VECIMA

ENTRA®

SC-1D ACCESS NODE

DOCSIS® 3.1, REMOTE MACPHY
COMPACT 4-PORT NODE

The Entra® compact SC-1D Access Node is a key component of the Entra unified cable access solution, a Distributed Access Architecture (DAA) that delivers significant performance gains, substantial savings on capital and operating expenses (CAPEX/OPEX), and enables an easy migration to an all-IP, all-fiber network

ENTRA

Turn-key R-MACPHY Solution

A complete R-MACPHY solution that enables DAA deployments including nodes, Entra Access Controller and DAA video solutions.

Full Spectrum DOCSIS 3.1

Delivers maximum DOCSIS 3.1 throughput with full spectrum support up to 1.2GHz downstream and 204 MHz upstream

R-MACPHY Advantages

Moving the MAC to the network edge minimizes headend power and space requirements as well as network latency and jitter.

Resilient and Compact Design

Modular compact form factor optimized for European deployments. Field-replaceable components include amplifier modules, power supplies, Optical Receiver and main processor module.

Weatherproof

Environmentally hardened OSP enclosure, line-powered with strand and pedestal mount options.

Optical Receiver

Analog RF Video Overlay

ENTRA®

SC-1D ACCESS NODE

DOCSIS® 3.1, REMOTE MACPHY
COMPACT 4-PORT NODE

Specifications

General	
SFP+ Ports	2 x 10GE
SFP+ Optical Module Support	ER, LR, ZR, bidirectional, CWDM, DWDM
Service Groups	1 downstream x 2 upstream
Downstream Channels	Up to 158 QAM J.83 annex A/B/C; up to 6 OFDM per service group
Channel Bandwidths	Up to 192 MHz OFDM
Out of Band Capabilities	Up to 4 channels of OOB, SCTE 55-1, SCTE 55-2, SCTE 25-1 HMS Up to 160 CW pilot tones Up to 2 leakage detection tags per service group Viavi Path Trak support
Wideband Digital Forward	Up to 43-6 MHz/32-8 MHz channels of broadcast band transport over IP. Typical broadcast modulations 8VSB, PAL, FM, NTSC
Upstream Channels	Up to 12 QAM, up to 2 OFDMA per service group

Physical	
Height	401 mm (15.8 in)
Width	345 mm (13.6 in)
Depth	222 mm (8.7 in)
Weight	15 kg (33 lb)
Mounting Options	Strand-mounted, Pedestal-mounted Wall-mounted with accessory bracket Horizontal or vertical mounting

Environment	
Temperature (operating)	-40 to 60 °C (-40 to 140 °F)
Temperature (storage)	-40° to 70°C (-40° to 158 °F)
Relative Humidity (operating/storage)	5 to 95% non-condensing
Altitude (operating/storage)	-60 to 4,000 meters (-196 to 13,123 feet)

Power	
Input Frequency	50 Hz/60 Hz
Input Voltage	38 V to 90 VAC coax line (quasi square wave)
Power Consumption	93 W nominal with 2 ports, 117 W nominal with 4 ports, 122 W maximum

RF Specifications	
RF Ports	2 or 4 ports
RF Impedance	75 Ω
Diplexer Options	5 – 42 MHz / 54 – 1218 MHz 5 – 65 MHz / 85 – 1218 MHz 5 – 85 MHz / 102 – 1218 MHz 5 – 204 MHz / 258 – 1218 MHz
Output Composite Power	Up to 71 dBmV
RF Output Level	61 dBmV @ (virtual)
Pluggable Tilt	Up to 24 dB (s/w readable ID)
US Nominal Set Point, DOCSIS	+7 to +27 dBmV/6.4 MHz
Diagnostics	Test ports: -20dB Low RF level alarm per port RF amplifier on/off controls per port RF input on/off controls per port Voltage and temperature monitoring

Optical Receiver	
Optical Input	1260 – 1560nm 2 to -6 dBm ACG dynamic range SC-APC
RF Output	50 to 800 MHz

Regulatory, Industry, and Standards Compliance	
ACMA Supplier Number	N594 (ACN,ABN, or ARBN 97000005363), C-Tick mark
EMC (Immunity/Emissions)	EN 55032, EN 55024, EN 61000-3-2, EN 61000-3-3, FCC PART 15 SUBPART B, ICES-003, (AS/NZS/VCCI) CISPR 32
Safety	IEC/EN 60950-1, ANSI/UL 60950-1, CAN/CSA, C22.2 No. 60950-1-07, IEC/EN 62368-1, ANSI/UL 62368-1, CAN/CSA C22.2 No. 62368-1
Outdoor Use, IP Rating	IEC 60950-22, CSA C22.2 No. 94.1, CSA C22.2 No. 94.2, IEC 60529, IP68
Hazardous Substance	IEC/EN 63000: 2018, RoHS Directive 2015/863/EU
WEEE Directive	2012/19/EU
REACH	Regulation (EC) No 1907/2006
Corrosion Resistance	GR-2873-CORE, ASTM B117

Ordering Information	
SC-1D-2000-000-FL	SC-1D2 Compact Access Node, Includes DOCSIS 3.1 RMD with support for 1 SG DS, 2 SGs US, 2 SFP+ 10 Gbps Ports, No Optics, Up to 4 Coax Ports, Up to 2 Amplifier Modules not included, 38 to 90 VAC, Non-Redundant PSU, -40 to 60C, IP68
SC-1D-2002-000-FL	SC-1D2 Compact Access Node. Includes DOCSIS 3.1 RMD with support for 1 SG DS, 2 SGs US, 2 SFP+ 10 Gbps Ports (Optics Not Included), Up to 4 Coax Ports, Up to 2 Amplifier Modules (not included), 860 MHz Optical Receiver without WDM

sales@vecima.com
vecima.com

PUBLISH DATE: 2025 MARCH