

# ASTRADRIVE

## E5-BSQ

PRODUCT DATASHEET

DRIVE E5-BSQ is a smart-beam sector base station that amplifies link power up to 4×, significantly extending range compared to typical sector antennas.



With up to 800 Mbps net throughput and integrated beam-steering capabilities, it ensures focused, high-quality connections with reduced interference and enhanced stability over longer distances.

Net throughput

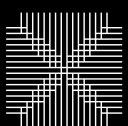
Up to 800 Mbps in 80 MHz

Transmit power

Up to 27 dBm

Antenna Gain

16 dBi for 90° pattern  
21 dBi for 20° narrow beam



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# TECHNICAL SPECIFICATION

Net throughput	up to 800 Mbps in 80 Mhz up to 380 Mbps in 40 Mhz up to 220 Mbps in 20 Mhz
Packet performance	290 000 pps
Transmit power	from 10 to 27 dBm*, step 0.5 dBm
Receiver sensitivity	down to -93 dBm
Antenna gain	21 dBi (20° AZ-steerable beam)
Frequency range	4900-6050 MHz
Channel width	20, 40, 80 MHz
Center frequency adjustment step	1 MHz
Power consumption	up to 35 W
Recommended distances	up to 30 km



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# TECHNICAL SPECIFICATION

Duplex scheme	TDD
Radio technology	MIMO 2x2 (OFDM 64/128)
Modulation coding schemes	from BPSK 1/2 to QAM256 5/6
Wired Interfaces	1x GigabitEthernet RJ-45 1x SFP, 1x SYNC
Power options	via Eth0: - 90-240 VAC ~ @ 50/60 Hz + -43.56 VDC - Passive PoE or 802.3at
GPS module	via external device
Outdoor Unit (ODU)	371 x 371 x 90 mm, 4.4 kg
Packing List	Outdoor unit E5-BSQ DRIVE: 1 Power Supply IDU-CPE-G(56W): 1 Power Cord: 1 Cable Gland for RJ-45: 2 Cable Gland for optical cable: 1 Standard RJ-45 connector: 1 Shielded RJ-45 connector: 1 RJ-45 Plug Cap: 1 MONT-KIT-85 Mounting kit: 1 Quick Start Guide: 1



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# RADIO FEATURES



## Adaptive TDMA air protocol

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



- Voice/RTP Aware Superpacketting



- 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 Measurement

# NETWORKING FEATURES



## Switching

- Full-fledged 2nd layer switch
- VLAN 802.1Q, 802.1ad
- IGMP Snooping
- MAC/IP filtering, L2/L3 Firewall
- STP, RSTP support



## Routing

- ARP protocol support
- NAT (multipool, H.323-aware)
- DHCP client/server/relay
- ODR routing protocol
- RIPv2 / OSPFv2 /static routing
- Ethernet-over-IP and IP-over-IP tunnels



## Quality of Service

- IEEE 802.1p, IP TOS/DiffServ support
- 17 priority queues
- Full voice support
- Auto priority of multicast
- Traffic limiting (absolute, relative)



## Own network infrastructure

- Proprietary MINT network protocol
- Pseudo-radio interface



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# MANAGEMENT AND SECURITY



## Management features

- Various Management Protocols: HTTP, HTTPS, SSH, Telnet, SNMP v1/2c/3 (MIB-II and proprietary MIBs)
- Graphical User Interface
- Antenna alignment tool
- Automatic software update
- Online monitoring with proprietary EMS NEXT



## Safety & Security

- Storm/flood protection
- Password protection
- Secure CLI access via SSH protocol
- AES-128/256 (pending)



## LED Indication

- Power status, wired link status

# STANDARD COMPLIANCE



## Radio

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



## Safety

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



## RoHS3

- EN IEC 63000:2018



## EMC

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



## 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



## Outdoor Unit conditions

- -40..+60°C, can be extended to -55..+60°C (models with "t" index)
- 100% humidity, condensing
- Dust and water protection: IP66, IP67
- Wind load: 160 km/h operational; 200 km/h survival



## Indoor Unit conditions

- 0..+40°C
  - 95% humidity, non-condensing
- 
- Cooling: fanless design corrugated aluminium