5G RF Planning and Design Part 4: Design Process and Tools

5G_231d | On-Demand | 5G Access | Expanded
Course Duration: 4 hours

This is the fourth course in a four-course set of self-paced courses encompassing 5G RF Planning and Design. In this course, you will learn about 5G RF parameter planning and the impacts of NSA to the RF design. You will also learn about using RF planning tools for 5G RF design including KPIs and 5G site selection. Each course in this four-course set can stand on its own or can be combined with other courses as necessary to meet your learning objectives.

Intended Audience

RF planning and design and performance optimization engineers

Objectives

After completing this course, the learner will be able to:

- Step through the planning process for different RF configuration and operational parameters
- Illustrate the steps of 5G RF design process, including traffic mapping and propagation modeling
- List the steps for 5G RF design with an RF planning tool

Course Prerequisites

5G NR Air Interface

Outline

1. gNB and Cell Configuration Parameters
1.1 5G Network Planning Factors
1.2 5G PCI planning
1.3 RSI Planning

2. NSA and SA Planning Considerations
2.1 5G NSA - Carrier Add/Modify
2.2 5G SA - TA and RNA Planning

3. 5G RF Planning and Design Process
3.1 5G RF Design Goals and Strategies
3.2 5G RF Design Inputs and Outputs
3.3 5G RF Design Preparing the Planning Tool
3.4 5G RF Design Site Selection

4. RF Planning Tool Primer
4.1 RF Planning Tool Introduction
4.2 RF Project Configuration
4.3 Site Configuration
4.4 5G Analysis

Final Assessment

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