



# HD SERIES™ HIGH PERFORMANCE DISH ANTENNA

HDDA5W

## 4900 TO 5875 MHZ HIGH PERFORMANCE DISH ANTENNA

The new HD Series dish antennas offer the system engineer the best performance available on the market. The antennas meet ETSI EN 302.326-3 DN1-DN5 specifications, the most stringent specifications for point to point backhaul antennas. The unique feed system is available in a single polarization version which can be mounted for either vertical or horizontal polarization. There is also a dual polarized version available for those systems which can utilize dual polarization to increase bandwidth or implement diversity. An optional fiberglass radome is available for added environmental protection.

### FEATURES

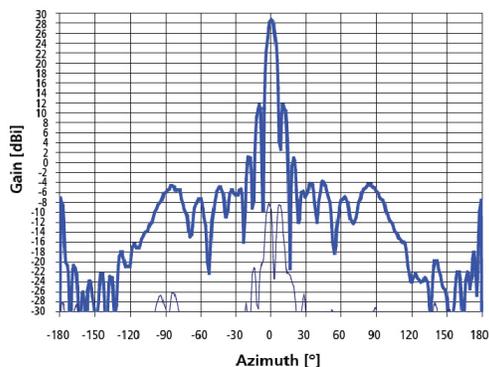
- Wide band operation
- Vertically or horizontally polarized
- Dual horizontal/vertical and dual-slant polarity models available
- Ultralow sidelobes, meets ETSI standards
- Extremely rugged for long service life in extreme environments

### MARKETS

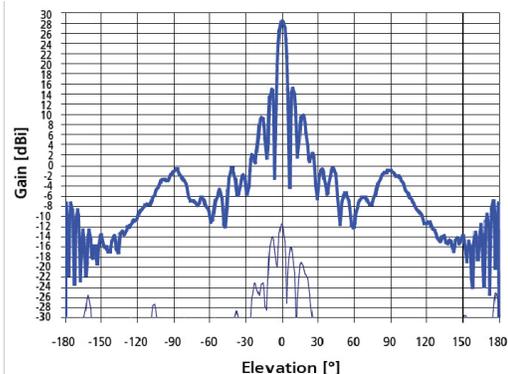
- 802.11 applications
- OFDM systems
- MIMO systems
- Cellular backhaul
- Point-to-point backhaul
- Public safety communications
- WiMAX

### TYPICAL ANTENNA PATTERNS

5.7 GHz H-Plane



5.7 GHz E-Plane



## SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNITS
Frequency range (single pol.)	4900		5875	MHz
Frequency range (dual pol. )	4940		5875	MHz
VSWR (single pol.)		1.5:1		
VSWR (dual pol.)		1.8:1		
Impedance		50		OHM
Cross-pol suppression		>30		dB
Sidelobes	ETSI EN 302.326-3 DN1-DN5			
Port-to-port isolation (dual pol.)		>30		dB
Input power			100	W
Mechanical downtilt			30	deg
Pole diameter (OD)	2 (50)		5 (127)	inch (mm)
Operating temperature	-40		+70	°C

PARAMETER	HDDA5W-29-XX	HDDA5W-32-XX
Gain	29 dBi	32 dBi
Beamwidth	6°	4°
Front-to-back	>32 dB	>38 dB
Weight	8 kg	10 kg
Dimensions (diameter)	25.5 in (648 mm)	36.5 in (927 mm)
Connector Type	Type N Female	Dual Type N Female

## WIND LOADING (LBS.)

MODEL	44 m/s	55 m/s
HDDA5W-29	113	177
HDDA5W-29 with Radome	75	116
HDDA5W-32	256	400
HDDA5W-32 with Radome	111	174

## SYSTEM ORDERING

HDDA5W-29-SP 29 dBi single polarity with N female connector  
 HDDA5W-29-DP2 29 dBi dual polarity with N female connector  
 HDDA5W-32-SP 32 dBi single polarity with N female connector  
 HDDA5W-32-DP2 32 dBi dual polarity with N female connector  
 DA5-29RADOME Fiberglass Radome Cover for 2ft (0.3m) dish  
 DA5-32RADOME Fiberglass Radome Cover for 3ft (0.6m) dish

## INSTALLATION INSTRUCTIONS

**Step 1:** Attach the pole mount assembly to the dish. Assemble with tilt adjustment screw towards the top as shown. Be sure to mount the tilt adjust screw on the correct side of the antenna flange as shown for proper operation. Torque nuts to at least 60 in-lbs.

**Step 2:** Place the stabilizer clamp on the pole just below where the antenna will be mounted. This clamp helps to stabilize the antenna during assembly and also gives added vertical support during use.

**Step 3:** Attach the antenna assembly to the pole using the two UBolts provided.

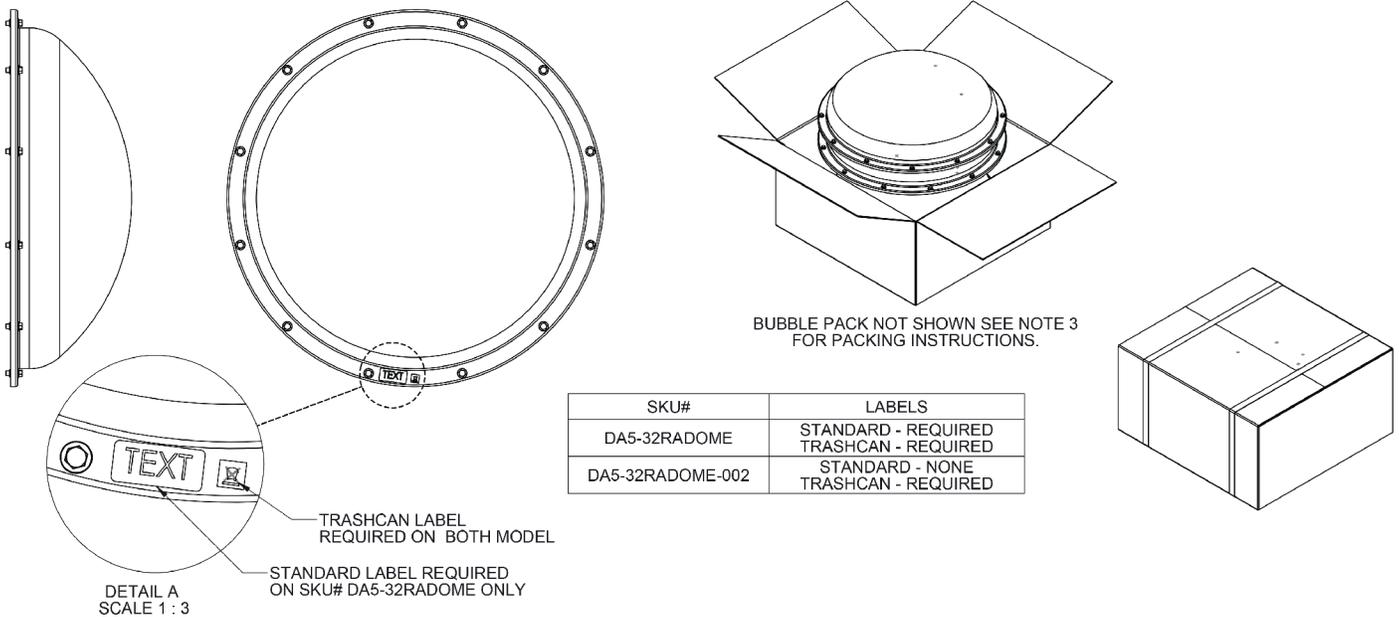
**Step 4:** Attach the antenna feed. This antenna has a positive polarity mounting method. For Vertical polarity engage the feed with the black screw in the up or down position. For Horizontal polarity engage the feed with the black screw in the left or right position. Tighten the feed attach nut on the back of the antenna to secure the feed.



**Step 5:** Radome Assembly - If you have purchased the optional radome kit for this antenna, depending on your installation, you may want to assemble the antenna feed and the radome before mounting the antenna to the pole. After installing the antenna feed, attach the radome cover to the antenna using 12 screws. Use a flat washer under the head of the screw to protect the fiberglass. Tighten the screws to 25 in lbs. Try not to apply excessive force to the screws. Be sure the radome is oriented so that the drain holes are on the bottom of the antenna.



## OPTIONAL RADOME MECHANICAL DRAWINGS



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