

## Astra Evolution **E5-BSIL**

Description	Evolution E5-BSIL, 5 GHz base station sector with 5 subscriber limitation
Net throughput	up to 700 Mbps in 80 MHz up to 330 Mbps in 40 MHz up to 150 Mbps in 20 MHz
Recommended distances	up to 20 km
Radio technology	MIMO 2x2 (OFDM 64/128)
Modulation coding schemes	from BPSK 1/2 to QAM256 5/6
Transmit power	from -5 to 27 dBm*, step 0.5 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
Antenna	integrated dual-pol antenna, 16 dBi, 90x8°

\*May be limited by regional EIRP restrictions

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Consumption	up to 15 W
Power options	90-240 VAC ~ @ 50/60 Hz, +-43.56 VDC
Outdoor Unit (ODU)	371 x 371 x 71,5 mm, 2.8 kg
Part Number Example	E5-BSIL
Packing List	<ul style="list-style-type: none"> <li>– Outdoor unit E5-BSIL - 1 pcs.</li> <li>– Power Supply IDU-CPE-G(24W) - 1 pcs.</li> <li>– Power Cord - 1 pcs.</li> <li>– Cable Gland for RJ-45 - 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 E5-BSIL

## 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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### 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