

# Astrawireless Evolution E6-ST23

## PRODUCT DATASHEET

### Description

Evolution E6-ST23, 5+6 GHz subscriber terminal, with integrated antenna 23 dBi

### Antenna

Integrated dual-pol antenna, 23 dBi, 10x10°

### Recommended distance

Up to 15 km

### Frequency range

4900-6425 MHz

### Channel width

10, 20, 40, 80 MHz

### Net throughput

Up to 670/780<sup>hp</sup> Mbps in 80 MHz  
Up to 370/380<sup>hp</sup> Mbps in 40 MHz  
Up to 160/165<sup>hp</sup> Mbps in 20 MHz

### Transmit power<sup>eirp</sup>

from -5 to 25 dBm  
from -5 to 27 dBm<sup>hp</sup>

### Receiver sensitivity

down to -91 dBm  
down to -93 dBm<sup>hp</sup>

### Center frequency adjustment step

1 MHz

### Duplex scheme

TDD



<sup>hp</sup> - is a high-power device with an extended energy characteristic and increased throughput

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Wired Interfaces 1x GigabitEthernet

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Consumption Up to 15 W

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Power options 90-240 VAC ~ @ 50/60 Hz, +-43.56 VDC

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Part Number E6-ST23  
Example

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Form Factor and Dimensions Outdoor Unit (ODU)  
305 x 305 x 66 mm, 1.75 kg

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Indoor Unit IDU-CPE-G (24W)  
97 x 53.5 x 35.5 mm 0.133 kg

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Packing List

- Outdoor unit E6-ST23 - 1 pcs
- Power Supply IDU-CPE-G(24W) - 1 pcs
- Power Cord - 1 pcs
- Cable Gland for RJ-45 - 1 pcs
- Standard RJ-45 connector - 1 pcs
- Shielded RJ-45 connector - 1 pcs
- RJ-45 Plug Cap - 1 pcs
- MONT-KIT-85 Mounting kit - 1 pcs
- Quick Start Guide - 1 pcs

# RADIO FEATURES

- **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

- **Adaptive TDMA air protocol**  
Dynamic and fixed air frame duration  
Subscriber activity aware scheduling  
Permanent channel testing
- **Quality of Service**  
IEEE 802.1p, IP TOS/DiffServ support  
Full voice support  
Traffic limiting (absolute, relative, mixed)
- **Pseudo-radio interface**
- **Proprietary MINT network protocol**
- **Full-fledged 2nd layer switch**  
RIPv2 / OSPFv2 /static routing  
MAC/IP filtering  
L2/L3 Firewall
- **Ethernet-over-IP and IP-over-IP tunnels**  
ARP protocol support  
NAT (multipool, H.323-aware)  
DHCP client/server/relay



# MANAGEMENT AND SECURITY

■ <b>Various Management Protocols</b> HTTP, HTTPS, SSH, Telnet, SNMP v1/2c/3 (MIB-II and proprietary MIBs)	■ Antenna alignment tool Automatic software update Online monitoring with EMS NEXT WEB GUI	■ <b>Safety &amp; Security</b> Storm/flood protection Password protection Secure CLI access via SSH protocol	■ <b>LED Indication</b> Power status Wireless and wired link status Signal level
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# STANDARD COMPLIANCE

■ <b>Radio</b> ETSI EN 301 893 v.2.1.1 ETSI EN 302 502 v.2.1.1 FCC part 15.407	■ <b>EMC</b> ETSI EN 301 489-1 v.2.1.1 ETSI EN 301 489-17 v.3.1.1 FCC Part 15 Class B	■ <b>Safety</b> EN 62368-1:2014+A11:2017 UL 62368-1:2014 EN 62311:2008  <b>RoHS3</b> EN IEC 63000:2018	■ <b>Lightning protection</b> 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)
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# OPERATION OPTIONS

■ <b>Power options</b> 90–240 VAC @ 50/60 Hz ±43.56 VDC 802.3at or Proprietary PoE	■ <b>Outdoor Unit environmental conditions</b> -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	■ <b>Indoor Unit environmental conditions</b> 0..+40°C 95% humidity, non-condensing
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