



RFL Electronics Inc.

TRAINING OUTLINE

IMUX 4000 SONET

1 INTRODUCTION

- 1.1 Course Overview
 - 1.1.1 Day One
 - 1.1.2 Day Two

2 TRAINING OVERVIEW

- 2.1 This training program provides installation and maintenance technicians with the information they need to install, configure, and use RFL'S IMUX 4000 systems in a SONET environment.
- 2.2 Training course period is from 3 to 5 days depending on customer network.
- 2.3 This program consists of 8 theory modules interspersed with hands-on labs as follows:
 - 2.3.1 Module 1: SONET protocol introduction
 - 2.3.2 Module 2: IMUX 4000 product line
 - 2.3.3 Module 3: Basic components and software
 - 2.3.4 Module 4: Interface components
 - 2.3.5 Module 5: Signal-mapping components
 - 2.3.6 Module 6: OSIRIS-VUE Software
 - 2.3.7 Module 7: Network applications
 - 2.3.8 Module 8: Miscellaneous topics

3 MODULE 1: SONET PROTOCOL INTRODUCTION

- 3.1 This module introduces the SONET protocol. The following topics are discussed:
 - 3.1.1 SONET introduction
 - 3.1.2 SONET benefits

RFL Electronics Inc.

Powerville Road, Boonton NJ 07005

Phone: (973) 334-3100 Fax: (973) 334-3863

- 3.1.3 SONET networks
- 3.1.4 Path Protection Switching
- 3.1.5 SONET protocol

4 MODULE 2: IMUX 4000 PRODUCT LINE

- 4.1 This module introduces the IMUX 4000 product line as follows:
 - 4.1.1 Introduction
 - 4.1.2 The IMUX 4000 STD Shelf
 - 4.1.3 The IMUX 4000 XTS Shelf
 - 4.1.4 The IMUX 4000 XTD Shelf

5 MODULE 3: BASIC COMPONENTS AND SOFTWARE

- 5.1 This module introduces the basic components common to all IMUX 4000 ADMs:

- 5.1.1 The Network Monitor & Control Unit (NMCU)
- 5.1.2 The Optical Access Unit (OAU)
- 5.1.3 The NE software that runs on the NMCU

6 MODULE 4: INTRODUCING ACIUs AND TIUs

- 6.1 This module examines the interface components of the RFL IMUX 4000 product; the Alarm and Craftsperson Interface Units (ACIUs) and the Tributary Interface Units (TIUs). This module is organized as follows:
 - 6.1.1 Introducing ACIUs and TIUs
 - 6.1.2 IMUX 4000 STD Shelf ACIU
 - 6.1.3 IMUX 4000 STD Shelf TIU
 - 6.1.4 IMUX 4000 XTS Shelf ACIU
 - 6.1.5 IMUX 4000 XTS Shelf TIU
 - 6.1.6 IMUX 4000 XTD Shelf ACIU
 - 6.1.7 IMUX 4000 XTD Shelf TIU

7 MODULE 5: SIGNAL-MAPPING COMPONENTS

- 7.1 This module examines the IMUX 4000 signal-mapping component as follows:
 - 7.1.1 Introducing IMUX 4000 Mappers
 - 7.1.2 The DS1 and DS-1 PM+ Mappers
 - 7.1.3 The DS3 Mapper
 - 7.1.4 The EC-1 Mapper
 - 7.1.5 The Ethernet Mapper

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- 7.1.6 The Fast Ethernet Mapper
- 7.1.7 MSE(Multi-Service Ethernet) Mapper
- 7.1.8 The OC-3c Mapper
- 7.1.9 The PacketPath Ethernet and ATM Mappers
- 7.1.10 The AUX2
- 7.1.11 The PSCU (Protection Switch Control Unit)

8 MODULE 6: OVERVIEW SOFTWARE

- 8.1 This module introduces the OverView network element management software and describes its key functions.

9 MODULE 7: IMUX 4000 NETWORK APPLICATION

- 9.1 IMUX 4000 networks can be configured in many ways. To get an understanding of the type of network applications possible, the following applications are discussed:

- 9.1.1 Point to Point Application
- 9.1.2 Broadcast Application
- 9.1.3 Logical Ring Application
- 9.1.4 Path Protected Interconnected Ring
- 9.1.5 Dual Homing Application
- 9.1.6 Bandwidth Reuse Application

10 MODULE 8: MISCELLANEOUS TOPICS

- 10.1 This last module discusses these topics:
 - 10.1.1 Software upgrades with SND32
 - 10.1.2 Synchronization
 - 10.1.3 Data Communication Channel (DCC) considerations
 - 10.1.4 SONET: Beyond DS3/STS-1 rates

CONCLUSION