# Astra Evolution E6-ST28 PRODUCT DATASHEET



Description	Evolution E6-ST28, 5+6 GHz subscriber terminal, with integrated antenna 28 dBi	
Antenna	Integrated dual-pol antenna, 28 dBi, 5x5°	
Recommended distance	Up to 25 km	
Frequency range	4900-6425 MHz	
Channel width	20, 40, 80 MHz	R A
Net throughput	Up to 670 Mbps in 80 MHz Up to 370 Mbps in 40 MHz Up to 160 Mbps in 20 MHz	
Transmit power	from -5 to 25 dBm*, step 0.5 d	Bm
Receiver sensitivity	down to -91 dBm	
Center frequency adjustment step	1 MHz	
Duplex scheme	TDD	

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Wired Interfaces	1x GigabitEthernet	
Consumption	Up to 15 W	
Power options	90-240 VAC ~ @ 50/60 Hz, +-4356 VDC	
Part Number Example	E6-ST28	
Form Factor and Dimensions	<mark>Outdoor Unit (ODU)</mark> 600x600x68 mm, 5.8 kg	
	Indoor Unit IDU-CPE-G (24W) 97 x 53.5 x 35.5 mm 0.133 kg	
Packing List	<ul> <li>Outdoor unit E6-ST28-1pcs</li> <li>Power Supply IDU-CPE-G(24W) - 1pcs</li> <li>Power Cord - 1pcs</li> <li>Cable Gland for RJ-45 - 1pcs</li> <li>Standard RJ-45 connector - 1pcs</li> <li>Shielded RJ-45 connector - 1pcs</li> <li>RJ-45 Plug Cap - 1pcs</li> <li>MONT-KIT-85 Mounting kit - 1pcs</li> <li>Quick Start Guide - 1pcs</li> </ul>	



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# **RADIO FEATURES**

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Radio technology MIMO 2x2, OFDM 64/128

Modulation types From BPSK 1/2 to QAM256 5/6

-Voice/RTP Aware Superpacketing

Channel Time Adjustment Spectrum Analyzer mode Channel testing tools Air frame Configurable from 1 to 10 ms

Uplink / Downlink ratio Configurable from 50:50 to 92:8, in any direction

DFS / Radar detection / Instant DFS

Automatic Bitrate Control Automatic Transmit Power Control Automatic Distance Learning

Wide range of network settings

Built-in spectrum analyzer and antenna alignment tools

Easy operation due to automatic control options

# **NETWORKING FEATURES**

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Adaptive TDMA air protocol

Dynamic and fixed air frame duration Subscriber activity aware scheduling Permanent channel testing

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Pseudo-radio interface

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Full-fledged 2nd layer switch RIPv2 / OSPFv2 /static routing MAC/IP filtering L2/L3 Firewall



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## Quality of Service

IEEE 802.1p, IP TOS/DiffServ support Full voice support Traffic limiting (absolute, relative, mixed)

### 

Proprietary MINT network protocol

## 

Ethernet-over-IP and IP-over-IP tunnels ARP protocol support NAT (multipool, H.323-aware) DHCP client/server/relay

# MANAGEMENT AND SECURITY

### Various Management Protocols

HTTP, HTTPS, SSH, Telnet, SNMP v1/2c/3 (MIB-II and proprietary MIBs)

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Antenna alignment tool

Automatic software update

Online monitoring with EMS NEXT

WEB GUI

# Safety & Security

Storm/flood protection

Password protection

Secure CLI access via SSH protocol

### LED Indication

Power status Wireless and wired link status Signal level

# **STANDARD COMPLIANCE**

## 

### Radio

ETSI EN 301 893 v.2.1.1 ETSI EN 302 502 v.2.1.1 FCC part 15.407

### EMC

ETSI EN 301 489-1 v.2.1.1 ETSI EN 301 489-17 v.3.1.1 FCC Part 15 Class B

## Safety

EN 62368-1:2014+A11:2017 UL 62368-1:2014 EN 62311:2008

RoHS3 EN IEC 63000:2018

## Lightning protection

IEC 61000-4-2: +/-4kV (contact discharge), +/-8kV (air discharge)

IEC 61000-4-4: +/-0.5kV

IEC 61000-4-5: +/-1kV (line-to-ground), +/-0.5kV (line-to-line)

# **OPERATION OPTIONS**

#### 

### Power options

90–240 VAC @ 50/60 Hz

±43..56 VDC

802.3at or Proprietary PoE

## Outdoor Unit environmental conditions

-40..+60°C, can be extended to -55..+60°C (models with "t" index in PN)

100% humidity, condensing Dust and water protection IP66, IP67

Wind load 160 km/h, operational; 200 km/h, survival

## Indoor Unit environmental conditions

0..+40°C

95% humidity, non-condensing



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