



Training Catalog

Product training information for:

- ARRIS C4® Cable Modem Termination System
- ARRIS C3™ Cable Modem Termination System
- ARRIS D5™ Universal Edge QAM
- ARRIS Touchstone® products

Revised February 2009

Table of Contents

Table of Contents	2
Introduction	4
Training Policies	5
Touchstone Training Map	6
Touchstone Telephony Modem Installation	7
Touchstone VOIP Operations	8
C4 CMTS Training Map	9
Introduction to DOCSIS	10
C4 T-CMTS Quick Start	11
C4 T-CMTS Operations	12
C4 I-CMTS Quick Start	13
C4 I-CMTS Operations	14
C3 CMTS Training Map	15
Introduction to DOCSIS	16
C3 CMTS Quick Start	17
C3 CMTS Operations	18
D5 UEQ Training Map	19
Introduction to DOCSIS	20
D5 UEQ Quick Start	21
D5 UEQ Online Overview	22
D5 UEQ Operations	23
Atlanta Training Center	24

Chicago Training Center25

Amsterdam Training Center26

Introduction

ARRIS Training is the authorized training organization for ARRIS C4® Cable Modem Termination System, ARRIS C3™ Cable Modem Termination System, ARRIS D5™ Universal Edge QAM, and ARRIS Touchstone® products. We offer instructor-led training domestically to ARRIS customers in our Atlanta and Chicago training centers. We also offer training at the ARRIS training center in Amsterdam (CMTS only) by proposal. In addition to classes offered at our training center locations, we also offer customized and on-site training. All prices offered within this catalog are per person unless otherwise noted.

ARRIS Training Centers

Atlanta, GA

3871 Lakefield Drive, Suite 300
Suwanee, GA 30024

Chicago, IL

2400 Ogden Avenue, Suite 180
Lisle, IL 60532

Amsterdam, The Netherlands (CMTS classes scheduled by proposal)

Planetenweg 89
2132 HL Hoofddorp
The Netherlands

Contact Information

For information about ARRIS Training, refer to our web site:

<http://www.arrisi.com/support/training/index.asp>

Or call or email ARRIS Training at:

1.678.473.8446

arristraining@arrisi.com

Training Policies

Requesting ARRIS Training

Please visit our Web site to review the current catalog and course schedule for the Atlanta training center posted at:

<http://www.arrisi.com/support/training/index.asp>

Payment and Confirmation

Payment by purchase order (PO) is required to schedule training. Fax your PO to ARRIS Training at 1.678.473.8176 or email a pdf (including signature) to arristraining@arrisi.com. Please include the following:

- Student name(s)
- Employer's shipping and billing addresses
- Requested course or service name(s) and start date(s)
- Course or service order code(s)
- Course or service price(s)

Cancellation

ARRIS reserves the right to reschedule any class having fewer than 6 students enrolled four weeks prior to start date.

You may cancel or reschedule scheduled training up to four (4) weeks prior to the start date. No refund will be issued for cancellations made fewer than four (4) weeks prior to the start date or for participants who are not at the training site at the start of the class.

Prerequisites

It is the student's responsibility to ensure that s/he has the proper prerequisite knowledge and skills before taking an ARRIS training course. Students that do not meet the target audience description or have the prerequisite level of knowledge required for the course may find the course content too difficult, too easy, and/or inappropriate depending on their job and level of experience. All prerequisites are listed in the individual course descriptions in this catalog. Since ARRIS instructor-led training courses require you to complete prerequisite courses to ensure a successful experience, reservations for these courses will not be finalized until all prerequisites have been met.

Touchstone Training Map

Training Map

ARRIS Training recommends the following sequence for Touchstone Telephony Modem courses:

	<i>Course</i>	<i>Order Code</i>
1	Touchstone Telephony Modem Installation (Instructor-led)	714999
2	Touchstone VOIP Operations (Instructor-led)	715000

Touchstone Telephony Modem Installation

Order Code 714999

Description

Hands-on, instructor-led training on installing, using, and troubleshooting a Touchstone Telephony Modem.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Describe how the Touchstone Telephony Modem functions within the HFC network.
- ✓ Install and connect the Telephony Modem
- ✓ Use the standby feature and describe the LED indicators
- ✓ Perform general troubleshooting tasks

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

Introduction to DOCSIS, web-based course recommended

Delivery

Instructor-led

Duration

1/2 day

Materials

Course workbook

Price

\$1000 per course

Certificate

Yes

Touchstone VOIP Operations

Order Code 715000

Description

Hands-on, instructor-led training describing configuring, monitoring, and troubleshooting Touchstone Telephony modems (TTMs) in a Network-based Call Signaling environment (NCS).

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Describe the PacketCable network and discuss specifications.
- ✓ Describe ARRIS TTM models, features, and applications
- ✓ Identify key components of CM and MTA configuration file examples
- ✓ Discuss provisioning methods and call setup (including use of PacketAce and CallPFeatureSwitch)
- ✓ Troubleshoot TTMs

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

The following course(s) are recommended:

- Introduction to DOCSIS, web-based course

Delivery

Instructor-led (Atlanta office preferred).

Duration

3 days

Materials

Course workbook

Price

\$1800

Certificate

Yes

C4 CMTS Training Map

Training Map

ARRIS Training offers the following C4 CMTS courses:

<i>Course</i>	<i>Order Code</i>
Introduction to DOCSIS , web-based course	710494
C4 Traditional CMTS (T-CMTS) QuickStart (Instructor-led)	708694
C4 Traditional CMTS (T-CMTS) Operations (Instructor-led)	708695
C4 Integrated CMTS (I-CMTS) QuickStart (Instructor-led)	728970
C4 Integrated CMTS (I-CMTS) Operations (Instructor-led)	728971

Introduction to DOCSIS

Order Code 710494

Description

Web-based training offering a history, overview, and details on DOCSIS 1.0 to 2.0 specifications. This course serves as a prerequisite to ARRIS classroom training.

Audience

Operations, maintenance, and provisioning personnel.

Objectives

At the end of the course, you will be able to:

- ✓ Define DOCSIS standards, history and development
- ✓ Identify fundamental features of DOCSIS 1.0, 1.1 and 2.0
- ✓ Define the current implementation of DOCSIS 1.1 features

Prerequisite Skills

A familiarity with computer keyboarding and the use of a mouse is assumed.

This is a web-based training course

Duration

Self-paced

Materials

None

Price

\$100

Certificate

No

C4 T-CMTS Quick Start

Order Code 708694

Description

One-day session covering basic C4 CMTS concepts and commonly performed tasks. Familiarizes you with basic set-up, configuration, identification, and resolution of communication, data, or network problems involving the C4 CMTS.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Identify and describe components of the C4 CMTS System Architecture
- ✓ Enter commands using the Command Line Interface (CLI)
- ✓ Perform basic configuration
- ✓ Identify key monitoring and maintenance commands
- ✓ Perform system administration tasks
- ✓ Identify maintenance and troubleshooting procedures and approaches
- ✓ Identify commonly used MIBs and traps

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

None

Delivery

Instructor-led

Duration

1 day (immediately post-installation)

Materials

Course workbook

Price

\$2,500 per class

Certificate

No

C4 T-CMTS Operations

Order Code 708695

Description

Hands-on, instructor-led training on planning, commissioning, operations, administration, maintenance, and provisioning of a C4 CMTS.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Provide a high level description of how the C4 CMTS fits into the MSO network.
- ✓ Identify and demonstrate how the C4 CMTS interfaces are used.
- ✓ View the status of modules, cable modems, and the CMTS
- ✓ Configure a C4 CMTS
- ✓ Perform basic monitoring, diagnostics, and troubleshooting on the C4 CMTS.

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

Introduction to DOCSIS (web-based course) recommended

Delivery

Instructor-led

Duration

3 days

Materials

Course workbook

Price

\$1800

Certificate

Yes, upon 3-day completion.

C4 I-CMTS Quick Start

Order Code 728970

Description

One-day session covering basic C4 CMTS concepts and commonly performed tasks. Familiarizes you with DOCSIS 3.0 functionality and features, basic set-up, configuration, identification, and resolution of communication, data, or network problems involving the C4 CMTS.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Identify and describe components of the C4 CMTS System Architecture, including new hardware changes for DOCSIS 3.0
- ✓ Discuss implementation of DOCSIS 3.0 functionality
- ✓ Enter commands using the Command Line Interface (CLI)
- ✓ Perform basic configuration
- ✓ Identify key monitoring and maintenance commands
- ✓ Perform system administration tasks
- ✓ Identify maintenance and troubleshooting procedures and approaches
- ✓ Identify commonly used MIBs and traps

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

None

Delivery

Instructor-led

Duration

1 day (immediately post-installation)

Materials

Course workbook

Price

\$2,500 per class

Certificate

No

C4 I-CMTS Operations

Order Code 728971

Description

Two-day, hands-on, instructor-led training on DOCSIS 3.0 features and functionality, planning, commissioning, operations, administration, maintenance, and provisioning of a C4 CMTS.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Provide a high level description of how the C4 CMTS fits into the MSO network.
- ✓ Discuss DOCSIS 3.0 features and implementation in the C4 CMTS
- ✓ Identify and demonstrate how the C4 CMTS interfaces are used.
- ✓ View the status of modules, cable modems, and the CMTS
- ✓ Configure a C4 CMTS
- ✓ Perform basic monitoring, diagnostics, and troubleshooting on the C4 CMTS.

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

Introduction to DOCSIS (web-based course) recommended

Delivery

Instructor-led

Duration

2 days

Materials

Course workbook

Price

\$1200

Certificate

Yes, upon two-day completion.

C3 CMTS Training Map

Training Map

ARRIS Training offers the following C3 CMTS courses:

<i>Course</i>	<i>Order Code</i>
Introduction to DOCSIS , Web based course	710494
C3 CMTS QuickStart (Instructor-led)	710652
C3 CMTS Operations (Instructor-led)	713871

Introduction to DOCSIS

Order Code 710494

Description

Web- based training offering a history, overview and details on DOCSIS specifications. This course serves as a prerequisite to ARRIS classroom training

Audience

Operations, maintenance, and provisioning personnel.

Objectives

At the end of the course, you will be able to:

- ✓ Define DOCSIS standards, history and development
- ✓ Identify fundamental features of DOCSIS 1.0, 1.1 and 2.0
- ✓ Define the current implementation of DOCSIS 1.1 features

Prerequisite Skills

A familiarity with computer keyboarding and the use of a mouse is assumed.

Delivery

This is a web-based training course

Duration

Self-paced

Materials

None

Price

\$100

Certificate

No

C3 CMTS Quick Start

Order Code 710652

Description

One-day session covering basic C3 CMTS concepts and commonly performed tasks. Familiarizes you with basic set-up, configuration, identification, and resolution of communication, data, or network problems involving the C3 CMTS.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Identify and describe components of the C3 CMTS system architecture
- ✓ Enter commands using the Command Line Interface (CLI)
- ✓ Perform basic configuration
- ✓ Identify maintenance and troubleshooting procedures and approaches

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

None

Delivery

Instructor-led

Duration

1 day (immediately post-installation)

Materials

Course workbook

Price

\$2,500 per class

Certificate

No

C3 CMTS Operations

Order Code 713871

Description

Hands-on, instructor-led training on planning, commissioning, operations, administration, maintenance, and provisioning of a C3 CMTS

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Describe the features and functionality of the C3 CMTS.
- ✓ Navigate the C3 CMTS Command Line Interface (CLI) Manual and enter commands.
- ✓ Install and C3 CMTS and perform initial configuration.
- ✓ View the status of modules, cable modems, and the CMTS.
- ✓ Manage cable modems

Prerequisite Skills

A basic understanding of CATV systems, RF plant fundamentals, and data networking.

Prerequisite Courses

Introduction to DOCSIS (web-based course) recommended

Delivery

Instructor-led

Duration

3 days

Materials

Course workbook

Price

\$1800

Certificate

Yes, upon completion.

D5 UEQ Training Map

Training Map

ARRIS Training offers the following D5 UEQ courses:

<i>Course</i>	<i>Order Code</i>
Introduction to DOCSIS , web-based course	710494
D5 UEQ Online Overview , web-based course	728196
D5 UEQ QuickStart (Instructor-led)	722023
D5 UEQ Operations (Instructor-led)	721963

Introduction to DOCSIS

Order Code 710494

Description

Web- based training offering a history, overview and details on DOCSIS specifications. This course serves as a prerequisite to ARRIS classroom training

Audience

Operations, maintenance, and provisioning personnel.

Objectives

At the end of the course, you will be able to:

- ✓ Define DOCSIS standards, history and development
- ✓ Identify fundamental features of DOCSIS 1.0, 1.1 and 2.0
- ✓ Define the current implementation of DOCSIS 1.1 features

Prerequisite Skills

A familiarity with computer keyboarding and the use of a mouse is assumed.

Delivery

This is a web-based training course

Duration

Self-paced

Materials

None

Price

\$100

Certificate

No

D5 UEQ Quick Start

Order Code 722023

Description

One-day session covering basic D5 UEQ concepts and commonly performed tasks. This course provides a new D5 UEQ user an overview of the D5 UEQ components and how to install and start up the system.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end of this course, students will be able to:

- ✓ Identify the overall system functions and components for the D5 UEQ
- ✓ Use documentation to enter commands and interpret messages
- ✓ Identify the steps to install the D5 UEQ
- ✓ Configure the D5 UEQ system for initial service

Prerequisite Skills

An understanding of basic video broadcast technology, Ethernet, UDP, MPED transport, and CLI is recommended.

Prerequisite Courses

None

Delivery

Instructor-led

Duration

1 day (immediately post-installation)

Materials

Course workbook

Price

\$2,500 per class

Certificate

No

D5 UEQ Online Overview

Order Code 728196

Description

This web-based online course presents an overview of the D5 Universal Edge QAM (UEQ), the system components and management interface options.

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Identify the D5 UEQ function in the cable network.
- ✓ Identify the D5 UEQ components and component functions.
- ✓ Describe the system management methods.

Prerequisite Skills

Knowledge of basic video broadband technology, RF cable plant, IP network, and MPEG transport is recommended

Prerequisite Courses

Introduction to DOCSIS (web-based course) recommended

Delivery

Web-based

Duration

1.5 hours

Materials

None

Price

\$500

Certificate

No

D5 UEQ Operations

Order Code 721963

Description

Hands-on, instructor-led training to configure, operate, provision services, and maintain the ARRIS D5 Universal Edge QAM (UEQ).

Audience

Installation, operations, administration, maintenance, and provisioning, planning, and engineering personnel.

Objectives

At the end this course, you will be able to:

- ✓ Identify the overall system functions and components of the D5 UEQ
- ✓ Use the D5 UEQ Web Manager to configure and monitor the system
- ✓ Configure UDP port mapping
- ✓ Configure an IGMP multicast group
- ✓ Enable the CAS interface
- ✓ Provision service for VOD, DVB and/or SDV
- ✓ Provision support for M-CMTS
- ✓ Configure setup for RADIUS and details on TACACS+
- ✓ Monitor and maintain basic D5 UEQ operations

Prerequisite Skills

Knowledge of basic video broadband technology, RF cable plant, IP network, and MPEG transport is recommended

Prerequisite Courses

Introduction to DOCSIS (web-based course) recommended

Delivery

Instructor-led

Duration

2 days

Materials

Course workbook

Price

\$1200

Certificate

Yes, upon completion.

Atlanta Training Center

ARRIS

3871 Lakefield Drive
Suite 300
Suwanee, GA 30024
Tel: 1.678.473.2000
FAX 1.678.473.5218

From Atlanta Hartsfield Airport

- Go west out of airport to I-85 North which will merge with I-75 North to become the 75/85 Connector. Follow the signs to stay on I-85 North after I-75 splits off.
- Travel North on I-85 to Pleasant Hill Road exit (approx. 30 miles) and turn left on Pleasant Hill Road over I-85.
- Travel West on Pleasant Hill Road to Medlock Bridge Road, (Hwy. 141) and turn right.
- Travel North on Medlock Bridge Road to McGinnis Ferry Road and turn right.
- Travel East on McGinnis Ferry Road to Lakefield Drive and turn left.
- Travel North on Lakefield Drive to ARRIS at 3871 Lakefield Drive.

From I-285 Perimeter

- From I-285, take the 141N exit toward Cumming/Dahlonega. Follow 141N for approximately 15 miles and turn right onto McGinnis Ferry Road. (**Note:** 141N is also named both Peachtree Parkway and Medlock Bridge Road along this route.)
- Travel East on McGinnis-Ferry Road to Lakefield Drive and turn left.
- Travel North on Lakefield Drive to ARRIS at 3871 Lakefield Drive.

From I-985 or I-85 North of Suwanee

- Travel I-985 or I-85 South to Lawrenceville-Suwanee Road exit 111 and exit right.
- Travel West on Lawrenceville-Suwanee Road to Satellite Blvd and turn left.
- Travel South on Satellite Blvd. to McGinnis-Ferry Road and turn right.
- Travel West on McGinnis-Ferry Road to Lakefield Drive and turn right.
- Travel North on Lakefield Drive to ARRIS at 3871 Lakefield Drive.

Recommended Hotels (approximately 2 miles from ARRIS)

Hilton Garden Inn

11695 Medlock Bridge Road
Duluth, GA
1.770.476.1966

Hyatt Place Atlanta/Duluth/Johns Creek

11505 Medlock Bridge Road
Duluth, GA
1.770.622.5858

Holiday Inn Express

7146 McGinnis Ferry Road
Suwanee, GA
1.678.638.9800

Chicago Training Center

ARRIS
2400 Ogden Avenue
Suite 180
Lisle, IL 60532
Tel: 1.630.281.3000
FAX 1.630.281.3360

From Chicago O'Hare Airport

*10000 Bessie Coleman Dr,
Chicago, IL 60666
1.773.686.2200*

- From airport loop, merge onto I-190 E toward CHICAGO LOOP.
- From rent-a-car agencies, go south on Bessie Coleman Drive approximately one mile to I-190 East (CHICAGO LOOP)
- From I-190, merge onto I-294 South via EXIT 1D toward INDIANA (Portions toll).
- After approximately ten miles, merge onto I-88 West (Ronald Reagan Memorial Tollway) toward AURORA (Portions toll).
- After approximately 10 miles on I-88, exit IL-53 South.
- Take IL-53 South to US-34 west ramp.
- At the end of the ramp, turn right. Take Ogden Avenue approximately 1 mile to ARRIS. Our facility is on the north side of the road, about 1/2 mile west of Yackley Ave.

From Midway Airport

*5600 S. Cicero Ave.
Chicago, IL
1.773.838.0600*

- Start out going South on IL-50 S (S. Cicero Ave) toward W. 59th St.
- Make a U-TURN at W. 59th St. onto IL-50 North (S. Cicero Ave.)
- Merge onto I-55 South via the ramp on the left.
- After about 17 miles, merge onto I-355 North (North-South Tollway) via EXIT 269 toward WEST SUBURBS (Portions toll).
- Exit at OGDEN AVE (US-34). At the end of the ramp, turn left toward LISLE.
- Take Ogden Avenue approximately two and a half miles to ARRIS. Our facility is on the north side of the road about 1/2 mile west of Yackley Ave.

Recommended Hotels (approximately two miles from ARRIS)

Hilton Lisle/Naperville
3003 Corporate West Dr.
Lisle, IL 60532
1.630.505.0900

Hyatt Hotel
1400 Corporetum Dr.
Lisle, IL 60532
1.630.852.1234

Amerisuites Hotel
4305 Weaver Pkwy
Warrenville, IL 60555
1.630.393.0400

Amsterdam Training Center

ARRIS Group BV
Atlas Arena Building Azië
Hoogoorddreef 5
1101 BA Amsterdam
Tel: +31 20 311 2500
Fax: +31 20 311 2501

The best way to get from Schiphol airport to the Atlas building is by train. There is a direct train from Schiphol airport to the Amsterdam Bijlmer Arena station. The duration of the trip is 12 minutes. There is a direct train leaving every 30 minutes from Schiphol.

Recommended Hotels*:

NH Barbizon Amsterdam
Prins Hendrikkade, 59-72
1012AD Amsterdam
Tel: +31 20 556 4564

Crowne Plaza Amsterdam
Nieuwezijds Voorburgwal 5
1012 RC Amsterdam
Tel: +31 20 620 0500

NH City Centre
Spuistraat, 288-292
1012VX Amsterdam
Tel: +31 20 420 4545

**Company discounts apply for all the hotels listed above. Please mention that your booking is for ARRIS.*



ARRIS
Training Catalog

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