Datasheet:

EtherHaul™ EH-ANT-1ft-H
E-band 70/80GHz 1ft heated antenna

and

EtherHaul™ EH-ANT-1ft-HR
E-band 70/80GHz 1ft heated antenna radome

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Introduction

EtherHaul™ E-band ODUs support a variety of antennas depending on the intended application, from street level to rooftop, from short to long reach. This document describes the **EH-ANT-1ft-H**, a heated antenna for prevention of ice accumulation on the radome of the antenna. A radome replacement kit is also available for existing links with 1ft antennas (part number **EH-ANT-1ft-HR**). Specification tables are provided, together with a block diagram (figure 1), antenna dimensions (figure 2) and deployment pictures (figure 3).

EtherHaul™ 1ft E-Band Heated Antenna: Datasheet

The compatibility and specification of the **EH-ANT-1ft-H** are listed in the table below.

COMPATIBILITY	EH-700TX/710T/710TX (EXT versions) EH-1200T/TX, EH-1200F/FX EH-2200F/FX, EH-2500F/FX EH-5500FD, EH-8010FX
ANTENNA SPECIFICATION [1]	
Frequency Range	71 – 86 GHz
Regulatory Compliance	ETSI: EN 302 217-4-2 V1.5.1 Class 2 FCC: 47CFR101
Gain	43 dBi +/- 2dB
3 dB Beam	0.9°
Polarization	Linear Vertical / Horizontal
RF Input power	10 W (max)
Interface	Circular waveguide E-band
Weight	2.2kg (4.8 lbs.), antenna only.
Radome	Plastic
CONTROLLER SPECIFICATION	
DC input power	48VDC, 55W (screw terminal inside the controller)
DC input cable	1 pair, diameter 0.79/0.197in (2/5mm) (min./max.). Cabling options in the next table
Temperature control	The controller enables the heater before temperatures fall below freezing, and disables the heater after the temperatures have risen above freezing. This temperature control can be disabled, at installation, for sites where control of the heating is performed by enabling DC power (or not) to the controller.
Disable function (force-off)	EtherHaul™ radios can force the controller off (a USB cable is included to connect the controller to the radio).
Distance antenna to controller	38" (100cm) cable attached
Size Weight	5.9x4.3x2.7" (15x11x7 cm) 1.2 Lbs. (550 gr)

Note: It is possible to add the heating function to an existing 1ft antenna (EH-ANT-1ft or EH-ANT-1ft-B, or antenna included as part of an ODU such as EH-1200TX-ODU-1ft or EH-1200FX-ODU-H-1ft). Part number **EH-ANT-1ft-HR** includes the heating radome and the controller.

[1] Radio performance of the EH-ANT-1ft-H is equivalent to the performance of the EH-ANT-1ft-B. The information in this table is provided for convenience.

Cabling Options (maximum distances recommended per cable type and pairs)							
	AWG18 1pair	AWG24 1pair	AWG26 1pair	AWG24 2pairs	AWG26 2pairs	AWG24 4pairs	AWG26 4pairs
Meters	172	43	27	86	54	171	107
Feet	564	140	88	281	176	561	353

The environmental specifications are listed in the following table:

ENVIRONMENTAL SPECIFICATION				
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	-	-	IP65 *
Solar Radiation	ASTM G53	1000 h	-	-
Ice And Snow	-	-	-	25mm Radial
Wind Speed Survival Operation	- -	- -	- -	220 Km/h 160 Km/h

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

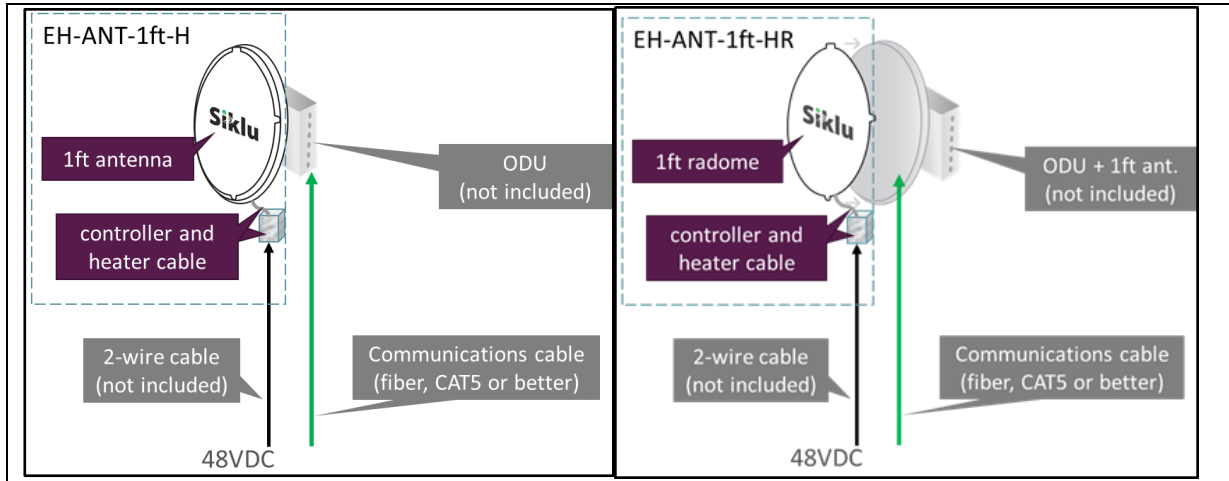**FIGURE 1: EH-ANT-1ft-H (left) and EH-ANT-1ft-HR block diagram (right)**

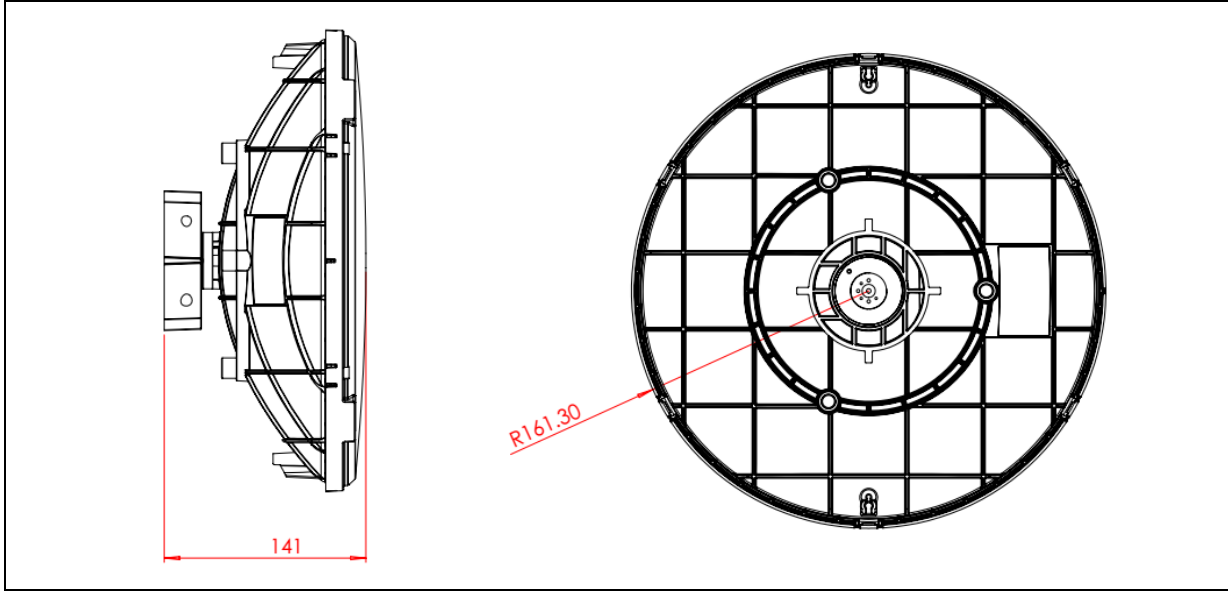## FIGURE 2: 1FT Antenna outline drawing (EH-ANT-1ft-H)

FIGURE 3: EH-1200TX-ODU-1ft upgraded with EH-ANT-1ft-HR