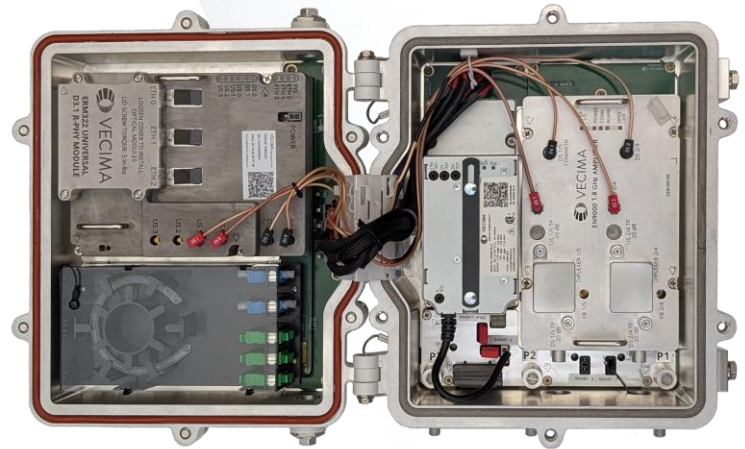




ENTRA®

EN3400 Compact GENERIC ACCESS PLATFORM (GAP) NODE

The Entra® EN3400 is the industry's first Compact Generic Access Platform (GAP) compliant node deployable either as a two-port, Remote PHY (R-PHY)-enabled cable access node supporting DOCSIS 4.0 or a two-port All-PON™ node. The EN3400 Compact GAP Node is a future-proof, "Forever Node" with a 4.0 GHz-capable housing supporting the same DOCSIS 3.1 Remote PHY and 10G-EPON modules as the EN9000 today, while seamlessly evolving to XGS-PON, DOCSIS 4.0, NRoC (New Radio over Coax) and future HFC and PON solutions.



GAP Compatible

SCTE GAP-compatible node and modules (ANSI/SCTE 273 2021). Benefits from Vecima's leadership in GAP and commitment to interoperability



Future-Proof "Forever Node"

Designed to support D3.1 R-PHY today and evolve to future technologies, including DOCSIS 4.0, Remote PON OLT, and Carrier Ethernet in the future



Full Spectrum DOCSIS 3.1

Delivers maximum DOCSIS 3.1 throughput with full spectrum support up to 1.2GHz downstream and 204 MHz upstream and is designed to support future D4.0 operation



Modular Design

2-port Access node with field-replaceable components shared with the EN9000 including amplifier modules, power supplies and RPD / PON modules



Turnkey R-PHY Solution

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



Investment Protection

Enables operators to standardize their networks on a single future-proof node platform with a multivendor ecosystem

**ENTRA®**

EN3400 COMPACT GENERIC ACCESS PLATFORM (GAP) NODE

Specifications

Power

Input Voltage	45-90 V _{AC} , 50/60 Hz, Quasi-Square Wave 100-240 V _{AC} , 50/60 Hz, Sine Wave (AC-mains)
AC Current Passing	15A max
Power Supply Output	25V _{DC} (7.2A), 12V _{DC} (15A), 5.75V _{DC} (21A); 180W Total (QSW) 25V _{DC} (4.4A); 110W Total (AC-mains)
Thermal Dissipation	Maximum of 120W @ +60°C (Up to 60W base and 60W lid)

External Interfaces

RF / Power Ports	2x SCTE-91 (two on right side, base)
Power-only Ports	1x SCTE-91 (one on right side, base)
AC-mains Port	1x PG11/Cable Gland (one on right side, base)
DS RF Test Ports	2x 5/8-24 (two on right side, base)
Fiber Ports	3x SCTE-91 (one per side, lid; 1x left side, base)

Physical

Height, Width, Depth	11.5" (292 mm), 13" (333 mm), 11" (279 mm)
Weight	<33 lb (15 kg) (Typical Configuration)
Mounting Options	Strand-mounted, Pedestal-mounted Wall-mounted with accessory bracket Horizontal or vertical mounting

Operating Environment

Temperature	-40 to 60 °C (-40 to 140 °F)
Relative Humidity	5% to 95%, noncondensing
Altitude	-196 to 13,123 feet (-60 to 4,000 meters)

Supported Vecima Modules

ERM322	D3.1 RPD module – 2DS x 2US SG
RFAM	1.8GHz RF Amplifier Module
PHM2000	Power Holdover Module
EEM210	10G EPON 2 Port Module

Ordering Information

EN-AN-3400-MS-1P	EN3400 R-PHY Compact GAP Access Node. Includes Single QSW PSU, 2 RF Ports, US 5-85 MHz, DS 102-1794 MHz, QTY1 1.8 GHz RF Amplifier Module. Does not include RPD module.
EN-AN-3400-MS-AC	EN3400 R-PHY Compact GAP Access Node. Includes Single AC PSU (100 to 240 Vrms), 2 RF Ports, US 5-85 MHz, DS 102-1794 MHz, QTY1 1.8 GHz RF Amplifier Module. Does not include RPD module.
EN-AN-3400-HS-1P	EN3400 R-PHY Compact GAP Access Node. Includes Single QSW PSU, 2 RF Ports, US 5-204 MHz, DS 258-1794 MHz, QTY1 1.8 GHz RF Amplifier Module. Does not include RPD module.
EN-AN-3400-HS-AC	EN3400 R-PHY Compact GAP Access Node. Includes Single AC PSU (100 to 240 Vrms), 2 RF Ports, US 5-204 MHz, DS 258-1794 MHz, QTY1 1.8 GHz RF Amplifier Module. Does not include RPD module.
EN-AN-3400-AC	EN3400 R-PHY Compact GAP Access Node. Includes Single AC PSU (100 to 240 Vrms), 2 RF Ports, Does not include RF Amplifier or RPD module.

RF Amplifier (RFAM)

Diplexer Options (Field Replaceable)

Mid Split	5 – 85 MHz / 102 – 1218 MHz
High Split	5 – 204 MHz / 258 – 1794 MHz
Ultra High Split	5 – 396 MHz / 492 – 1794 MHz
Ultra High Split	5 – 492 MHz / 606 – 1794 MHz

RF Port Performance with ERM3 installed

Total Composite Power	+70 dBmV max
DS Linear Tilt (SW Controlled)	15 to 21 dB over 108 to 1218 MHz
US Nominal Set Point, DOCSIS	+6 to +12 dBmV/6.4 MHz
Channel Power Accuracy	±1.0 dB TCP
Tilt Accuracy	±0.5dB average tilt relative to target tilt
Port-Port Isolation	>60 dB
Hum Modulation	-60 dB

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
Outdoor Use, IP Rating	IEC 60529, NEMA-250, IP68
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 81 2018, ANSI/SCTE 91 2022, ANSI/SCTE 92 2022, ANSI/SCTE 273-1 2021, ANSI/SCTE 273-2 2021, ANSI/SCTE 292 2024r1