Datasheet:

EtherHaul™ V-band Antennas

June 2018 (A3)

Introduction

EtherHaul™ V-band ODUs support a variety of antennas depending on the intended application, from street level to roof top, from short to long reach. This document starts with the compatibility between ODUs and antennas, continues with the specifications and closes with the illustrations of the antennas and wind forces.

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The table below contains a first section with the compatibility of the antennas to Siklu V-band ODUs. The second section provides performance and other technical information.

	Antenna Options:		
	16-cm/ 0.5ft	**31 cm / 1ft**	**65 cm / 2ft**
Part Number	(N/A, Integrated)	EH-ANT-1ft-60GHz	EH-ANT-2ft-60GHz
Compatibility	EH-500/600TX	EH-500/600TX	EH-500/600TX
Frequency Range	57 – 69 GHz	57 – 66 GHz	
ETSI Regulatory Compliance	EN 302 217 Class 2	EN 302 217 Class 3A	
Gain	36 dBi +/- 2 dB	43 dBi +/- 2 dB	48 dBi +/- 2 dB
3 dB Beam	2°	0.9°	0.5°
Front-to-Back Ratio	55 dB	62 dB	67 dB
XPD (Cross Polar Discrimination)	25 dB	30 dB	27 dB
Polarization	Linear Vertical	Linear Vertical / Horizontal	
Input power	10 W (max)		
Interface	Circular waveguide V-band		
Weight	980g (2.2 lbs.)	7.2kg (15.9 lbs.)	10.8Kg (23.8 lbs.)
Radome	Plastic	ABS	ABS

The environmental specifications for all Siklu provided antennas are the same, and are listed in the following table:

ENVIRONMENTAL (all antennas)				
TEST	STANDARD	DURATION	TEMPERATURE	NOTES
Low Temperature	IEC 68-2-1	72 h	-55°C (-67°F)	-
High Temperature	IEC 68-2-2	72 h	+71°C (159.8°F)	-
Water Tightness	IEC 529	-	-	IP67 *
Solar Radiation	ASTM G53	1000 h	-	-
Ice And Snow	-	-	-	25mm Radial
Wind Speed Survival Operation	 - -	 - -	 - -	 220 Km/h 160 Km/h

* IP67 when the antenna is correctly mounted on the radio per Siklu installation guide.

FIGURE 1: 0.5FT Antenna outline drawing (integrated to the radios)

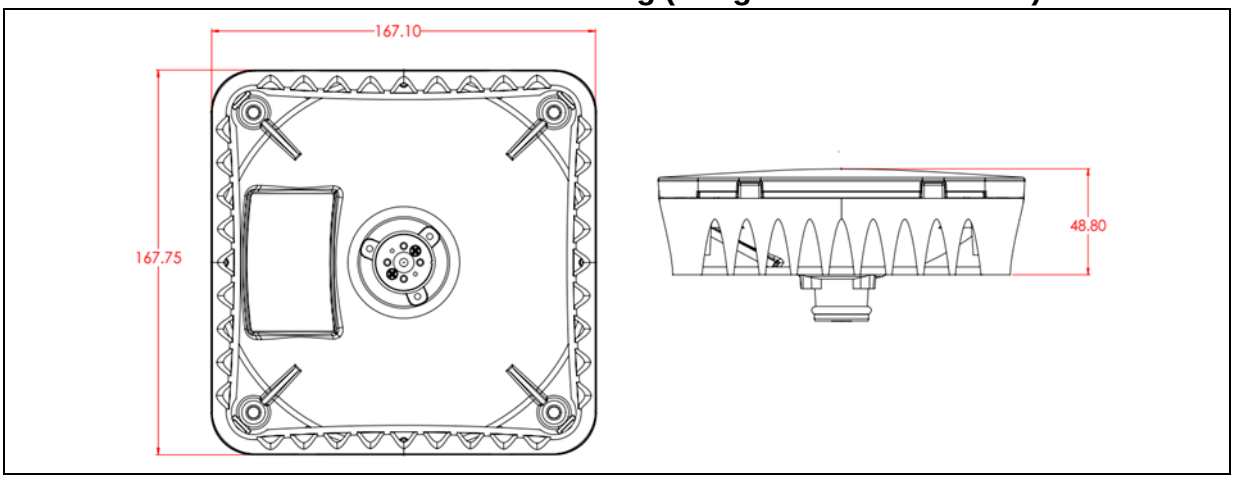

FIGURE 1a: 0.5FT Antenna (integrated)

FIGURE 2: 1FT Antenna outline drawing (EH-ANT-1ft-60GHz)

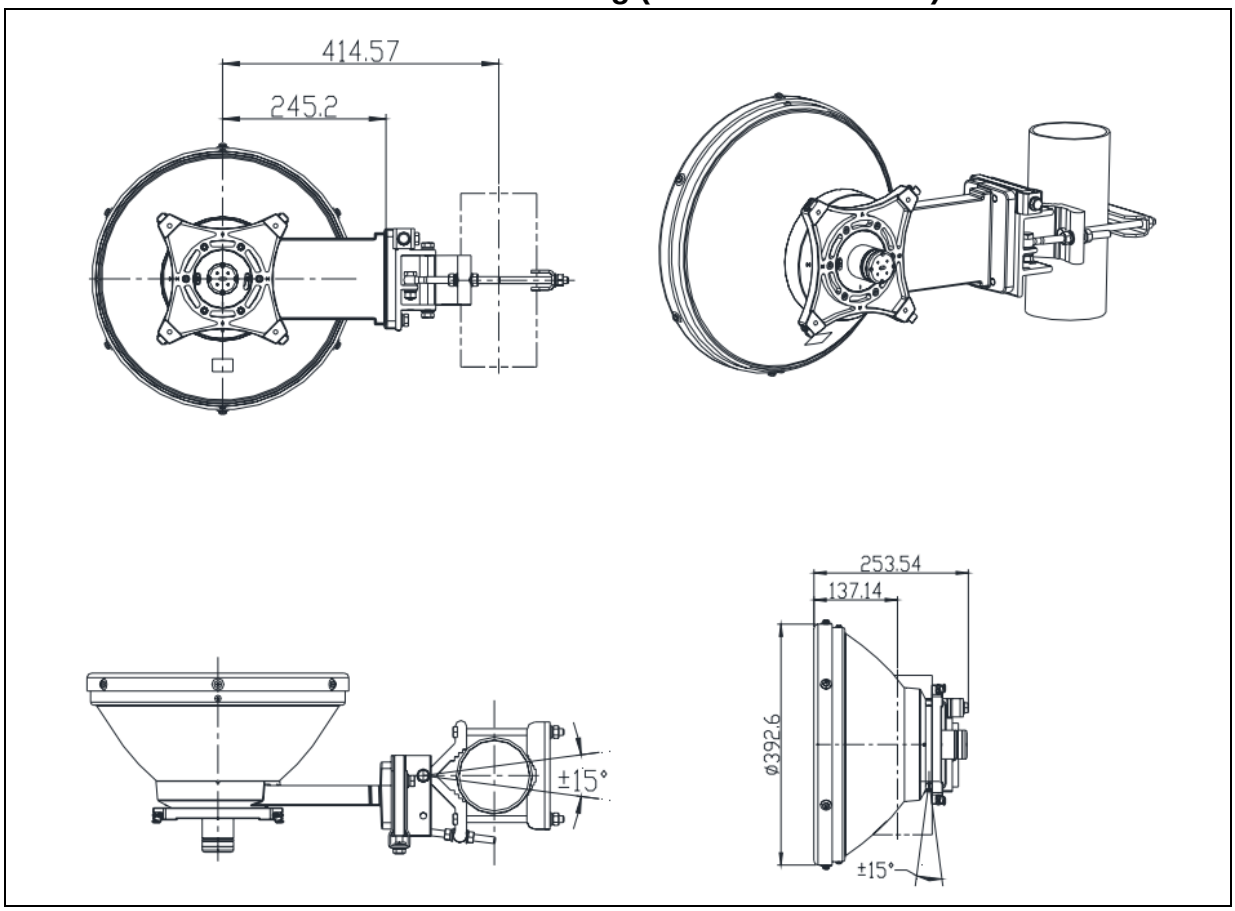

FIGURE 2a: 1FT Antenna (EH-ANT-1ft-60GHz)

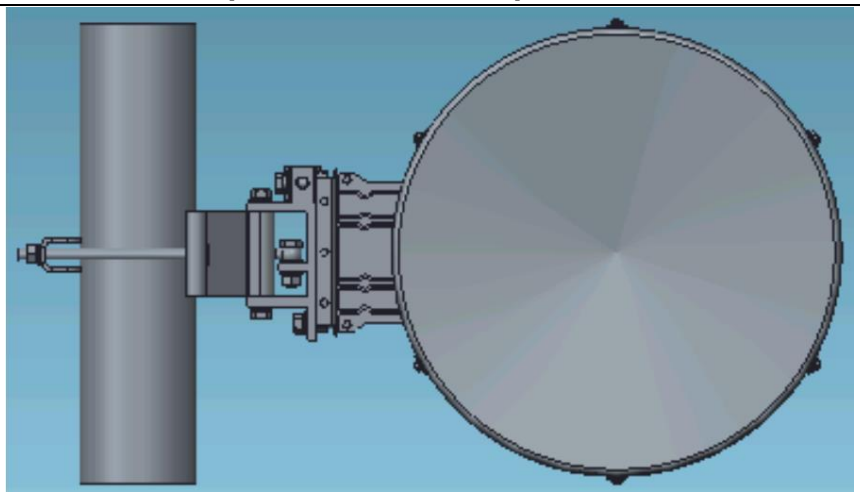

FIGURE 2b: 1FT Antenna (EH-ANT-1ft-60GHz) – Wind Forces at Wind Velocity Survival Rating

Axial Force(FA)	430 N
Side Force(FS)	235 N
Twisting Moment(MT)	180 N • m
Zcg without Ice	-3 mm
Zcg with 1”(25.4mm) Ice	19 mm
Weight with 1”(25.4mm) Ice	14.1 kg

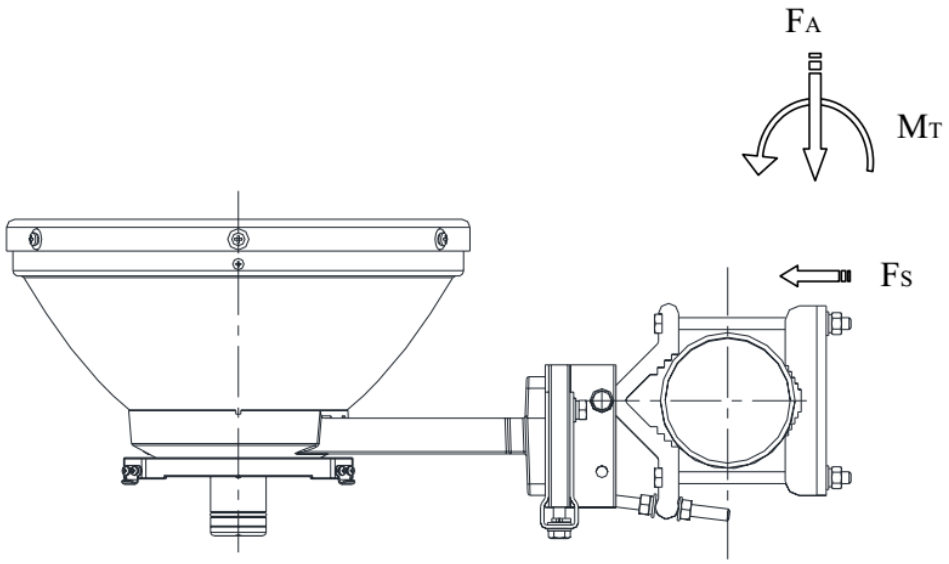

FIGURE 3: 2FT Antenna outline drawing (EH-ANT-2ft60GHz)

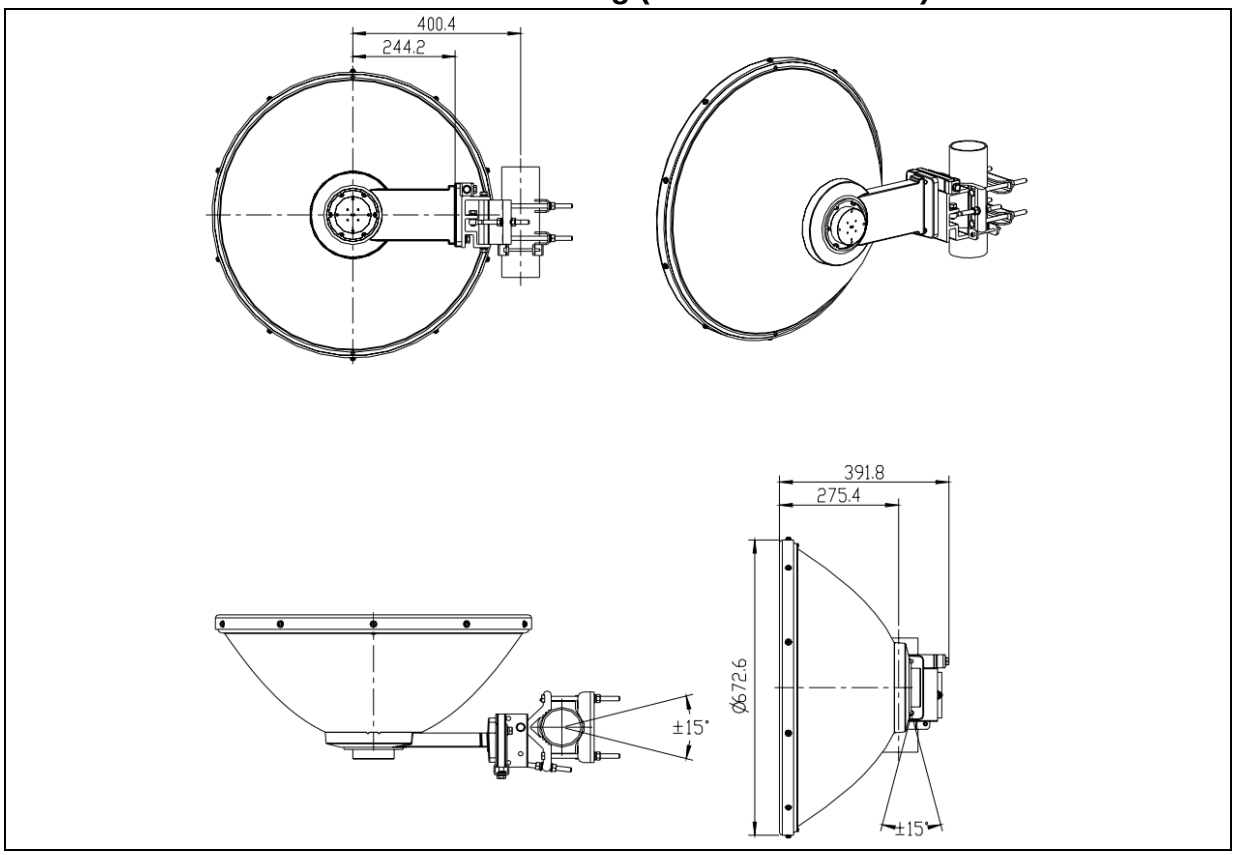

FIGURE 3a: 2FT Antenna installation (EH-ANT-2ft60GHz)

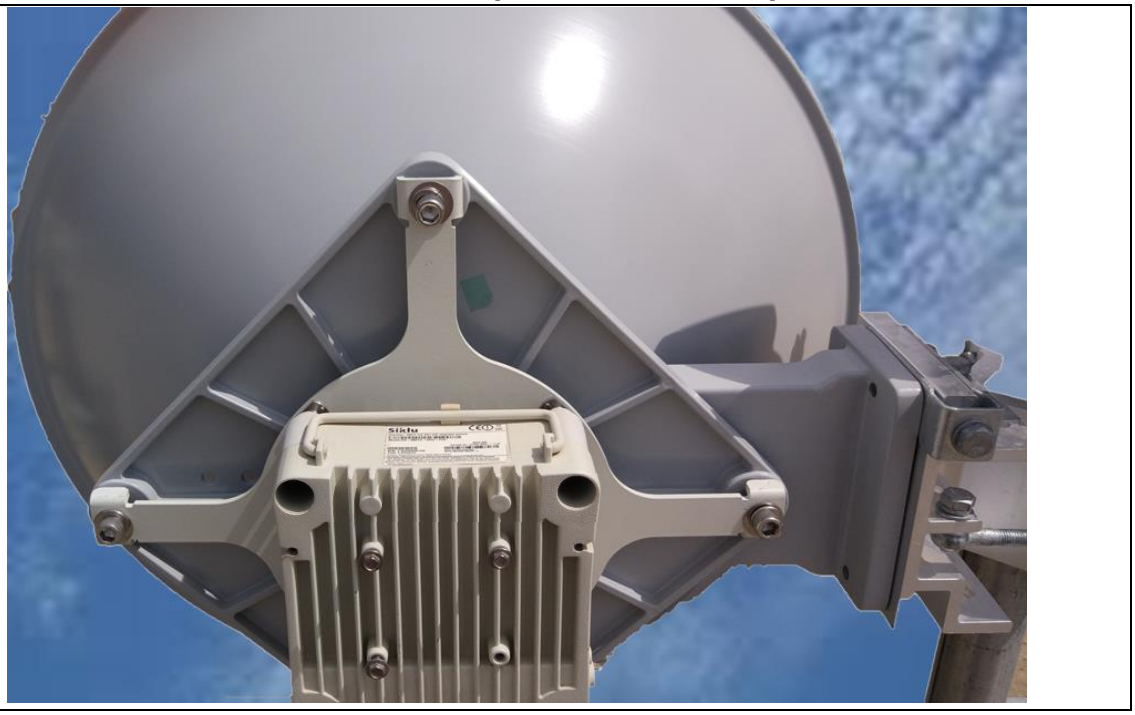

FIGURE 3b: 1FT Antenna (EH-ANT-1ft-60GHz) – Wind Forces at Wind Velocity Survival Rating

Axial Force(FA)	1055 N
Side Force(FS)	679 N
Twisting Moment(MT)	443 N • m
Zcg without Ice	67 mm
Zcg with 1”(25.4mm) Ice	99 mm
Weight with 1”(25.4mm) Ice	20.4 kg