



## C4® and C4c™ CMTS

### XD Cable Access Module



#### Features

- Significant increase in density without cabling changes
- DOCSIS® 3.0 downstream channel bonding
- Legendary C4 CMTS integrated “hitless” RF sparing
- Hot Swappable
- Supported in all C4 and C4c CMTS chassis
- XD Field Software Upgrade for deployed 16D CAMs via software license key

#### Application

The ARRIS C4® and C4c™ CMTS eXtended Downstream (XD) Cable Access Module (CAM) supports thirty-two DOCSIS® or twenty-four EuroDOCSIS™ 3.0 downstream channels. These channels are grouped onto four upconverters. With thirty-two DOCSIS Annex B downstream channels, each upconverter supports eight of the channels. With twenty-four EuroDOCSIS Annex A downstream channels, two of the upconverters each support eight of the channels and the other two upconverters each support four of the channels. The Physical Interface Card (PIC) of the XD CAM is the same as for the 16D CAM and has four F-connectors with each F-connector connected to the output of one of the upconverters. Each downstream channel on the same upconverter/F-connector must have a unique center frequency, but the channels are not required to be contiguous. The downstream channels on a single F-connector can span up to 78MHz (Annex B) or 80MHz (Annex A) of spectrum, allowing an MSO flexibility in choosing DOCSIS downstream frequencies.

#### DOCSIS 3.0 Downstream Channel Bonding

The XD CAM supports DOCSIS 3.0 downstream channel bonding with variable size bonding groups. This allows for the aggregation of two or more DOCSIS channels to support ultra high bandwidths. For example, Release 7.4 supports up to eight bonded downstream channels. With Annex B channels, eight channel bonding provides a 320Mbps data stream to a subscriber’s DOCSIS 3.0 cable modem.

#### ARRIS FlexCAM™ RF Sparing Technology

The C4 CMTS contains patented FlexCAM technology that provides fully integrated “hitless” RF sparing. This sparing includes support for multiple XD CAM RF sparing groups, the size of which can vary from one to seven active XD CAMs. If a failure occurs on an XD CAM with “hitless” RF sparing, the spare XD CAM automatically replaces the failed module so that all of the cable modems remain in service with minimal packet loss.

# C4® and C4c™ CMTS XD Cable Access Module

## Legacy DOCSIS 2.0, 1.1, and 1.0 Cable Modem Support

All channels on the XD CAM can support DOCSIS 3.0, including channel bonding, as well as DOCSIS 2.0 and 1.x modems at the same time. Further, no external timing server is required thus minimizing total system cost and increasing system availability.

## Flexible Upstream-to-Downstream Channel Mapping

Each downstream channel on the XD CAM can be associated with any upstream channel on a 12U CAM in the chassis. This allows the operator to “right size” the upstream-to-downstream ratio for each service group. This flexibility reduces capital costs as less channels will sit idle compared to a system with a fixed upstream-to-downstream ratio.

## Supported in Existing C4 and C4c CMTS Chassis

The XD CAM protects the operator’s investment as it is supported in all previously deployed C4 and C4c CMTS chassis when paired with the Router Control Module (RCM) and the 12U CAM.

## XD Field Software Upgrade

16D CAMs deployed in a C4 or C4c CMTS with system software Release 7.4 can be field software upgraded to XD operation with the purchase of a license key. This allows operators to increase the number of downstream channels without purchasing new hardware.

[www.arrisi.com](http://www.arrisi.com)

Find more information about XD Cable Access Module and other C4® and C4c™ products.

- Product Specifications — XD Cable Access Module Technical Specifications (Publication Code: C4\_CMTS\_XD\_TS.pdf)

## Customer Care

Contact Customer Care for product information and sales

- United States: 866-36-ARRIS
- International: +1-678-473-5656

---

The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice. ARRIS, the ARRIS logo, Auspice®, C3™, C4®, C4c™, Cadant®, C-COR®, CHP Max®, ConvergeMedia™, Cornerstone®, CXM™, D5™, Digicon®, Flex Max®, Keystone™, MONARCH®, n5™, nABLE™, nVision®, OpsLogic®, OpsLogic® Service Visibility Portal™, PLEXIS®, PowerSense™, Regal®, ServAssure™, Service Visibility Portal™, TeleWire Supply®, TLX®, Touchstone®, VoiceAssure™, 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 2011 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](http://www.arrisi.com)