



Rohde and Schwarz 5G Backpack System

5G Coverage Measurement Solution

The race for 5G network deployment is upon us and for end-users to achieve high data rates and ultra-reliability, high quality network coverage measurements are imperative. mmWave has changed the RF landscape of cellular network deployments and that has put a strong demand for detailed, sensitive, and man-portable measurement solutions. Due to initial 5G dependencies on LTE, simultaneous measurements of LTE and mmWave 5G are necessary for a full insight into the coverage and quality an end-user will experience.

5G Coverage for FR1 and FR2

The 5G Backpack system is designed to handle Sub-6GHz (FR1) and mmWave (FR2) frequency ranges simultaneously in a single convenient form factor. With no on-going licensing costs, the entire backpack comes ready to measure your 5G network from day one with no license subscription fees.





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Coverage Measurements Made Easy

With ROMES mapping and coverage tools running on the TSMA6 inside the backpack, one can easily measure and rank the top serving cells and beams at every location in a deployment area for multiple cellular technologies. Since the TSMA6 has a built in PC with WLAN access, the end user can control the measurement via a tablet or laptop running a remote desktop client. ROMES allows the user to create and manage drive test configurations that make coverage measurements as easy as walking around.

Technical Overview	
Frequency Ranges	FR1 (400 MHz - 6 GHz); FR2 (24 GHz, 28 GHz, 39 GHz)
Scanners	1 TSMA6 (FR2); 1 TSME6 (FR1)
GPS	Standard on both TSMA6 and TSME6 scanners
Technologies	5G NR, 5GTF, CW, LTE, NB-IoT/Cat NB1, RF Power Scan, GSM, WCDMA, & more
Scanner Sensitivity	TSMA6: -130dBm; TSME6: -130dBm; -125dBm @ 28 GHz
5G NR Measurements	PCI, SS-RSRP, SS-RSRQ, SS-SINR, SSB Index (MIB decode)
5G NR Measurement Modes	NSA (Non-standalone), SA (standalone)
Antenna	Mast mounted 24-40 GHz omni-directional antenna (2.5dBi @ 28 GHz) (3dBi @ 39GHz)