

## Astra Quasar **Qsr6-29**

|                                  |                                                                                                                          |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Description                      | Astra Quasar Qsr6-29, 6 GHz wireless device, net throughput up to 2.1 Gbps, integrated dual-pol antenna, 29 dBi, 5x5 deg |
| Net throughput                   | up to 2100 Mbps in 160 Mhz*<br>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                                                                                 |
| Antenna                          | removable dual-pol parabolic antenna 29 dBi                                                                              |

\* Roadmap

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|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Consumption         | up to 20 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Power options       | 90-240 VAC ~ @ 50/60 Hz, +-43.56 VDC                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Outdoor Unit (ODU)  | Ø700 x 215 mm, 5.8 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Part Number Example | Qsr6-29                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Packing List        | <ul style="list-style-type: none"> <li>– Outdoor unit Qsr6-29 - 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 - 2 pcs.</li> <li>– Cable Gland for optical cable - 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 Quasar Qsr6-29

## 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

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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
  - EN IEC 63000:2018

\*Pending