



## **SRT 1C SDH Trunk Radio – Operation, Administration, Maintenance and Commissioning – IMC04METD**

### **Brief Description**

- SRT 1C SDH RADIO Operation, Administration, Maintenance and Commissioning is a course for service. The topics are among others getting to know the Features, Equipment and System Operation, including practical exercises. After completing this course, the participant is acquainted with equipment features, design, applications, operations and maintenance.

### **Target Group**

- Personnel who commission and integrate SRT 1C SDH Trunk Radio
- Personnel who operate and maintain SRT 1C SDH Trunk Radio

### **Learning Target**

- The participant is able to:
  - discuss equipment features, design and applications
  - practice operation and maintenance
  - practice commissioning

### **Prerequisite**

- Participants must have some technical knowledge in telecommunications.
- Some basic knowledge in PDH & SDH is required.

### **Contents**

- **SDH CONCEPTS**
- Digital structure of SDH signals
- STM-1 frame structure
- **SDH TRANSMISSION NETWORK**
- General description
- Multiplex section and regenerator section
- **GENERAL DESCRIPTION**
- Main characteristics
- Mechanical structure.
- Network Integration.
- Transmitter
- Receiver
- 128/64 TCM Modem
- Baseband and protection switching



- Hitless Protection Switching
- Synchronization
- Alarms
- Equipment management
- **TECHNICAL CHARACTERISTICS**
- Technical characteristics 64 / 128 TCM
- TX characteristics
- RX characteristics
- ATPC
- Base Band and N:1 Switching
- **SYSTEM CONFIGURATION AND LAYOUT**
- Block diagram of the configurations
- Functional blocks of the SDH radio system
- Tributary protection.
- Equipping kit according to the configuration
- **EQUIPMENT COMPOSITION**
- Functional description of the units
- Radio Subrack
- External connections
- **MAINTENANCE**
- Visual indicators, connectors and test points
- Normal operating conditions
- Alarm conditions
- Fault location
- Transmitter and receiver/ Demodulator units alignment
- **PRESETTINGS**
- Hardware presetting
- Hardware presetting on backplane of BB sub rack
- Presetting for space diversity antenna positioned at a lower height as to the main antenna
- Supply voltage of the rack lamp panel with -60 V or -48 V service voltage
- **TURN ON**
- Power supply and presetting
- Local checks
- RF frequency measurement .
- RF Tx output power measurement
- RF Tx spectrum check
- AGC curve and intervention check of the PRx alarm
- IF level and modulator output spectrum
- Pulse mask check.
- HOP Checks
- Received power measurement
- Equalization of the IF frequency response
- BER measurement ATPC check
- **RUI SOFTWARE**



- Connection between PC and Receiver unit
- Use of RUI program
- **LCT OVERVIEW**
- LCT features
- Fault Management
- Configuration Management
- Performance Management
- Security Management
- LCT - local equipment connection
- Local map
- Installation
- System requirements
- Installation procedure

### Notes

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### Duration

5.00 days

### Related Courses: learning path link

- Basic on Digital Radio (IMC0018METD) – PDH Basics (TG2510-01S) – SDH Basics (TG2500-01S)

### Max number of participants (suggested)

8

### Course Type

Practical and theoretical course with test-bed