ROHDE&SCHWARZ

Make ideas real

SIGNAL GENERATOR PORTFOLIO

FROM PRESALES TO SERVICE. AT YOUR DOORSTEP.

3 year warranty

The Rohde&Schwarz network in over 70 countries ensures optimum on-site support by highly qualified experts.
User risks are reduced to a minimum at all stages of the project:

- Solution finding/purchase
- Technical startup/application development/integration
- Training
- Operation/calibration/repair

R&S®LegacyPro

R&S®LegacyPro: refresh your technology

Trade in your legacy signal generators

For older test systems, the challenge of maintaining outdated test equipment is commonplace. When individual pieces of equipment become obsolete before the entire ATE system does, regular calibration and repair of the obsolete equipment becomes expensive and very time-consuming. Replacing the obsolete test equipment with equivalent, state-of-the-art instruments should be straightforward and require minimal hardware and software changes. In reality, it can be a challenging task.

The R&S®LegacyPro code emulation makes this a straightforward task, reducing the workload and eliminating risks. R&S®LegacyPro enables new signal generators to reliably emulate a wide range of legacy generators from vendors such as Keysight, Agilent, HP, Anritsu and Rohde&Schwarz. As a result, new signal generators can be deployed in legacy systems without major software changes, effectively increasing uptime, lowering the cost of ownership and lengthening the test system's useful life.

SIGNAL GENERATOR PORTFOLIO

	Vector signal generators		
	R&S®SMW200A	**R&S®SMM100A**	**R&S®SMBV100B**
	High performance vector signal generator	**Redefining midrange**	**State-of-the-art vector signal generator**
Performance	●●●●●●	●●●●●	●●●●●
Main features	► integrated fading simulator ► second RF path ► high performance synchronization of multiple instruments	► very good RF performance ► cost-efficient mmWave solution	► ultra high output power ► excellent EVM and ACPR performance
Frequency range	100 kHz to 3/6/7.5/12.75/20/31.8/40/44 GHz	100 kHz to 6/7.5/12.75/20/31.8/44 GHz	8 kHz to 3 GHz/6 GHz
I/Q modulation bandwidth	up to 2 GHz (internal/external)	up to 1 GHz (internal), up to 2 GHz (external)	up to 500 MHz (internal), up to 2 GHz (external)
Peak envelope power (PEP) (at 1 GHz/10 GHz)	+18 dBm/+18 dBm	+18 dBm/+18 dBm	+25 dBm/n.a.
SSB phase noise (at 1 GHz, 1 Hz measurement bandwidth, 20 kHz offset)	< –144 dBc	< –129 dBc	< –126 dBc
Harmonics (at 1 GHz)	< –30 dBc (level < +10 dBm); < –55 dBc (f > 3.5 GHz)	< –30 dBc (level < +10 dBm); < –55 dBc (f > 3.5 GHz)	< –30 dBc (level ≤ +13 dBm)
Nonharmonics (at 1 GHz, > 10 kHz offset from carrier)	< –90 dBc (level > –10 dBm)	< –85 dBc	< –76 dBc (level > +10 dBm)
Dimensions (W × H × D)	435 × 192 × 460 mm (171.3 × 75.6 × 181.1 in)	435 × 192 × 460 mm (171.3 × 75.6 × 181.1 in)	344 × 153 × 372 mm (135.4 × 60.2 × 146.5 in)

All values are specified, if not otherwise stated.

WinIQSIM2 Generator supports output of digital I/Q signals generated with R&S®WinIQSIM2 simulation software.

● The higher the number of points, the higher the performance.

The Rohde&Schwarz signal generator portfolio ranges from ultra compact, uniquely fast analog and vector signal sources for production and automated test environments to industry-leading analog and vector signal generators for R&D in the telecommunications, A&D and semiconductor sectors.

R&S®SGT100A	R&S®SMCV100B	R&S®SGS100A/SGU100A	R&S®SGS100A
Vector RF source, fast and compact	**Vector RF source**	**Vector microwave source, fast and compact**	**Vector RF source, fast and compact**
●●●●	●●●●	●●●●	●●●●
▶ fastest frequency and level switching ▶ smallest standalone vector signal generator	▶ good RF performance ▶ high output power ▶ RF DAC design	▶ very good RF performance up into the microwave range ▶ cost-efficient, compact frequency extensions	▶ very good RF performance in a compact format ▶ wear-free electronic attenuator
1 MHz to 3 GHz/6 GHz	4 kHz to 3/6/7.125 GHz	80 MHz to 20 GHz/40 GHz	80 MHz to 6 GHz/12.75 GHz
up to 240 MHz (internal), up to 1 GHz (external)	up to 240 MHz (internal)	up to 2 GHz (external)	up to 1 GHz (external)
+17 dBm/n.a.	+20 dBm/n.a.	+15 dBm/+15 dBm	+15 dBm/+15 dBm
< –126 dBc	< –125 dBc	< –126 dBc	< –126 dBc
< –30 dBc (level ≤ +8 dBm)	< –30 dBc (level ≤ +13 dBm)	< –30 dBc (f > 12 GHz, level ≤ +8 dBm)	< –30 dBc (level ≤ +8 dBm)
< –76 dBc (level > –10 dBm)	< –52 dBc, –60 dBc (typ.) (level > +10 dBm)	< –56 dBc (meas.) (level > –10 dBm, 12 GHz < f ≤ 20 GHz)	< –76 dBc (level > –10 dBm)
246 × 52.5 × 401 mm (96.9 × 20.7 × 157.9 in)	222 × 97 × 366 mm (87.4 × 38.2 × 144.1 in)	250 × 105 × 401 mm (98.4 × 41.3 × 157.9 in)	250 × 52.5 × 401 mm (98.4 × 20.7 × 157.9 in)




Analog signal generators

R&S®SMA100B	R&S®SMB100B	R&S®SMB100A	R&S®SMC100A
High performance RF and microwave signal generator	**RF signal generator, outstanding performance and usability in a compact size**	**Microwave signal generator, versatile and compact**	**Signal generator, smallest size and best price/performance ratio**
●●●●●●	●●●●●	●●●●●	●●●
► excellent SSB phase noise ► ultra high output power	► very low SSB phase noise ► very high output power	► wide frequency range ► high output power	► high output level ► minimized total cost of ownership
8 kHz to 3/6/12.75/20/31.8/40/50/67 GHz	8 kHz to 1/3/6 GHz	100 kHz to 12.75/20/31.8/40 GHz	9 kHz to 1.1 GHz/3.2 GHz
–	–	–	–
+30 dBm/+27 dBm	+26 dBm/n.a.	+19 dBm/+19 dBm	+13 dBm/n.a.
< –147 dBc	< –126 dBc	< –122 dBc	< –105 dBc
< –60 dBc (level = +18 dBm)	< –30 dBc (level ≤ +13 dBm)	< –58 dBc (level ≤ +10 dBm)	< –30 dBc (level ≤ +8 dBm)
<–100 dBc (level = +10 dBm)	< –76 dBc (level > +10 dBm)	< –70 dBc (level > –10 dBm)	< –60 dBc (level > –10 dBm)
460 × 107 × 503 mm or 460 × 151 × 503 mm (181.1 × 42.1 × 198.0 in or 181.1 × 59.5 × 198.0 in)	344 × 108 × 372 mm (135.4 × 60.2 × 146.5 in)	344 × 112 × 418 mm (135.4 × 44.1 × 164.6 in)	236 × 112 × 368 mm (92.9 × 44.1 × 144.9 in)




	R&S®SGS100A/SGU100A	R&S®SGS100A	DOCSIS signal generators R&S®CLGD	R&S®SFD
	Analog microwave source, fast and compact	**Analog RF source, fast and compact**	**Multichannel DOCSIS cable load generator**	**Single-channel DOCSIS cable signal generator**
	●●●●	●●●●	●●●●	●●●
	▶ very good RF performance up into microwave range ▶ compact format	▶ very good RF performance in a compact format ▶ wear-free electronic attenuator	▶ DOCSIS 3.1/3.0, J.83/A/B/C and analog TV ▶ up to eight times 192 MHz signal bandwidth	▶ DOCSIS 3.1/3.0, J.83/A/B/C and analog TV ▶ up to 192 MHz signal bandwidth
	10 MHz to 20 GHz/40 GHz	1 MHz to 6 GHz/12.75 GHz	upstream: 5 MHz to 204 MHz, downstream: 47 MHz to 1794 MHz	upstream: 5 MHz to 204 MHz, downstream: 47 MHz to 1794 MHz
	–	–	up to 8 × 200 MHz (internal)	200 MHz (internal)
	+15 dBm/+15 dBm	+15 dBm/+15 dBm	+62 dBmV/n.a.	+62 dBmV/n.a.
	< –126 dBc	< –126 dBc	–	–
	< –30 dBc (f > 12 GHz, level ≤ +8 dBm)	< –30 dBc (level ≤ +8 dBm)	–	–
	< –56 dBc (meas.) (level > –10 dBm, 12 GHz < f ≤ 20 GHz)	< –76 dBc (level > –10 dBm)	< –63 dBc	< –63 dBc
	250 × 105 × 401 mm (98.4 × 41.3 × 157.9 in)	250 × 52.5 × 401 mm (98.4 × 20.7 × 157.9 in)	462 × 105 × 406 mm (181.9 × 41.3 × 159.8 in)	233 × 107 × 372 mm (91.7 × 42.1 × 146.5 in)

FREQUENCY MULTIPLIER AND UPCONVERTER PORTFOLIO

	Frequency multiplier	I/Q upconverter
	R&S®SMZ	R&S®SZU100A
	Microwave and mmWave frequency multiplier	I/Q upconverter for use with R&S®SMW200A
Performance	●●●●●	●●●●●
Main features	► wide frequency range ► wide dynamic range	► flat frequency response ► high spectral purity paired with high dynamic range
Frequency range	50/60/75/110 GHz to 75/90/110/170 GHz	58.32 GHz to 64.80 GHz
I/Q modulation bandwidth	–	up to 2 GHz (external)
Peak envelope power (PEP)	170 GHz model: +8 dBm (typ.)	+5 dBm in specified frequency range
SSB phase noise (at 1 GHz, 1 Hz measurement bandwidth, 20 kHz offset)	–	< –93 dBc at 60.48 GHz
Harmonics (at 1 GHz)	< –20 dBc (typ.) in specified frequency range	< –50 dBc in specified frequency range
Nonharmonics (at 1 GHz, > 10 kHz offset from carrier)	< –20 dBc (typ.) in specified frequency range	< –50 dBc in specified frequency range
Dimensions (W × H × D)	114 × 78 × 278 mm (44.9 × 30.7 × 109.5 in)	125 × 90 × 300 mm (49.2 × 35.4 × 118.1 in)

All values are specified, if not otherwise stated.

Rohde&Schwarz
The Rohde&Schwarz technology group is among the trailblazers when it comes to paving the way for a safer and connected world with its leading solutions in test&measurement, technology systems, and networks&cybersecurity. Founded more than 85 years ago, the group is a reliable partner for industry and government customers around the globe. The independent company is headquartered in Munich, Germany and has an extensive sales and service network with locations in more than 70 countries.

www.rohde-schwarz.com

Service that adds value
- ► Worldwide
- ► Local and personalized
- ► Customized and flexible
- ► Uncompromising quality
- ► Long-term dependability

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