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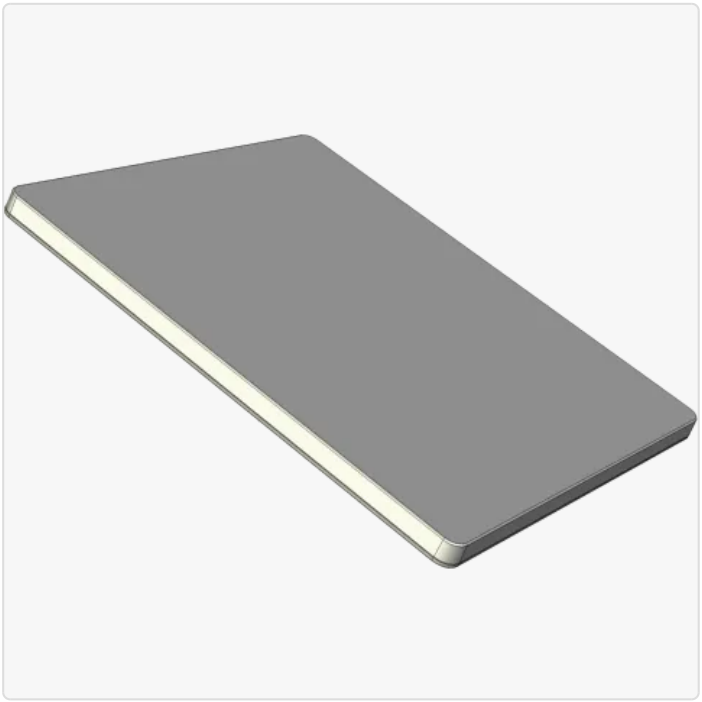
Starlink Mini Dish, (Rev1)

MPN: UTA-231



Description

Starlink's Mini User Terminal, known simply as "Starlink Mini" is an all-in-one portable satellite terminal and WiFi, designed to fit in a backpack or small carry case for easy transport.

Like its predecessors, Starlink Mini 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. Mini has a kick-stand, requiring the user to rotate the unit to the optimal position guided by the Starlink app. The unit is highly weather resistant, achieving an IP67 rating when using the supplied SPX connector (standard RJ45 ethernet reduces the weather rating).

A major advantage of Starlink Mini is the significantly reduced power consumption, averaging 25 to 40 W, along with its conventional DC power connector making connection from solar or battery simple. Being physically smaller the unit has a smaller phased array resulting in lower data ...

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Starlink UTs communicate using the X and Ku bands, receiving a 240 MHz channel between 10.7 and 12.7 GHz, and transmiting a 60 MHz channel back to the satellite between 14.0 and 14.5 GHz. While the UT should be theoretically capable of up to 720 Mbps downlink (64QAM), it realistically achieves data rates to a maximum of about 100 Mbps due to the smaller antenna used in the Mini.

Network Interfaces

Wireless Interfaces

Starlink

Topology:	Multipoint Terminal/Subscriber	Max. Clients:	1
Max. Throughput:	720 Mb/s	Latency:	30 ms
Encryption:	AES-256	Aggregate Channel Width:	240 MHz

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 underserviced areas of the planet. Starlink's constellation comprises thousands of mass-produced small satellites, orbiting in low Earth orbit (LEO), working in ...

Beamforming:	3DBF

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

WiFi Module

WiFi Chipset:	Mediatek MT7629	Max. Clients:	128
No. Radios:	2	No. Antennas:	6
Max. Throughput:	1300 Mb/s		

WiFi Radios

Radio Name (Optional)	WiFi Standard	Frequency Bands	MIMO	Transmit Power	Beamforming
Radio 1	802.11n	2.4 GHz	3x3 MIMO	30 dBm	2DBF
Radio 2	802.11ac Wave 1	5 GHz	3x3 MIMO	30 dBm	2DBF

Ethernet Interfaces

Interface	Quantity	Function	Signalling
RJ45 Copper	1	LAN	100BASE-T, 1000BASE-T

Antenna Specifications

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

Physical Specification

Subtype:	Satellite Terminal	Dimensions:	259 × 38.5 × 298.5 mm
Min. Operating Temperature:	-30 °C	Weight:	1.16 kg
Max. Operating Temperature:	50 °C	Mounting:	Starlink Mini Receptacle
Ingress Protection:	IP67		

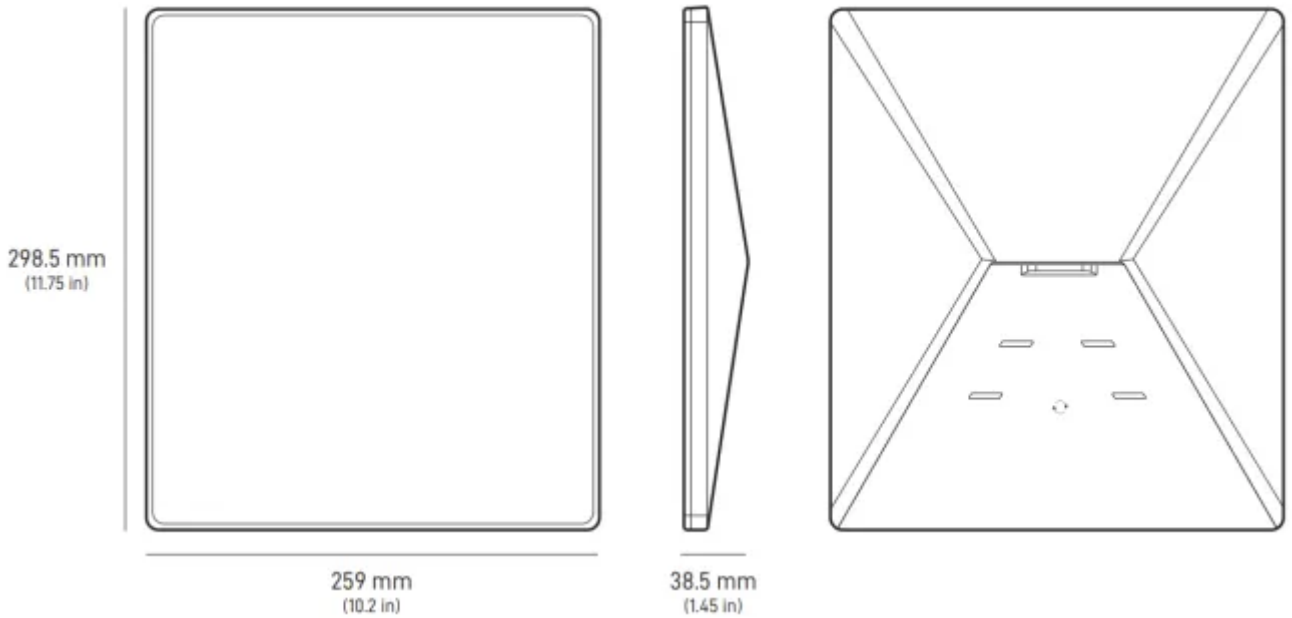
Power Specifications

Max. Consumption:	60 W	Typical Consumption:	27 W
Power Options:	DC Power Input		

Power Interface

Power Connector	Min. Input Voltage	Max. Input Voltage	Voltage Type
DC Coaxial, Type A, Female 5.5 x 2.1 mm	12 V	48 V	DC

Drawing



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