



**Datasheet**

# IP-50GP

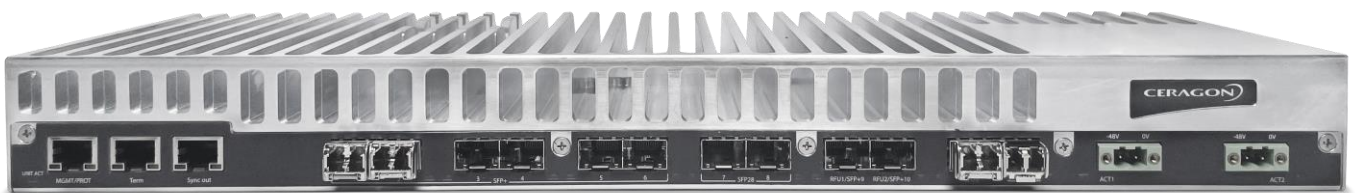
July 2025 | Rev. A.02

## IP-50GP

IP-50GP is a compact split-mount unit that is optimized for edge/tail first and second aggregation sites. It provides the indoor portion of an ideal solution for TELCOs, private networks, and WISP. IP-50GP has a small footprint, high density, and a high degree of availability. It has a compact 1RU size, with conduction cooling (no fans).

IP-50GP provides up to four radio interfaces which can be used with RFU-D and RFU-D-HP. In the future, it will also support RFU-SX, as well as Ceragon All-Outdoor Products, with efficient L1 aggregation of up to two groups and up to four directions, with total capacity of 40G.

## Product Image



## Radio

### Radio Interfaces

2 x SFP+ Radio Interfaces

2 x SFP+ Dual Use Radio or Ethernet Interfaces (1/10G)

### Supported RFUs

RFU-D

RFU-D-HP

RFU-SX

### Supported All-Outdoor Units (AODUs)

IP-50C

IP-50CX

IP-50E

IP-50EX/IP-50EX-P/IP-50EXA

EtherHaul 8010/8020

Third-party devices supporting ETH-BN

## Radio Features

Multi-Carrier Adaptive Bandwidth Control with RFU-SX:

- 1+0/2 x 1+0
- 2+0
- 1+1 HSB

Multi-Carrier Adaptive Bandwidth Control with RFU-D/RFU-D-HP:

- 8+0
- 4+0/2 x 4+0
- 2+0
- 2 x 2+0

1+1 and 2+2 HSB Protection

Space Diversity with RFU-D/RFU-D-HP:

- Up to 4+0 SD
- Up to 2 x (2+0) SD
- 1+1 and 2+2 HSB-SD

High spectral utilization: QPSK to 2048 QAM w/ACM XPIC option with all configurations

## Ethernet

### Ethernet Interfaces

- 6 x SFP+ (1/10G)
- 2 x SFP28 (1/10/25G)
- 2 x SFP+ Dual Use Radio or Ethernet Interfaces (1/10G)
- 1 x RJ-45 Management/Protection Interface (100M)

### Ethernet Features

- MTU – 9612 Bytes
- VLAN add/remove
- MSTP, ERP (ITU-T G.8032)
- Y.1731 Ethernet OAM
- Y.1731 Ethernet Bandwidth Notification (ETH-BN)

### Networking

- Networking capacity: 193 Gbps
- QoS classification based on TOS/DSCP, VLAN ID, VLAN P-bits, MAC DA and SA, SA and DA IP Addresses (IPv4 and IPv6)
- LAG support with BFD on LAG interfaces according to RFC7130

## Management Protocols

- SNMP
- REST
- SDN Support: NETCONF/YANG

## Synchronization Protocols

- Enhanced Ethernet Equipment Clock (eEEEC) Specification (G.8262.1)
- PTP Telecom Class A Boundary Clock (T-BC) (G.8273.2)
- PTP Telecom Class A Transparent Clock (T-TC) Specification (G.8273.3)
- Enhanced SyncE Network Limits (G.8261, clause 9.2.1)
- Enhanced PTP Network Limits (G.8271.1)
- Ethernet Synchronization Messaging Channel (ESMC) (G.8264, clause 11)
- PTP Telecom Profile for Time (Full Timing Support) (G.8275.1)
- Precision Time Protocol (version 2, IEEE1588-2008)

## Standards

### MEF

- Carrier Ethernet 2.0 (CE 2.0)

### Supported Ethernet Standards

- Management: 100base-T
- Traffic: 1000base-X and 10Gbase-LR (IEEE 802.3)
- Virtual LAN (VLAN, IEEE 802.1Q)

- MAC bridges (IEEE801.D)
- Class of service (IEEE 802.1p)
- Provider bridges (QinQ – IEEE 802.1ad)
- Link aggregation (IEEE 802.1AX)
- Auto MDI/MDIX for 1000baseT
- RFC 2474: IPv4 DSCP
- RFC 2460: IPv6 Traffic Classes

### Security

- Radio Encryption
- Secured protocols:
  - HTTPS
  - SNMPv3
  - SSH
  - SFTP

- RADIUS authentication and authorization
- TACACS+ Authentication, Authorization, and Accounting (session-based)

### Standards Compliance

- EMC: EN 301 489-4, EN 301 489-1, FCC 47 CFR, part 15, subpart B, ICES-003, TEC/SD/DD/EMC-221/05/OCT-16, IEC 61000-4-29, EN 61000-4-5 Level 4, Emissions tests (CISPR32 Class B)
- Safety: EN 62368-1, IEC 62368-1, UL 62368-1, CAN/CSA-C22.2 No.62368-1
- Storage: ETSI EN 300 019-1-1 Class 1.2, ETSI EN 300 019-2-1 Specification T 1.2
- Transportation: ETSI EN 300 019-1-2 Class 2.3, ETSI EN 300 019-2-2 Specification T2.3
- Operation:
  - ETSI 300 019-1-3, Class 3.2
  - Ingress Protection: IEC 60529 IP20

## Technical Specifications

### Mechanical Specifications

- 44mm(H), 428mm(W), 156mm(D), 3kg (1RU)
- 1.73”(H), 16.85”(W), 6.14”(D), 6.6lbs. (1RU)

### Environmental Specifications

- IDU: -5° to +45°C
- RFU: -33°C to +55°C
- Humidity: 0 to 95%, non-condensing

### Power Input Specifications

- IDU Standard Input: -48 VDC
- IDU DC Input range: -40.5 to -60 VDC
- Dual-feed power support