



<b>Description</b>	ECM-P2-A19R500, 2 GHz point-to-point unit, net throughput up to 500 Mbps, integrated dual-pol antenna, 19 dBi, 17x17 deg
<b>Net throughput</b>	up to 500 Mbps
<b>Recommended distances</b>	up to 30 km
<b>Radio technology</b>	MIMO 2x2, Cyclic single carrier
<b>Modulation coding schemes</b>	from QPSK 1/4 to QAM1024 8/10
<b>Transmit power</b>	up to 27 dBm
<b>Receiver sensitivity</b>	down to -94 dBm
<b>Frequency range</b>	2300-2900 MHz
<b>Channel width</b>	10, 20, 40 MHz
<b>Center frequency adjustment step</b>	1Mhz
<b>Duplex scheme</b>	TDD, Hybrid-FDD
<b>Antenna</b>	19 dBi
<b>Wired Interfaces</b>	2x GigabitEthernet, SFP
<b>Consumption</b>	up to 30 W
<b>Power options</b>	90-240 VAC @ 50/60 Hz, 43..56 VDC (802.3at compliant)
<b>Outdoor Unit (ODU)</b>	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