



# C4c™ CMTS Release 8.1 Technical Specifications

## Specifications

### Installation Environment

RF Interfaces	External 'F' type connector
Network-side Interfaces	10/100/1000 BaseT Ethernet and Gigabit Ethernet over fiber (SFP); 10 Gigabit Ethernet (XFP)
Power	Single power module (DC or AC) or dual power modules (AC/DC, AC/AC, or DC/DC) -48 Vdc (-44 to -72 VDC)      115/220 VAC (100 to 240 VAC, 47 to 63 Hz)
Power Consumption	At -48 VDC: 900 W nominal and 1,200 W max At 115 VAC: 1,000 W nominal and 1,350 W max

### RF Downstream

Frequency Range (MHz)	91 to 999 (DOCSIS® 3.0); 112 to 999 (EuroDOCSIS™ 3.0) (using 16D or XD CAM)
Modulation (QAM)	64, 256
Data Rate (Mbps) (Max.)	30.34 to 55.62 per channel
RF Output Level (dBmV)	41 to 60

### RF Upstream

Frequency Range (MHz)	5 to 65 (DOCSIS 3.0)
Modulation	QPSK, 16 QAM, 32 QAM, 64 QAM
Data Rate (Mbps) (Max.)	up to 30.72 per channel
Receive Input Level (dBmV)	-16 to 29

### Physical

Operating Temperature:	
Short Term °F (°C)	+23 to +131 (-5 to +55)
Long Term °F (°C)	+41 to +104 (+5 to +40)
Storage Temperature °F (°C)	-40 to +158 (-40 to +70)
Operating Humidity (Min.-Max.)	5 to 85% (Non condensing)
Dimensions (H x W x D) in. (cm)	12.25 x 18.05 x 22.5 (31.1 x 44.3 x 57.2)
Weight lbs. (kg)	116.2 (52.7)

### Software Release 8.1 Features (Partial List)

System Control Module 3 (SCM 3)	DOCSIS 3.0 Multicast IP Video Support (via IGMPv3)
PacketCable 2.0 LAES	Multicast CAC for IP Video (Phase 1)
IPv6 Support for PCMM	Policy-Based Routing
Load Balancing of D3.0 Voice Flows (DS and US)	Dynamic CM Load Balancing, including Cross-MAC Domain
DSG 3.0	DOCSIS 3.0 Sixteen Channel Bonding (Downstream)
Broadcast ARP and NS Request Reduction	DOCSIS 3.0 Four Channel Bonding (Upstream)
16D CAM, XD CAM (32D Annex B, 24D Annex A)	BSoD L2 VPN
12U CAM, 24U CAM	BPI+ Enforce
IPv6 Support, Including:	TFTP Enforce and Dynamic Shared Secret
IS-IS Multi-Topology Support	Integrated Upstream Agility
OSPFv3	PIM-SSM, IGMPv2, and static multicast
DHCPv6 Prefix Delegation with Route Injection	RIPv2 (RFC 1723), OSPFv2 (RFC 2328), IS-IS, BGPv4
Cable Source Verify with DHCP Lease Query	SII Lawful Intercept (RFC 3924)
TFTP Enforce & Dynamic Shared Secret for IPv6 CMs	802.1Q VLAN tagging

Continued on the next page...

# ARRIS Technical Specifications

## Specifications (continued)

### Regulatory

Safety: UL® 60950, CSA C22.2 No. 950, IEC60950  
EMC: GR-1089-CORE (ESD, Grounding Electrical Safety)  
FCC Part 15 Class A, EN300 386-2 (CISPR 22, Class A)  
Environmental: GR-63-CORE, ETS 300 019

### Ordering Information

Part Number	Description
<b>C4c Hardware and Software</b>	
780151	ARRIS C4c Chassis, 8 Slot Chassis Assembly – 7 RU Chassis
780271	C4c AC Power Supply Module
780272	C4c DC Power Supply Module
708369	Physical Interface Card (PIC) for the SCM with Fan Controller
799087	System Control Module 3 (SCM 3)
793931	System Control Module II Enhanced Memory (Updated) (SCM II EM(U))
722013	Router Control Module (RCM)
794046	Optimized 16D Cable Access Module (CAM) Kit (Active) Licensed for 16 Downstreams, DOCSIS/EuroDOCSIS 3.0
794048	Optimized 24D Cable Access Module (CAM) Kit (Active) Licensed for 24 Downstreams, EuroDOCSIS 3.0
794047	Optimized 32D Cable Access Module (CAM) Kit (Active) Licensed for 32 Downstreams, DOCSIS 3.0
794069	24U CAM Kit (Even) – 24U CAM, Even CAM PIC, and 24 Upstream Licenses, DOCSIS/EuroDOCSIS 3.0
794070	24U CAM Kit (Odd) – 24U CAM, Odd CAM PIC, and 24 Upstream Licenses, DOCSIS/EuroDOCSIS 3.0
801097	C4c CMTS System Software Release 8.1 DOCSIS 3.0 Licensed per Upstream for 12U/24U CAM
801098	C4c CMTS System software Release 8.1 DOCSIS 3.0 Licensed per Downstream for 16D/XD CAM
801094	C4c CMTS Release 8.1 on CD-ROM
<b>C4c XD Field Software Upgrade</b>	
793985	16D to 24D Cable Access Module (CAM) Field Software Upgrade, EuroDOCSIS 3.0
793986	16D to 32D Cable Access Module (CAM) Field Software Upgrade, DOCSIS 3.0
<b>Ethernet Network Interface Options</b>	
722872	C4 CMTS SFP Electrical Interface, 1000Base-TX
722093	C4 CMTS SFP Optical Interface, 1000Base-SX
780180	C4 CMTS SFP Optical Interface, 1000Base-ZX
728965	C4 CMTS SFP Optical Interface, 1000Base-LX10
722873	C4 CMTS XFP Optical Interface, 10GBase-SR
780243	C4 CMTS XFP Optical Interface, 10GBase-ER
728887	C4 CMTS XFP Optical Interface, 10GBase-LR/LW
780244	C4 CMTS XFP Optical Interface, 10GBase-ZR
<b>Maintenance Plan (required)</b>	
708387	Software Maintenance - Phone Plus Gold

Specifications are subject to change without notice.

The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice. ARRIS, the ARRIS logo, Auspice®, BigBand Networks®, BigBand Networks and Design®, BME®, BME 50®, BMR®, BMR100®, BMR1200®, C3™, C4®, C4c™, C-COR®, CHP Max5000®, ConvergeMedia™, Cornerstone®, CORWave™, CXM™, D5®, Digicon®, E6000™, ENCORE®, EventAssure™, Flex Max®, FTMax™, HEMI®, MONARCH®, MOXI®, n5®, nABLE®, nVision®, OpsLogic®, OpsLogic® Service Visibility Portal™, Opti Max™, PLEXIS®, PowerSense™, QUARTET®, Rateshaping®, Regal®, ServAssure™, Service Visibility Portal™, TeleWire Supply®, TLX®, Touchstone®, Trans Max™, VIPr™, VSM™, and WorkAssure™ are all trademarks of ARRIS Group, Inc. Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and the names of their products. ARRIS disclaims proprietary interest in the marks and names of others. © Copyright 2013 ARRIS Group, Inc. All rights reserved. Reproduction in any manner whatsoever without the express written permission of ARRIS Group, Inc. is strictly forbidden. For more information, contact ARRIS.



www.arrisi.com