

## Industrial Networks Education

# WiMAX with RUGGEDCOM

### General Information

Course Code: IEN-RCMWIMAX  
Length: 3 Days

### Audience

This course is for users who are involved with developing or sustaining networks in rugged environments – such as Electric Power, Transportation, Rail, and Defense markets, where RUGGEDCOM equipment is required. This includes, but is not limited to the following:

- Application Engineers
- Automation Engineers
- Communication Engineers
- Control Engineers
- Operations or IT Network Engineers
- Project Engineers
- Substation Engineers
- System Engineers

### Prerequisites

- Basic knowledge of the topic "Ethernet".
- Familiar with network topologies, Media Access Control (MAC), Internet Protocol, data transport and associated technical vocabulary
- Familiar with the principles of switching operations, hubs and the OSI reference model.
- Recommended: Participants are encouraged to attend the [Industrial Ethernet Fundamentals](#) training course or complete the ITIN online training.

### Profile

This course is one of three networking certification courses which incorporate RUGGEDCOM products into the curriculum, ensuring students learn and test using products they use on a regular basis. The curriculum covers network solutions and how they connect to real-time systems in theory and in practice.

Throughout the course, students will have ample time for practical exercises, diagnostics, and troubleshooting. The course uses a hands-on model for realistic demonstrations.

At the end of the course, students are equipped with the knowledge to plan, configure, operate and provide support for networks in their specific market.

### Objectives

*Upon completion of this course, the student will learn:*

- Wireless concepts
- WiMAX technology details
- RUGGEDCOM WIN product line configuration
- Modulation schemes, noise, interference, fading, multipath, WiMAX PHY/MAC and system provisioning.

### Topics

1. Wireless Overview
2. WiMAX Technology Overview
3. End-to-End WiMAX Solution
4. RUGGEDCOM WIN Network Entry
5. RUGGEDCOM WIN Service Flow & VLANs
6. RUGGEDCOM WIN Security
7. RUGGEDCOM WIN Monitoring & Troubleshooting