



ENTRA®

ERS1248 R-PHY Shelf

The Entra® ERS1248 R-PHY Shelf is a 2RU modular platform designed to support DOCSIS 3.1 Remote PHY (R-PHY) deployments within Distributed Access Architectures (DAA).

It supports multiple R-PHY modules and provides integrated fiber and RF interfaces for deployment in headend, hub, and access network environments.

The platform supports configurations with either separate downstream and upstream RF ports for direct HFC integration or combined RF interfaces for test and validation use.

Designed to support network evolution, the ERS1248 enables relocation and reuse of R-PHY modules as operators transition from centralized to distributed architectures. Its modular design, along with redundant AC/DC power supplies and field-replaceable cooling, ensures high availability and operational continuity.



Full DOCSIS 3.1 Spectrum Support

Supports full-spectrum DOCSIS 3.1 operation for delivery of high-capacity broadband services



Turnkey R-PHY Solution

Complete R-PHY solution that enables DAA deployments including Entra vCMTS, Nodes, and RPDs



Flexible Deployment Configurations

Supports test and production use with combined or separate RF interfaces



Compact 2RU Modular Design

Enables scalable deployment and simplified expansion through a modular R-PHY architecture.



Repurposable R-PHY Modules

Enables reuse of RPHY modules across headend, hub, and node environments as network topology evolves



Redundant Architecture

Includes redundant AC/DC power supplies and replaceable fan modules for high availability and ease of maintenance.

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Specifications

Power	
Input Voltage	90-264 VAC, 50/60Hz -48 VDC
Current	1.4A typical @ 120VAC / 2.5A max (VAC) 3.2A typical / 4.2A max (VDC)
Power Supply Output	180W max (VAC / VDC)
External Interfaces	
RF / Power Ports	8x F Connector, 75 Ohm
Return Loss	> 20dB
Fiber Ports	8x LC-UPC Duplex
Physical	
Height, Width, Depth	11.5" (292 mm), 22" (559 mm), 12" (305 mm)
Weight	<50 lb (22.7 kg) (Typical Configuration)
Operating Environment	
Temperature	0 to 50 °C (32 to 122 °F)
Relative Humidity	5% to 95%, noncondensing
Altitude	-196 to 13,123 feet (-60 to 4,000 meters)
Supported Vecima Modules	
ERM112	D3.1 RPD module –1DS x 2US SG

Regulatory, Industry, and Standards Compliance	
EMC (Immunity/Emissions)	EN 55032, EN 55035, ICES-003, FCC PART 15 SUBPART B, (AS/NZS) CISPR 32
Safety	IEC/EN 62368-1, ANSI/UL 62368-1, CAN/CSA C22.2 No. 62368-1
Hazardous Substance	IEC/EN 63000: 2018, RoHS Directive 2015/863/EU
WEEE Directive	2012/19/EU
REACH	Regulation (EC) No 1907/2006
Industry Standards	ANSI/SCTE 02, ANSI/SCTE 81, ANSI/SCTE 176, ANSI/SCTE 186 (Section 6.3) ANSI/SCTE 292

Ordering Information	
ERS1248-1AC	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes single AC PSU, 4 combined Downstream/Upstream ports.
ERS1248-2AC	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes dual AC PSU, 4 combined Downstream/Upstream ports.
ERS1248-1DC	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes single DC PSU, 4 combined Downstream/Upstream ports.
ERS1248-2DC	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes dual DC PSU, 4 combined Downstream/Upstream ports.
ERS1248-1AC-XSDPLX	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes single AC PSU, integrated XS diplexers (XS = MS or HS) 4 Downstream / 8 Upstream ports.
ERS1248-2AC-XSDPLX	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes dual AC PSU, integrated XS diplexers (XS = MS or HS) 4 Downstream / 8 Upstream ports.
ERS1248-1DC-XSDPLX	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes single DC PSU, integrated XS diplexers (XS = MS or HS) 4 Downstream / 8 Upstream ports.
ERS1248-2DC-XSDPLX	ERS1248 R-PHY Shelf with QTY4 ERM112 RPD's. Includes dual DC PSU, integrated XS diplexers (XS = MS or HS) 4 Downstream / 8 Upstream ports.