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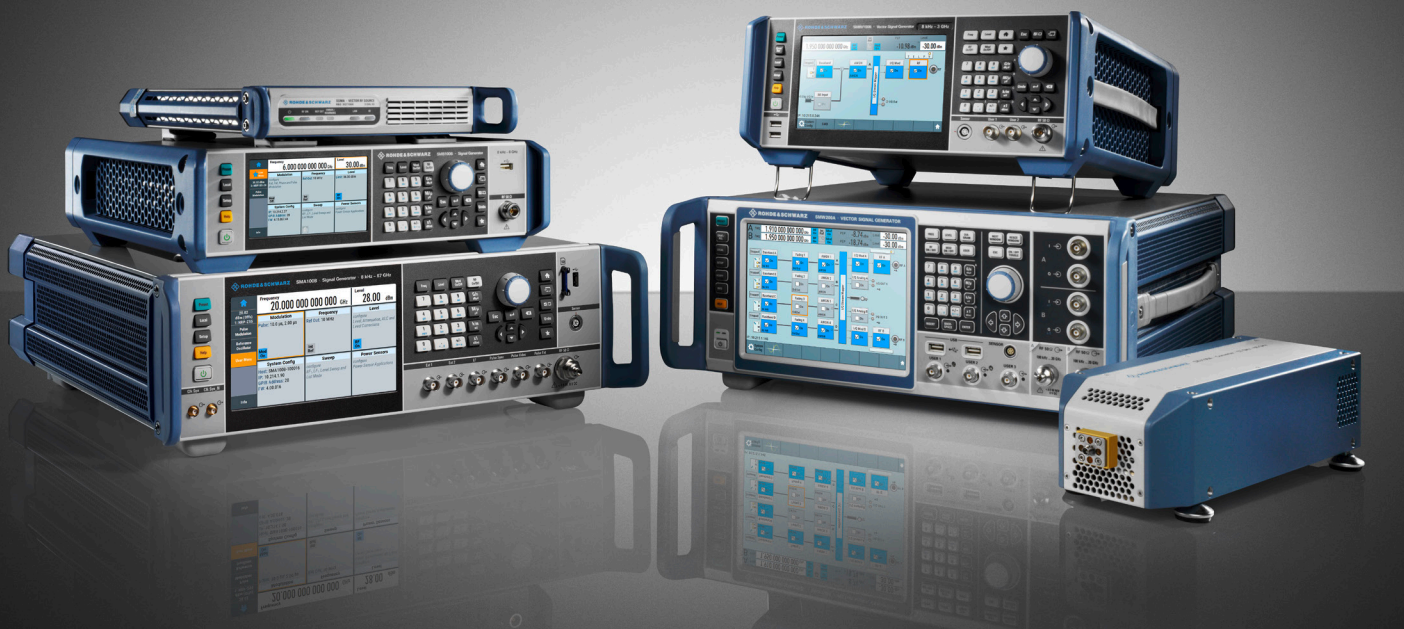
Make ideas real

SIGNAL GENERATOR PORTFOLIO

Product Brochure | Version 04.00



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 3/6/7.5/12.75/20/31.8/40/44/56/67 GHz, 72 GHz (overrange)	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 1 GHz (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 (level > –10 dBm)	< –76 dBc (level > +10 dBm)
Software compatibility	▶ R&S®WinIQSIM2 simulation software ▶ R&S®Pulse Sequencer Software ▶ R&S®RF Ports Alignment Software ▶ R&S®ARB Toolbox	▶ R&S®WinIQSIM2 simulation software ▶ R&S®Pulse Sequencer Software ▶ R&S®ARB Toolbox	▶ R&S®WinIQSIM2 simulation software ▶ R&S®Pulse Sequencer Software ▶ R&S®ARB Toolbox
Dimensions (W × H × D)	435 mm × 192 mm × 460 mm (17.1 in × 7.6 in × 18.1 in)	435 mm × 192 mm × 460 mm (17.1 in × 7.6 in × 18.1 in)	344 mm × 153 mm × 372 mm (13.5 in × 6.0 in × 14.6 in)

R&S®LegacyPro

Obsolete instrument compatibility

R&S®LegacyPro from Rohde&Schwarz addresses the issue of code compatibility that arises when replacing an obsolete instrument with an up-to-date successor. Follow the link for more details and check the list of specific legacy test equipment that can be emulated in the R&S®LegacyPro brochure (PD 5214.5603.62).

www.rohde-schwarz.com/legacy_pro

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)
▶ R&S®WinIQSIM2 simulation software ▶ R&S®Pulse Sequencer Software ▶ R&S®ARB Toolbox	▶ R&S®WinIQSIM2 simulation software ▶ R&S®ARB Toolbox	–	–
246 mm × 52.5 mm × 401 mm (9.7 in × 2.1 in × 15.8 in)	222 mm × 97 mm × 366 mm (8.7 in × 3.8 in × 14.4 in)	250 mm × 105 mm × 401 mm (9.8 in × 4.1 in × 15.8 in)	250 mm × 52.5 mm × 401 mm (9.8 in × 2.1 in × 15.8 in)




Analog signal generators

R&S®SMA100B	R&S®SMB100B	R&S®SMB100A	R&S®SGS100A/SGU100A
High performance RF and microwave signal generator	**RF signal generator, outstanding performance and usability in a compact size**	**Microwave signal generator, versatile and compact**	**Analog microwave source, fast and compact**
●●●●●●	●●●●●	●●●●●	●●●●
▶ Excellent SSB phase noise ▶ Ultra high output power ▶ 2 or 3 height units (HU)	▶ Very low SSB phase noise ▶ Very high output power	▶ Wide frequency range ▶ High output power	▶ Very good RF performance up into microwave range ▶ Compact format
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	10 MHz to 20 GHz/40 GHz
–	–	–	–
+30 dBm/+27 dBm	+26 dBm/n.a.	+19 dBm/+19 dBm	+15 dBm/+15 dBm
< –147 dBc	< –126 dBc	< –122 dBc	< –126 dBc
< –60 dBc (level = +18 dBm)	< –30 dBc (level ≤ +13 dBm)	< –58 dBc (level ≤ +10 dBm)	< –30 dBc (f > 12 GHz, level ≤ +8 dBm)
< –100 dBc (level = +10 dBm)	< –76 dBc (level > +10 dBm)	< –70 dBc (level > –10 dBm)	< –56 dBc (meas.) (level > –10 dBm, 12 GHz < f ≤ 20 GHz)
–	–	–	–
460 mm × 107 mm × 503 mm (18.1 in × 4.2 in × 19.8 in) or 460 mm × 151 mm × 503 mm 18.1 in × 6.0 in × 19.8 in)	344 mm × 108 mm × 372 mm (13.5 in × 6.0 in × 14.7 in)	344 mm × 112 mm × 418 mm (13.5 in × 4.4 in × 16.5 in)	250 mm × 105 mm × 401 mm (9.8 in × 4.1 in × 15.8 in)




	Performance vector tester	DOCSIS signal generators	
R&S®SGS100A	**R&S®PVT360A**	**R&S®CLGD**	**R&S®SFD**
Analog RF source, fast and compact	**Minimal footprint, ultimate performance**	**Multichannel DOCSIS cable load generator**	**Single-channel DOCSIS cable signal generator**
●●●●	●●●●	●●●●	●●●
▶ Very good RF performance in a compact format ▶ Wear-free electronic attenuator	▶ Two signal generators and two signal analyzers in one box ▶ High measurement speed ▶ 16 switchable RF ports	▶ 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
1 MHz to 6 GHz/12.75 GHz	400 MHz to 8 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
–	500 MHz	up to 8 × 200 MHz (internal)	200 MHz (internal)
+15 dBm/+15 dBm	+8 dBm	+62 dBmV/n.a.	+62 dBmV/n.a.
< –126 dBc	< –125 dBc	–	–
< –30 dBc (level ≤ +8 dBm)	< –30 dBc (level < +3 dBm)	–	–
< –76 dBc (level > –10 dBm)	< –70 dBc (meas.) (level < +3 dBm)	< –63 dBc	< –63 dBc
–	▶ R&S®WinIQSIM2 simulation software ▶ R&S®ARB Toolbox	–	–
250 mm × 52.5 mm × 401 mm (9.8 in × 2.1 in × 15.8 in)	465 mm × 107 mm × 556 mm (18.3 in × 4.2 in × 21.9 in)	462 mm × 105 mm × 406 mm (18.2 in × 4.1 in × 16.0 in)	233 mm × 107 mm × 372 mm (9.2 in × 4.2 in × 14.7 in)

All values are specified, if not otherwise stated.

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

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)	+8 dBm (typ.) for 170 GHz model	+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 (4.5 × 3.1 × 11.0 in)	125 × 90 × 300 mm (4.9 × 3.5 × 11.8 in)

All values are specified, if not otherwise stated.

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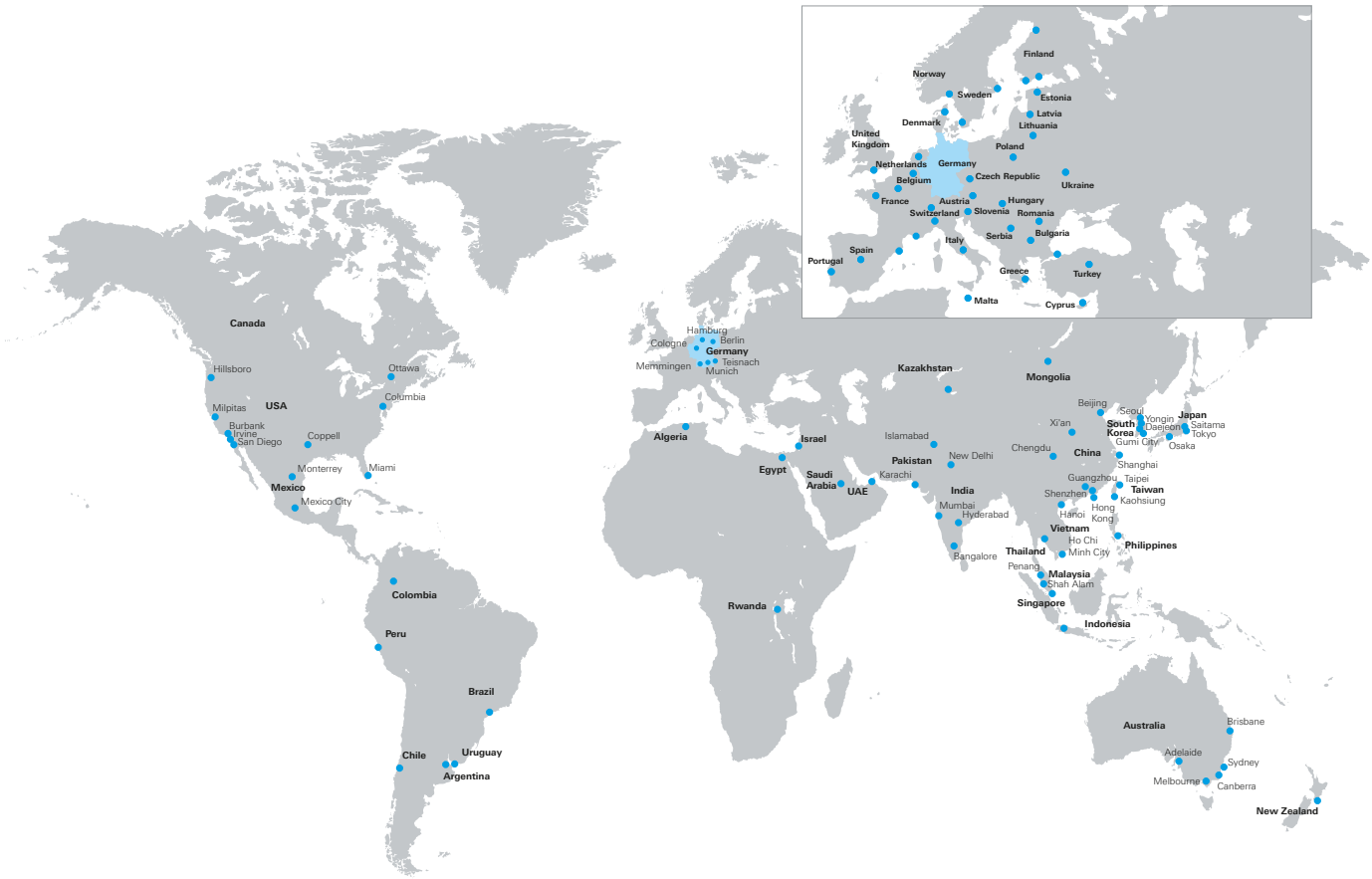
The Rohde&Schwarz network in over 70 countries ensures optimum on-site support by highly qualified experts.

User risks are reduced to a minimum at all project stages:

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



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.

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- Uncompromising quality
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ISO 9001

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Signal generator portfolio
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