

# 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



**casa systems**

Casa Systems, Inc.  
100 Old River Road  
Suite 100  
Andover, MA 01810

Tel: 978.688.6706  
Fax: 978.688.6584

info@casa-systems.com  
www.casa-systems.com

