

10G EADs

ETX-2i-10G, ETX-2i-10G-B

Ethernet Business and Cell-Site Gateways



- Advanced 10G Ethernet demarcation and aggregation devices, delivering SLA assured, MEF 3.0 certified Carrier Ethernet VPN services
- Advanced traffic management with hierarchical QoS and high-scale flow management
- TWAMP and Layer-2 OAM diagnostics for scalable and accurate performance monitoring, quick fault detection, and troubleshooting of Layer-2 and Layer-3 networks
- Flexible hardware, optional license activation, up to eight HW-configurable 1GbE/10GbE ports, grow-as-you-go upgradable interfaces for a multipurpose device
- Precision timing synchronization for mobile networks
- IP66-compliant, protected enclosures for outdoor installations

FLEXIBLE SERVICE DELIVERY AND ASSURANCE AT 10G AND 1G

ETX-2i-10G, ETX-2i-10G-B, part of RAD's Service Assured Access solution, provide service demarcation and aggregation at 10 GbE and 1 GbE data rates. (Details on ETX-2i 1G devices and ETX-2i 100G devices can be found in dedicated data sheets.)

ETX-2i-10G, ETX-2i-10G-B enable operators to deliver service level guarantees, by supporting multilayer diagnostics, fine-grained SLA enforcement, and accurate performance monitoring. Built-in service activation testers support verification of end-to-end network performance.

Best-in-class traffic management capabilities include an advanced classification engine, VLAN manipulation, and sophisticated service shaping, providing operators full flexibility and control over traffic flows.

MARKET SEGMENTS AND APPLICATIONS

ETX-2i-10G, ETX-2i-10G-B are ideal for carriers, service providers, municipalities, wholesale providers, and mobile operators seeking to offer unified, SLA-based Ethernet business services, such as E-Line, E-LAN, E-Tree, and E-Access, as well as L3 VPNs and value-added services using virtualization at the customer edge.

CARRIER ETHERNET 2.0 SERVICES

ETX-2i-10G, ETX-2i-10G-B incorporate a complete set of MEF 3-certified Ethernet service tools that allows service providers to distinguish between high- and low-priority traffic and optimize TCP sessions.

ETX-2i-10G, ETX-2i-10G-B provide MEF 10.3 color-aware and unaware Policers, delivering high-scale multi-CoS services with hierarchical Quality of Service (HQoS).

They support advanced scheduling, WRED per CoS, shaping per EVC and port, with flexible classification rules and access lists.

DHCP Snooping

ETX-2i-10G, ETX-2i-10G-B support DHCP snooping with option 82 for protection of DHCP transactions.

Layer-2 Control Processing

ETX-2i-10G, ETX-2i-10G-B can be configured to forward or discard Layer-2 control frames (including other vendors' L2CP frames).

MEF Services

ETX-2i-10G, ETX-2i-10G-B deliver E-Line (EVL, EVPL), E-LAN (EPLAN, EVPLAN), E-Tree (EP-TREE, EVP-TREE), and E-Access services compliant with MEF 3.0 and CE 2.0 certifications.

MLDv2 Snooping

With MLDv2 snooping, multicast data is selectively forwarded only to a list of self-learned ports (per multicast group membership), instead of being flooded to all ports in a VLAN.

TIMING AND SYNCHRONIZATION

ETX-2i-10G, ETX-2i-10G-B incorporate RAD's advanced SyncTop synchronization and timing over the packet feature set to support mobile heterogeneous network topology.

Synchronous Ethernet (SyncE) with IEEE 1588v2 Precision Time Protocol (PTP) per ITU-T G.8265.1, G.8275.1, and G.8275.2 telecom profiles provide cost-effective synchronization of frequency and phase.



ETX-2i-10G, ETX-2i-10G-B

Ethernet Business and Cell-Site Gateways

ETX-2i-10G, ETX-2i-10G-B also support 1588v2 slave clock, boundary clock (BC), transparent clock (TC), and grand master (GM).

INTEROPERABILITY

ETX-2i-10G, ETX-2i-10G-B features and services are standard-based and can work with any 3rd party equipment using standard-based features and services.

NETWORK TOPOLOGIES

ETX-2i-10G, ETX-2i-10G-B support several network topologies such as linear, daisy chain, and self-healing rings (G.8032v2), working with ETX-5 or third-party Ethernet devices.

MONITORING AND DIAGNOSTICS

Featuring multi-layer OAM and PM tools, ETX-2i-10G, ETX-2i-10G-B offer hardware-based monitoring and diagnostics at high scale and precision. End-to-end connectivity OAM (IEEE 802.1ag), as well as single-segment OAM (IEEE 802.3-2005), ensure flow-level fault management and performance monitoring over Layer-2 networks and also quickly detect connectivity failures for robust protection. Layer-2 and 3 wired loopbacks offer flexible diagnostic tools.

RFC-5357 TWAMP Light delivers the same functionality over Layer-3 networks, as well as one-way TWAMP and two-way ICMP Echo, with counters for loss, delay, fragmented packets, reorders, and duplication, in addition to configurable test packet size. Multi-VRF supports the robust TWAMP setup.

The Performance Management Portal is an SLA assurance system that is part of the RADview management system, enabling real-time monitoring of service performance.

Digital Diagnostics Monitoring

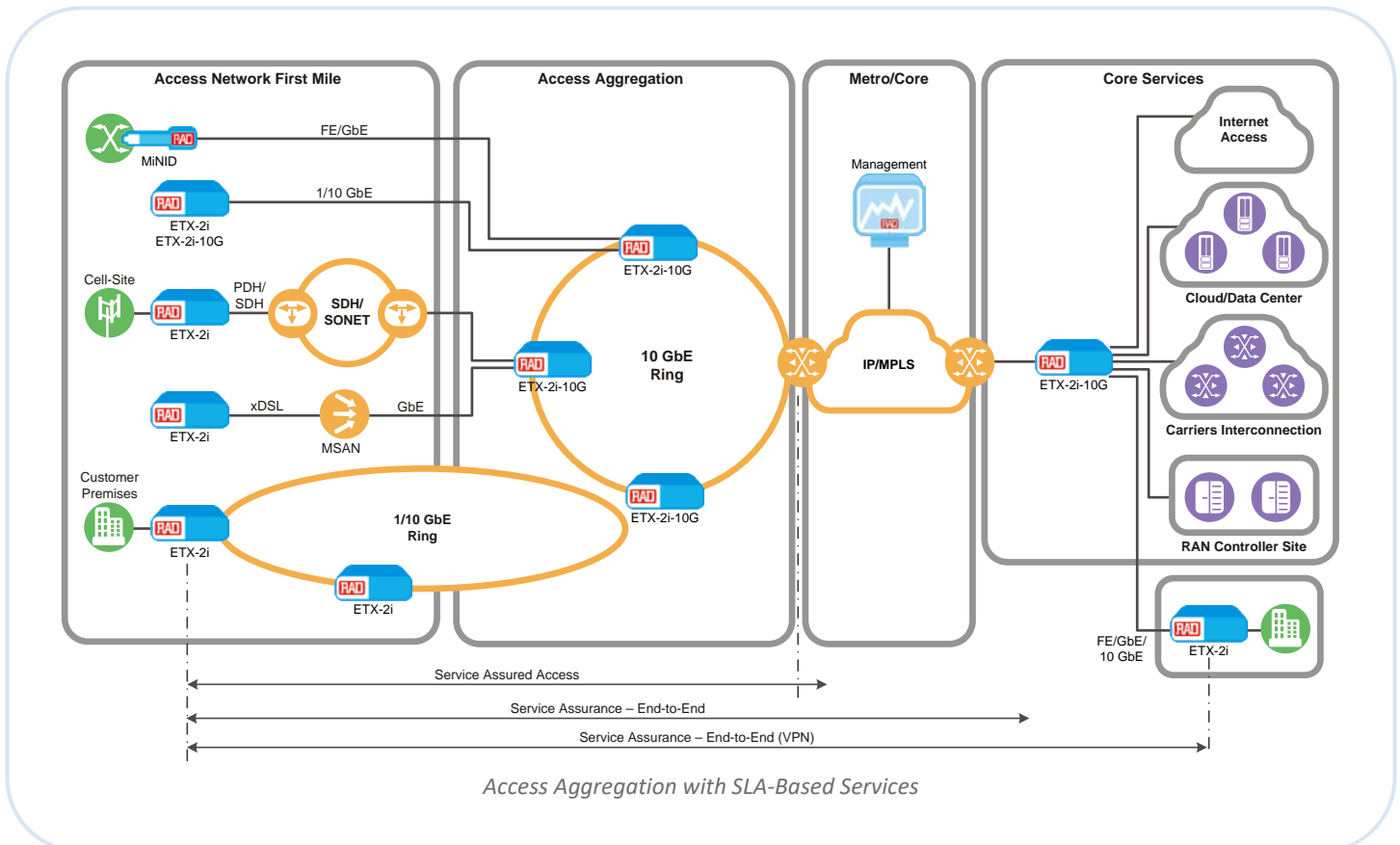
ETX-2i-10G, ETX-2i-10G-B support digital diagnostics monitoring (DDM) SFP functions according to SFF-8472, excluding external DDM calibration.

Service Activation Tests

ETX-2i-10G, ETX-2i-10G-B offer service activation tools with multiple RFC-2544, Y.1564, and L3 SAT testers.

TDM PSEUDOWIRE

ETX-2i-10G provides pseudowire (PW) services via a smart SFP (RAD's MiTOP). PWs can be encapsulated using CESoPSN per IETF RFC 5086 or SAToP per IETF RFC 4553.



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Ethernet Business and Cell-Site Gateways

ETHERNET OVER PDH

ETX-2i-10G provides Ethernet over PDH services via a smart SFP (RAD's MiRiCi), including the following NG-PDH technologies:

- Generic Framing Procedure (GFP G.7041)
- GFP over PDH (G.8040)
- PDH Virtual Concatenation (VCAT G.7043)
- Link Capacity Adjustment Scheme (VCAT G.7042).

NG-PDH solutions improve overall network availability by reducing latency and optimizing line utilization and throughput.

Integrated management of MiRiCi smart SFPs provides TDM (E1/T1/E3/T3/OC-3/STM-1) connectivity over PDH or SDH legacy networks.

RESILIENCY

ETX-2i-10G, ETX-2i-10G-B offer fast protection for virtually any kind of failure, in any linear, ring, or dual-homed topology. The devices employ IEEE 802.3ad link aggregation (1:1 LAG and load-balancing LAG), ITU-T G.8032v2 Ethernet ring protection, and ITU-T G.8031 Ethernet linear protection, to ensure continuous availability and sub-50 ms restoration in the event of network outages.

ETX-2i-10G, ETX-2i-10G-B also support MSTP and RSTP (IEEE 802.1Q) to perform loop-free bridge forwarding over mesh or ring physical topology.

SDN READY MANAGEMENT

ETX-2i-10G, ETX-2i-10G-B can be managed via RADview, RAD's carrier-class NMS, or any SNMP-based management system. The devices support a variety of access protocols, including CLI over Telnet, SNMPv3, and TFTP.

Security features include SNMPv3, RADIUS, TACACS+, SSH, and SFTP.

Access Control Lists (ACL) can be used to flexibly filter and mark management traffic, enabling service providers to maintain network security by dropping unwanted packets.

NETCONF/YANG

ETX-2i-10G, ETX-2i-10G-B are delivered ready for SDN transformation with comprehensive support for the NETCONF/YANG protocol, enabling operators to utilize modern network service orchestrators.

Zero Touch

ETX-2i-10G, ETX-2i-10G-B implement RAD's unique ZT process, allowing devices to onboard automatically and securely without human intervention and enabling operators to provision services easily and reliably.

Table 1. Interfaces

| Specifications | ETX-2i-10G/4SFPP (4+24) | ETX-2i-10G-B/4SFPP (4+8), ETX-2i-10G/4SFPP (4+8) | ETX-2i-10G-B/8SFPP, ETX-2i-10G/8SFPP | ETX-2i-10G-B/8SFPP/ODU, ETX-2i-10G/8SFPP/ODU |
|--|--|---|---|---|
| 1/10GbE SFP+ (with 1G/10G multirate support) | 4 SFP+ 1000BASE-SX/LX/T 1/10GBASE-SR/LR/ER/ZR | | 8 SFP+ 1000BASE-SX/LX/T 1/10GBASE-SR/LR/ER/ZR | |
| FE/GbE SFP | 12 or 24 SFP, 12 ports SFP/RJ-45 combo 1000BASE-SX, 1000BASE-LX, 100BASE-FX, 1000BASE-T | 4 SFP and 4 UTP, 8 SFP, or 4 SFP only 1000BASE-SX, 1000BASE-LX, 100BASE-FX, 1000BASE-T | 8 GbE 1000BASE-SX, 1000BASE-LX, 1000BASE-T | |
| E1/T1/T3/STM-1/OC-3 | Via integrated Smart SFP (MiRiC) | | | |
| E1/T1/T3 PW | Via integrated Smart SFP (MiTOP) | | | |
| Timing | 2 MHz, 2 Mbps, 1PPS, ToD (outdoor unit connectors are internal.) | | | |
| GNSS | - | | Mini BNC | TNC |
| CLI serial port | Mini USB | | Micro USB | RJ-45 |

Note A: It is strongly recommended to order this device with original RAD SFP/SFP+ transceivers. RAD cannot guarantee full compliance to product specifications for units using non-RAD transceivers. For full details on SFP/SFP+ transceivers, see the [Pluggable Transceivers data sheet](#).

Note B: ETX-2i-10G offers license-based activation of the 10G/1G (SFP+) ports. ETX-2i-10G may be ordered with zero, two, four, or eight 10G activated SFP+ ports. The 10G ports may be field-activated by purchasing a 10G port activation license. Non-activated SFP+ ports are limited to operate at 1 Gbps. Activated SFP+ ports allow both 1G and 10G operation.

ETX-2i-10G, ETX-2i-10G-B

Ethernet Business and Cell-Site Gateways

Specifications

INTERFACES

See **Interfaces** table.

MANAGEMENT AND SECURITY

| | |
|-------------------------------|---|
| Management Options | Local management via LAN port or serial port Remote management via in-band VLAN |
| Protocols and Security | SSH (Secure CLI) Telnet SNMPv3 SFTP NETCONF/YANG management interface Password-protected access Authorization levels RADIUS or TACACS+ authentication Static routing Access Control List (ACL) |
| Large Deployments | Plug and play zero touch provisioning (DHCP, PPPoE, XML configuration files download via TFTP/SCP) Configuration backup and restore |

Control Port

| | |
|------------------|--|
| Interface | V.24/RS-232 DCE |
| Connector | Mini USB: ETX-2i-10G/4SFPP, ETX-2i-10G-B/4SFPP Micro USB: ETX-2i-10G/8SFPP, ETX-2i-10G-B/8SFPP RJ-45: ETX-2i-10G-B/8SFPP/ODU |
| Format | Asynchronous |
| Data rate | 9.6, 19.2, or 115.2 kbps |

Ethernet Management Port

| | |
|------------------|--|
| Type | 10/100/1000BASE-T |
| Connector | RJ-45 (In ETX-2i-10G/8SFPP/ODU and ETX-2i-10G-B/8SFPP/ODU, connector is internal.) |

ENVIRONMENTAL

| | |
|------------------------------|---|
| Storage Temperature | -40 to 85°C (-40 to 185°F) |
| Operating Temperature | Regular: 0 to 50°C (32 to 122°F) Temperature hardened, outdoor: -40 to 65°C (-40 to 149°F) Note: For temperature-hardened options, use SFPs with max oper temperature 85°C (185°F) |
| Humidity | 5% to 90%, non-condensing |
| Airflow | 19-inch enclosures: Left to right (unless otherwise specified) Half 19-inch enclosures: Front to back Outdoor units: None (passive airflow) |
| Fans | Up to 4. None for ETX-2i-10G/8SFPP/ODU, ETX-2i-10G-B/8SFPP/ODU. |

RESILIENCY

| | |
|---------------------------------|--|
| Dual Homing | 1:1 link protection with dual homed link redundancy |
| Ethernet Path Protection | G.8031 for linear 1:1 protection |
| Ethernet Ring | G.8032v2 rings with sub 50 ms protection for Ethernet traffic |
| Link Aggregation | IEEE 802.1ax (802.3ad) 1:1 LAG with LACP for pairs of network or user Ethernet ports, together with 1:1 link protection LAG with load balancing |

Table 2. Power

| Specifications | ETX-2i-10G/4SFPP (4+24) | ETX-2i-10G-B/4SFPP (4+8), ETX-2i-10G/4SFPP (4+8) | ETX-2i-10G-B/8SFPP, ETX-2i-10G/8SFPP | ETX-2i-10G-B/8SFPP/ODU, ETX-2i-10G/8SFPP/ODU |
|-------------------------|--|--|---|---|
| Power Supply | AC: 100-240 VAC (-10%, +6%), 50/60 Hz, 0.9A DC: -48 VDC (40-60 VDC), 2A | | | |
| Power Supply Redundancy | + | | | |
| Power Consumption (max) | 120W | ETX-2i-10G/4SFPP 8.5" enclosure: 90W ETX-2i-10G/4SFPP 19" enclosure: 95W ETX-2i-10G-B/4SFPP 19" enclosure: 95W | 75W (average 70W) | AC: 83W DC: 75W |

ETX-2i-10G, ETX-2i-10G-B

Ethernet Business and Cell-Site Gateways

NETWORKING CAPABILITIES

| | |
|--|---|
| Services | Ethernet E-LAN, E-Tree, E-Line |
| | MEF CE2.0 compliant |
| | Layer-2 services with available bandwidth |
| Layer-2 Forwarding | Jumbo frame support |
| Flow classification rules | Outer VLAN or outer + inner VLAN |
| | PCP |
| | TOS/DSCP |
| | EtherType |
| | IP/MAC source/destination address |
| Port classification (except for ETX-2i-10G/8SFPP, ETX-2i-10G-B/8SFPP) | Per port |
| | 5-tuple ACL |
| Policing | Color aware/unaware dual token bucket with user-configurable CIR + CBS & EIR + EBS |
| | 2-rate/3-color policing per EVC.CoS |
| | Bandwidth policing per MEF 10.3 |
| | Hierarchical envelope policer per MEF 10.3 |
| | MultiCoS EVCs per MEF 10.3 |
| | Large flow policing (Fat pipe) – ETX-2i-10G half 19”, ETX-2i-10G /8SFPP, ETX-2i-10G-B/8SFPP |
| | |
| Scheduling | 8 × CoS per EVC scheduling elements |
| | Strict Priority (SP) |
| | Weighted Fair Queue (WFQ) |
| Shaping | Per port |
| | Per EVC |

Per EVC.CoS

PHYSICAL

| | |
|---|--|
| 8.5-inch Enclosures | Height: 43.7 mm (1.7 in) |
| | Width: 215.5 mm (8.5 in) |
| | Depth: 301 mm (11.8 in) |
| | Weight: 2.3 kg (5.1 lb) |
| | NEBS option |
| | Temperature-hardened option |
| 19-inch Enclosures | Height: 43.7 mm (1.7 in) |
| | Width: 440 mm (17.4 in) |
| | Depth: 240 mm (9.5 in) |
| | Weight (ETX-2i-10G): 3.1 kg (6.8 lb) |
| | Weight (ETX-2i-10G-B): |
| | One power supply – 2.5 kg (5.5 lb) |
| | Two power supplies – 3.8 kg (8.4 lb) |
| | NEBS option |
| | Temperature-hardened option |
| Aluminum IP66 Outdoor Unit Enclosure | Height: 465.0 mm (18.3 in) |
| | Width: 300.0 mm (11.8 in) |
| | Depth: 106 mm (4.2 in) |
| | Weight: 9.3 kg (20.5 lb) (when using two power supplies) |
| | Temperature-hardened, NEBS option |

Table 3. Timing and Synchronization

| Specifications | ETX-2i-10G/4SFPP (4+24) | ETX-2i-10G-B/4SFPP (4+8), ETX-2i-10G/4SFPP (4+8) | ETX-2i-10G-B/8SFPP, ETX-2i-10G/8SFPP | ETX-2i-10G-B/8SFPP/ODU, ETX-2i-10G/8SFPP/ODU |
|---|--|---|--|---|
| Best Master Clock Algorithm (BMCA) | + | | | |
| IEEE-1588v2 precision time protocol (PTP) per G.8265.1, G.8275.1, and G.8275.2 Telecom profiles | OC, TC, BC Slave clock | | OC, TC, BC Slave clock Integrated GNSS | |
| PTP ports | ToD/1PPS (RJ-45), External clock (CONN.COAX SMA), 1PPS (CONN.COAX SMA), 2M (SMA) Note: Outdoor unit connectors are internal. | | | |
| Station clock | Balanced E1, unbalanced E1 (via adapter cable); RJ-45 connector | | | |
| SyncE recovery from PDH module to Ethernet ports | + (when using MiTOP/ MiRIC) | | | |
| Synchronous Ethernet (SyncE), eSYNCE | ITU-T G.8261-G.8264 | | | |

ETX-2i-10G, ETX-2i-10G-B

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BRIDGE

| | |
|-----------------|--|
| Max. Frame Size | 9600 bytes (unless mentioned otherwise) |
| Compliance | 802.1D, 802.1Q, 802.1ad |
| Mode | VLAN-aware, VLAN-unaware |
| VLAN Editing | Inner/outer VLAN editing per VLAN and p-bit values |

DIAGNOSTICS

| | |
|--|--|
| Alarm Relay (optional) | Type: Dry contacts with three "in" Connector: Terminal block, 9-pin |
| Connectivity Fault Management (CFM) | Per IEEE 802.1ag |
| Counters | RMON2 port-level counters |
| Delay and Loss Measurements | Per MEF 36 |
| EFM Link-fault OAM | Per IEEE 802.3ah |
| ICMP Echo | Over L2 and L3 services Tests IP connectivity (PING) |
| KPI Measurements | Accurate one-way KPI measurements |
| Link-level OAM | Per IEEE 802.3-2005 |
| Limiting Multicast Traffic Flooding | DHCP and MLDv2 snooping |
| Loop Prevention | Using MSTP and RSTP |
| Loopback Tests | Non-disruptive loopback per flow, with MAC/IP address swap Loopbacks at Ethernet port level On-demand Layer-2 and 3 loopbacks |
| LLDP Discovery | Per IEEE 802.1AB |
| Service Activation Tests | RFC-2544: Eight built-in wirespeed testers ITU-T Y.1564: Eight built-in wirespeed testers |
| Service Utilization and Performance Monitoring | Per ITU-T Y.1731.2012, including synthetic loss measurement |
| TWAMP | TWAMP light generator and responder (SW license) ITU-T Y.1731 PM (SLM; DM) RFC 5618 TWAMP responder and receiver TWAMP sender |

GENERAL

| | |
|--------------|--|
| Compliance | MEF 3.0: E-Access: Access EPL, Access EVPL E-LAN: EPLAN, EVPLAN E-Line: EPL, EVPL E-Tree: EP-Tree, EVP-Tree |
| | CE 2.0 |
| | MEF 6: E-LAN: EPLAN, EVPLAN E-Line: EPL, EVPL |
| | MEF 9, MEF 10, MEF 14, MEF 20, MEF 36, MEF 46 |
| | IEEE 802.3, 802.3u, 802.1D, 802.1Q, 802.1p, 802.3ad, 802.3-2005, 802.1ax, 802.1ag |
| | ITU-T Y.1731, G.8031, G.8032v2, G.8262, G.8265, RFC-2544, ITU-T Y.1564 |
| Push Buttons | FD push button for setting unit to default configuration Note: In ETX-2i-10G/8SFPP and ETX-2i-10G-B/8SFPP outdoor unit, the button is in the chassis interior. |

ETX-2i-10G, ETX-2i-10G-B

Ethernet Business and Cell-Site Gateways

Ordering

The information below represents examples of supported configurations. For additional configuration options, please contact your local RAD partner.

ETX-2i-10G, ETX-2i-10G-B SOFTWARE

ETX-2-SW TWAMP

SW license to activate and operate TWAMP related functionalities in ETX-2 and ETX-2i.

ETX-2i-10G-LIC/#

SFP+ 10G speed license for ETX-2i-10G/4SFPP, ETX-2i-10G-B/4SFPP

ETX-2i-10G-B-LIC/#

SFP+ 10G speed license for ETX-2i-10G/8SFPP, ETX-2i-10G-B/8SFPP

License scope

| | |
|--------------|--|
| 2X10G | Two-port (Two ports are 10G-enabled.) |
| 4X10G | Four-port (Four ports are 10G-enabled.) |
| 8X10G | Eight-port (Eight ports are 10G-enabled; relevant for ETX-2i-10G/8SFPP and ETX-2i-10G-B/8SFPP only.) |

ETX-2i-10G HARDWARE

(See **Ordering Options** below for options explanations)

ETX-2i-10G/AC/4SFPP/4SFP4UTP

ETX-2i-10G/H/ACR/4SFPP/12SFP12UTP/PTP

ETX-2i-10G/H/DCR/4SFPP/12SFP12UTP/PTP

ETX-2i-10G/DCR/4SFPP/24SFP/PTP

ETX-2i-10G/ACR/4SFPP/24SFP

ETX-2i-10G/AC/4SFPP/8SFPP

ETX-2i-10G/H/DCR/4SFPP/12CMB/PTP

ETX-2i-10G/DDC/4SFPP/4SFP4UTP/PTP

ETX-2i-10G/H/DCR/4SFPP/12CMB

ETX-2i-10G-B HARDWARE

(See **Ordering Options** below for options explanations)

ETX-2i-10G-B/8.5/H/DC/8SFPP/PTP

ETX-2i-10G-B/8.5/AC/8SFPP

ETX-2i-10G-B/8.5/DC/8SFPP

ETX-2i-10G-B/19/H/ACR/8SFPP/PTP

ETX-2i-10G-B/19/H/DCR/8SFPP/PTP

ETX-2i-10G-B/19/H/ACR/8SFPP/G

ETX-2i-10G-B/19/H/DCR/8SFPP/G

ETX-2i-10G-B/19/ACR/8SFPP

ETX-2i-10G-B/19/DCR/8SFPP

ETX-2i-10G-B/19/AC/8SFPP/G

ETX-2i-10G-B/19/DC/8SFPP/G

ETX-2i-10G-B/H/DC/ODU/8SFPP/G

ETX-2i-10G-B/H/DCR/ODU/8SFPP/G

ETX-2i-10G-B/H/DC/ODU/8SFPP

ETX-2i-10G-B/H/DCR/ODU/8SFPP

ORDERING OPTIONS

Some options are not supported by all models. Some option combinations are invalid or may require a minimum order. To determine the BOM for your application, please contact your local RAD partner.

| | | |
|---|----------------------|---|
| Enclosure | Default | Indoor enclosure |
| | 8.5 | 8.5" 1U metal box |
| Ethernet Network or User Port | 19 | 19" 1U metal box |
| | ODU | Outdoor enclosure |
| Ethernet User Port (1 GbE ports) | Default | 4 SFPP (1GbE) ports (all with no 10G-license; all 10G-license upgradeable) |
| | 2SFPP | 2 SFPP (10GbE) and 2 SFP ports (w/o 10G-license; 10G-license upgradeable) ports |
| Ethernet User Port (1 GbE ports) | 4SFPP | 4 SFPP 1/10GbE ports |
| | 8SFPP | 8 SFPP 1/10GbE ports |
| Power Supply | 4S4U or 4SFP4UTP | 4 SFP Ethernet ports, 4 copper Ethernet ports |
| | 4S or 4SFP | 4 SFP Ethernet ports (only 4 ports) |
| Temperature Range | 8S or 8SFP | 8 SFP Ethernet ports |
| | 12S12U or 12SFP12UTP | 12 SFP Eth ports, 12 copper Ethernet ports |
| Timing Options | 24SFP | 24 SFP Ethernet ports |
| | 12CMB | 12 GbE combo (SFP/UTP) ports |
| Special Option | AC | Single AC power supply |
| | ACDC | AC and DC power supplies |
| Temperature Range | ACR | Redundant (dual) AC PS |
| | DC | Single 48V DC power supply |
| Timing Options | DCR | Redundant (dual) DC PS |
| | DDC | Dual feed DC power supply |
| Special Option | Default | 0 to 50°C |
| | H | Temperature hardened |
| Timing Options | N | NEBS |
| | Default | No timing |
| Special Option | G | Integrated GNNS, PTP, SyncE |
| | PTP | PTP 1588v2 timing and SyncE |
| Special Option | Default | None |
| | DRC | Dry contacts |

ETX-2i-10G, ETX-2i-10G-B

Ethernet Business and Cell-Site Gateways

Notes:

The following are relevant for ETX-2i-10G/8SFPP and ETX-2i-10G-B/8SFPP only (including ODU option):

- Enclosure size is indicated.
- Power Supply = DDC is not yet available
- Ethernet Network or User = 8SFPP
- Timing Option = GPS

SUPPLIED ACCESSORIES

AC power cord (with indoor AC models)

DC connector kit PLUG-DC/TB-S/J (with indoor DC models)

The following accessories are for ETX-2i-10G/8SFPP/ODU, ETX-2i-10G-B/8SFPP/ODU:

Seven blanking plugs (PN: WJ-DM-16-VPA) for sealing unused SFPP cable glands

One blanking plug (PN: 28788_7) for sealing protection of unused AC or DC power connector when only one power supply is assembled

Safety bracket for preventing power cord pullout

Cable ties (two per PS cable)

Circular 4-pin female AC power connector plug (PN: 2440_04_T09CB_T) per AC power module

Circular 3-pin female DC power connector plug (PN: 2440_03_T09CB_T) per DC power module

See [Mounting Kits](#) table.

OPTIONAL ACCESSORIES

CBL-MUSB-DB9F

Mini USB cable to DB9 Female to connect ETX-2i-10G/4SFPP, ETX-2i-10G-B/4SFPP to a serial port

CBL-UUSB-DB9F

Micro USB cable to DB9 Female to connect ETX-2i-10G/8SFPP, ETX-2i-10G-B/8SFPP to a serial port

CBL-RJ45/D9/F/6FT

RJ-45 cable to DB9 Female to connect ETX-2i-10G/8SFPP/ODU, ETX-2i-10G-B/8SFPP/ODU to a serial port.

ETX-2i-10G-PS/%/?

10G extractable power supply for the indoor 19" modular units

% Working temperature (Default: 0-50C)
H Hardened temperature

? Power supply
AC Single AC power supply
DC Single DC power supply

ETX-2i-10G-B-PS/H/?/ODU

10G extractable power supply for the outdoor hardened 19" modular units

? Power supply
AC Single AC power supply
DC Single DC power supply

See [Mounting Kits](#) table.

Table 4. Mounting Kits

| Product | 19" Rack | Wall | Pole | H-Frame |
|---------------------|---|--------------|----------------|-----------------------------------|
| 8.5-inch Enclosures | RM-35/P1 – one unit RM-35/P2 – two units | WM-35 | | |
| 19-inch Enclosures | RM-34 (supplied) | WM-34 | | |
| Outdoor Enclosures | | WM-35-ODU/45 | WM-35-ODU/P/45 | WM-35-ODU/45 or WM-35-ODU/P/45 |

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