OneAdvisor 800 Wireless Platform

QUICK CARD

Blind Scanner Measurement

This quick card describes how to set up the OneAdvisor 800 **SPA06MA-O Radio Analysis Module** to Scan for presence of all Carriers in a C-Band

- OneAdvisor 800 equipped with the following:
 - SPA06MA-O Radio Analysis Module
 - ONA-SP-5GOTA Software Option
 - Or ONA-SP-5GRAN Software Option
 - ONA-SP-BS Software Option
- Omni Antennas such as G700050350 stick Antenna or Magnetic Mount Omni Antennas G700050345 or G700050358
- Optional G700050616 C-Band Band Pass Filter (to block out nearby strong signals outside of C-Band)

Note: To Scan Carriers Outside of C-Band, the C-Band Bandpass Filter will need to be removed





LAUNCH TEST

- 1. Press the Power button on the ONA-800 base top panel to turn on the OneAdvisor.
- 2. Tap 1 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 icor



Figure 1: Test Setup



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- 6. Tap the 🔧 icon to Configure Blind Scanner
- 7. The Window below will open





Figure 3: Configure Scan

 Enter the Start and Stop Frequency to Scan.
 For C-Band scan from 3700 MHz to 3900 MHz followed by Apply



9. Tap NR to Scan C-Band followed by Close



- Note the Default C-Band Subcarrier Spacing (SCS) is 30 kHz along with 20 ms Periodicity and Search Type GSCN (850 NR uses 15 kHz SCS)
- 11. Tap the and ONA-800 will start Scanning



Figure 4: Start Scan



Figure 5: Scan Result

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- 12. Tap the (i) icon to open Scanned Carrier window with MCC/MNC information
- Select the Carrier of Interest by Tapping on the Carrier, e.g. Index 1 or move the
 to the carrier of interest
- 14. Notice the color of the two carriers found is green which indicates they are NR carriers
 LTE NR DSS
- 15. Tap the *icon* on the top of the scroll bar to initiate test
- 16. The Application Launcher Window Opens



17. Tap the Q to select the Band. Select Band n77



- 18. followed by Apply and then Run
- 19. The default Measurement is Interference Analysis, and it will take to the Realtime Spectrum Analysis Screen
- 20. To perform Signal Analysis, Tap followed by Run
- The Signal Analysis opens the Beam Analysis Measurement that show 5G NR Synchronization Signal Block (SSB) KPI's including PCI, RSRP, SINR, EVM, and Time Error



Figure 6: Decode Carrier Information





	5G NR Signal	Analyzer	Beam Analyzer			_	s	ingle Cont	tinue Sweep	Once	🔵 Sync 🕘
Pream Atteni Exterr	np uation nal Offset O f	On 0 dB 0.00 dB	Center Freq 3.7 Channel Standard 5G NF	50 090 000 GH: 650006 DI t - Band Globa	z SSB Fre GSCN Sync Ra	q 3.730 0	80 000 GHz 8006 t 141/5	Bandwidth SSB PCI	100 M 30 kHz Auto	MHz SS 2 (C) L 280 Tir	B Periodicity
-67.00 -77.00 -87.00 -97.00 107.00	Scale Unit: dBm	h Cha	innel Power -4	5.50 dBm	■ \$-5	I (SSR Index)	-SS RSRP	S-SS SINR	Scale to dB	50.00 40.00 30.00 20.00 10.00	C1
No	PCI (Grp,Sctr)	SSB Index (DM-RS,PBCH)	S-SS RSRP ▼ (dBm)	P-SS RSRP (dBm)	P-SS SNR (dB)	S-SS SINR (dB)	S-SS RSRQ (dB)	S-SS RSSI (dBm)	PBCH DM-RS RSRP (dBm)	PBCI EVM (H Time Error
1	280 (93,1)	0 (0,)	-79.09	-78.42	37.33	2.47	-15.03	-58.05	-78.05	304.0	3 0.22
2	(,)	(,)	-	-	-	-	-	-	-	-	-
3	(,)	(,)	-	-	-	-	-	-	-	-	-
4	(,)	(,)	-	-	-	-	-	-	-	-	-
5	(,)	(,)	-	-	-	-	-	-	-	-	-
5	(,)	(,)	-	-	-	-	-	-	-	-	-
7	(,)	(,)	-	-	-	-	-	-	-	-	-
3	(,)	(,)	-	-		-		-	-		-

Figure 8: Beam Analysis

Go Signal Analysis