

Starlink Standard Flat Dish, Gen 3 (Rev4)

MPN: UTA-213

Description

Starlink's Generation 3 (REV4) User Terminal, known as the Standard Flat Dish is a satellite terminal provided by Starlink as the main user equipment starting April 2024. The unit is referred to as the Generation 3 UT. Generations 1 refers to the "Round Dishy", Generation 2 refers to "Rectangular Dishy". The current sub-version is rev4_prod1.

The Starlink G3 User Terminal is a satellite transceiver which uses digital beamformers and an Electronic Steerable Antenna to track and maintain connectivity with LEO satellites as they move overhead. As the G3 no longer has motors to position the phased array orthogonally (ideally 90°) to the direction of the satellite, it has a kick-stand so that the user can position dishy optimally. G4 has a higher weather resistance rating, now with IP67 courtesy of a more complex assembly using automotive-glass sealant.

G3 demonstrates higher downlink and uplink data speeds and marginally reduced latencies ...


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Starlink UTs communicate using the Ku-Band, receiving a 240 MHz channel between 10.7 and 12.7 GHz, and transmitting a 60 MHz channel back to the satellite between 14.0 and 14.5 GHz. While the UT is theoretically capable of up to 720 Mbps downlink (64QAM), it realistically achieves data rates to a maximum of about 450 Mbps.



Network Interfaces

Wireless Interfaces

Topology:	 Starlink	Multi-point Terminal/Subscriber	Max. Clients:	1
Max. Throughput:	720 Mb/s	Starlink, initiated by US company SpaceX in January 2015, is a satellite network project aimed at providing satellite internet connectivity. The project's primary objective is to deliver broadband services globally, particularly to underserved areas of the planet. Starlink's constellation comprises thousands of mass-produced small satellites, orbiting at 256 Earth orbit (LEO), working in tandem.		
Encryption:	AES-256	Aggregate Channel Width:	240 MHz	
		Latency:	30 ms	

Transmit Power: 34.4 dBm Receive Sensitivity: -89 dBm

Wireless Bands	Path Mode	Start Frequency	Stop Frequency	MIMO	Channel Width	Modulation	Max. Data Rate
X Band	Receive	10700 MHz	12700 MHz	1x1 SISO	240 MHz	64QAM	720 Mb/s
Ku Band	Transmit	14000 MHz	14500 MHz	1x1 SISO	60 MHz	64QAM	180 Mb/s

Ethernet Interfaces

Interface	Quantity	Function	Signalling	PoE Input
RJ45 Copper	1	WAN, to UTR-XXX Router	100BASE-T, 1000BASE-T	Starlink PoE

Antenna Specifications

Start Frequency:	10700 MHz	Polarisation:	Left Hand Circular (LHCP), Right Hand Circular (RHCP)
Stop Frequency:	14500 MHz	Input Impedance:	50

Frequency Test Data

Start Freq.	Stop Freq.	Peak Gain	Azimuth	Elevation
10700 MHz	12700 MHz	30.4 dBi	3.5°	3.5°
14000 MHz	14500 MHz	31.8 dBi	2.8°	2.8°

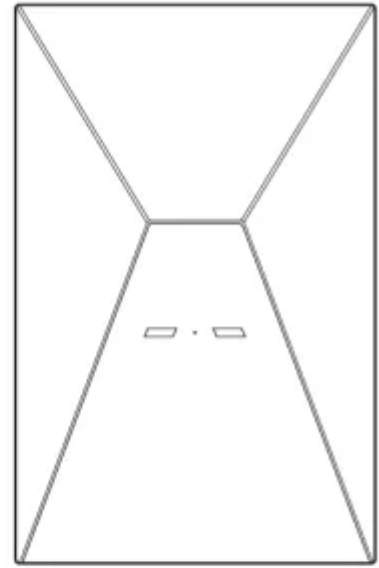
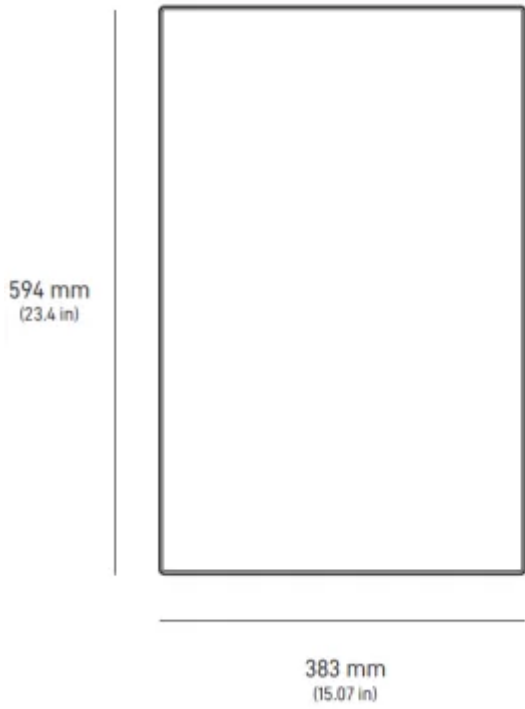
Physical Specification

Subtype:	Satellite Terminal	Dimensions:	173 × 93 × 35.75 mm
Min. Operating Temperature:	-30 °C	Weight:	0.65 kg
Max. Operating Temperature:	60 °C		
Ingress Protection:	IP67		

Power Specifications

Max. Consumption:	197 W	Typical Consumption:	85 W
Power Options:	Power over Ethernet		

Drawing



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