

Casa Systems C100G CCAP Technical Specifications



System

2x600 Gbps switching capacity
MPEG switching from any port to any port
12 DOCSIS module slots per system
1~11 Downstream modules per system
1~11 Upstream modules per system

DOCSIS Features

Full DOCSIS 3.0 compliant
Full EuroDOCSIS 3.0
DOCSIS 3.0 downstream channel bonding up to 64 channels
DOCSIS 3.0 upstream channel bonding up to 64 channels
DOCSIS 3.0 AES encryption/decryption
DOCSIS 3.0 IPv6
DOCSIS 3.0 Multicast
Complete DOCSIS/EuroDOCSIS 1.1 features
DOCSIS/EuroDOCSIS 2.0 A-TDMA (standard)
PacketCable 1.5 compliant
PacketCable MultiMedia (PCMM) 1.0
DSG
L2VPN

IP Features

OSPFv2
IS-IS (IPv4 & IPv6)
RIPv2
BGP (IPv4 & IPv6)
PIM-SM
IGMP snooping
IGMP v2 and v3
Static IP routing
DHCP Relay and option 82
DHCPv6
DHCP prefix delegation
Multiple DHCP servers
Proxy ARP
IP subnet bundling
Multiple default routes
Access Control Lists
MPLS

Management

RS232 serial port (RJ45)
10/100BASE-T management port
Command line interface (CLI)
Telnet
SSH
SNMPv1, v2 & v3
Standard DOCSIS & IETF MIBs
IPDR
Casa Systems Enterprise MIBs
Event logging through Syslog
Electronic mail notification
Resource usage reporting
TACACS+ and RADIUS

DOCSIS QAM Module (DQM)

DS8X4	32 channels, 4 channels/port
DS8X8	64 channels, 8 channels/port
DS8X96	1024 channels 128 channels/port
QAM modulation	Annex A or B
QAM constellations	64, 128 & 256 QAM
Data rates (DOCSIS)	27 Mbps @ 64 QAM 38 Mbps @ 256 QAM
Data rates (EuroDOCSIS)	36 Mbps @ 64 QAM 51 Mbps @ 256 QAM
Frequency range (center)	48 to 1000 MHz
Frequency step size	5 kHz
Channel width (tunable)	6 to 8 MHz
Maximum output/ch	60 dBmV @ 1-ch/port 56 dBmV @ 2-ch/port 52 dBmV @ 4-ch/port 49 dBmV @ 8-ch/port
Output step size	0.1 dB
Output accuracy	± 5ppm
Return loss	50 ~ 870 MHz, 14 dB 870 ~ 1002 MHz 10 dB
Modulation error rate	43 dB (equalized)
Wideband noise	-73 dBc

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DOCSIS Control and Upstream Module (DCU)

US16X2	32 channels, 2 channels/port 5–65Mhz
US16X4	64 channels, 4 channels/port 5–65Mhz
US16X8	128 channels, 8 channels/port 5–100Mhz
Modulation	QPSK, 8, 16, 32 & 64 QAM
Data rate/channel	0.32 – 30.72 Mbps
Input range	10 to 29 dBmV

Switch and Management Modules (SMM)

SMM2X10G	Two 10 GigE interfaces Eight GigE inter- faces GigE copper or fiber SFP Full line-rate support
SMM8X10G	Eight 10 GigE interfaces Two GigE inter- faces GigE copper or fiber SFP Full line-rate support

RF I/O Downstream Module (RFD)

Number of ports	8 ports per mod- ule
Connector	F-type, 75 Ω

RF I/O Upstream Module (RFU)

Number of ports	16 ports per module
Connector	F-type, 75 Ω

Additional Features

Dynamic upstream & downstream
load balancing
Spectrum Management
Software-defined MAC domains
Software channel licensing
Ingress cancellation filtering

Mechanical

Form factor	13RU
Height	21 in. / 533 mm
Width	19 in. / 482 mm
Depth	16 in. / 406 mm
Weight	120 lbs (fully loaded)
Mounting	19 inch, 13 rack unit high
Front panel LED	Power & alarm

Environmental

Operating temperature	0° to 50° C
Storage temperature	-40° to 70° C
Operating humidity	5% to 95%, non-cond.
Power requirements (DC)	-40.5 to -60 V (dual)
Power consumption	< 3600 W (nominal)

Regulatory Compliance

Designed to NEBS level 3 requirements



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