

# Astra Evolution **E6-STE**

Description	Evolution E6-STE, 6 GHz subscriber terminal, net throughput up to 670 Mbps, 2x N-type (F) connectors for external antenna
Net throughput	up to 670 Mbps in 80 Mhz up to 370 Mbps in 40 Mhz up to 160 Mbps in 20 Mhz
Recommended distances	30+ km
Radio technology	MIMO 2x2 (OFDM 64/128)
Modulation coding schemes	from BPSK 1/2 to QAM256 5/6
Transmit power	up to 25 dBm
Receiver sensitivity	down to -91 dBm
Frequency range	4900-6425 MHz
Channel width	20, 40, 80 MHz
Center frequency adjustment step	125 kHz
Duplex scheme	TDD
Wired Interfaces	1x GigabitEthernet (RJ45)

# Astra Evolution **E6-STE**

Consumption	up to 15 W
Power options	90-240 VAC ~ @ 50/60 Hz, +-43.56 VDC
Outdoor Unit (ODU)	180x190x86 mm, 1.2 kg
Part Number Example	E6-STE
Packing List	<ul style="list-style-type: none"> <li>- Outdoor unit E6-STE - 1 pcs.</li> <li>- Power Supply IDU-CPE-G(24W) - 1 pcs.</li> <li>- Power Cord - 1 pcs.</li> <li>- Cable Gland - 1 pcs.</li> <li>- Standard RJ-45 connector - 1 pcs.</li> <li>- Shielded RJ-45 connector - 1 pcs.</li> <li>- RJ-45 Plug Cap - 1 pcs.</li> <li>- MONT-HIT-85 Mounting kit - 1 pcs.</li> <li>- Quick Start Guide - 1 pcs.</li> </ul>



# Astra Evolution E6-STE

## Features

### RADIO

- ▶ Voice/RTP Aware Superpacketting
- ▶ DFS
- ▶ Automatic Bitrate Control
- ▶ Automatic Transmit Power Control
- ▶ Automatic Distance Learning
- ▶ Channel Time Adjustment
- ▶ Spectrum Analyzer mode
- ▶ Channel testing tools

### NETWORKING

- ▶ Ethernet-over-IP and IP-over-IP tunneling
- ▶ ARP protocol support
- ▶ MAC/IP filtering
- ▶ Full-fledged 2nd layer switch
- ▶ RIPv2 / OSPFv2 /static routing
- ▶ L2/L3 Firewall
- ▶ NAT (multipool, H.323-aware)
- ▶ DHCP client/server/relay

### MANAGEMENT FEATURES

- ▶ Various Management Protocols: HTTP, HTTPS, SSH, Telnet, SNMP v1/2c/3 (MIB-II and proprietary MIBs)
- ▶ Graphical User Interface
- ▶ LED Indication: power status, wireless and wired link status, signal level
- ▶ Antenna alignment tool
- ▶ Automatic software update
- ▶ Online monitoring with proprietary EMS NEXT.

### QUALITY-OF-SERVICE

- ▶ 17 priority queues
- ▶ IEEE 802.1p support
- ▶ IP TOS / DiffServ support
- ▶ Full voice support
- ▶ Traffic limiting (absolute, relative, mixed)
- ▶ Traffic redirection

# Astra Evolution E6-STE

## Features

### ENVIRONMENTAL

- ▶ Outdoor Units:
  - operating temperature range -40..+60 °C, (can be extended to -55..+60 °C, models with "t" index in PN), 100% humidity, condensing
  - IP66/IP67 compliant water and dust protection
  - wind load: 200 kph, survival
- ▶ Indoor Unit:
  - 0..+40 °C, 95% humidity, non-condensing

### SECURITY FEATURES

- ▶ Storm/flood protection
- ▶ Password protection
- ▶ Secure command-line access via SSH protocol

### MAC

- ▶ Adaptive TDMA air protocol:
  - Dynamic and fixed air frame duration
  - Subscriber activity aware scheduling
  - Permanent channel testing
- ▶ Pseudo-radio interface:
  - unique Astra Wireless feature to join Astra networks via 3rd party equipment
- ▶ Automatic over-the-air firmware upgrade

### STANDARD COMPLIANCE

- ▶ Radio
  - ETSI EN 301 893 v.2.1.1
  - ETSI EN 302 502 v.2.1.3
  - FCC Part 15.407
- ▶ EMC
  - ETSI EN 301 489-1 v.2.2.3
  - ETSI EN 301 489-17 v.3.2.4
  - FCC Part 15 Class B
- ▶ Safety
  - EN 62368-1:2014+A11:2017
  - EN60950-22:2017
  - EN62311:2008
- ▶ RoHS (pending)
  - EN IEC 63000:2018