

The logo for RAD, consisting of the letters 'RAD' in white on a red rectangular background.

data communications



## **RADcare Product Training Courses**

### **Mastering Your RAD Equipment**

When you need to learn more about RAD products, who better to turn to than RAD's own expert engineers? More than simply product experts, our technicians are "trained trainers" who will guide you and your team through course materials via a carefully balanced mix of lecture, theory and hands-on experience.



For pricing or to schedule a training course, contact your authorized RAD Distributor or RAD directly by phone: 800-444-7234 (option 4) by email: [radcaresales@radusa.com](mailto:radcaresales@radusa.com)

# TRAINING COURSES AT-A-GLANCE

COURSE NAME	PRODUCTS COVERED	DURATION
Remote TDM Pseudowire	IPmux-8, IPmux-14, IPmux-24, IPmux-16, IPmux-216, MiTOP	3 days
Central TDM Pseudowire Gateway	Gmux-2000	2 days
Voice Trunking Gateways	Vmux-110, Vmux-210, Vmux-2100	2 days
Ethernet over Fiber	ETX-102, ETX-201, ETX-202, ETX-550, ETX-202A, MiRIC, MiRiCi	2 days
Ethernet over TDM	RICi-16, RICi-4T1, RICi-8T1, RICi-T1, RICi-T3	2 days
Ethernet over STM-1/OC-3 NTU	RIC-155, RIC-155GE, RICi-155GE	2 days
Central Ethernet over TDM	Egate-20, Egate-100	2 days
Multiservice Access Node	MP-4100	3 days
Multiplexers	MP-2100, MP-2104	3 days
Fiber Multiplexers	OP-106, OP-25, OP-34, OP-45, OP-1551, OP-1553	2 days
Subrate Multiplexers	Kilomux-2104, Kilomux-2100	2 days
Wireless Multiplexers	Airmux-200, Airmux-400	1 day
Cross Connects	DXC-2, DXC-4, DXC-8R, DXC-10A, DXC-30	2 days
Central Cross Connect	DXC-100	2 days
SDH/SONET ADMs	FCD-155, FCD-155E	2 days
ATM NTUs	ACE-52, ACE-201, ACE-202, ACE-2002, ACE-2002E	2 days
Cellular Backhaul	ACE-3100, ACE-3200, ACE-3400, ACE-3402	2 days
Network Management	RADview	1 day

**Note:** Students who travel to our Mahwah, NJ training facility are responsible for making and paying for their own travel / hotel arrangements. We will be happy to offer accommodation recommendations upon request.

# TRAINING OVERVIEW

All training courses are conducted at RAD's North American headquarters in Mahwah NJ. Prices include:

- Training for up to ten (10) students
- Comprehensive instruction provided by RAD's experienced product technicians
- Breakfast and lunch on each training day
- A CD-ROM containing all course material for each student to keep at the conclusion of the training

You may opt to have the training conducted at your location (additional charges will apply).

*"I'm sure you've heard this many times before, but I would just like to comment on the quality of the training material and theory that you provided to our staff. I have to say I have never been more impressed by a training course than I was with the one given by RAD. It is without a shadow of a doubt the most practical and useful buy I have ever made."*

- **Rudy Walker, Datacomm Manager, Bahamas Telecommunications Company (BTC)**

## COURSE: Remote TDM Pseudowire (RADcare/TN/IPMUX)

**Products Covered:** IPmux-8, IPmux-14, IPmux-24, IPmux-16, IPmux-216, MiTOP

**Duration:** 3 days

**Description:** A comprehensive overview of Pseudowire technology and related protocols including TDMoIP, CESoPSN, SAToP and HDLCoPSN. Topics include how to properly plan an IPmux deployment, configuration guidelines, T1 diagnostics, and troubleshooting IPmux network issues. A workshop component will provide hands-on experience. Upon completion of this course, students will have a clear understanding of Pseudowire technology along with the necessary skills to configure and troubleshoot IPmux equipment.

## COURSE: Central TDM Pseudowire Gateways (RADcare/TN/GMUX)

**Products Covered:** Gmux-2000

**Duration:** 2 days

**Description:** A comprehensive overview of Pseudowire technology and related protocols including TDMoIP, CESoPSN, SAToP and HDLCoPSN. Topics include how to properly plan a Gmux deployment, configuration guidelines, T1 diagnostics, and troubleshooting Gmux network issues. A workshop component will provide hands-on experience. Upon completion of this course, students will have a clear understanding of Pseudowire technology along with the necessary skills to configure and troubleshoot Gmux equipment.

## COURSE: Voice Trunking Gateway (*RADcare/TN/VMUX*)

**Products Covered:** Vmux-110, Vmux-210, Vmux-2100

**Duration:** 2 days

**Description:** A comprehensive overview of voice trunking technology and Vmux product functionality - including TDMoIP, Codec rates (G.723.1, G.729A and G.711) and voice signaling. Topics include how to correctly plan a Vmux deployment. A workshop component will provide hands-on experience during which students will build a typical Vmux application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot Vmux equipment.

## COURSE: Ethernet over Fiber (*RADcare/TN/ETX*)

**Products Covered:** ETX-102, ETX-201, ETX-202, ETX-550, ETX-202A, MiRIC, MiRiCi

**Duration:** 2 days

**Description:** A comprehensive overview of ETX and MiRIC product functionality, including SLA support, VLAN, Ethernet monitoring and diagnostics. Topics include how to correctly plan an ETX/MiRIC deployment and configuration guidelines. A workshop component will provide hands-on experience during which students will build a typical ETX application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot ETX and MiRIC equipment.

## COURSE: Ethernet over TDM (*RADcare/TN/RiC*)

**Products Covered:** RiCi-16, RiCi-4T1, RiCi-8T1, RiCi-T1, RiCi-T3

**Duration:** 2 days

**Description:** A comprehensive overview of RiCi product functionality, including VLAN-aware and VLAN-unaware bridging, VLAN stacking, QoS priority and fault propagation. Topics include how to properly deploy a RiCi application, configuration guidelines and diagnostics. A workshop component will provide hands-on experience during which students will build a typical RiCi application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot RiCi equipment.

## COURSE: Ethernet over STM-1/OC-3 NTU (*RADcare/TN/RIC155*)

**Products Covered:** RIC-155, RIC-155GE, RICi-155GE

**Duration:** 2 days

**Description:** A comprehensive overview of RIC-155 product functionality. A workshop component will provide hands-on experience during which students will build a typical RIC-155 application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot RIC-155 equipment.

## COURSE: Central Ethernet over TDM (*RADcare/EGATE*)

**Products Covered:** Egate-20, Egate-100

**Duration:** 2 days

**Description:** A comprehensive overview of Egate product functionality. A workshop component will provide hands-on experience during which students will build a typical Egate application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot Egate equipment.

## COURSE: Multiservice Access Node (*RADcare/TN/MAN*)

**Products Covered:** MP-4100

**Duration:** 3 days

**Description:** A comprehensive overview of MP-4100 product functionality. Topics include how to properly deploy the MP-4100, configuration guidelines for MP chassis and I/O cards, and TDM diagnostics. A workshop component will provide hands-on experience during which students will build a typical MP-4100 application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot MP-4100 equipment.

## COURSE: Multiplexers *(RADcare/TN/MP)*

**Products Covered:** MP-2100, MP-2104

**Duration:** 3 days

**Description:** A comprehensive overview of MP-2100 product functionality. Topics include how to properly deploy the MP-2100, configuration guidelines for MP chassis and I/O cards, and TDM diagnostics. A workshop component will provide hands-on experience during which students will build a typical MP-2100 application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot MP-2100 equipment.

## COURSE: Fiber Multiplexers *(RADcare/TN/OP)*

**Products Covered:** OP-106, OP-108, OP-25, OP-34, OP-45, OP-1551, OP-1553

**Duration:** 2 days

**Description:** A comprehensive overview of Optimux product functionality. Topics include how to properly deploy Optimux products, configuration guidelines (including OP-45 RING), and TDM diagnostics. A workshop component will provide hands-on experience during which students will build a typical Optimux application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot Optimux equipment.

## COURSE: Subrate Multiplexer *(RADcare/TN/KM)*

**Products Covered:** Kilomux-2100, Kilomux-2104

**Duration:** 2 days

**Description:** A comprehensive overview of Kilomux-2100 product functionality. Topics include how to properly deploy the Kilomux-2100, configuration guidelines for KM chassis and I/O cards, and diagnostics. A workshop component will provide hands-on experience during which students will build a typical Kilomux-2100 application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot Kilomux-2100 equipment.

## COURSE: Wireless Multiplexers (*RADcare/TN/Airmux*)

**Products Covered:** Airmux-200, Airmux-400

**Duration:** 1 day

**Description:** A comprehensive overview of Airmux-200 and Airmux-400 product functionality. Topics include the necessary steps to plan a successful Airmux installation: proper configuration, determining line of sight, using the Airmux calculator, interference issues, and T1 diagnostics. A workshop component will provide hands-on experience during which students will build a typical Airmux application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of how to correctly install, configure and troubleshoot Airmux equipment.

## COURSE: Cross Connects (*RADcare/TN/DXC*)

**Products Covered:** DXC-2, DXC-4, DXC-8R, DXC-10A, DXC-30

**Duration:** 2 days

**Description:** A comprehensive overview of DXC product functionality and supported services: n x 56/64 kbps, ISDN, IDSL, SHDSL, T1/E1, T3/E3 and STM-1. Topics include how to properly deploy DXC products, configuration guidelines for DXC chassis and I/O cards, and TDM diagnostics. A workshop component will provide hands-on experience during which students will build a typical DXC application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot DXC equipment.

## COURSE: Central Cross Connects (*RADcare/TN/DXC100*)

**Products Covered:** DXC-100

**Duration:** 2 days

**Description:** A comprehensive overview of DXC-100 product functionality and supported services: n x 56/64 kbps, T1/E1, T3/E3 (including G.747), OC-3, STM-1, and channelized router. Topics include how to properly deploy the DXC-100, configuration guidelines for DXC chassis and I/O cards, PSX protect configuration, and TDM diagnostics. A workshop component will provide hands-on experience during which students will build a typical DXC-100 application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot DXC-100 equipment.

## COURSE: SDH/SONET ADMs (RADcare/TN/FCD)

**Products Covered:** FCD-155, FCD-155E

**Duration:** 2 days

**Description:** A comprehensive overview of FCD-155 product functionality. A workshop component will provide hands-on experience during which students will build a typical FCD-155 application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot FCD-155 equipment.

## COURSE: ATM NTUs (RADcare/TN/ATM)

**Products Covered:** ACE-52, ACE-201, ACE-202, ACE-2002, ACE-2002E

**Duration:** 2 days

**Description:** A comprehensive overview of ACE product functionality. Topics include configuration guidelines for ACE chassis and I/O cards, and TDM diagnostics. A workshop component will provide hands-on experience during which students will build a typical ACE application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot ACE equipment.

## COURSE: Cellular Backhaul (RADcare/TN/ACECB)

**Products Covered:** ACE-3100, ACE-3200, ACE-3400, ACE-3402

**Duration:** 2 days

**Description:** A comprehensive overview of ACE-3000 series product functionality for cellular backhaul applications, including ATMoPSN, TDMoPSN, clock synchronization, and advanced Pseudowire QoS. Topics include how configuration guidelines and diagnostics. A workshop component will provide hands-on experience during which students will build a typical ACE-3000 series application and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of the technology and how to correctly configure and troubleshoot ACE-3000 series equipment.

**Products Covered:** RADview

**Duration:** 1 day

**Description:** A comprehensive overview of RADView systems and the RADView License Manager. Students will be guided step-by-step through installation of the RADView service center. A workshop component will provide hands-on experience during which students will install the RADView software, configure alarm notifications, configure RAD products using the RADView GUI and have the opportunity to troubleshoot common issues. Upon completion of this course, students will have a clear understanding of how to correctly install, configure and troubleshoot the RADView software.

**Need pricing? Ready to schedule your training course?**

Contact your Authorized RAD Distributor or RAD directly: by phone (800) 444-7234 “option 4”, or by email [radcaresales@radusa.com](mailto:radcaresales@radusa.com).

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