QUICK CARD

Over-the-Air Time Error Measurement

This quick card describes how to set up the OneAdvisor 800 **SPA06MA-O Radio Analysis Module** to test TDD 5G NR Radio Time Accuracy over the Air for Single Sector

- OneAdvisor 800 equipped with the following:
  - SPA06MA-O Radio Analysis Module
  - ONA-SP-5GOTA Software Option
  - Or ONA-SP-5GRAN Software Option
- G700050367 Directional Antenna with JD70050007 AntennaAdvisor Handle or G700050367 Directional Antenna with G710050533 Type N (Male) to SMA (Male) cable
- Omni Antennas such as G700050350 stick Antenna or Magnetic Mount Antennas G700050345 or G700050358 (can also be used if close to the center of the sector under test)
- Magmount GPS Antenna JD71050351
- Optional G700050616 C-Band Band Pass Filter (to block out nearby strong signals outside of C-Band)

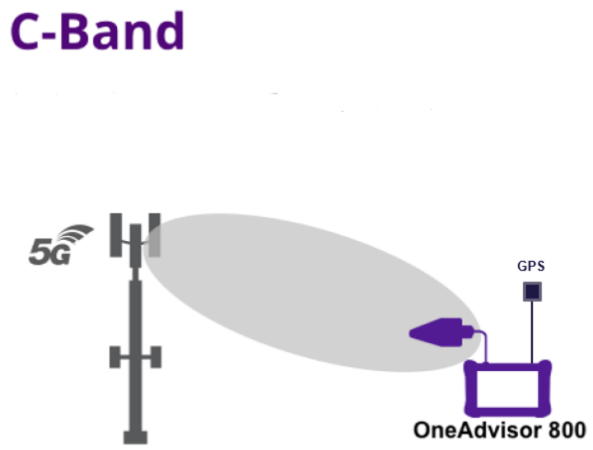

Figure 1: Test Setup

Figure 2: Accessories

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LAUNCH TEST

1. Press the Power button on the ONA-800 base top panel to turn on the OneAdvisor.
2. Tap Home to display the Home Screen.
3. Tap Tests to display the Tests menu.
4. Tap Radio Analysis 6 GHz to show Radio Analysis test applications.
5. Tap the 5G NR Signal Analyzer icon. 5G NR SIGNAL ANALYZER

   If the icon is grayed out tap the RAN Analyzer Icon. RAN ANALYZER
6. Tap the on the top left of the screen and select Freq / Time / Power Variation Done

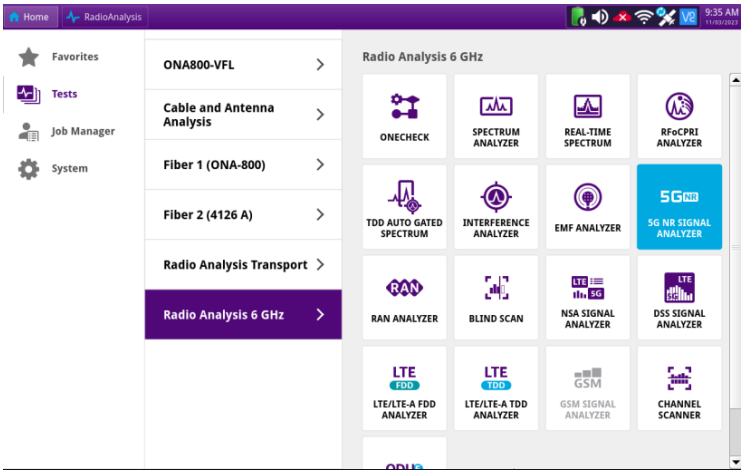
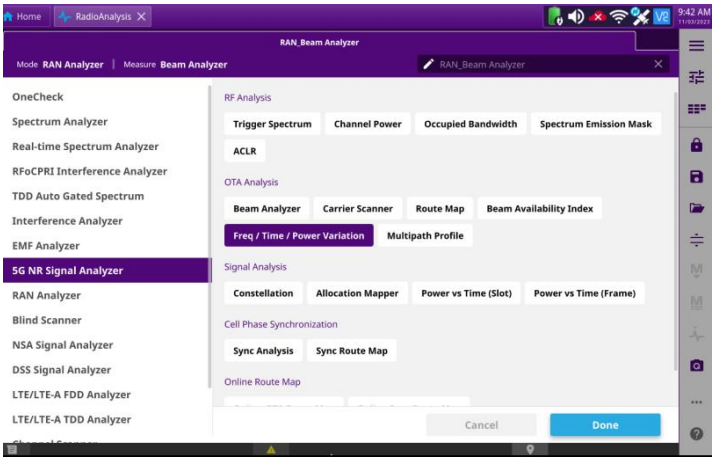
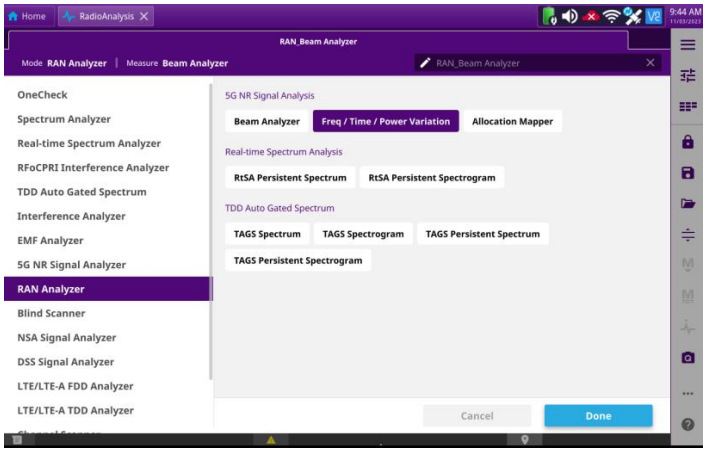


Figure 3: Select Test

Using 5G NR Signal Analyzer



Using RAN Analyzer



7. Tap to autoconfigure the Power Settings
8. Set the Channel Number setting ARFCN to 650006 with Band n77
9. Set the GSCN to 8006 The Sync Light on the top right of the screen will turn Green Sync
10. Make sure the Bandwidth is set to 100 MHz with SCS to 30 kHz
11. Set the Trigger to GNSS to get GPS Lock
12. The Time Error ideally should be less than ±1.5 µsec. Time error will increase as test distance from site is increased. Default Distance = 0