

Datasheet

IP-50CX

August 2025 | Rev E.01

Note: For feature availability, check the Release Notes for the CeraOS version you are using.

Radio

Supported Frequency Range

6-42 GHz

Radio Configurations

1+0 up to 4+0 Single/Dual Polarization, 1+1/2+2 HSB, 2+0 XPIC, 2x2+0 East/West Single/Dual Polarization*

Radio Features

4+0 Layer 1 Aggregation

Layer 1 Aggregation with IP-20C

Layer 1 Link Bonding with IP-20N or IP-20A

Enhanced Multi-Carrier ABC (up to 2+0)

Protection: 1+1 HSB/2+2 HSB

High spectral utilization: BPSK to 4096 QAM w/ACM

Channel bandwidth: 14 to 224 MHz

XPIC

Multiband with Layer 1 Link Bonding (with IP-50E)

Ethernet

Ethernet Interfaces

Port 1:

- DC Port

Port 2:

- RJ-45 - Electric 100Mbps/1Gbps traffic interface/PoE port

Port 3:

- SFP+ – 1/2.5/10 traffic interface

Port 4:

- SFP28 – 1/10/25G traffic interface

Port 5:

- RJ-45 – Management/Protection interface - 100 Base-T

Notes: SFP and SFP+ devices must be of industrial grade (-40°C to +85°C, -40°F to +185°F).

For information on supported interface usage and speed per CeraOS release, refer to the Release Notes or Technical Description for the release.

Ethernet Features

MTU – 9612 Bytes

Up to 1024 Ethernet services, plus one pre-defined management service

MAC address learning with 32K MAC addresses

Quality of Service:

- Multiple Classification criteria (VLAN ID, P-bits, IPv4 DSCP, IPv6 TC, MPLS EXP)
- 8 CoS queues per port
- WRED
- P-bit marking/remarking

VLAN add/remove

G.8032 Ethernet Ring Protection Switching (ERPS)

Multiple Spanning Tree Protocol (MSTP)

Y.1731 Ethernet OAM

Y.1731 Ethernet Bandwidth Notification (ETH-BN)

Management Protocols

SNMP

REST

NETCONF/YANG

Synchronization Protocols

Enhanced Ethernet Equipment Clock (eEEEC) Specification (G.8262.1)

PTP Telecom Boundary Clock (T-BC) and Time Slave Clock (T-TSC) Specification (G.8273.2)

PTP Telecom 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 phase/time synchronization with full timing support from the network (G.8275.1) as T-BC

PTP Telecom Profile for phase/time synchronization with partial timing support from the network (G.8275.2) as T-TC

Precision Time Protocol (version 2, IEEE1588-2008)

* Not all configurations are supported in every CeraOS release. For details about supported configurations, refer to the Release Notes for the CeraOS version you are using.

Standards

Supported Ethernet Standards

10/100/1000base-T/X (IEEE 802.3)
10GBase-LR (IEEE 802.3)
Ethernet VLANs (IEEE 802.3ac)
Virtual LAN (VLAN, IEEE 802.1Q)
Class of service (IEEE 802.1p)
Provider bridges (QinQ – IEEE 802.1ad)
Link aggregation (IEEE 802.1AX)
Auto MDI/MDIX for 1000baseT
RFC 1349: IPv4 TOS
RFC 2474: IPv4 DSCP
RFC 2460: IPv6 Traffic Classes

Security

Radio Encryption – AES 256

Secured protocols:

- HTTPS
- SNMPv3
- SSH
- SFTP

RADIUS authentication and authorization

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

Standards Compliance

Radio Spectral Efficiency: FCC Part 101, EN 302 217-2

EMC: EN 301 489-1, EN 301 489-4, Class B (Europe), FCC 47 CFR,
part 15, class B (US), ICES-003, Class B (Canada), TEC/EMI/TEL-
001/01, Class B (India)

Surge: EN61000-4-5, Class 4 (for PWR and ETH1 ports)

Safety: EN 60950-1, IEC 60950-1, UL 60950-1, CSA-C22.2
No.60950-1, EN 60950-22, UL 60950-22, CSA C22.2.60950-22

Storage: ETSI EN 300 019-1-1 Class 1.2

Transportation: ETSI EN 300 019-1-2 Class 2.

Environmental Specifications

-33°C to +55°C

-27°F to +131°F

Power Input Specifications

Standard Input: -48 VDC

DC Input range: -40.5 to -60 VDC

Power Consumption Specifications

Typical Power Consumption:

2+0 Operation:

- 6-11 GHz: 85W
- 13-15 GHz: 66W

1+0 Operation (one carrier muted):

- 6-11 GHz: 66W
- 13-15 GHz: 58W

Both carriers muted:

- 6-11 GHz: 41W
- 13-15 GHz: 43W

Note: The maximum power consumption can be up to ~20% higher than the typical figures listed above.

Technical Specifications

Mechanical Specifications

Dimensions – 270mm(H), 230mm(W), 98mm(D), 5.3 kg

Pole Diameter Range (for Remote Mount Installation) –
8.89 cm – 11.43 cm

Product Image

