

Interference Analysis for the Land Mobile Radio Environment Training Course

Interference Analysis using the S412D LMR Master

An intense two-day instructor led training course that focuses on the unique challenges of locating and mitigating RF interference in a Land Mobile Radio environment

- **Thorough Emphasis:** Learn the essential and necessary skills needed to keep your wireless communications system free from RF interference.
- **Hands-on:** Participate in hands-on labs designed to enhance your proficiency with the measurement equipment and to offer definitive metrics for identifying interference and tracking it to its source.
- **Stay ahead of the curve:** Join the growing number of Technicians, Engineers and Managers who are taking the initiative in managing their wireless technology.
- **Cost Savings:** Eliminate or significantly reduce your travel expenses because training sessions are offered at a location close to you (or even at your location).
- **Schedule:** Training sessions can be easily scheduled months in advance. Get more specific details regarding class location, including information about discounts or having a dedicated training session at your company site.
- **Contact us directly:**
E-mail us at us-training@anritsu.com.
Register online at www.us.anritsu.com/training.

Who should attend Anritsu's Interference Analysis Training?

- Technicians
- Engineers
- Managers

You Will Learn

Land Mobile Radio Systems provide the critical link between mobile units and a dispatcher. These systems must be highly reliable so the users can dependably communicate with each other for coordination and assignments.

Radio-Frequency interference can disrupt the smooth flow of communication in a Land Mobile Radio System, leading to inefficiency and losses. It can also be aggravating to users of the communication system.

In this 2-day course, technical personnel will learn how to use the Anritsu LMR Master's Spectrum Analyzer mode to positively identify, measure, locate and mitigate interference. The LMR Master's P25 mode makes it easy to measure the impact of the interference on the received signal throughout the coverage area.

Students will leave this class confident in their ability to use a Spectrum Analyzer to identify and track down interference. In addition, P25 system owners will be more confident in the use of Bit Error Rate to measure communication link coverage and impairment.

Numerous case studies of actual interference allow the student to better understand how interference can manifest itself and how to approach resolving it.



Anritsu

Yes! Sign up now for Interference Analysis for the Land Mobile Radio Environment Training Course...

Day One Overview

The first day is dedicated to learning how to set-up the analyzer to display and record signals and interference. More than half of the first day is dedicated to hands-on labs, in which the student configures the analyzer for maximally-sensitive spectrum measurements on narrowband, wideband and noise-like signals

Day Two Overview

The second day covers extensive case studies of actual interference in Land Mobile Radio systems, and how the interference was identified and mitigated. A significant portion of the second day is occupied with hands-on labs, covering:

- Direction Finding
- Definitively locating an interference source through a better understanding of radio wave propagation
- Using Bit Error Rate measurements to map and identify carrier-to-interference ratio throughout the coverage area.
- Mapping drive-test data to show coverage on a map
- Logging and monitoring the RF spectrum to capture intermittent interference events

What You Get:

- Course Manual
- Certificate of Completion

Course Outline:

Lecture 1: Introduction to Spectrum Analysis

Lecture 2: Modulation

Lecture 3: Spectrum Analyzers

Lab 1: Basic Operation

Lab 2: Modulation Measurements

Lecture 4: Measurements Fundamentals

Lecture 5: Field Measurements

Lab 3: Advanced Measurements

Lecture 6: Fundamentals of Interference in Wireless Networks: Recognizing and Identifying Interference, Basic RF Theory, Antennas and Interference Hunting Tools, Frequency Bands and Emission Limits, Identifying and Predicting Intermodulation Products, Spurious Free Dynamic Range, Propagation as applied to interference tracking.

Lecture 7: P25 Measurements with the LMR Master

Lab 4: Measuring Interference to P25 Digital and Analog FM

Lecture 8: Practical Tips on Measuring Interference: Intermittent Signals and Triggered Measurements, Carrier to Interference Ratio and Bit Error Rates, Motorola iDEN Signal Waveform Issues, Duplexer Interference, Direction Finding Techniques, Interference Hunting Guidelines, Interference Analysis Options

Lab 5: Finding a hidden transmitter

Lecture 9: Master Software Tools

Lecture 10: Automated Determination of Interference using Summittek Oasis II Software

Course Fee (call for pricing):

Interference Analysis in the Land Mobile Radio Environment Training Course **at your location.**

Interference Analysis in the Land Mobile Radio Environment Training Course **Anritsu specified location.**

For the most recent training schedule visit:

www.us.anritsu.com/training

or contact us via e-mail at us-training@anritsu.com

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