

# Proteus UMX Operation, Maintenance, and Installation

## COURSE TOPICS

### Overview of the Proteus UMX

- AIS (Auto Interference Sensibility)
- ACM (Adaptive Code Modulation)
- MIMO (multiple input, multiple output)
- ACS – Automatic Channel Selection
- DFS - Dynamic Frequency Selection

### Hardware Configurations

- Architecture
- RFU Antenna
- 1000BaseT

### Other External Connections

- Power
- Cat 5 cable

### Provisioning

- Link Manager
- Network Management System (NMS)
- Simple Network Management Protocol (SNMPc)

### Troubleshooting and Repair

- Alarms
- Firmware Download Process
- Configuration Backup and Restore

### Grounding

- Site grounding
- Equipment grounding
- Ground termination
- Testing ground connections

### Commissioning

- Commissioning procedure
- Recommended commissioning test

### Overview:

The Proteus UMX Operation, Maintenance and Installation course is an instructor lead theory and hands on training class. Along with theory of operations the students will work on a Proteus radio link on equipment configuration and troubleshooting. This course is conducted by certified Microwave Network instructor with extensive practical field experience.

### Objective:

Upon completion of the course the student will understand the Proteus UMX operations and work with the Link Manager to configure, provision and troubleshoot the radio.

### Prerequisites:

Completion of Fundamental of Microwave Radio course or understanding of following:

- Basic microwave systems operations
- Basic RF knowledge: modulation, propagation, power and signal measurements
- Fundamentals of networking

## Proteus UMX Operation, Maintenance, and Installation

### **Hands On Practical Exercises**

- Configuration Backup and Restore
- Hands-on troubleshooting and correction
- RF Analyzer
- Payload Configuration
- Software Updates

\* Note – Course material subject to change.