

ETA Competency Requirements

ASTRO® 25 7.x Quantar Repeater Site Technician

The following is a listing of each topic considered necessary to be included in a course of study towards the education of technicians performing installation, maintenance and repair of an ASTRO® 25 7.x Quantar Repeater Site. There are 5 categories of training. This COMPETENCY listing is the syllabus, or identification of each individual subject, in which the technician must be knowledgeable and skilled.

The Quantar Repeater Site Technician as a Standalone does not require the Associate CET. To obtain the Journeyman CET level, the Associate and three of the four ASTRO® 25 Series certifications are required. The ASTRO® 25 Series consists of the Master Site Technician 7.x (MST 7.x), Radio Network Administrator 7.x (RNA 7.x), the Quantar Repeater Site Technician (RST) and the GTR 8000 Repeater Site Technician (GTR) certifications.

ASTRO® 25 7.x Quantar RST Competencies

ASTRO® 25 System Overview

- Purpose of the ASTRO 25 IV&D System.
- ASTRO 25 system features and capabilities.
- ASTRO 25 system subsystems and their respective functions.
- ASTRO 25 system and software tools.
- ASTRO 25 system compatible end-user devices.

Upgrading to a ASTRO® 25 System

- Foundational Principle
- Radio Frequency Subsystem
- Control Subsystem
- Audio Distribution Subsystem
- Transport Subsystem
- Management Subsystem
- Modulation Overview
 - Representation of Audio and DATA information
 - SECURENET Overview
 - Pulse Code Modulation Overview
 - ASTRO® Overview
 - Frequency Modulation
- Conventional Communications
 - Radio to radio
 - Repeater
 - Base Station/Console
 - Conventional System to
 - Trunking System Transition
- SMARTNET II Trunking Concepts
 - Call Processing

ETA International

- Features
- Transition Principles
- Multiple Site Communication Principles
 - Terminology Issues
 - Conventional Multiple Site Systems
 - Voting Systems
 - Simulcast Systems
 - Trunking
 - Voting Systems
 - Simulcast Systems
- SmartZone System Principles
 - Concepts
 - Features
 - Control Path
 - Circuit-Switched-Based Audio Path
 - Network-Based Management System
- ASTRO® 25 System Principles
 - Concepts
 - Features
 - Packet Switch Based Control Path
 - Packet Switch Based Audio Path
 - Network-Based Management System
- Networking Fundamentals
 - Computer Insights Applied to Networking
 - Network Concepts and Hardware
 - Network Addressing
 - Basic Troubleshooting

Communications Networking

- TCP/IP Basics
- Types of Protocols
- Addressing
- Microsoft Windows Client and Server
- Constructing a network
- Connecting Routers
- Troubleshooting

Motorola Communications Networking

- Introduction to Motorola Systems
- Review of Basic Networking Concepts
- Networking in Motorola Systems
 - ASTRO SmartZone System 4.1
 - ASTRO 25 System 6.x / 7.x
- Advanced Networking Concepts
- Network Security Concepts
- T1 and Frame Relay

ETA International

- Hands on access to the components used in Motorola Communications
- System networks
- Troubleshooting

ASTRO® 25 7.x Quantar Repeater Site

- Repeater Site
- Site Controller
- Site Repeater
- Network Transport Subsystem
- Repeater Site Maintenance and Troubleshooting