



**ENTRA®**

ERM312/322/324  
RPD Module

The Entra® ERM312/322/324 Remote PHY Device (RPD) is a high-density stand-alone module that builds upon our field-proven RPD technology. The ERM3 fits in EN9000 and EN3400 GAP nodes and legacy analog nodes.



### Multiple Node Compatibility

Deploy in Vecima EN9000 (GAP) or retrofit existing GS7000, OM4100, OM4120 and NC4000 nodes for DAA



### Full Spectrum DOCSIS 3.1

Delivers maximum DOCSIS 3.1 throughput with full spectrum support up to 1.2GHz downstream and 204 MHz upstream



### Flexible Service Groups

Supports up to 2 downstream and 4 upstream service groups



### Legacy Digital Video Support

Support for Video SC-QAMs, SCTE OOB and DSG



### Independent R-PHY Node Vendor

Inter-operable and flexible design, supporting multiple vendors' cores



### Deploy With Confidence

Supports HFC services with all digital optics

## Specifications

RPD Module	
Timing Support	IEEE 1588v2 PTP Ordinary Clock Slave
Multicast Support	IGMP v2/v3 and MLD v1/v2
Authentication	802.1X port-based EAP-TLS
DOCSIS Operation Mode	Remote PHY
Segmentation	1x1, 1x2, 2x2, 2x4 (ERM324)
DOCSIS 3.1 OFDM DS Channels	ERM312: 1 service group x 6 OFDM (192 MHz) each ERM322: 1 or 2 service groups x 6 OFDM (192 MHz) each ERM324: 1 or 2 service groups x 6 OFDM (192 MHz) each
DOCSIS 3.1 US Channels	ERM312: 1 or 2 service groups x 2 OFDMA (96 MHz) each ERM322: 1 or 2 service groups x 2 OFDMA (96 MHz) each ERM324: 1, 2, or 4 service groups x 2 OFDMA (96 MHz) each
Maximum DS SC-QAMs	158 per service group
DOCSIS 3.0 DS Channels	1 or 2 service groups x 48 Annex A/B each
DOCSIS 3.0 US Channels	24 ATDMA shared across all service groups
Video QAM DS Channels	128 Annex B/C, 96 Annex A shared across both service groups
Video QAM Input Support	MPTS over L2TPv3 (R-DEPI) 10ms de-jitter, PCR restamping, NULL insertion/deletion, Synchronous and Asynchronous mode support
OOB	SCTE 55-1 (native)

\*Specifications may be dependent on CCAP core support

Control & Management	
Primary Interface	CCAP Core, Aux Core(s)
Troubleshooting Interface	SSH

Ordering Information	
ERM312	ERM312 RPD Module with 1 DS Service Groups / 2 US Service Groups, 3 SFP+ Ports
ERM322	ERM322 RPD Module with 2 DS Service Groups / 2 US Service Groups, 3 SFP+ Ports
ERM324	ERM324 RPD Module with 2 DS Service Groups / 4 US Service Groups, 3 SFP+ Ports
ERM32X-EN9000-KIT	ERM322 / ERM324 Universal RPD Module install kit for EN9000 nodes. Includes GEC adaptor plate and RF cables. Does not include RPD module.
ERM32X-GS7000-KIT	ERM322 / ERM324 Universal RPD Module install kit for GS7000 nodes. Includes adaptor plate, RF, and power cables. Does not include RPD module and requires 1.2GHz capable node for full-spectrum operation.
ERM32X-OM4100-KIT	ERM322 / ERM324 Universal RPD Module install kit for OM4100 nodes. Includes adaptor plate, RF, and power cables. Does not include RPD module and requires 1.2GHz capable node for full-spectrum operation.
ERM32X-OM4120-KIT	ERM322 / ERM324 Universal RPD Module install kit for OM4120 nodes. Includes adaptor plate, RF, and power cables. Does not include RPD module and requires 1.2GHz capable node for full-spectrum operation.
ERM32X-NC4000-KIT	ERM322 / ERM324 Universal RPD Module install kit for NC4000 nodes. Includes adaptor plate, RF, and power cables. Does not include RPD module and requires 1.2GHz capable node for full-spectrum operation.
PHM2000-KIT-10	RPD Power Holdover Module for EN9000 and GS7K. Includes PHM2000 and power cable.

Supported Node Chassis	
Vecima	EN9000, EN3400
Cisco	GS7000
CommScope (Arris)	OM4100, OM4120, NC4000
Module / Power / Environmental	
Dimensions (H x W x L)	43 x 145 x 190 mm (1.7 x 5.7 x 7.5 in)
Weight	< 3 lbs (1.36 kg)
Voltage	25V +/- 5%
Current	2 A Typical, 2.4 A Max
Power	50 W Typical, 60 W Max
DS RF Port	2 x SMB (75 ohm)
US RF Ports	4 x SMB (75 ohm)
SFP+ Ports	3 x 10GE
Temperature (Operating)	-40 to +60°C (-40 to +140°F) ambient node housing
Humidity (Operational)	5 to 95%
Mounting	Node specific adapter kit
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
Hazardous Substance	IEC/EN 63000: 2018, RoHS Directive 2015/863/EU
WEEE Directive	2012/19/EU
REACH	Regulation (EC) No 1907/2006