Data Sheet

Casa Systems Distributed Access Node: DA1250

DA1250

Winning and keeping residential and enterprise video and Internet services customers has never been tougher. Service providers face a range of competition in a business that requires rapid response but is still capital intensive. They need partners who are fast enough to get them ahead of their competition and committed to keeping them there, which is why more and more, leading providers depend on Casa Systems.

Casa has consistently designed today's products with tomorrow in mind, and has proven to be the most reliable partner in the industry - delivering high performance solutions at each technology shift in cable access networks. Casa's award winning CCAP solutions were designed from the beginning to deliver gigabit+ services, enable a smooth transition from DOCSIS® 3.0 to DOCSIS 3.1 and evolve to distributed access architectures rapidly with low operational disruption.

Casa Systems' family of Distributed Access Architecture solutions are designed to help service providers push capacity to the edge to improve the services their subscribers enjoy, extract more value from existing investments, and maintain smooth operations in the transition from centralized to distributed access architectures.

Casa's Distributed Access Architecture (DAA) family includes:

- An iCCAP or Axyom™ vCCAP core. For the CCAP core, CCAP Services Cards (CSC8x10G), are deployable in Casa's C100G or C40G. Alternatively, Casa's Axyom™ vCCAP core can be deployed to support DAA.
- A range of Distributed Access (DA) nodes that perform DOCSIS and EQAM PHY functions and can be optimally located based on service provider needs, including the DA1250 and the DA2000
- 10G Ethernet transport between the CCAP core and the DA nodes

With its compact design, the DA1250 is ideal for space and power constrained environments and provides high and mid split capabilities for symmetrical bandwidth offerings. Additionally, the DA1250 supports AC Mains power making it a perfect choice for deployment in MDU, hospitality and enterprise settings.

Highlights

Scalable and Compact: Small form factor with pluggable modules works perfect in space and power constrained environments

Innovative Operational Design: Efficient power management feature automatically turns down unused amplifier stages

Supports High Split (204 MHz): Allows symmetrical bandwidth offerings

HFC Plant Ready: Integrates into existing sweep, RF leakage detetion and out of band (NDR / NDF) maintenance procedures to simplify product QA certification

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DOCSIS 3.0 and 3.1 Support

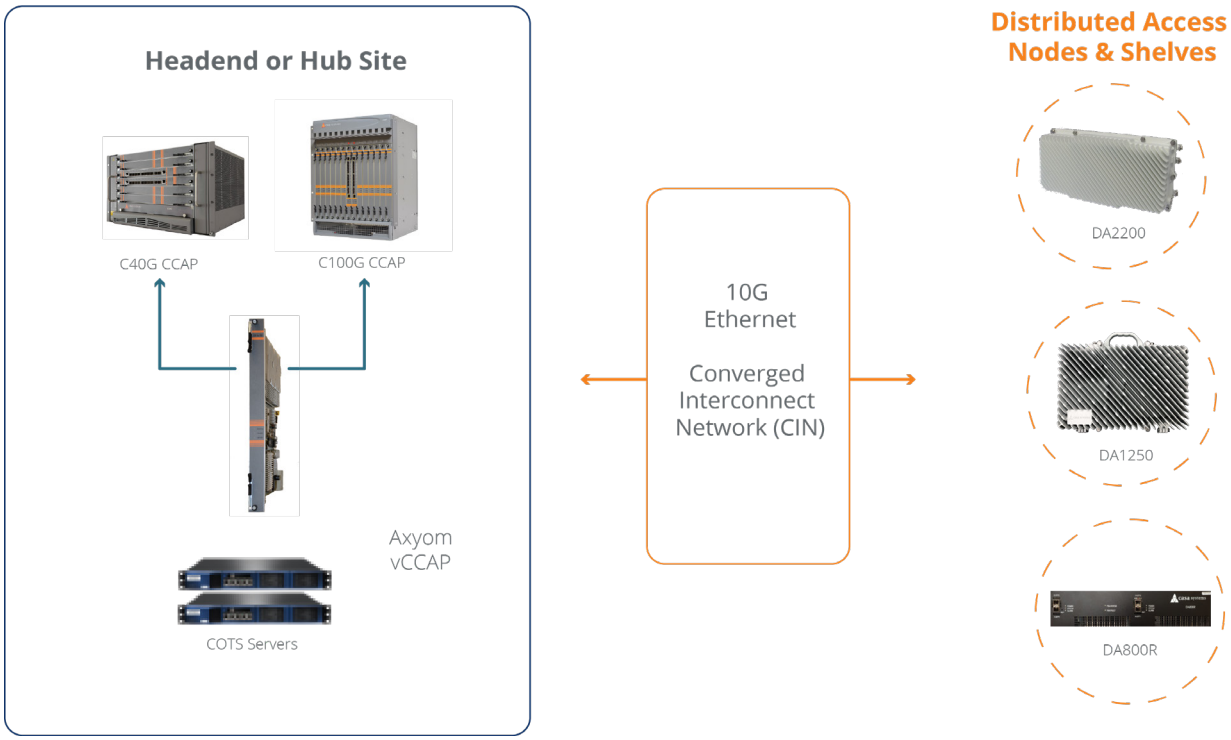
Our DAA portfolio provides full RF spectrum capabilities for both DOCSIS 3.0 and DOCSIS 3.1.

Security

Casa's Distributed Access Architecture takes into account the fact that service providers may need to locate the Distributed Access node in locations that are not as secure as typical headend sites, neither from an environmental nor external threat perspective.

Casa's DA Nodes are managed through the CCAP core at the headend rather than through a direct management interface, preventing changes in configuration or alteration of the behavior of the nodes through direct access.

The management and control of traffic between the CCAP core and the Distributed Access nodes are secured by IEEE 802.1x to guard against man-in-the-middle attacks. User data between the cable modem and the CCAP core is secured by DOCSIS BPI+ protocols. And, DVB Simulcrypt, PME or PKE secures video traffic, in the same way as an integrated CCAP.



Casa Systems' Distributed Access Architecture

Specifications and availability are subject to change. All values are typical unless otherwise noted.

Casa Systems Distributed Access: DA1250

Feature	Benefit
Plug and Play Deployment	At the headend, with a C100G or C40G running software release 8.6+ or beyond, plug in the CSC8x10G (CCAP Services Card) and make the necessary fiber connections. At the Distributed Access node site, simply connect the fiber and coax cable, then power on the node. Management and configuration of the Distributed Access Node is done from the CCAP core, either via SNMP or CLI Supported for both CCAP and vCCAP configurations
Input Power Flexibility	HFC plant powering supports deployment in a traditional strand environment AC Mains powering supports deployment in MDU environment
Full CCAP Services Support	Casa's Distributed Access solutions support all CCAP DOCSIS and video functions including SDV, VoD and linear broadcast video. Narrowband Digital Forward (NDF) and Narrowband Digital Return (NDR) are supported for OOB signals.
Gigabit+ Throughput	Designed for gigabit+ services, the DA1250 supports CCAP and vCCAP architectures and delivers 10Gbps on each optical link to the Distributed Access nodes.
Scalable optical compact node	Perfect for deployment in space and power constrained areas including pedestal or wire cabinet environments
Advanced Management Features	Efficient power management - automatically turns down unused amplifier stages
Strong Security at Every Point	An advantage of Casa's Distributed Access architecture is that the intelligence is centralized in the headend, making the system as a whole more secure than alternative approaches. Distributed Access nodes are managed through the headend CCAP core. The management/control traffic between the headend C100G and the node is secured by IEEE 802.1x, which guards against man-in-the-middle attacks. User data between the CM and the CSC is secured by DOCSIS BPI+ protocol; DVB Simulcrypt, PME, or PKE secure video traffic, in the same way as in an integrated CCAP.

Technical Specifications

	DA1250
General	
Physical Dimensions (LxWxH)	370 x 225 x 175 mm 14.6 x 8.85 x 6.89 inches
Mounting	Pedestal and Wall
Typical Weight (1x4 configuration)	<26.5 lbs (12 kg)
Connectors	4
Power Consumption	<100 W
Supply Voltage	RF: 35 – 105 VAC @ 47-63 Hz AC Mains: 90VAC – 300VAC @ 47-63 Hz
Optical Connectors (per R-PHY module)	2 SFP+
Test Point Connectors	Test Socket (internal)
Environmental	
Ambient Operating Temperature	-40C to 55C
Waterproof	IP67
DOCSIS	
Standard	CableLabs Remote PHY specifications (MHAv2)
Frequency Range	5 MHz - 65 MHz / 85 MHz - 1218 MHz 5 MHz – 85 MHz / 102 MHz – 1218 MHz 5 MHz - 204 MHz / 258 MHz - 1218 MHz
DS Segments	1
US Segments	1 or 2
DOCSIS 3.0 Channels	1 x 1: 12 ATDMA (US) and 128 NC-QAM (DS) 1 x 2: 6 ATDMA (US) and 128 NC-QAM (DS)
DOCSIS 3.1 Channels	1x1 or 1x2: 2 x 192 MHz OFDM 1x1: 2 x 96 MHz OFDMA 1x2: 1 x 96 MHz OFDMA
Maximum Output Power (QAM level 1218 MHz)	113 dBuV / 53 dBmV (2 RF Ports) 109 dBuV / 49 dBmV (4 RF Ports)

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