



**Datasheet**

# IP-50FX200

Rev. A.02 | February 2022

## Disaggregated Wireless Backhaul Router

The IP-50FX200 Disaggregation Cell Site Gateway (DSCG) combines a cell site router (CSR) with radio-aware features that support IP-50 and IP-20 radios, as well as any third-party Ethernet-connected radio or fiber. IP-50FX200 can therefore serve as both a router and an IDU, enabling operators to reduce expenses for power, cables, space, and the cost of an extra IDU/routing device by deploying the IP-50FX200 for split-mount configurations.

IP-50FX200's high switching capacity and port density make it an excellent fit for any cell site or aggregation site that requires ultra-high capacity, multi-directional functionality, and advanced switching/routing capabilities.

IP 50FX utilizes radio-aware networking capabilities, such as Layer 1 Link Bonding and Ethernet Bandwidth Notification (ETH-BN), as well as Class C-compliant synchronization that supports SyncE and IEEE-1588 Transparent Clock and Boundary Clock. These and many more advanced capabilities enable IP-50FX200 to serve as a revolutionary solution for any multi-carrier requirement, such as high-capacity trunks and multi-directional nodes.

## Technical Specifications

### Mechanical Specifications

Height: 44 mm

Width: 431.5 mm

Depth: 250 mm

Weight: 4 kg

### Environmental Specifications

Operation: ETSI EN 300 019-1-3, Class 3.2

-5°C (23°F) to +55°C (131°F)

Humidity: 5%RH to 95%RH

Storage: ETSI EN 300 019-1-1 class 1.2 (Weather protected, not temperature-controlled Storage)

Transportation: ETSI EN 300 019-1-2 class 2.3 power (Public transportation)

EMC: Canada/USA Radiated and conducted emissions tests according to ICES-003 and FCC 47 CFR part 15, subpart B  
Europe according to EN 301 489-1/4 + EN 300 386  
India according to TEC/SD/DD/EMC-221/05/OCT-16 + IEC 61000-4-29

Safety: Europe/CB/USA/Canada tests and certification according to EN/IEC/UL/CSA C22.2 NO 62368-1

### Power Input Specifications

IDU Standard Input: -48 VDC with dual power supply feed for power redundancy.

The maximum current consumption when working at 48V is 6.5A.

IDU DC Input range: -40.5 to -60 VDC

## SDN

NETCONF/YANG management

## Applications

Edge/tail

First and second Aggregation

## Networking

Networking capacity: 64 Gbps

Layer-1 carrier bonding: Up to 16+0

Quality of Service: 3 levels of H-QoS

OAM functionality: ETH-BN according to ITUT G.8013/Y.1731

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

Open SW standards: complies with ONL/ONIE

Layer-1 carrier bonding supports multiband with any additional layer-1 connection

## Layer 3 Software

IP/MPLS as the infrastructure

LDP for label distribution / Segment Routing with Topology Independent LFA

IGP – OSPFv2/v3, IS-IS for path of the MPLS tunnels with LFA  
L3VPN as the service.

MP-BGP as the protocol to establish the end to end L3 services (L3VPN).

BFD to monitor health of connection to aggregation router.

Complies with TWAMP according to RFC 5357

## Synchronization

1588 Boundary and Transparent Clock for full timing support from the network – G.8275.1 profile

1588 Boundary and Transparent Clock for partial timing support from the network with GNSS as a main timing source – G.8275.2 profile

Support for native GNSS input signals

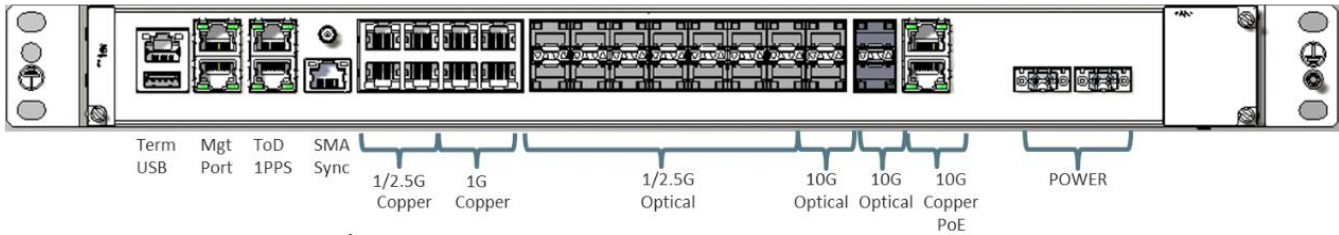
10MHz / ToD / 1PPS

Support 5G synchronization requirements

## Product Image



## IP-50FX200 Interfaces



- Terminal Port (TERM) – RJ-45 Terminal console interface (RS-232) for connection to a local craft terminal, for local CLI management of the unit.
- USB Port – Used for mounting an external storage, e.g., for NOS installation and upgrade.
- Protection Port (PROT) – RJ-45 Ethernet management interface supporting 10/100/1000Base-T, used for unit protection.
- Management Port (MGMT) – RJ-45 Ethernet management interface supporting 10/100/1000Base-T.
- ToD/1PPS (In/Out) – RJ-45 interface supporting 1PPS and ToD (in/out).
- 2/10MHz (SMA) – SMA (SubMiniature version A) connector to receive a 10 MHz signal from an external sync source.
- Sync – RJ-45 synchronization interface for T3 clock input.
- 1/2.5 GbE Interfaces (RJ-45) – 4 ports
- 1 GbE Interfaces (RJ-45) – 4 ports
- 1/2.5G Optical Interfaces (SFP) – 14 ports
- 10G Optical Interfaces (SFP) – 4 ports
- 10 GbE Interfaces (RJ-45) – 2 ports with PoE