

Astra Quasar Qsr6-E

Description	Astra Quasar Qsr6-E, 6 GHz wireless device, net throughput up to 2.1 Gbps, 2x N-type (F) connectors for external antenna
Net throughput	up to 2100 Mbps in 160 Mhz* up to 1100 Mbps in 80 Mhz
Recommended distances	up to 50 km
Radio technology	SU-MIMO 2x2
Modulation coding schemes	from BPSK 1/2 to QAM1024 5/6
Transmit power	up to 27 dBm
Receiver sensitivity	down to -93 dBm
Frequency range	6000-7100 MHz
Channel width	20, 40, 80, 160* MHz
Center frequency adjustment step	1 MHz
Duplex scheme	Polling, TDD*
Wired Interfaces	1x Combo: GigabitEthernet & SFP, 1x SYNC

* Roadmap

Astra Quasar **Qsr6-E**

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	Qsr6-E
Packing List	– Outdoor unit Qsr6-E - 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.



Astra Quasar Qsr6-E

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
- ▶ 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 Quasar Qsr6-E

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
 - EN IEC 63000:2018

*Pending