Interference Analysis in the Healthcare Environment Training Course

Interference Analysis using the MS2721B Spectrum Analyzer

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

- **Thorough Emphasis:** Learn the essential and necessary skills needed to keep your facility and patients safe from RF interference, while expanding the freedom to deploy the latest in wireless technology.
- **Hands-on:** Participate in hands-on labs designed to simulate real-life issues found in hospitals across the country.
- **Stay ahead of the curve:** Join the growing number of Biomedical service providers who are taking the initiative in managing the unending advancement of 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?

- Biomedical Technicians and Engineers
- Medical Telemetry Service Providers
- Medical Telemetry OEMs

You Will Learn

Many hospitals use distributed-RF systems to monitor signals from patient-worn transmitters. The transmitters, sending pulse, oximetry and EKG information, using the medical telemetry band of 608-614 MHz, communicate wirelessly with antennas distributed throughout the hospital. These systems must be highly reliable.

Radio-Frequency interference is a common cause of data dropouts in these systems. The signals from many antennas throughout the hospital are combined to a common path, and then distributed to receivers and demodulators. Interfering energy entering at any of the antennas, or originating within the system, can degrade any or all of the telemetry signals from the deployed transmitters and cause data dropouts.

In this 2-day course, Biomedical personnel will learn how to use the Anritsu spectrum analyzer and associated software tools to identify, locate and mitigate interference in the healthcare environment.

Anritsu

Yes! Sign up now for Interference Analysis in the Healthcare 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 medical-telemetry systems, and how the interference was identified and mitigated. Signal characteristics, including Medical telemetry, are described, as well as measurement points and methods. More than half of the second day is occupied with hands-on labs, covering:

- Analyzing spectrum measurements with Anritsu's Master Software Tools and Microsoft Excel
- Direction Finding and locating interference
- Plotting in-building signal-strength, carrier-to-interference ratio and spectral data
- Mapping drive-test data to locate external interference
- Isolating intermittent interference in a simulated distributed-RF System
- Logging and monitoring the RF spectrum to capture interference events

What You Get:

- Course Manual
- Sample Excel Spreadsheets used for data collection and mapping
- 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

Lab 4: Wideband Signal Measurements

Lab 5: Spectrum Analyzer DANL, Detection and Selectivity

Lab 6: Zero Span Measurements and Video Triggering for Burst Signals

Lecture 6: Fundamentals of Interference Analysis in the Healthcare Environment

Lecture 7: Interference Analysis Methods and Procedures in Distributed-RF Medical Telemetry Systems

Lecture 8: Software Tools for Interference Analysis in Medical Telemetry Systems

Lab 7: Capturing Interference Events

Lab 8: Identifying Interference Using 2- and 3-D Spectrograms

Lab 9: Analyzing and Mapping Drive-data Using Anritsu's Master Software Tools (MST)

Lab 10: Mapping in-building measurements using MST and Microsoft Excel

Lab 11: Isolating Interference point-of-entry in a Distributed-RF System

Lab 12: Interference Analysis Using Summitek's Oasis Software

Course Fee (call for pricing):

Interference Analysis in the Healthcare Environment Training Course **at your location**.

Interference Analysis in the Healthcare Environment Training Course at **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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