5G Signal Generation

The best performance – hassle free

Generating 5G test signals

- Although no 5G standard has yet been defined, it is clear from the initial frequency bands under investigation (multiple different bands up to 40 GHz) and the bandwidths (up to 800 MHz) being used that 5G is going to present a significant technical challenge. Working at these microwave frequencies is difficult enough. But when you start adding wideband signals, the level of difficulty increases significantly. Being able to accurately and repeatedly generate high-quality test signals is a challenge for all engineers. Given all the technical challenges related to 5G, spending time, effort and resources on producing high-quality 5G test signals is the last thing engineers want to do.

Solution

- The R&S®SMW200A vector signal generator is the only single-box solution that is capable of producing these wideband 5G signals at frequencies up to 40 GHz. This fully calibrated, specified generator that is easy to use makes creating wideband signals at these high frequencies a painless tasks. Outstanding RF performance plus internal generation of 5G signals makes the R&S®SMW200A the leading solution for generating accurate, repeatable 5G test signals.

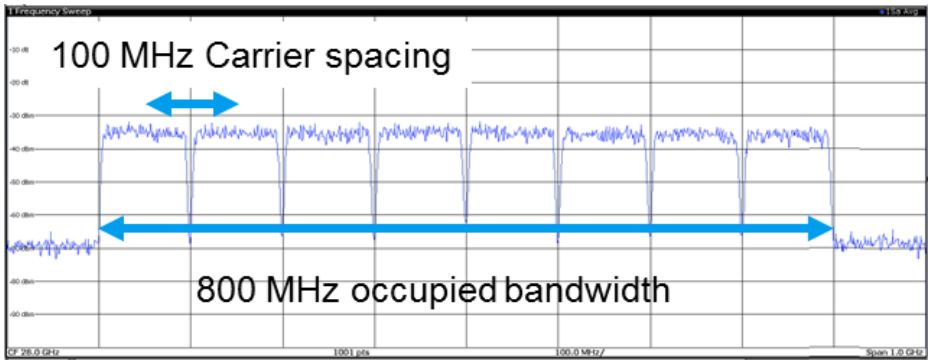
R&S®SMW200A vector signal generator

USPs/features	Customer benefits
Single-box solution	No extra manual calibration required. The R&S®SMW is a fully calibrated, specified generator that does not require the user to run any calibration routines
2 GHz bandwidth	Easily supports 8x carrier aggregation testing scenarios
Excellent EVM performance	Very clean test signals enable the true performance of the DUT to be determined
Internal generation of 5G and 4G signals	No extra PC required to create test signals. Everything generated internally by the R&S®SMW in compliance with industry standards

For more information, visit
www.rohde-schwarz.com/us/product/smw200a

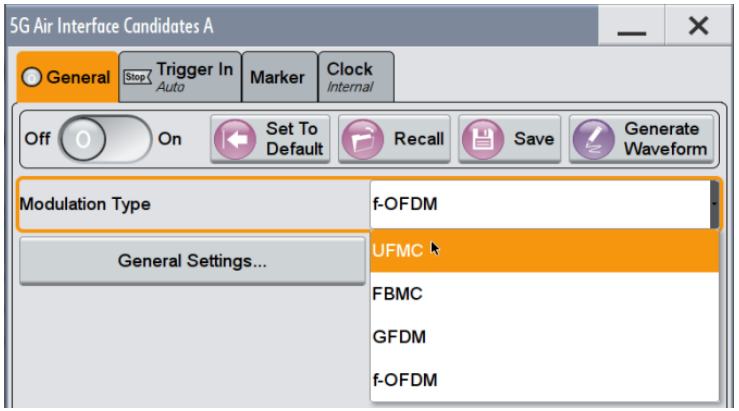
Performance that delivers results

Featuring exceptional RF flatness over a 2 GHz bandwidth, the R&S®SMW can produce 5G test signals with extremely low EVM. Thanks to high-quality, clean test signals, you measure the device under test and not the signal generator.



Internal signal generation

With built-in software options for Verizon 5G Technical Forum, 5G candidate and legacy 4G waveforms, you can easily create and define your test signals. You only need a few key strokes to set up the signals on the R&S®SMW generator's high-resolution touchscreen display. An easy process that eliminates the need for an external PC.



Single-box solution guarantees performance

As a single-box solution, the R&S®SMW200A offers fully calibrated and specified performance. No need to manage a complex setup with multiple instruments that require an external calibration process and offer no guaranteed specifications. The R&S®SMW200A delivers ensured performance so you know you will get the same results time after time, setup to setup.

The perfect complement

With a 1200 MHz internal analysis bandwidth and a frequency coverage up to 85 GHz, the R&S®FSW signal analyzer is the perfect complement to the R&S®SMW200A. Thanks to outstanding RF performance and powerful analysis capabilities, the R&S®FSW combined with the R&S®SMW200A provides a leading solution for 5G physical layer testing.

R&S®FSW signal and spectrum analyzer

SMW200A – popular options/accessories

Description	Item
RF output to 40 GHz	R&S®SMW-B140
Wideband baseband main module	R&S®SMW-B13XT
Wideband baseband generator (500 MHz)	R&S®SMW-B9
Waveform memory extension to 2 Gsample	R&S®SMW-K515
Bandwidth extension to 2 GHz	R&S®SMW-K526
5G candidate waveform package	R&S®SMW-K114
Verizon 5GTF signal generation	R&S®SMW-K118

Rohde & Schwarz GmbH & Co. KG
Europe, Africa, Middle East | +49 89 4129 12345
North America | 1 888 TEST RSA (1 888 837 87 72)
Latin America | +1 410 910 79 88
Asia Pacifi c | +65 65 13 04 88
China | +86 800 810 82 28 | +86 400 650 58 96
www.rohde-schwarz.com
customersupport@rohde-schwarz.com

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Data without tolerance limits is not binding | Subject to change