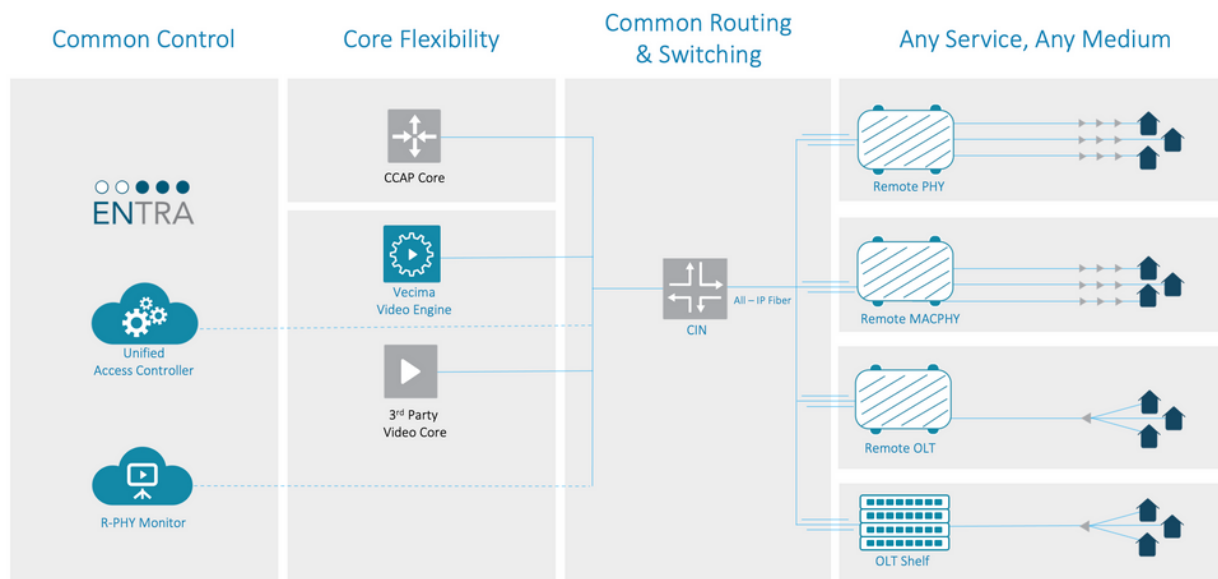# ERM322/324 RPD Module

The **Entra**® Access Platform is Vecima's realization of the next generation of Cable Access products as optical transport moves away from analog RF distribution to all-digital Ethernet. Entra is optimized to support all Distributed Access Architectures and facilitate the delivery of existing video and data services over hybrid fiber coax (HFC) and direct fiber connections.

The Entra ERM322/324 Remote PHY Device (RPD) is a high-density standalone module that builds upon our field-proven RPD technology found in the Entra EN8100 DOCSIS 3.1 and EN8400 DOCSIS 4.0 capable 4-port nodes. The ERM322/324 is designed specifically to fit in new and existing nodes that are suitable for all markets. The ERM322 and ERM324 modules share the same form-factor with support for 2 downstream service groups where the ERM324 supports 4 upstream service groups and the ERM322 supports 2 upstream service groups.

ERM322/324 RPD Module

Highlights

- Space optimized RPD Module implementation of up to 2 DS x 4 US service groups
- RPD module suitable for use in multiple node platforms with adapter kits
- Core-neutral RPD implementation integrated with all existing CCAP cores
- Enables CCAP core evolution without any concerns of future distributed access node compatibility
- Supports DOCSIS and Ethernet services
- Supports legacy digital QAM video

ERM322/324 RPD Module

ERM322/324 Module Specifications

RPD Module	
Timing Support	IEEE 1588v2 PTP Ordinary Clock Slave
Multicast Support	IGMP v2/v3 and MLD v1/v2
Fiber Redundancy	Hot and cold standby support
Authentication	802.1X port-based EAP-TLS
DOCSIS Operation Mode	Remote PHY
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
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
	*Specifications may be dependent on CCAP core support

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

Supported Node Chassis	
Vecima	EN9000
Cisco	GS7000
CommScope (Arris)	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)
Power	25V +/- 5%
	2 A Typical, 2.4 A Max
	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 (with included captive mounting screws)

Compliance	
Safety	IEC 62368-1
	UL 62368-1
	CAN/CSA C22.2 No. 62368-1
EMC	FCC Part 15B
	ICES-003
	EN55032
	EN55035
Environmental	RoHS
	REACH

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
ERM322-GS7000-KIT	ERM322 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.
ERM322-OM4120-KIT	ERM322 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.
ERM322-NC4000-KIT	ERM322 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.
ERM324-GS7000-KIT	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.
ERM324-OM4120-KIT	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.
ERM324-NC4000-KIT	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.