



Description	ECM-P3-A22R500, 3 GHz point-to-point unit, net throughput up to 500 Mbps, integrated dual-pol antenna, 22 dBi, 12x12 deg
Net throughput	up to 500 Mbps
Recommended distances	up to 30 km
Radio technology	MIMO 2x2, Cyclic single carrier
Modulation coding schemes	from QPSK 1/4 to QAM256 30/32
Transmit power	up to 27 dBm
Receiver sensitivity	down to -93 dBm
Frequency range	2990-4010 MHz
Channel width	10, 20, 40 MHz
Center frequency adjustment step	1Mhz
Duplex scheme	TDD, Hybrid-FDD
Antenna	22 dBi
Wired Interfaces	2x GigabitEthernet, SFP
Consumption	up to 30 W
Power options	90-240 VAC @ 50/60 Hz, 43..56 VDC (802.3at compliant)
Outdoor Unit (ODU)	371 x 371 x 89 mm, 3.3 kg





Features

RADIO

- ✓ **Best-in-breed spectral efficiency**
 - up to 14 bps/Hz
 - real throughput in excess of 130 Mbps in just 10 MHz of spectrum
- ✓ **High transmit power and perfect sensitivity even at the highest-order modulations**
 - Reliable signal receiving in both LOS and NLOS conditions
- ✓ **Superior interference and noise immunity**
 - High-selectivity receiver with channel filtering cuts off inband interference
- ✓ **TDD synchronization using a built-in GNSS receiver**

NETWORKING

- ✓ **Built-in full-fledged L2 switch supporting VLAN and STP**
- ✓ **Transparent L2 transport for Ethernet traffic of any type**
- ✓ **Timing transport using precision time protocol (IEEE 1588v2) support**

MANAGEMENT FEATURES

- ✓ **Web-based graphical user interface**
- ✓ **Command line interface**
- ✓ **SNMP v1/2c/3 support (MIB-II and proprietary MIBs)**
- ✓ **Centralized monitoring**

QUALITY-OF-SERVICE

- ✓ **QoS support**
 - 4 priority queues: strict and weighted prioritization
 - Classification based on IEEE 802.1p
 - Egress rate limiting on each network port

INSTALLATION AND DIAGNOSTIC TOOLS

- ✓ **LED indication**
 - power status
 - wired and wireless link status
 - received signal strength indication
 - TDD sync status
- ✓ **Web GUI tools**
 - antenna alignment tool
 - spectrum analyzer

ENVIRONMENTAL

- ✓ **Outdoor unit:**
 - Operating temperature range $-40..+60^{\circ}$ C
 - IP66/IP67 compliant water and dust protection
- ✓ **Indoor unit:**
 - 100-240 VAC @ 50/60 Hz or $\pm 43.. \pm 56$ VDC, 802.3at compliant
 - Power consumption up to 60 W

STANDARD COMPLIANCE

- ✓ **Safety:**
 - EN 60950-1:2006, UL 60950-1 2nd ed.
- ✓ **Radio (pending):**
 - EN 302 326-2
- ✓ **EMC:**
 - ETSI EN 301 489-1, ETSI EN 301 489-17, FCC Part 15 Class B
- ✓ **RoHS:**
 - Directive 2011/65/EU