Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

Indoor/Ceiling Wideband Omni Antenna (380-6000), DOME SISO,
LADS380-6000N (N Female Connector)
LADS380-60004 (4.3/10 Female Connector)

Liberty's antenna solutions are designed for DAS applications offering excellent price/performance value.

OVERVIEW:

Liberty's ultra-wideband indoor, Omni Antenna's broad frequency coverage makes this antenna a reliable solution for multiple applications ranging from 380-6000MHz. This SISO antenna's dome-style Radome is a cost-effective solution offering effective performance while minimizing the impact of the aesthetics in its environment.

Ultra-Wideband Dome-style Indoor SISO Omni Antenna for tiled ceilings

FEATURES:

- Traditional white, dome-style Radome design
- Excellent combination of coverage and gain
- Competitive Low PIM performance

COMES WITH

- Pigtail cable and connector (see table)

BENEFITS:

- Effective performance in a small form factor
- Dependable design for optimal system performance
- Easy installation

Electrical Specifications					
Frequency Range (MHz)	380-520	600-960	1425-2700	2700-4300	4300-6000
Gain (dBi)	1.5	2.5	4.5	5.0	5.5
VSWR	<= 2.8	<= 2.0	<= 2.0	<= 2.0	<= 2.0
Polarization	Vertical				
PIM 3rd Order, 2x20W (dBc)	NA	<= -155	<= -155	<= -155	NA
Horizontal Beamwidth (degrees)	360				
Vertical Beamwidth (degrees)	100	90	45	22	35
Input Impedance (Ohms)	50				
Max Input Power (Watts)	50				

Ordering Information

L	A	XX	1234	-1234	XX	XX
L=Liberty	A=Antenna	Series L=LPDA Y=Yagi PS=Panel SISO PM=Panel MIMO FS=Flat Omni SISO FM=Flat Omni MIMO DS=Dome Omni SISO DM=Dome Omni MIMO	Low Freq in MHz	High Freq in MHz	Female Connector 1 & 2 N=N Female 4=4.3/10 Female	Custom Alpha/ Num Code

Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

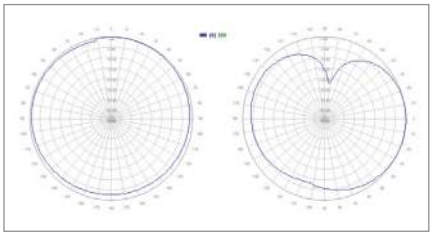
Indoor/Ceiling Wideband Omni Antenna (380-6000), DOME SISO,
LADS380-6000N (N Female Connector)
LADS380-60004 (4.3/10 Female Connector)

TECHNICAL SPECIFICATIONS | DAS ANTENNAS

Mechanical Specifications	
Connector	N Female (PN: LADS380-6000N), 4.3/10 Female (PN: LADS380-60004)
Pigtail cable type, length	141 Coax plenum rated cable, 300mm
Radome dimensions (mm)	284 (Dia) x 140
Weight (kg)	0.7
Reflector material	Aluminum
Radome material and color	ABS (UV Stabilized), White (per RAL 9003)
Operating temperature	-40 to +65 C

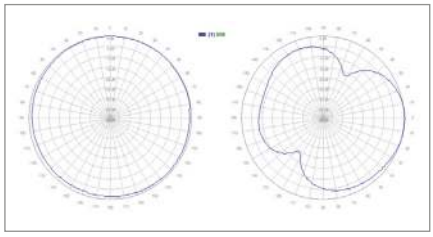
RADIATION PATTERNS

Horizontal Vertical



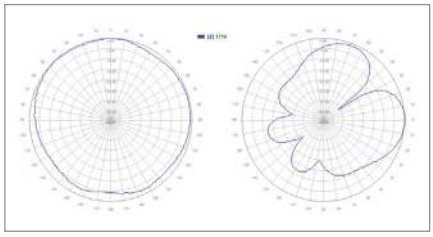
380MHz

Horizontal Vertical

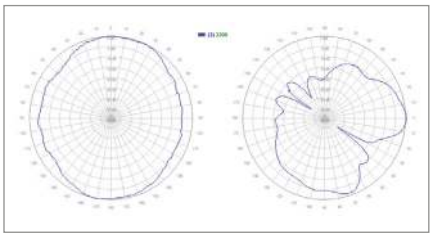


698MHz

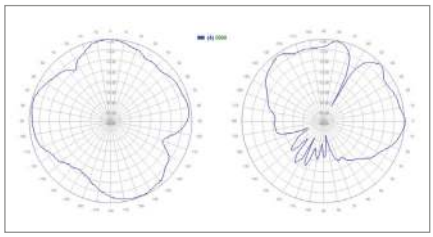
Horizontal Vertical



1710MHz



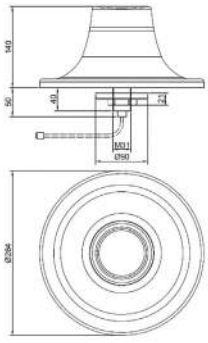
3300MHz



5900MHz

Ceiling Tile Mounting Option

24mm dia access hole



Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

Indoor/Ceiling Omni Antenna (617-4200MHz) - Dome

LADS617-4200N (N Female Connector)
LADS617-42004 (4.3/10 Female Connector)

Liberty's antenna solutions are designed for DAS applications offering leading edge performance at an economical price.

OVERVIEW:

Liberty's indoor, dome Omni antenna is designed for DAS applications where broad signal coverage 617-4200MHz is required. This SISO antenna's dome-style radome is a cost-effective solution offering effective performance while minimizing the impact of the aesthetics in its environment.

Dome-style Indoor SISO Omni Antenna for tiled ceilings

FEATURES:

- Traditional white, dome-style radome design
- Excellent combination of coverage and gain
- Competitive Low PIM performance

COMES WITH

- Pigtail cable and connector (see table)

BENEFITS:

- Effective performance in a small form factor
- Dependable design for optimal system performance
- Easy installation

Electrical Specifications				
Frequency Range (MHz)	617-806	806-960	1710-2700	3300-4200
Gain (dBi)	2.0	2.0	5.0	5.5
VSWR	<= 2.0	<= 1.8	<= 1.5	<= 1.5
Polarization	Vertical			
PIM 3rd Order, 2x20W (dBc)	<= -153			
Horizontal Beamwidth (degrees)	360			
Vertical Beamwidth (degrees)	85	80	54	28
Input Impedance (Ohms)	50			
Max Input Power (Watts)	50			

Ordering Information

L	A	XX	1234	-1234	XX	XX
L=Liberty	A=Antenna	Series L=LPDA Y=Yagi PS=Panel SISO PM=Panel MIMO FS=Flat Omni SISO FM=Flat Omni MIMO DS=Dome Omni SISO DM=Dome Omni MIMO	Low Freq in MHz	High Freq in MHz	Female Connector 1 & 2 N=N Female 4=4.3/10 Female	Custom Alpha/ Num Code

Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

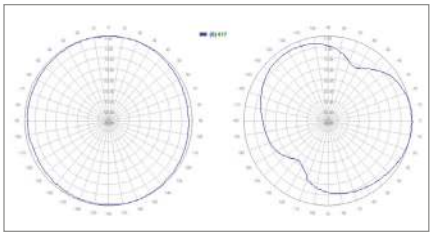
Indoor/Ceiling Omni Antenna (617-4200MHz) - Dome
LADS617-4200N (N Female Connector)
LADS617-42004 (4.3/10 Female Connector)

TECHNICAL SPECIFICATIONS | DAS ANTENNAS

Mechanical Specifications	
Connector	N Female (PN: LADS617-4200N), 4.3/10 Female (PN: LADS617-42004)
Pigtail cable type, length	141 Coax plenum rated cable, 300mm
Radome dimensions (mm)	186 (Dia) x 85
Weight (kg)	0.25
Reflector material	Aluminum
Radome material and color	ABS (UV Stabilized), White (per RAL 9003)
Operating temperature	-40 to +65 C

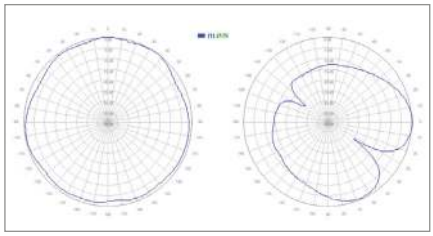
RADIATION PATTERNS

Horizontal Vertical



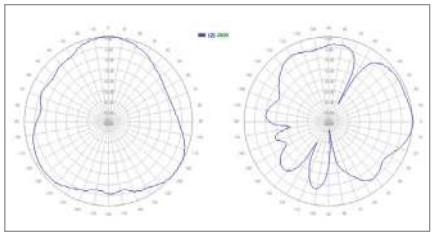
617MHz

Horizontal Vertical

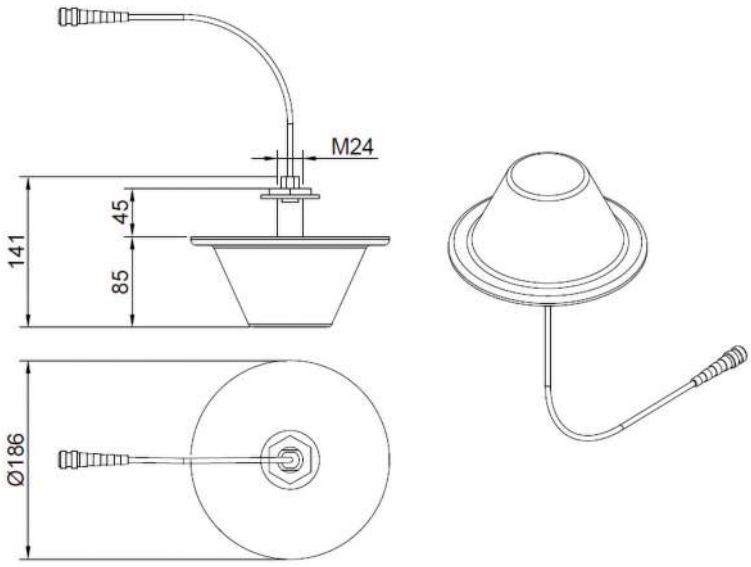


2170MHz

Horizontal Vertical



3800MHz



Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

Indoor/Ceiling FLAT Omni Antenna (617-4200MHz), MIMO

LAFM617-4200NN (2x N Female Connector)
LAFM617-420044 (2x 4.3/10 Female Connector)

Liberty's antenna solutions are designed for DAS applications offering leading edge performance at an economical price.

OVERVIEW:

Liberty's indoor, Omni antenna is designed for DAS applications where broad signal coverage is required while providing an ultra low profile. This MIMO antenna's flat radome will minimally impact the aesthetics of its environment and still provide substantial omni-directional signal gain.

The design of this antenna makes it a go-to antenna for installers as the most versatile option allowing the unit to be installed in both ceiling tile or hard cap ceilings.

Low Profile Indoor MIMO Omni Antenna for tiled or hard cap ceilings

FEATURES:

- Low profile flat radome design
- Excellent combination of coverage and gain
- Competitive Low PIM performance
- Versatile mounting options

COMES WITH

- Pigtail cable and connector (see table)
- Hard cap ceiling mounting screws

BENEFITS:

- Minimizes impact to the ceiling and aesthetics of the environment
- Dependable design for optimal system performance
- Able to be more universally deployed by installers
- Easy installation

Electrical Specifications				
Frequency Range (MHz)	617-698	698-960	1425-2700	3300-4200
Gain (dBi)	3.5	4.0	5.5	6.0
VSWR	<= 2.0	<= 1.8	<= 1.7	<= 1.7
Polarization	Horizontal			
Isolation (dB)	>12	>15	>20	>28
PIM 3rd Order, 2x20W (dBc)	<= -153			
Front to Back Ratio (dB)	>= 15			
Horiz Beamwidth (degrees)	360			
Vert Beamwidth (degrees)	126-132	100-120	30-68	20-48
Input Impedance (Ohms)	50			
Max Input Power (Watts)	50			

Ordering Information

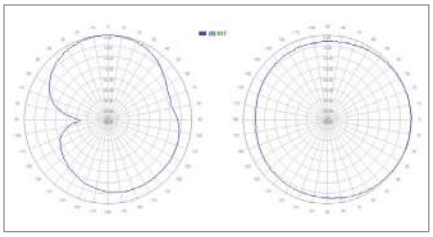
L	A	XX	1234	-1234	XX	XX
L=Liberty	A=Antenna	Series L=LPDA Y=Yagi PS=Panel SISO PM=Panel MIMO FS=Flat Omni SISO FM=Flat Omni MIMO DS=Dome Omni SISO DM=Dome Omni MIMO	Low Freq in MHz	High Freq in MHz	Female Connector 1 & 2 N=N Female 4=4.3/10 Female	Custom Alpha/ Num Code

TECHNICAL SPECIFICATIONS | DAS ANTENNAS

Mechanical Specifications	
Connector	2x N Female (PN: LAFM617-4200NN), 2x 4.3/10 Female (PN: LAFM617-420044)
Pigtail cable type, length	141 Coax plenum rated cable, 300mm
Radome dimensions (mm)	285 (Dia) x 8
Weight (kg)	0.5
Radome material and color	ABS (UV Stabilized), White (per RAL 9003)
Operating temperature	-40 to +65 C

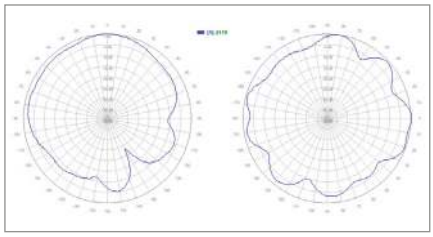
RADIATION PATTERNS

Horizontal Vertical



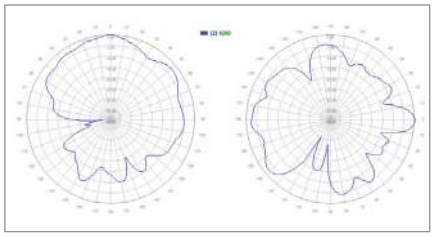
617MHz

Horizontal Vertical

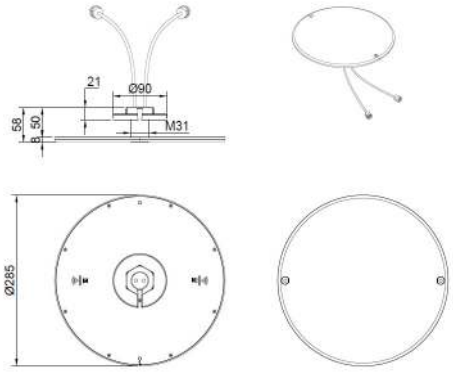


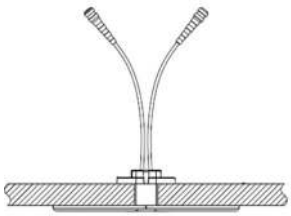
2170MHz

Horizontal Vertical



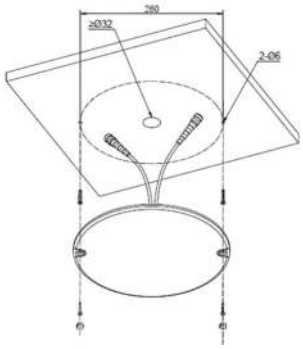
4200MHz





Ceiling Tile Mounting Option

32mm dia access hole



Hard cap ceiling mounting option with two screws

Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

FLAT Omni Antenna (617-4200MHz), SISO,
LAFS617-4200N (N Female Connector)
LAFS617-42004 (4.3/10 Female Connector)

Liberty's antenna solutions are designed for DAS applications offering leading edge performance at an economical price.

OVERVIEW:

Liberty's indoor, Omni Antenna is designed for DAS applications where broad signal coverage is required while providing an ultra low profile. This SISO antenna flat radome will minimally impact the aesthetics of its environment and still provide substantial omni-directional signal gain.

The design of this antenna makes it a go-to antenna for installers as the most versatile option allowing the unit to be installed in both ceiling tile or hard cap ceilings.

Low Profile Indoor Omni Antenna for tiled or hard cap ceilings

FEATURES:

- Low profile flat radome design
- Excellent combination of coverage and gain
- Competitive Low PIM performance
- Versatile mounting options

COMES WITH

- Pigtail cable and connector (see table)
- Hard cap ceiling mounting screws

BENEFITS:

- Minimizes impact to the ceiling and aesthetics of the environment
- Dependable design for optimal system performance
- Able to be more universally deployed by installers
- Easy installation

Electrical Specifications				
Frequency Range (MHz)	617-698	698-960	1425-2700	3300-4200
Gain (dBi)	3.5	4.0	5.5	6.0
VSWR	<= 2.0	<= 1.8	<= 1.8	<= 1.8
Polarization	Horizontal			
PIM 3rd Order, 2x20W (dBc)	<= -153			
Front to Back Ratio (dB)	>= 15			
Horizontal Beamwidth (degrees)	360			
Vertical Beamwidth (degrees)	126-132	100-120	30-68	20-48
Input Impedance (Ohms)	50			
Max Input Power (Watts)	100			

Ordering Information

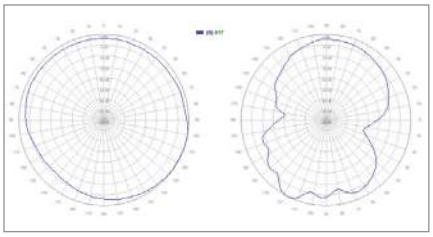
L	A	XX	1234	-1234	XX	XX
L=Liberty	A=Antenna	Series L=LPDA Y=Yagi PS=Panel SISO PM=Panel MIMO FS=Flat Omni SISO FM=Flat Omni MIMO DS=Dome Omni SISO DM=Dome Omni MIMO	Low Freq in MHz	High Freq in MHz	Female Connector 1 & 2 N=N Female 4=4.3/10 Female	Custom Alpha/ Num Code

TECHNICAL SPECIFICATIONS | DAS ANTENNAS

Mechanical Specifications	
Connector	N Female (PN: LAFS617-4200N), 4.3/10 Female (PN: LAFS617-42004)
Pigtail cable type, length	141 Coax plenum rated cable, 300mm
Radome dimensions (mm)	190 (Dia) x 7.3
Weight (kg)	0.2
Radome material and color	ABS (UV Stabilized), White (per RAL 9003)
Operating temperature	-40 to +65 C

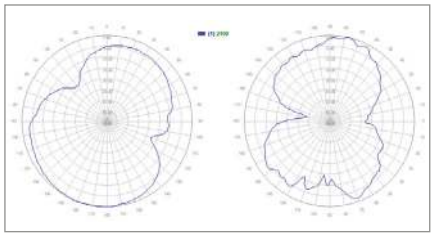
RADIATION PATTERNS

Horizontal Vertical



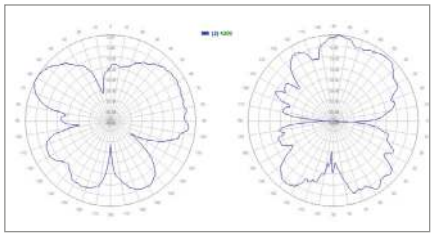
617MHz

Horizontal Vertical

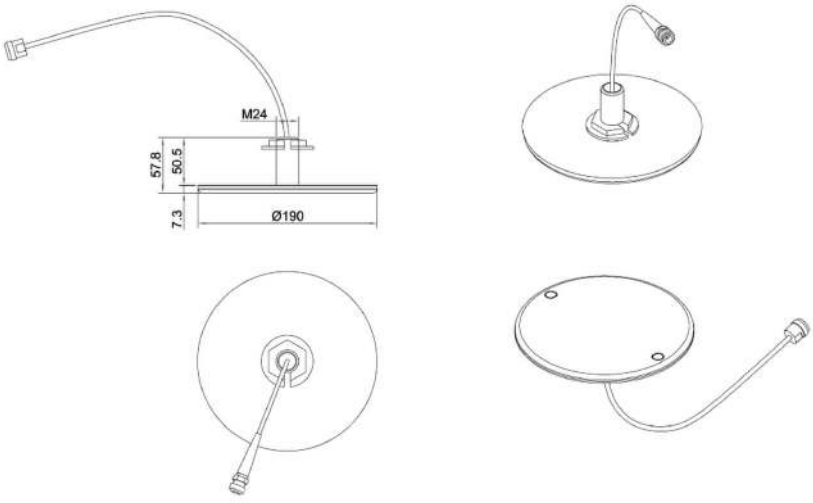


2170MHz

Horizontal Vertical



4200MHz



Hard cap ceiling mounting option with two screws

Ceiling tile mounting option

Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

Outdoor LPDA Dir Antenna (617-4200MHz)
LAL617-4200N (N Female Connector)
LAL617-42004 (4.3/10 Female Connector)

Liberty's antenna solutions are designed for DAS applications offering leading edge performance at an economical price.

OVERVIEW:

Liberty's outdoor, vertically polarized Log Periodic antenna is designed for demanding DAS antenna applications where high gain donor antennas are needed for off-air system configurations. With gain of 11dB in the high bands and a weather resistant Radome, this antenna is built to offer high quality signal for many years of service.

The antenna includes a pole mount bracket for deployments on roof tops attaching to infrastructure provided by others.

Log Periodic Dipole Antenna: An ideal Donor antenna for DAS deployments

FEATURES:

- Excellent gain up to 11.5dBi @ 3300-4200MHz
- Competitive Low PIM performance
- White, Outdoor Radome of UV stabilized ABS plastic

COMES WITH

- Mounting bracket for pole dia <=2"
- Pigtail cable and connector (see table)

BENEFITS:

- High performing antenna is low profile form factor
- Dependable design for optimal system performance
- Engineered for roof top deployments to operate throughout the life of the deployment
- To be attached to existing infrastructure
- Easy installation

Electrical Specifications				
Frequency Range (MHz)	617-698	698-960	1710-2700	3300-4200
Gain (dBi)	8	9.5	11	11.5
VSWR	<= 2.5	<= 2.0	<= 1.5	<= 2.0
Polarization	Vertical			
PIM 3rd Order, 2x20W (dBc)	<= -153			
Front to Back Ratio (dB)	>= 15			
Horizontal Beamwidth (degrees)	102	90	75	54
Vertical Beamwidth (degrees)	83	66	58	42
Input Impedance (Ohms)	50			
Max Input Power (Watts)	50			
Lightning Protection	DC Ground			

Ordering Information

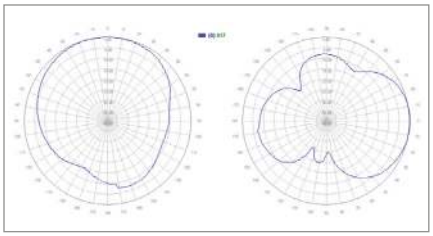
L	A	XX	1234	-1234	XX	XX
L=Liberty	A=Antenna	Series L=LPDA Y=Yagi PS=Panel SISO PM=Panel MIMO FS=Flat Omni SISO FM=Flat Omni MIMO DS=Dome Omni SISO DM=Dome Omni MIMO	Low Freq in MHz	High Freq in MHz	Female Connector 1 & 2 N=N Female 4=4.3/10 Female	Custom Alpha/ Num Code

TECHNICAL SPECIFICATIONS | DAS ANTENNAS

Mechanical Specifications	
Connector	N Female (PN: LAL617-4200N), 4.3/10 Female (PN: LAL617-42004)
Pigtail cable type, length	141 Coax plenum rated cable, 300mm
Radome dimensions (mm)	443 x 210 x 65
Weight (kg)	0.5
Reflector material	Aluminum
Radome material and color	ABS (UV Stabilized), White (per RAL 9003)
Operating temperature	-40 to +65 C
Mounting Pole dia range (mm)	38 to 52

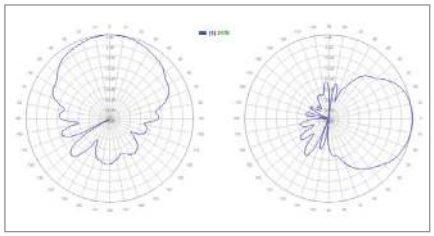
RADIATION PATTERNS

Horizontal Vertical



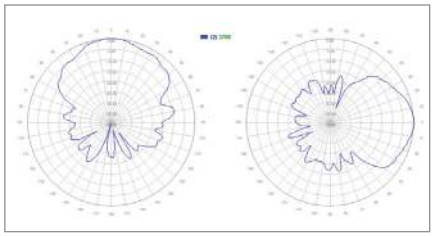
617MHz

Horizontal Vertical

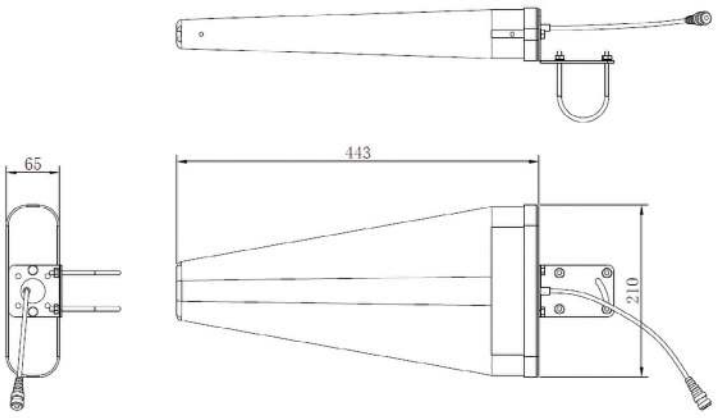


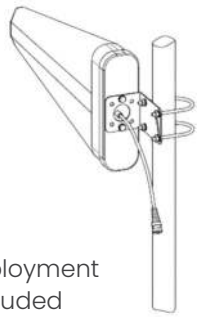
2170MHz

Horizontal Vertical



3700MHz





Typical pole mount deployment
Pole mount bracket included

Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

Outdoor LPDA Dir Antenna (617-4200MHz), Public Safety

LAL617-4200NPS (N Female Connector)
LAL617-42004PS (4.3/10 Female Connector)

Liberty's antenna solutions are designed for DAS applications offering leading edge performance at an economical price.

OVERVIEW:

Liberty's outdoor, vertically polarized Log Periodic antenna is designed for demanding DAS antenna applications where high gain donor antennas are needed for off-air system configurations. With gain of 11dB in the high bands and a weather resistant Radome, this antenna is built to offer high quality signal for many years of service.

The antenna includes a pole mount bracket for deployments on roof tops attaching to infrastructure provided by others.

Log Periodic Dipole Antenna: An ideal Donor antenna for DAS deployments includes 10K resistor for compatibility to popular Public Safety systems

FEATURES:

- Excellent gain up to 11.5dBi @ 3300-4200MHz
- Competitive Low PIM performance
- White, Outdoor Radome of UV stabilized ABS plastic

COMES WITH

- Mounting bracket for pole dia <=2"
- Pigtail cable and connector (see table)

BENEFITS:

- High performing antenna is low profile form factor
- Dependable design for optimal system performance
- Engineered for roof top deployments to operate throughout the life of the deployment
- To be attached to existing infrastructure
- Easy installation

Electrical Specifications				
Frequency Range (MHz)	617-698	698-960	1710-2700	3300-4200
Gain (dBi)	8	9.5	11	11.5
VSWR	<= 2.5	698-806 <= 2.0 806-960 <= 2.0	<= 1.8	<= 1.8
Polarization	Vertical			
PIM 3rd Order, 2x20W (dBc)	<= -153			
Front to Back Ratio (dB)	>= 15			
Horizontal Beamwidth (degrees)	102	90	75	54
Vertical Beamwidth (degrees)	83	66	58	42
Input Impedance (Ohms)	50			
Max Input Power (Watts)	50			
Lightning Protection	DC Ground			

Ordering Information

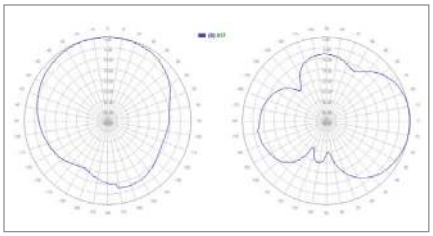
L	A	XX	1234	-1234	XX	XX
L=Liberty	A=Antenna	Series L=LPDA Y=Yagi PS=Panel SISO PM=Panel MIMO FS=Flat Omni SISO FM=Flat Omni MIMO DS=Dome Omni SISO DM=Dome Omni MIMO	Low Freq in MHz	High Freq in MHz	Female Connector 1 & 2 N=N Female 4=4.3/10 Female	Custom Alpha/ Num Code

TECHNICAL SPECIFICATIONS | DAS ANTENNAS

Mechanical Specifications	
Connector	N Female (PN: LAL617-4200NPS), 4.3/10 Female (PN: LAL617-42004PS)
Pigtail cable type, length	141 Coax plenum rated cable, 300mm
Radome dimensions (mm)	443 x 210 x 65
Weight (kg)	0.5
Reflector material	Aluminum
Radome material and color	ABS (UV Stabilized), White (per RAL 9003)
Operating temperature	-40 to +65 C
Mounting Pole dia range (mm)	38 to 52

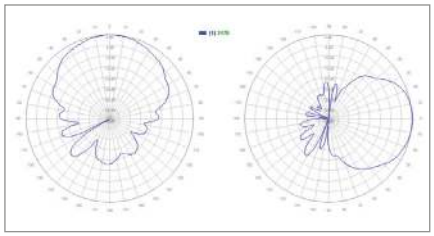
RADIATION PATTERNS

Horizontal Vertical



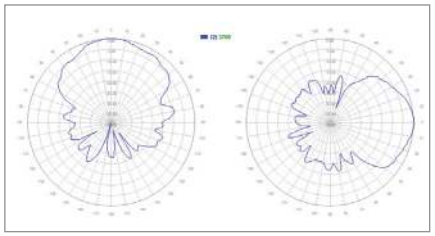
617MHz

Horizontal Vertical

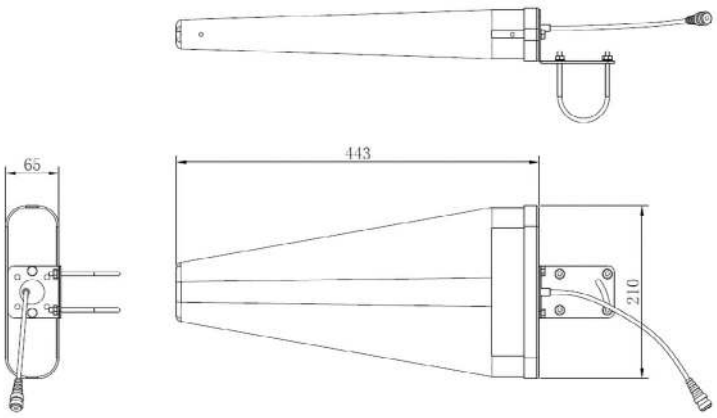


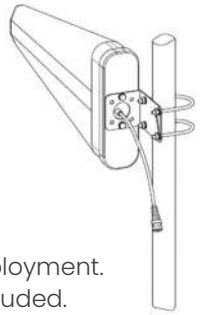
2170MHz

Horizontal Vertical



3700MHz





Typical pole mount deployment.
Pole mount bracket included.

Liberty

TECHNICAL SPECIFICATIONS

DAS Antennas

Indoor/Panel Indoor Antenna (617-4200MHz)

LAPS617-4200N (N Female Connector)

Liberty's DAS antenna solutions are designed to be an outstanding value when considering price and performance.

OVERVIEW:

This antenna will minimally impact the aesthetics of its environment and still provide substantial omni-directional signal gain.

FEATURES:

- 617MHz - 4200MHz
- Directional, SISO antenna
- Vertically polarized, indoor design

COMES WITH

- Pigtail cable and connector (see table)

BENEFITS:

- Dependable design for optimal system performance
- Able to be more universally deployed by installers
- Easy installation

Electrical Specifications				
Frequency Range (MHz)	617-806	806-960	1710-2700	3300-4200
Gain (dBi)	5.5	6.5	8.0	7.0
VSWR	<= 2.5	<= 2.0	<= 1.8	<= 1.8
Polarization	Vertical			
PIM 3rd Order, 2x20W (dBc)	<= -153			
Front to Back Ratio (dB)	<= 9	<= 10	<= 15	<= 11
Horiz Beamwidth (degrees)	100°	85°	65°	50°
Vert Beamwidth (degrees)	90°	82°	60°	45°
Input Impedance (Ohms)	50			
Max Input Power (Watts)	50			

Ordering Information

L	A	XX	1234	-1234	XX	XX
L=Liberty	A=Antenna	Series L=LPDA Y=Yagi PS=Panel SISO PM=Panel MIMO FS=Flat Omni SISO FM=Flat Omni MIMO DS=Dome Omni SISO DM=Dome Omni MIMO	Low Freq in MHz	High Freq in MHz	Female Connector 1 & 2 N=N Female 4=4.3/10 Female	Custom Alpha/ Num Code

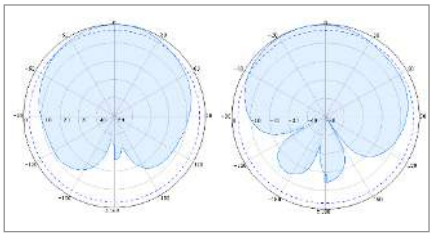
TECHNICAL SPECIFICATIONS | DAS ANTENNAS

Mechanical Specifications	
Connector	1x N Female (PN: LAPS617-4200N)
Pigtail cable type, length	141 Blue Coax plenum rated cable, 300mm
Dimensions (mm)	180 x 158 x 60
Weight (kg)	0.37
Reflector material	Aluminum
Radome material and color	ABS (UV Stabilized), White (per RAL 9003)
Operating temperature	-40 to +65 C

RADIATION PATTERNS

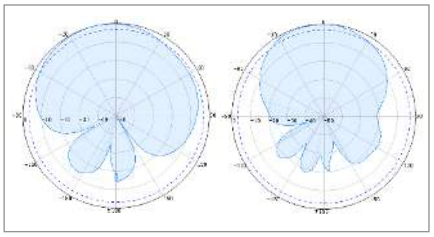
ABS (UV Stabilized), White (per RAL 9003)

Horizontal Vertical



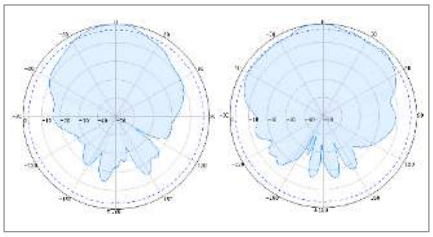
610MHz

Horizontal Vertical

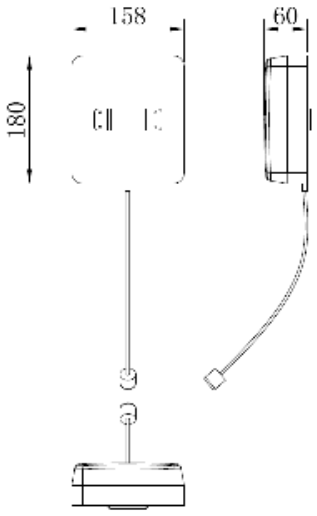


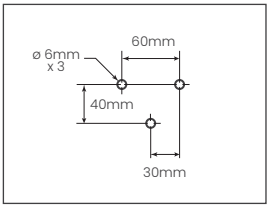
2170MHz

Horizontal Vertical



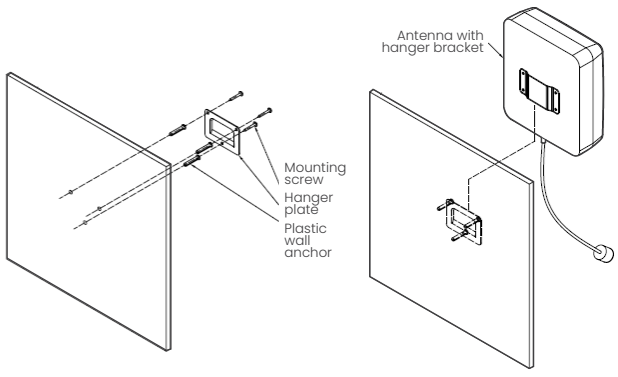
3800MHz





Wall Mounting

6mm dia x 3 mounting holes



Supplied Hardware