VECIMA

The Entra® ERM322/324 Remote PHY Device (RPD) is a high-density stand-alone module that builds upon our field-proven RPD technology. The ERM322/324 fits in EN9000 and EN3400 GAP nodes and legacy analog nodes.

The ERM322 and ERM324 modules share the same form factor and support two downstream service groups with either two (ERM322) or four (ERM324) upstream service groups.

ENTRA

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

DOCSIS® 3.1 — 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	1 or 2 service groups x 6 OFDM (192 MHz) each
DOCSIS 3.1 US Channels	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

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

Ordering Information

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.

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