RF Spectrum Graph - Quick Test Setup Procedure

2 Tap **Source** to select the port-antenna: [port]-**AxCn**.

1 Tap **Analyze > Source.**

3 Tap **Link Rate** and select either the link rate or **Auto** for automatic detection.

4 Tap **Mapping** and select the mapping configuration file.

5 Tap **Back**

6 Tap **Graph** > **New** and select the desired graph **Type** and **Source**. Tap **OK** then tap one of the blue positioning bars. Tap **Back.**

7 Tap **Amplitude** > **Full Scale** to enable full scale.

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Quick Reference Guide

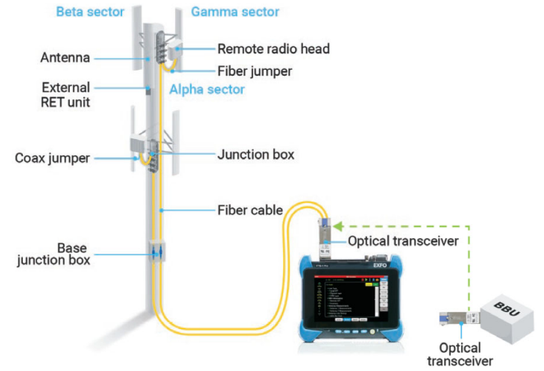
REMOTE RADIO INSTALLATION TESTER

BBU-Emulation

for NetBlazer / Power Blazer module

Connecting to the RAN

The module's SFP+ P1 or P2 port is used to connect to the Radio Access Network (RAN).
Supported rates are: CPRI 1.2, 2.4, 3.1, 4.9, 6.1, 9.8, and 10.1 Gbit/s.



To Connect to the RAN:

Connect the module in place of the BBU.

- Locate the cable connecting the RRH to the BBUe/NB, then disconnect it from the SFP in the BBU/eNB.
- Remove the SFP from the BBU/eNB port where the cable to the RRH was previously connected. This will ensure the correct SFP type is used for testing.
- Insert this SFP in P1 or P2 port of the module (SFP28 A1 or A2 port on 88260).
- Connect the cable from the RRH to the SFP P1 or P2 port of the module (SFP28 A1 or A2 port on 88260).

Note: Make sure to insert the proper SFP/SFP+ and carefully connect the optical fiber cable to the transceivers.

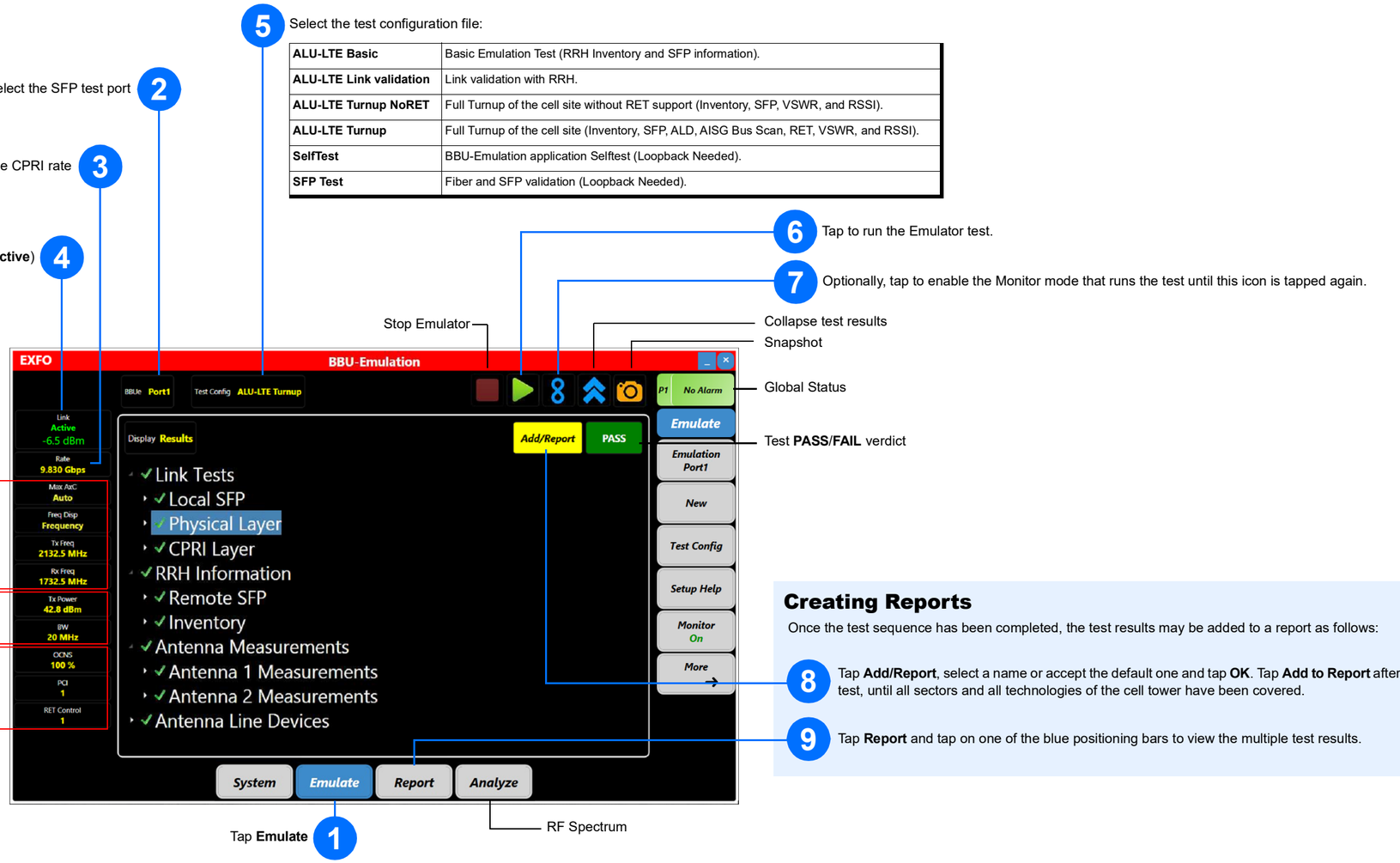
For more information, refer to the user guide.

Starting the Application

From **Mini ToolBox X** (NetBlazer) or **ToolBox X** (Power Blazer), tap the BBU-Emulation application button.

Configuring and Starting an Emulation Test

This procedure described is a simple test sequence using a live source and the Classic menu.



ALU-LTE Basic	Basic Emulation Test (RRH Inventory and SFP information).
ALU-LTE Link validation	Link validation with RRH.
ALU-LTE Turnup NoRET	Full Turnup of the cell site without RET support (Inventory, SFP, VSWR, and RSSI).
ALU-LTE Turnup	Full Turnup of the cell site (Inventory, SFP, ALD, AISG Bus Scan, RET, VSWR, and RSSI).
SelfTest	BBU-Emulation application Selftest (Loopback Needed).
SFP Test	Fiber and SFP validation (Loopback Needed).

Additional/Optional BBU-Emulation Configuration

Antenna Carrier (AxC) and TX/RX frequency

- Remote radio heads vary from 1 to 4 antennas (AxC). Select the number of AxCs to be polled.
- RX and TX frequency can be modified to emulate the real-life MNO scenarios. The upper and lower limit are provided from the RRH.

Bandwidth (BW), VSWR, and TX power

- Select the current signal bandwidth: 5 MHz, 10 MHz, or 20 MHz.
- TX Power can be enabled and set to emulate the real-life MNO scenarios. The upper and lower limit are provided from the RRH.
- When VSWR is required make sure the TX Power is at least 80 % of the maximum power of the RRH. VSWR readings are available in **Antenna Measurements** of the **Results** section.

OCNS, PCI, and RET Control

- Orthogonal Channel Noise Simulation (OCNS) simulates live traffic on the downlink: Off, Idle (10%), 50%, and 100%.
- The number of users on a radio system loads the resources available and affects how the system performs. In order to simulate real-world loading, OCNS is applied to the last phase of the Emulate tests.
- Set the Physical Cell Identification (PCI) that will be transmitted by the radio head.
- **RET Control** selects which Remote Electrical Tilt (RET) attached to the RRH is under test and sets its tilt (in 0.1 degree increments).

Creating Reports

Once the test sequence has been completed, the test results may be added to a report as follows:

8 Tap **Add/Report**, select a name or accept the default one and tap **OK**. Tap **Add to Report** after each test, until all sectors and all technologies of the cell tower have been covered.

9 Tap **Report** and tap on one of the blue positioning bars to view the multiple test results.