

RedDragon (RD8) on Diamond_x

UWB Transceiver Testing using RedDragon (RD8)



Automotive



Mobility



IoT/IoV & Optoelectronics



Computing & Network



Industrial & Medical



Consumer

Course Description

This eLearning material introduces the student to UWB transceiver testing using the RedDragon (RD8) on the Diamond_x test system. It builds upon the material introduced in the RedDragon (RD8) on Diamond_x course. On completion of this course the student will be able to describe integrated wireless RF transceiver devices and some tests used when verifying their functionality, demonstrate a working knowledge of RF Continuous Wave (CW) and Modulating (MOD) Transmitter (TX) and Receiver (RX) testing techniques and good programming principles. This is accomplished by a combination of multimedia presentations and interactive software demonstrations.

Course Outline

- Transceiver RF Testing Fundamentals
- UWB Transceiver CW TX Tests
- UWB Transceiver Receiver (RX) Tests
- UWB Transceiver Modulating TX Tests

Course Length

- Self-paced – 1.5-2 hours depending on skill level

Prerequisites

- Six months test program experience
- Successful completion of Unison Applications Programming course
- Successful completion of RedDragon (RD8) on Diamond_x

Recommended

- C and C++ programming
- Familiarity with Linux Operating System
- English - written and spoken

- Next-gen test system for wide range of RF applications
- Scalable high-throughput architecture
- Flexible configurations and solutions
- Small form factor
- Air-cooled architecture and instruments
- Compact low-power technology

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Course Modules

1 - Integrated Transceiver RF Testing Fundamentals

On completion of this module student will be able to:

- Identify the components and major functional areas of a transceiver device
- List some core tests used to verify device functionality

2 - UWB Transceiver Transmitter (TX) Tests

On completion of this module student will be able to:

- Demonstrate a working knowledge of RF CW TX testing and good programming principles
- Demonstrate a working knowledge of RF MOD TX testing and good programming principles
- Complete a series of interactive programming demonstrations using the RedDragon RD8 hardware on a simulated Diamondx test system using an example UWB device

3 - UWB Transceiver Receiver (RX) Tests

On completion of this module student will be able to:

- Demonstrate a working knowledge of RF RX testing and good programming principles
- Complete an interactive programming demonstration using the RedDragon RD8 hardware on a simulated Diamondx test system using an example UWB device

- Next-gen test system for wide range of RF applications
- Scalable high-throughput architecture
- Flexible configurations and solutions
- Small form factor
- Air-cooled architecture and instruments
- Compact low-power technology

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Who Should Attend

- Test system application engineers
- Test program development and support engineers

Course Viewing Requirements

To view the course, you must have:

- Browser supporting HTML5
- Audio-listening capabilities (such as a headset or speakers)
- Connection speed of at least 600 kbps

Course Cost

- Free of charge for all Cohu Semiconductor Tester Customers