## Pattern Reference



## Gain



## VSWR



The MPDP1.25-2.7-5 antenna is designed to be used with Mobile Ad-Hoc Networking (MANET) radio systems. This antenna has been optimized for the Trellisware® TSM™ Waveform and other radios that operate in the 1250-2700MHz bands.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

### Features

- IP 68
- 360° Rotating Gooseneck
- Consistent Gain across the band
- Adaptable to other platforms



### Electrical Specifications

Frequency	1250-2700MHz
Polarization	Vertical
Impedance	50Ω
VSWR	2.5:1 Max
Gain	5dBi
Pattern	Omni Directional Azimuth 360° Elevation 30°
Power	25 Watts PEP
Connector	TNC-M

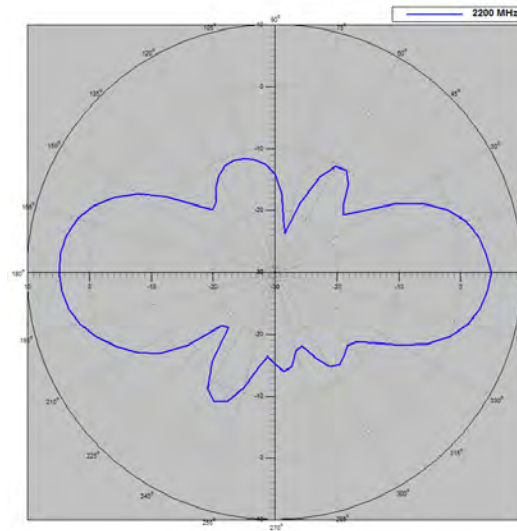
### Mechanical Specifications

Design	Dipole
Height	15.50in. 4.24oz
Radome	1.12in. X.5 in. Oval
Weight	5.28oz. (150 g)
Color	Black/Green/Tan/Grey

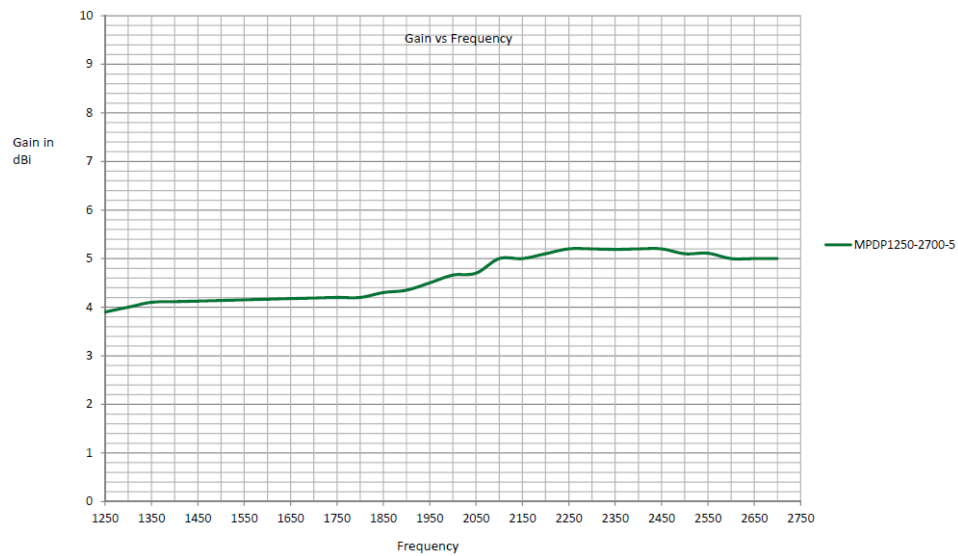
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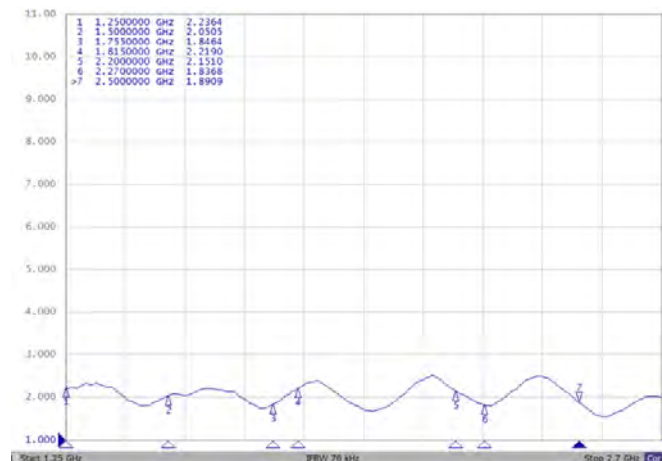
## Pattern



## Gain



## VSWR





The MVDP225X2AC 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 225-450 MHz band. Being “ground independent”, this antenna can be used on all types of vehicles (metal or non-metal) with no degradation in performance.

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.

### Features

- Ground Plane Independent
- Built to Meet MIL-STD 810



### Electrical Specifications

Frequency	225-450 MHz
Polarization	Vertical
Impedance	50 $\Omega$ Nominal
VSWR	2:1 Typical 3:1 Max
Gain	1 - 2 dBi
Radiation Pattern @ Mid Band	Azimuth 360° Elevation 90°
Power	50 Watts
Connector	Type N Female

### Mechanical Specifications

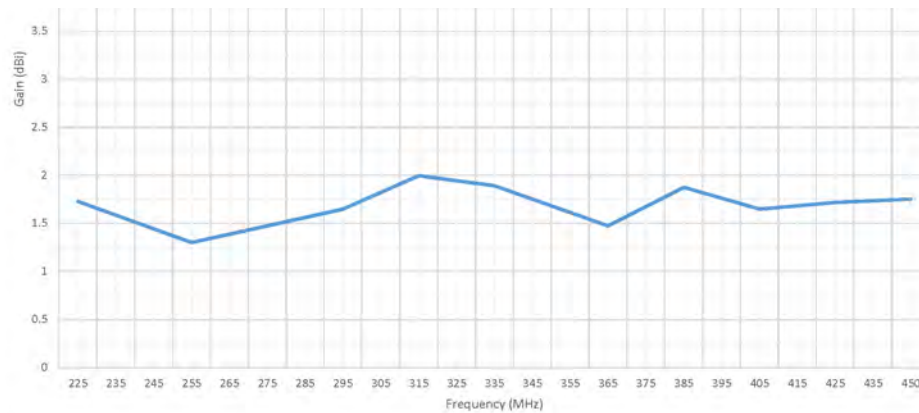
Design	Dipole
Height	32 in. (0.81 m)
Radome	1 in. Dia (26 mm)
Weight	4.9 lb. (2.2 kg)
Mount	NATO Standard Four .5" (12.7 mm) Holes, equally spaced on a 4.5" (114.3 mm) Dia. BHC
Color	Black/Green/Tan/Grey

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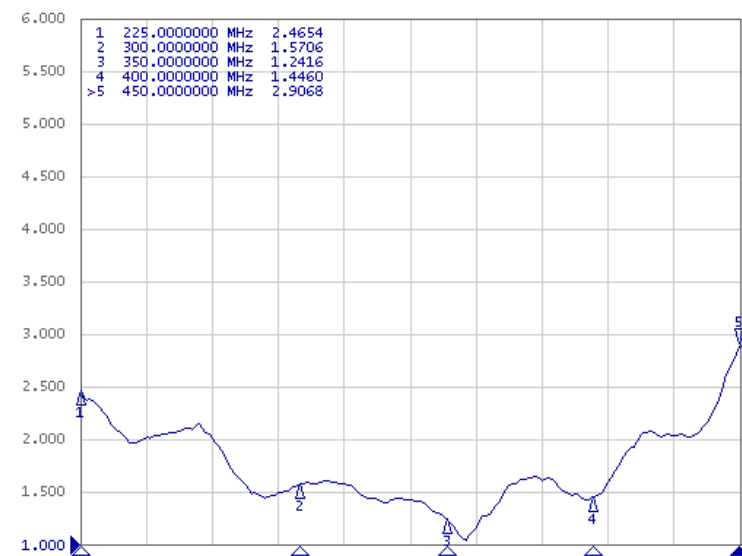
\*\*Specifications are subject to change without prior notice.

## Pattern

## Gain



## VSWR



The MVDP698X4 antenna was designed for Fourth Generation (4G) Long Term Evolution (LTE) and Mobile Ad-Hoc Networking (MANET) communications platforms for tactical and commercial vehicles.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

### Features

- Ground plane independent
- 4G/LTE communications
- MANET communications
- Low Vertical Signature

### Electrical Specifications

Frequency	698-2600MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3.0:1 Max
Gain	+3 ~ +5dBi ±.5
Pattern	Omni Directional Azimuth 360° Elevation 37 ~ 58°
Power	50 Watts
Connector	Type N Female

### Mechanical Specifications

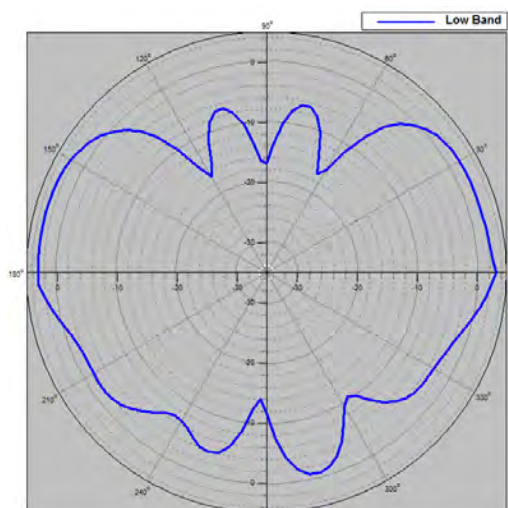
Design	Dipole
Height	28.5 in. (724mm)
Diameter	1.5in. ~ 1.75in. (38.1 ~ 44.5mm)
Radome	Fiberglass
Weight	5lbs. (2.27kg.)
Mounting	NATO 4 Hole
Color	Black/Green/Tan/Grey



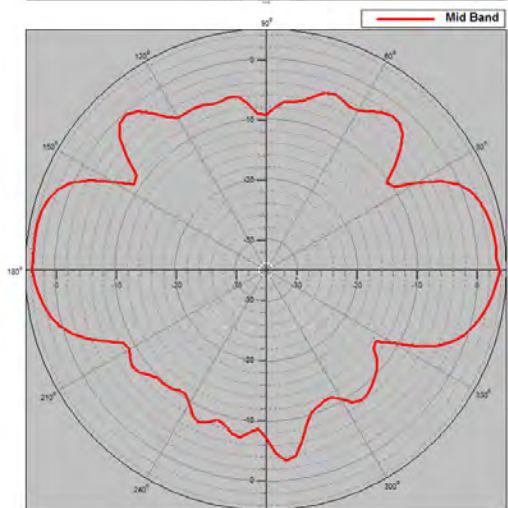
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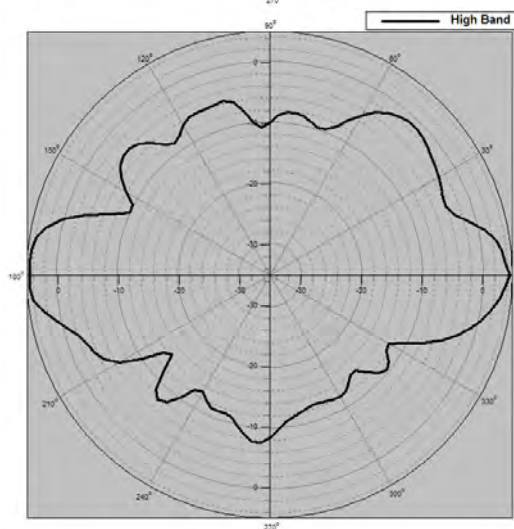
**Pattern**  
**Reference**  
**698MHz**



**Pattern**  
**Reference**  
**1375MHz**



**Pattern**  
**Reference**  
**2600MHz**



The MVDP698X4AD antenna was designed for Fourth Generation (4G) Long Term Evolution (LTE) and Mobile Ad-Hoc Networking (MANET) communications platforms for tactical and commercial vehicles.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

### Features

- Ground plane independent
- 4G/LTE communications
- MANET communications
- Low Vertical Signature



### Electrical Specifications

Frequency	698-2600MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3.0:1 Max
Gain	+3 to +5dBi ±.5
Pattern	Omni Directional Azimuth 360° Elevation 37 - 58°
Power	50 Watts
Connector	Type N Female

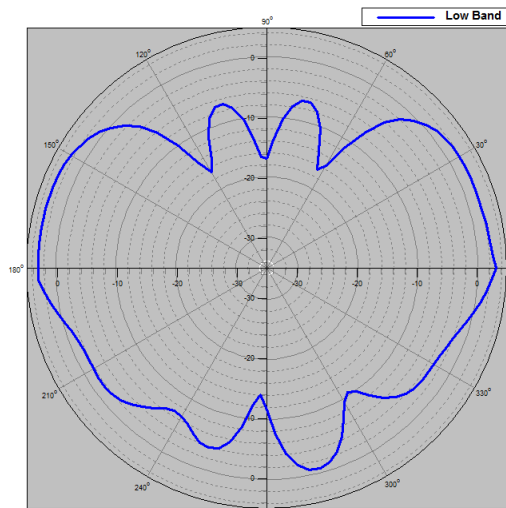
### Mechanical Specifications

Design	Dipole
Height	27.5 in. (0.7 m)
Diameter	1.5in. ~ 1.75in. (38.1 ~ 44.5mm)
Radome	Fiberglass
Weight	5.29 lbs. (2.4 kg.)
Mounting	NATO 4 Hole
Color	Black/Green/Tan/Grey

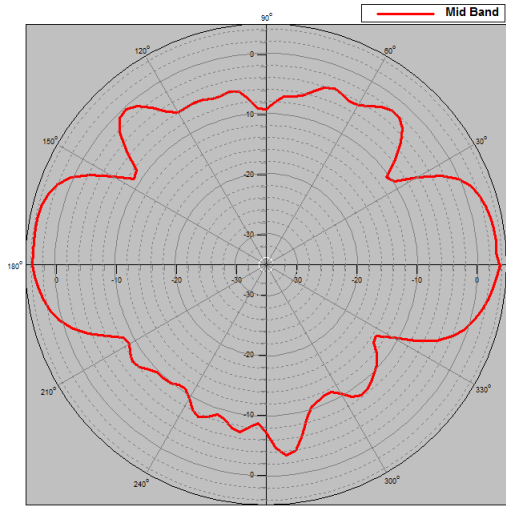
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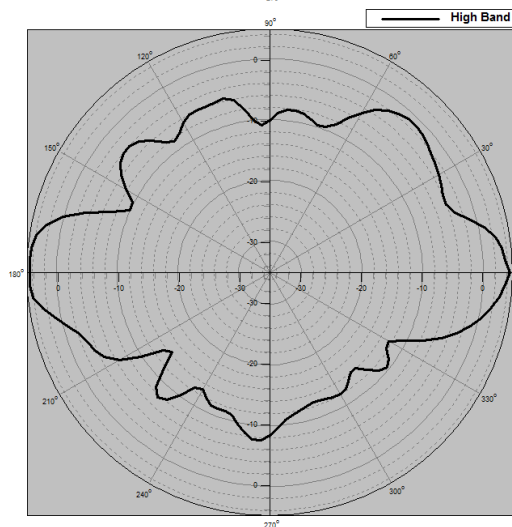
**Pattern  
Reference  
698MHz**



**Pattern  
Reference  
1375MHz**



**Pattern  
Reference  
2600MHz**





The MVDP700-2700 antenna was designed for Fourth Generation (4G) Long Term Evolution (LTE) communications. This antenna has an High Strength Magnetic Base perfect for on-the-move applications.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.

### Features

- Ground plane independent
- 4G/LTE Ready
- High Strength Magnetic Base
- Low Vertical Signature

### Electrical Specifications

Frequency	700-2700MHz
Polarization	Vertical
Impedance	50Ω
VSWR	3.0:1 Max
Gain	+3 to +5dBi ±.5
Pattern	Omni Directional Azimuth 360° Elevation 37 - 58°
Power	50 Watts
Connector	User Defined (cable optional)

### Mechanical Specifications

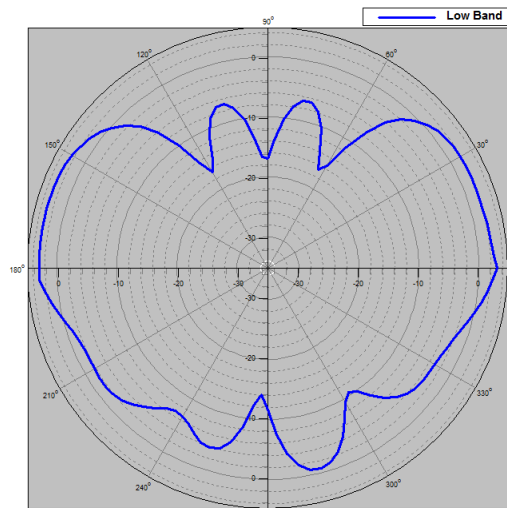
Design	Dipole
Height	~18.25 in. (472mm)
Diameter	1.5in. ~ 1.75in. (38.1 ~ 44.5mm)
Radome	Fiberglass
Weight	3.1lbs. (1.41kg)
Mounting	5" dia. magnetic base
Color	Black/Green/Tan/Grey



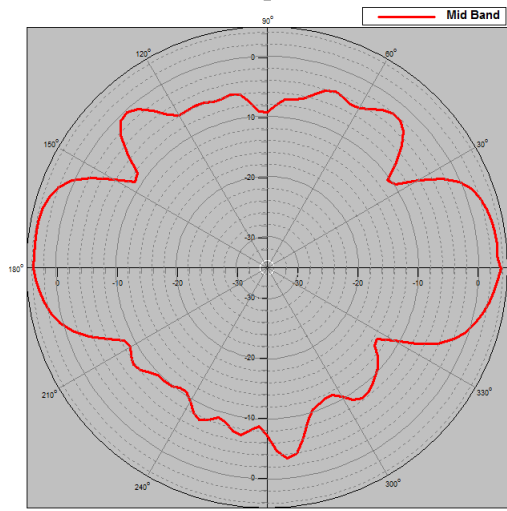
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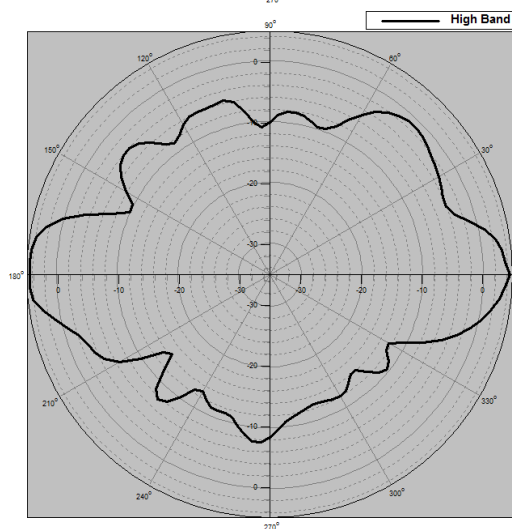
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**Reference**  
**700MHz**



**Pattern**  
**Reference**  
**1375MHz**



**Pattern**  
**Reference**  
**2700MHz**





# MVDP1755-1815/2200-2270-4

## 1755-1815 & 2200-2270MHz

### Vehicular L/S Dual Band Antenna

The MVDP1755-1815/2200-2270-4 antenna is designed to be used with Mobile Ad-Hoc Networking (MANET) vehicular radio systems. This antenna has been optimized for the Trellisware® TSM™ Waveform and other radios that operate in the 1755-1815 & 2200-2270MHz bands.

The antenna is designed with a state of the art radiating element for maximum efficiency. Built robust and tough, this antenna is housed in a thick UV stable radome and is constructed from corrosion resistant material for reliability in the harshest environments and also designed to meet the rigors of MIL-STD-810.



#### Features

- Low VSWR
- Consistent Gain across the band
- Optimized for TSM™ Waveform
- Superior Electrical Performance
- Low Vertical Signature

#### Electrical Specifications

Frequency	1755-1815 / 2200-2270MHz
Polarization	Vertical
Impedance	50Ω
VSWR	<2:1 Typical
Gain	4dBi
Pattern	Omni Directional Azimuth 360° Elevation 45°
Power	20 Watts
Connector	Type N Female

#### Mechanical Specifications

Design	Dipole
Height	24in. (610mm)
Radome	1.25in. OD (32mm)
Weight	4lbs. (1.8kg)
Color	Black/Green/Tan/Grey

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1Y39550





# MVDP1.3-2.7-7

## 1300-2700 MHz

### L/S Band Vehicular Antenna

The MVDP1.3-2.7-7 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 1300-2700MHz bands. Being “ground independent”, this antenna can be used on all types of platforms with no degradation in performance.

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.



#### Features

- Ground Plane Independent
- Built to Meet MIL-STD 810
- High Gain

#### Electrical Specifications

Frequency	1300-2700 MHz
Polarization	Vertical
Impedance	50 $\Omega$ Nominal
VSWR	2:1 Typical, 3:1 Max band edges
Gain	7dBi
Radiation Pattern	Azimuth 360° Elevation 20° at 1710MHz
Power	50 Watts
Connector	Type N Female

#### Mechanical Specifications

Height	34 $\frac{3}{4}$ " $\pm$ .25
Radome	1.5" Dia
Weight	5lbs
Operational Temp	-40° to 185° F
Mount	NATO Standard Four .5" (12.7 mm) Holes, equally spaced on a 4.5" (114.3 mm) Dia. BHC
Color	Black/Green/Tan/Grey

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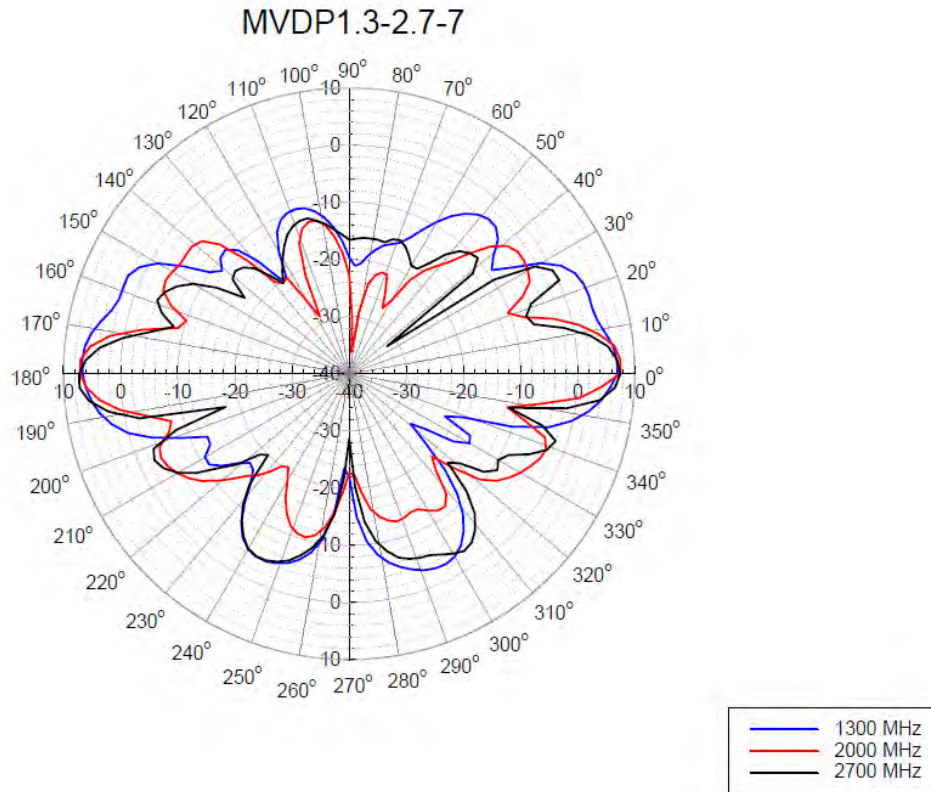
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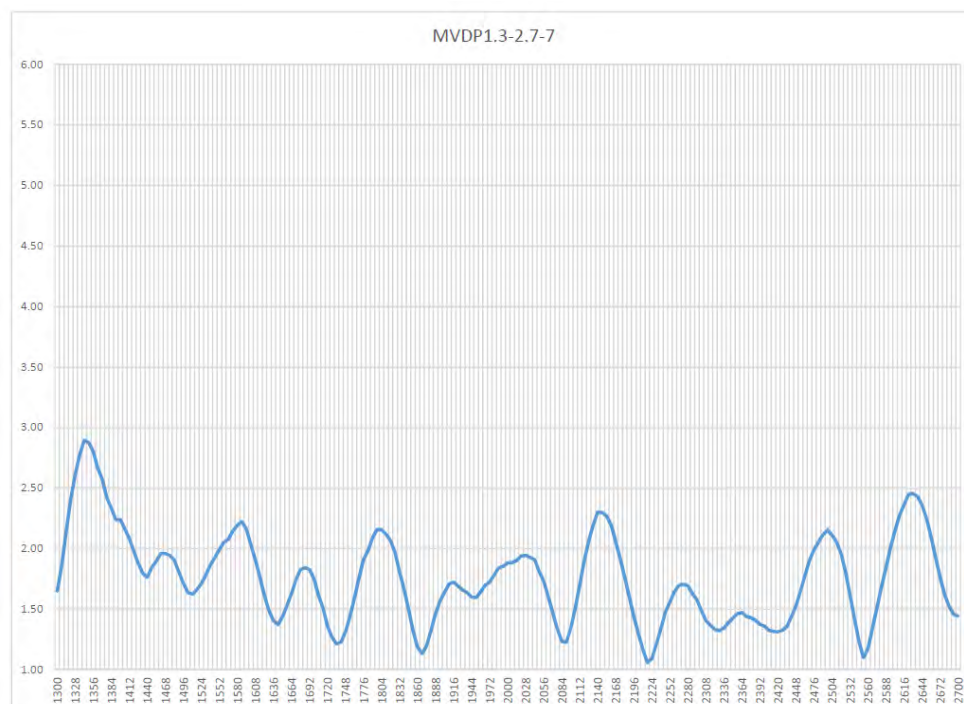
12285 U.S. Highway 41 N., Palmetto, FL 34221  
1-800-473-2139



## Pattern



## VSWR





**MPDP1.7-2.5-6AB**

**1700-2500 MHz**

**Broadband Manpack Antenna**

The MPDP1.7-2.5-6AB antenna operates within the 1.7-2.5 GHz band and is designed for use in military and commercial applications where reliability is needed most.

This antenna is constructed using corrosion resistant materials for reliability in the most extreme environments.

### Features

- Broadband
- Hemispherical Coverage
- Low VSWR
- Built to meet MIL-STD-810

### Electrical Specifications

Frequency	1700-2500 MHz
Polarization	Vertical
Impedance	50 $\Omega$ Nominal
VSWR	< 2.0:1 Typical 2.5:1 Max
Gain	6.0 dBi +/- .5
Radiation Pattern	Azimuth 360° Elevation 32°
Power	35 Watts PEP
Connector	Type N Male

### Mechanical Specifications

Design	Dipole
Height	31 in. (0.79 m)
Radome	1.5 X .7 in. Oval (38 X 18 mm)
Weight	0.6 lb. (0.27 kg)
Mount	Type N Male
Color	Black/Green/Tan/Grey

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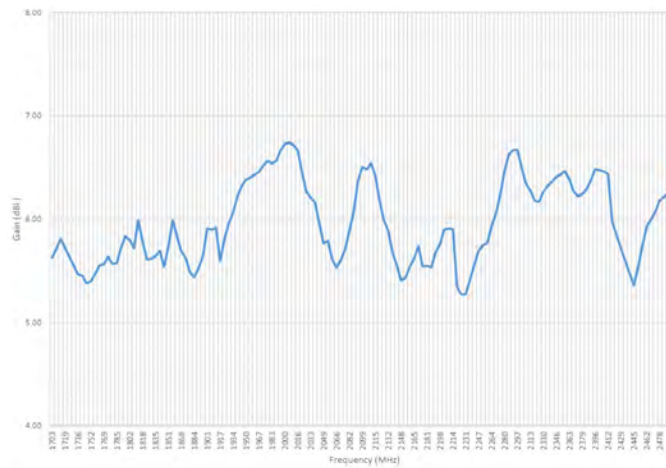
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1-800-473-2139**

**1Y44950**

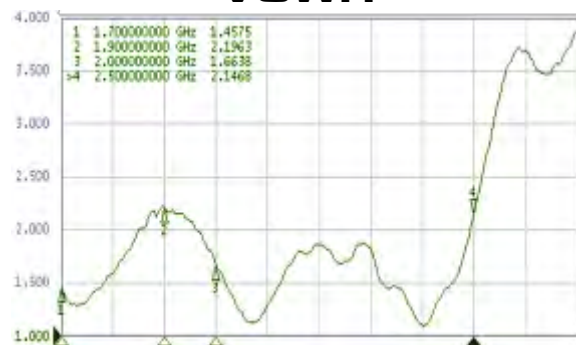




## Gain



## VSWR



The FXDP2.2-2.5-7 antenna operates within the 2.2-2.5 GHz band and is designed for use in military and commercial applications where reliability is needed most.

This antenna is constructed using corrosion resistant materials for reliability in the most extreme environments.



### Features

- Broadband
- High Gain
- Low VSWR
- Built to meet MIL-STD-810

### Electrical Specifications

Frequency	2200-2500 MHz
Polarization	Vertical
Impedance	50 $\Omega$ Nominal
VSWR	2.0:1 Max
Gain	6.5 dBi +/- .5 at 2.2-2.3 GHz 7.0 dBi +/- .5 at 2.3-2.5 GHz
Radiation Pattern	Azimuth 360° Elevation 32°
Power	30 Watts PEP
Connector	Type N Male

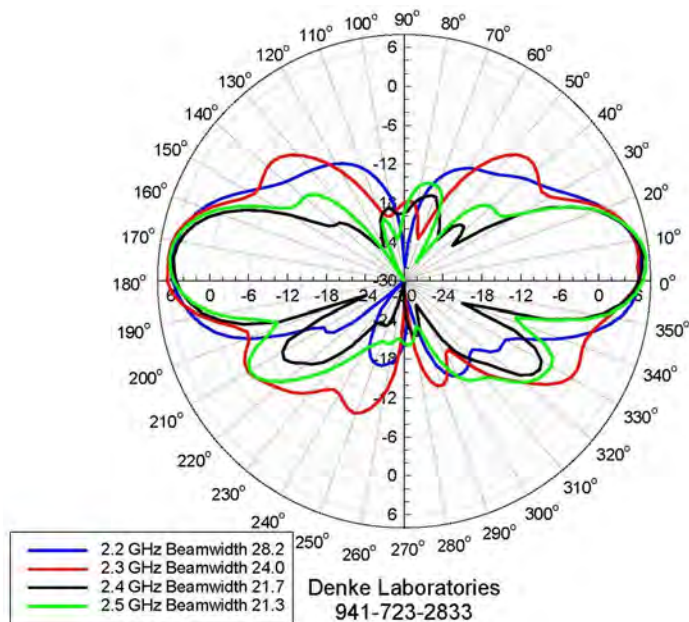
### Mechanical Specifications

Design	Dipole
Height	21.25 in. (0.54 m)
Radome	1.5 X .7 in. Oval (38 X 18 mm)
Weight	0.5 lb. (0.23 kg)
Mount	Type N Male
Color	Black/Green/Tan/Grey

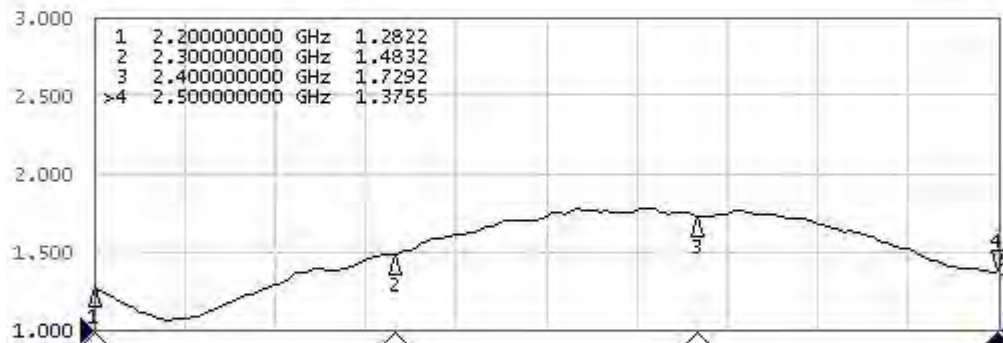
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## Pattern



## VSWR



The FXFP1.7-2.7-12 features high gain, wideband capabilities for superior performance and maximum reliability. The antenna features a state of the art radiating element which is housed in a UV stable polycarbonate radome and constructed using corrosion resistant materials for reliability in the most extreme environments.

### Features

- Point to Point (PTP)
- Higher Spectral Efficiency
- Reduced Bit Error Rate (BER)

### Electrical Specifications

Frequency	1700-2700MHz
Polarization	Vertical
Impedance	50Ω
VSWR	2:1 Typical
Gain	12 dBi Typical
Radiation Pattern @ Mid Band	Azimuth 74° Elevation 34°
Power	30 Watts max
Connector	Type N Female

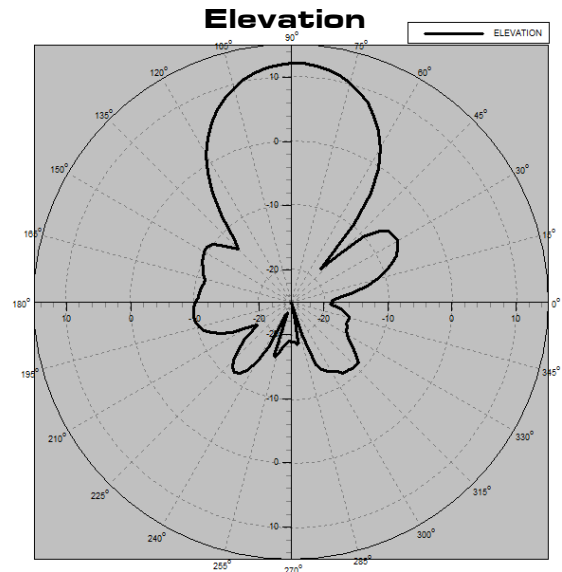
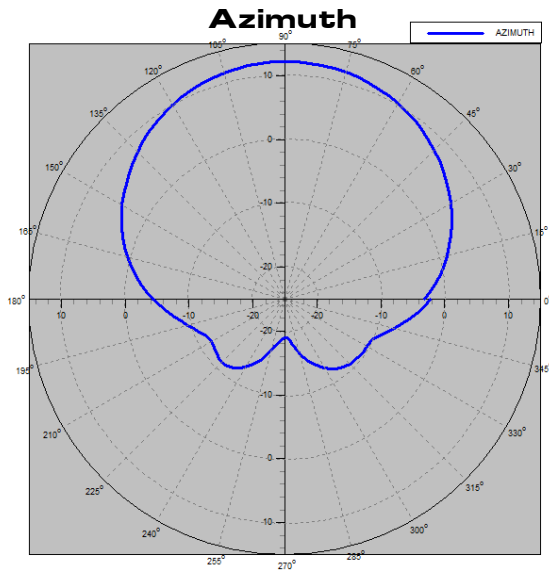
### Mechanical Specifications

Design	Dipole
Height	10.5 in High, 6 in wide, 3" thick (including mount bracket)
Radome	Polycarbonate
Mechanical Tilt	+15° to -25°
Weight	2 lbs (.91 kg)
Mount	Mast, Wall, or Special
Color	Black/Green/Tan/Grey/White

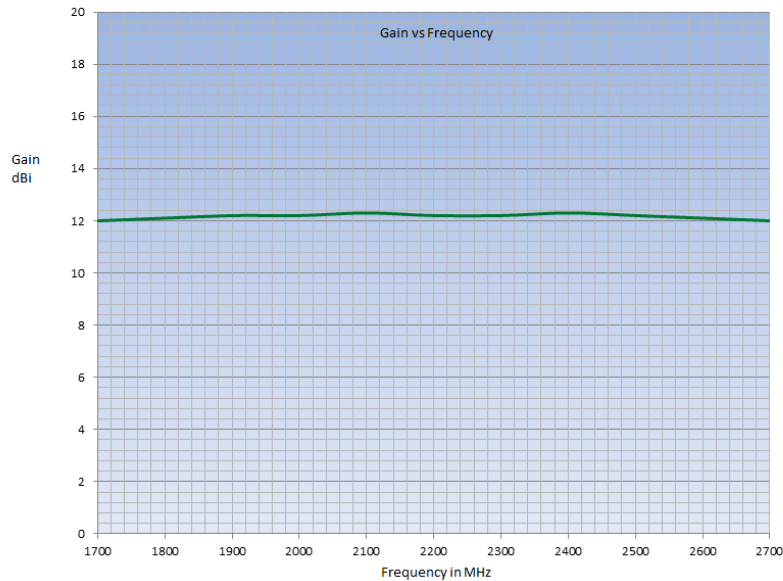
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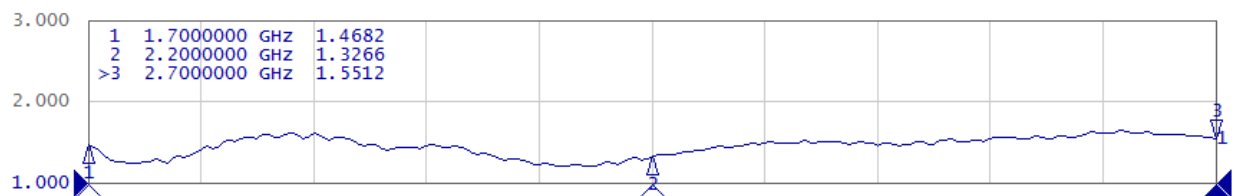
## Pattern



## Gain



## VSWR



The FXSP1.25-2.7-15 features high gain, wideband capabilities and is designed to be used with Mobile Ad-Hoc Networking (MANET) radio systems. This antenna has been optimized for the Trellisware® TSM™ Waveform and other radios that operate in the 1250-2700MHz bands.

The antenna features a state of the art radiating element which is housed in a UV stable polycarbonate Radome and constructed using corrosion resistant materials for reliability in the most extreme environments.

#### Features

- Consistent gain across the band
- 90 degree beamwidth
- 50W power handling
- Adaptable to other platforms



#### Electrical Specifications

Frequency	1250-2700 MHz
Polarization	Vertical
Impedance	50 Ω Nominal
VSWR	2:1 Typical
Gain	See Table
Radiation Pattern	Azimuth 90° Elevation 16°
Power	50 Watts max
Connector	Type N Female

#### Mechanical Specifications

Design	Sector Panel
Dimensions	36.25" Tall X 3.5" Wide X 3.25" Thick
Radome	Polycarbonate
Mechanical Tilt	+15°/ -25°
Weight	3.85 lbs
Mount	HDM013 Sector Mount Sold Separately (1.5" - 2" Pipe)
Color	Black/Green/Tan/Grey/White

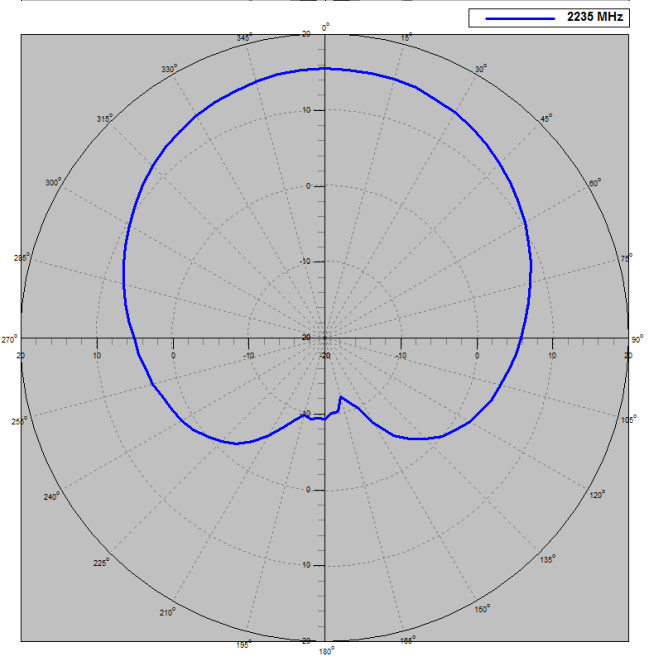
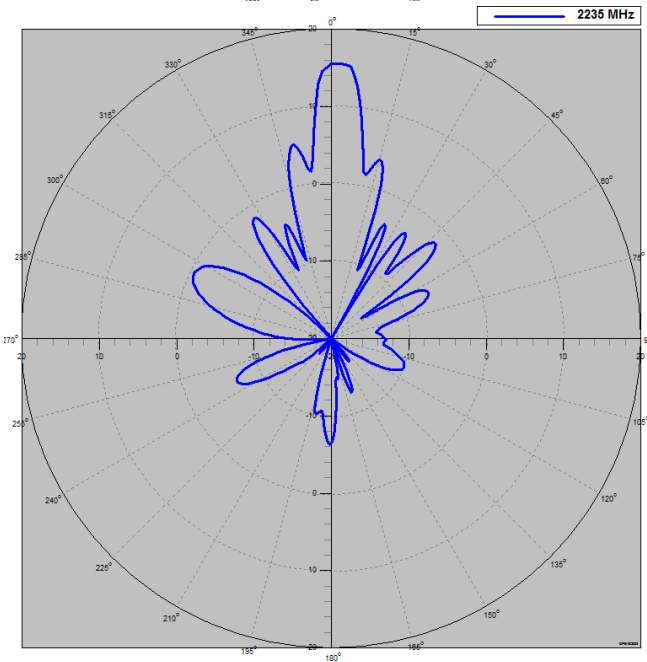
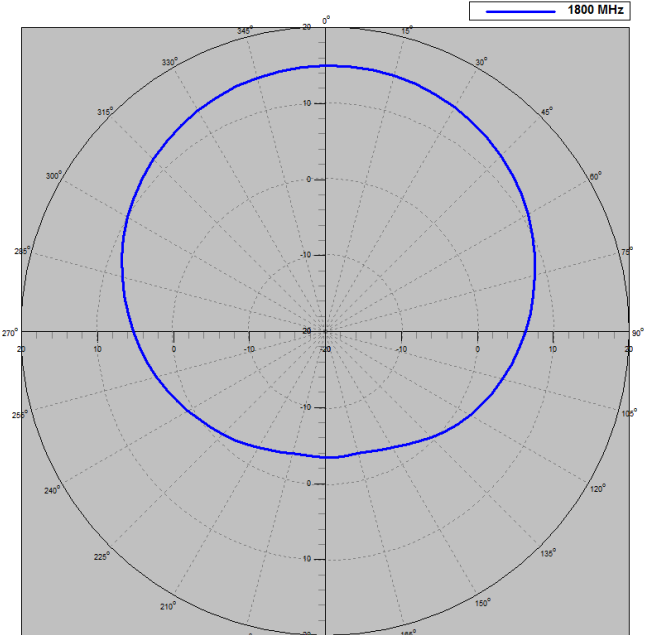
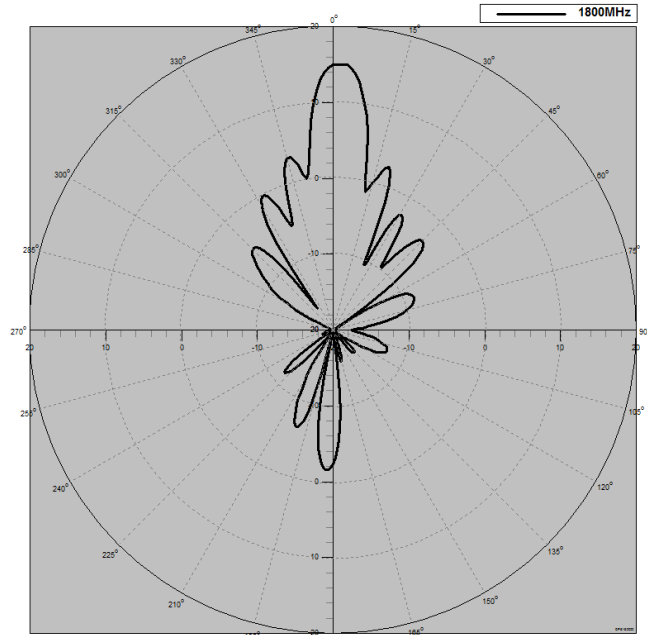
\*\*All information on this product and the product itself is the property of and is proprietary to Hascall-Denke.

\*\*Specifications are subject to change without prior notice.



**Elevation Pattern**

**Azimuth Pattern**



# HASCALL-DENKE

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