



Description	ECM-P5G-A28R150, 5 GHz point-to-point unit, net throughput up to 1000 Mbps, integrated dual-pol antenna, 28 dBi, 5x5 deg
Net throughput	up to 1000 Mbps
Recommended distances	up to 50 km
Radio technology	MIMO 2x2, Cyclic single carrier
Modulation coding schemes	from QPSK 1/4 to QAM256 30/32
Transmit power	up to 22 dBm
Receiver sensitivity	down to -93 dBm
Frequency range	4900-6000 MHz
Channel width	2x10, 2x20, 2x40 MHz
Center frequency adjustment step	1Mhz
Duplex scheme	TDD, Hybrid-FDD
Antenna	28 dBi
Wired Interfaces	2x GigabitEthernet, SFP
Consumption	up to 55 W
Power options	90-240 VAC @ 50/60 Hz, 43..56 VDC
Outdoor Unit (ODU)	600 x 600 x 74 mm, 6.3 kg





Features

RADIO

- ✓ **Best-in-breed spectral efficiency**
 - up to 14 bps/Hz
- ✓ **Flexible frequency planning**
 - utilizing two non-adjacent frequency channels
 - support of TDD and Hybrid-FDD
- ✓ **Reliable signal receiving in both LOS and NLOS conditions**
- ✓ **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**
 - transparent clock mode supported

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:**
 - 90-240 VAC @ 50/60 Hz or $\pm 43.. \pm 56$ VDC
 - Power consumption up to 60 W

STANDARD COMPLIANCE

- ✓ **Safety:**
 - EN 60950-1:2006, UL 60950-1 2nd ed.
- ✓ **Radio (pending):**
 - EN 301 893 v.1.8.1, EN 302 502, v.1.2.1, FCC part 15.247
- ✓ **EMC:**
 - ETSI EN 301 489-1, ETSI EN 301 489-17, FCC Part 15 Class B
- ✓ **RoHS:**
 - Directive 2011/65/EU