

Driving the DAA evolution from traditional HFC to all-digital Ethernet, the **Entra** Distributed Access Platform, is Vecima's realisation of the next generation of DOCSIS 3.1 product solutions, for headends and outside plant networks.

Vecima ensures your DOCSIS 3.1 transition success, empowering operators with a complete family of solutions which include multiple DAA R-PHY node types, monitoring, 10GB switching and global legacy video support.

The **EN2112** is a high density Compact 2 Port implementation of our field-proven DOCSIS 3.1 Standard North American Node designed specifically for European and Global markets.



Features and Benefits:

- Standards compliant, CCAP Core agnostic architecture and implementation from an independent vendor; no vendor "lock-in"
 - Fully interoperable with any CableLabs standards compliant CCAP Core
- Part of Vecima's Entra family series
 - Supported by a complete line of complementary DOCSIS 3.1 DAA products
- Very Compact implementation of a 2 Port Node
 - Vecima allows you to fit in all cabinets as part of your DOCSIS 3.1 transition
- Fully compatible with global certification and standards requirements
 - A single product benefits from economies of scale and inventory management
- A truly intelligent, remote RF managed (tilt, attenuation, level, US wink, etc.) device.
 - Accelerates and automates installation configuration and service quality

R-PHY Compact 2 Port Node Specifications

RPD Module		RF Specifications	
SFP+ Ports	Primary 1 x 10GE (ETH 0) Secondary 1 x 10GE (ETH 1)	Return Loss	16 dB min, 18 dB typical
Timing Support	IEEE 1588v2 PTP Ordinary Clock Slave	Maximum Output Power	2 x + 52 dBmV
Multicast Support	IGMP v2/v3 and MLD v1/v2	MER (equalized)	43 dB
Authentication	802.1X port-based EAP-TLS	Downstream Linear Tilt (Software Controlled)	2-22 dB over 108-1218 MHz
DOCSIS 3.0 DS Channels	48 Annex A/B	Diplexer Options (Field-Replaceable)	5-85, 102-1218 MHz 5-42, 54-1006 MHz 5-65, 85-1218 MHz 5-204, 258-1218 MHz
Video QAM DS Channels	96 Annex A, 128 Annex B/C	Upstream Nominal Set Point, DOCSIS	-3 to +18 dBmV / 6.4 MHz
DOCSIS 3.1 OFDM DS Channels	6 x 192 MHz	Upstream Ingress Switch (SW Controlled)	0, -6dB, -40dB per Node RF Port
DOCSIS 3.0 US Channels	1 or 2 service groups x 12 ATDMA each	Downstream Service Groups	1
DOCSIS 3.1 OFDMA US Channels	1 or 2 service groups x 2 OFDMA (96 MHz)	Upstream Service Groups	2
DOCSIS Operation Mode	Remote PHY	Service Group Configuration	1x1 or 1x2
OOB DS	SCTE 55-1 & 55-2, 3 x Narrow & Wide NDF	Local RF Injection	54-1006 MHz
OOB US	SCTE 55-1 & 55-2, 3 x NDR	Analog RF Optical Overlay	Optional, 54-750 MHz
AGC, Alignment and Leakage Detection Tones	4 x Dedicated CW (54 MHz to 1218MHz) 158 x SC-QAM as CW (54 MHz to 1002 MHz)	3rd RF Port	Local RF In / 3rd RF Out
Video QAM Input Support	MPTS over L2TPv3, R-DEPI 10ms de-jitter, PCR restamping, NULL insertion/deletion, Synchronous and Asynchronous mode support	Chassis / Power / Environmental	
Control & Management		Dimensions (H x W x L)	245 x 204 x 160 mm (Excludes mounting hardware and port connections)
Primary Interface	Connected CCAP Core(s)	Weight	<7 kg (15lbs)
Troubleshooting Interface	Secure Shell (SSH) Text-Based User Interface (TUI)	External RF/Power Ports	75 ohms, 2 X PG 11 / SCTE 91 (5/8")
		External Fiber Ports	SC / APC
		Input Voltage Options	30 - 65 VAC (QSW) 40 - 90 VAC (QSW) 90 - 264 VAC (sine)
		AC Current Passing	10A max
		Temperature (Operational)	-40 to 60°C (-40 to 140°F)
		Humidity (Operational)	5 to 95%
		Mounting	Wall, Pedestal or Cabinet