

Astra Evolution **E5-BSE**

Description	Evolution E5-BSE, 5 GHz base station sector, net throughput up to 800 Mbps, 2x N-type (F) connectors for external antenna
Net throughput	up to 800 Mbps in 80 Mhz up to 380 Mbps in 40 Mhz up to 220 Mbps in 20 Mhz
Recommended distances	40+ km
Radio technology	MIMO 2x2 (OFDM 64/128)
Modulation coding schemes	from BPSK 1/2 to QAM256 5/6
Transmit power	up to 27 dBm
Receiver sensitivity	down to -93 dBm
Frequency range	4900-6050 MHz
Channel width	20, 40, 80 MHz
Center frequency adjustment step	1 MHz
Duplex scheme	TDD
Wired Interfaces	1x GigabitEthernet, SFP, SYNC

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Consumption	up to 20 W
Power options	90-240 VAC ~ @ 50/60 Hz, +-43.56 VDC
Outdoor Unit (ODU)	240 x 248 x 87 mm, 2.2 kg
Part Number Example	E5-BSE
Packing List	<ul style="list-style-type: none"> - Outdoor unit E5-BSE - 1 pcs. - Power Supply IDU-CPE-G(24W) - 1 pcs. - Power Cord - 1 pcs. - Cable Gland for RJ-45 - 2 pcs. - Cable Gland for optical cable - 1 pcs. - Standard RJ-45 connector - 1 pcs. - Shielded RJ-45 connector - 1 pcs. - RJ-45 Plug Cap - 1 pcs. - MONT-HIT-85 Mounting kit - 1 pcs. - Quick Start Guide - 1 pcs.



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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

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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