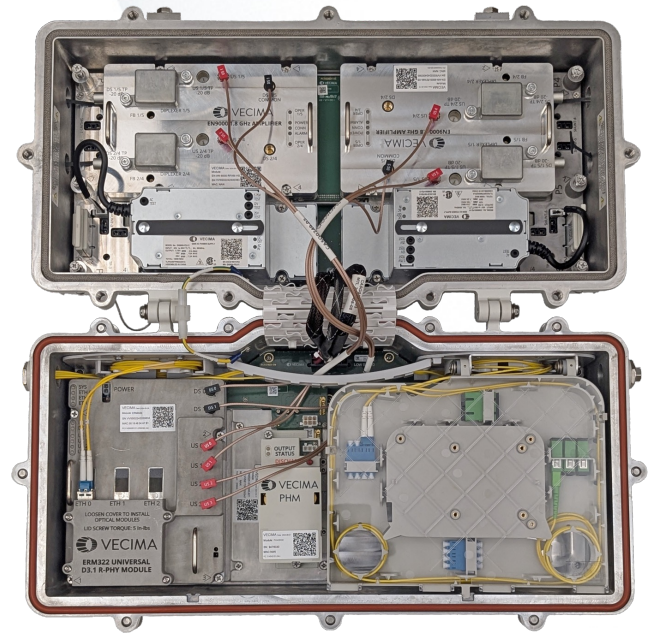


The Entra® EN9000 is the industry's first Generic Access Platform (GAP) compliant node. The node was designed from the ground up to support 1.8 GHz RF to enable the next generation of hybrid fiber-coax (HFC) access with DOCSIS® 4.0.

The EN9000 provides a multigigabit, multiaccess platform to support ongoing DOCSIS evolution, PON, and wireless technologies with a foundation of interoperability.



## Highlights

- SCTE GAP compliant node (ANSI/SCTE 273 2021)
- Investment protection: Enables operators to standardize their networks on a single future-proof node platform with a multivendor ecosystem
- Intelligent RF node: Software-controlled, remotely managed RF amplifiers
- 1.8 GHz: Designed from the ground up to support 1.2 GHz and 1.8 GHz operation with field-upgradeable diplexers
- Hybrid HFC + PON: ERM3 DOCSIS 3.1 Remote PHY + PON module with roadmap to DOCSIS 4.0
- Room for expansion: Full lid available for module installation, three of six lid module slots available with ERM3 RPD module and PHM2000 installed
- Low-power focus: High-efficiency power supplies and an optimized RF design
- Robust thermals: Designed for 180W cooling and up to 180W module powering

## Specifications

| Modules                              |   |
|--------------------------------------|---|
| ERM322                               | D3.1 RPD module – 2DS x 2US SG                            |
| ERM324                               | D3.1 RPD module – 2DS x 4US SG                            |
| RFAM                                 | 1.8GHz RF Amplifier Module                                |
| PHM2000                              | Power Holdover Module                                     |
| Power                                |   |
| Power                                | 180 W max   |
| Current                              | 4.5 A max   |
| AC Current Passing                   | 15 A max  |
| Power Supply Output                  | 25V (7.2A), 12V (15A), 5V (21A)                           |
| Thermal Dissipation                  | Maximum of 180W @ +60°C<br>(Up to 120W base and 120W lid) |
| RF Specifications                    |   |
| 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                  |   |
| Total Composite Power +70 dBmV max   |   |
| DS Linear Tilt (SW Controlled)       | 15 to 21 dB over 108 to 1218 MHz                          |
| Impedance                            | 75Ω   |
| Channel Power Accuracy               | ±1.0 dB TCP   |
| Tilt Accuracy                        | ±0.5dB average tilt relative to target tilt               |
| DS Mute (SW Controlled)              | >10 W power reduction per RF port                         |
| DS/US RF Test Port Response          | -20dB ±1 dB   |
| Port-Port Isolation                  | >60 dB  |
| Hum Modulation                       | -60 dB  |
| US Nominal Set Point, DOCSIS         | +6 to +12 dBmV/6.4 MHz                                    |
| US Ingress Switch (SW Controlled)    | < -50dB, settable per RF port                             |

| External Interfaces                            |   |
|--|---|
| RF / Power Ports                               | 4x SCTE-91 (two per side)   |
| Power-only Ports                               | 2x SCTE-91 (one per side)   |
| DS RF Test Ports                               | 4x SCTE-91 (two per side)   |
| Fiber Ports                                    | 2x Sealed Fiber Entry Ports<br>(one per side)   |
| Physical                                       |   |
| Height   | 11.5 in (292 mm)  |
| Width  | 22 in (559 mm)  |
| Depth  | 12 in (305 mm)  |
| Weight   | <50 lb (22.7 kg) (Typical Configuration)  |
| Mounting Options                               | Strand-mounted, Pedestal-mounted<br>Wall, pole, rack mount with accessory<br>bracket<br>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<br>(-60 to 4,000 meters)  |
| Regulatory, Industry, and Standards Compliance |   |
| EMC (Immunity/Emissions)                       | EN 55032, EN 55035, FCC PART 15 SUBPART B, ICES-003   |
| Safety   | ANSI/SCTE 81, ITU-T K.45, IEEE C62.41   |
| Outdoor Use, IP Rating                         | IEC 60529, NEMA-250, IP68   |
| Surge  | ANSI/SCTE 81, ITU-T K.45, IEEE C62.41   |
| Hazardous Substance                            | IEC/EN 63000: 2018<br>RoHS Directive 2011/65/EC,<br>amended by 2015/863/EU  |
| WEEE Directive                                 | 2012/19/EU  |
| REACH  | Regulation (EC) No 1907/2006  |
| Industry Standards                             | ANSI/SCTE 273 2021<br>ANSI/SCTE-91 2022<br>ANSI/SCTE-92 2022  |