

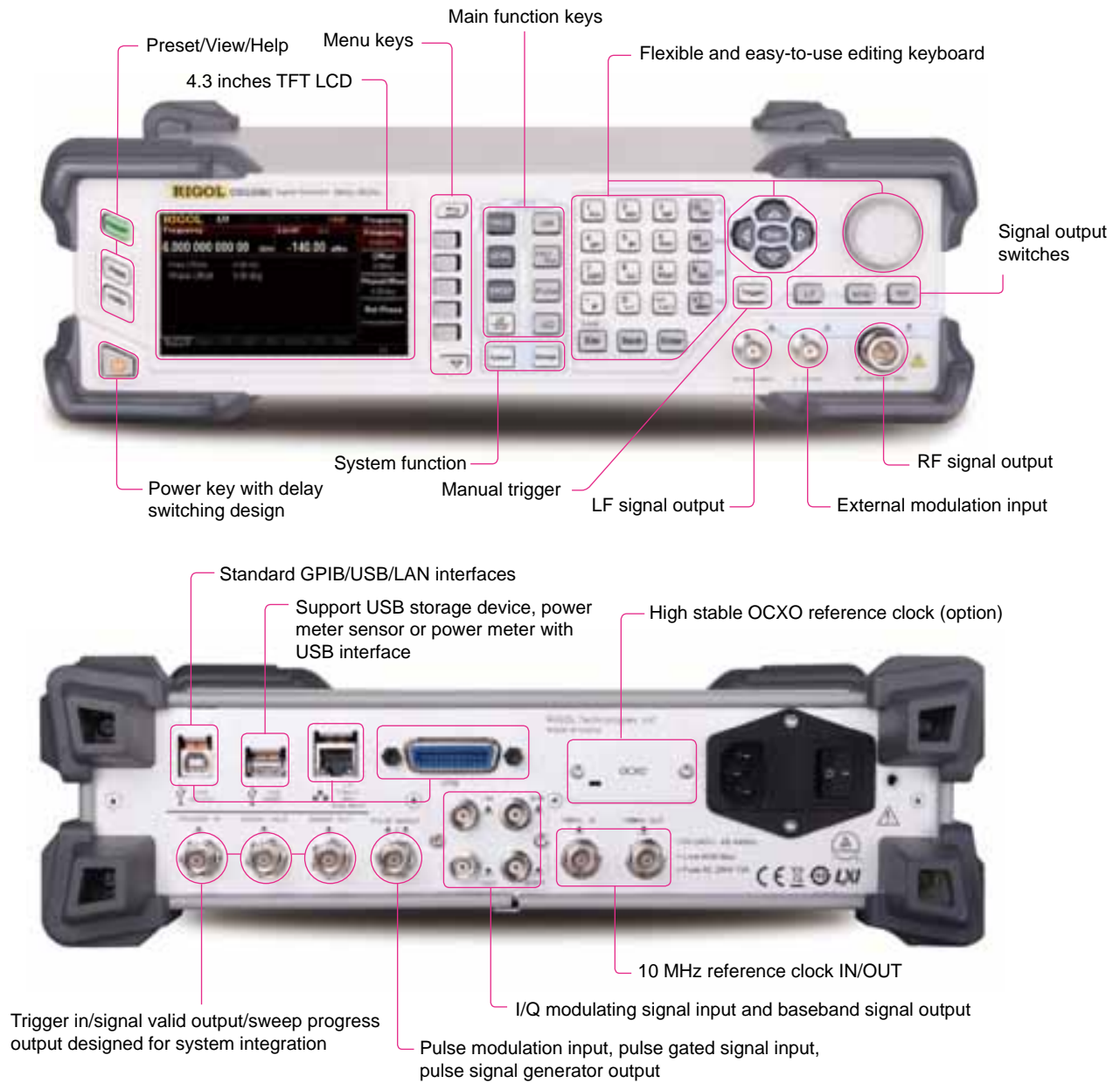


DSG3000 Series RF Signal Generator

- The highest frequency: 3 GHz/6 GHz
- Amplitude accuracy: <math><0.5\text{dB}</math> (typical)
- Output amplitude range: -130 dBm to +13 dBm
- High signal purity, phase noise: <math><-110\text{dBc}/\text{Hz}</math>@20kHz (typical)
- Standard 0.5ppm internal clock; 5ppb high stable clock for option
- Standard AM/FM/ Φ M analog modulation
- Standard pulse modulation; on/off ratio up to 80dB; pulse train generator for option
- I/Q modulation and I/Q baseband output
- All modulations support internal and external modulation modes
- Standard 2U height design to save rack space; rack mount kit is available
- Standard USB/LAN/GPIB remote control interfaces; support SCPI command set
- Wear-free electronic attenuator design
- Well-designed automatically flatness calibration function (Cables, attenuators, amplifiers and so on) for test system with power meter control



DSG3000 Series RF Signal Generator



Dimensions: W x H x D = 364 mm x 112 mm x 420 mm; Weight: 6.4kg (without packaging)

► Main Functions

| | | | |
|---|--------------|------------|---|
| 9kHz~3/6GHz +25dBm~-140dBm | CW | LF | Sine, Square, Triangle, Ramp, Swp-Sine |
| Frequency sweep, Amplitude sweep, Frequency and amplitude sweep | Sweep | PMC | Power meter controller, Test system automatic calibration |

| | | | |
|--|--------------|------------------------|---|
| Internal modulation, External modulation | AM | FM ΦM | Internal modulation, External modulation |
| Internal modulation, External modulation, Pulse train generator, Pulse generator | Pulse | I/Q | Internal modulation, External modulation, I/Q baseband generator, Baseband output |

► Specifications

Specifications are valid under the following conditions: the instrument in the calibration cycle is stored at least two hours at 0°C to 50°C temperature, and 40 minutes warm up. The specifications include measurement uncertainty. Data represented in this manual are specifications unless otherwise noted.

Typical (typ.): describes characteristic performance, which 80 percent of the measurement results will meet at room temperature (approximately 25 °C). This data is not warranted, does not include measurement uncertainty.

Nominal (nom.): indicates the expected mean or average performance, or an attribute whose performance is by design, such as the 50Ω connector. This data is not warranted and is measured at room temperature (approximately 25 °C).

Measured (meas.): describes an attribute measured during the design phase for purposes of communicating expected performance, such as amplitude drift vs. time. This data is not warranted and is measured at room temperature (approximately 25 °C).

NOTE: All charts represented in this manual are the measurement results of multiple instruments at room temperature unless otherwise noted.

Frequency

| Frequency | | |
|---------------------------|----------------------------------|-------------|
| Frequency range | DSG3030 | 9kHz ~ 3GHz |
| | DSG3060 | 9kHz ~ 6GHz |
| Frequency resolution | 0.01Hz | |
| Frequency switching speed | <10ms ^[1] (typ.) | |
| Phase offset | Adjustable in 0.01° steps (nom.) | |

| Frequency Bands ^[2] | | |
|--------------------------------|---|---------|
| Band | Frequency | N |
| 1 | $f \leq 23.4375\text{MHz}$ | 1 |
| 2 | $23.4375\text{MHz} < f \leq 46.875\text{MHz}$ | 0.03125 |
| 3 | $46.875\text{MHz} < f \leq 93.75\text{MHz}$ | 0.0625 |
| 4 | $93.75\text{MHz} < f \leq 187.5\text{MHz}$ | 0.125 |
| 5 | $187.5\text{MHz} < f \leq 375\text{MHz}$ | 0.25 |
| 6 | $375\text{MHz} < f \leq 750\text{MHz}$ | 0.5 |
| 7 | $750\text{MHz} < f \leq 1500\text{MHz}$ | 1 |
| 8 | $1500\text{MHz} < f \leq 3000\text{MHz}$ | 2 |
| 9 | $3000\text{MHz} < f \leq 6000\text{MHz}$ | 4 |

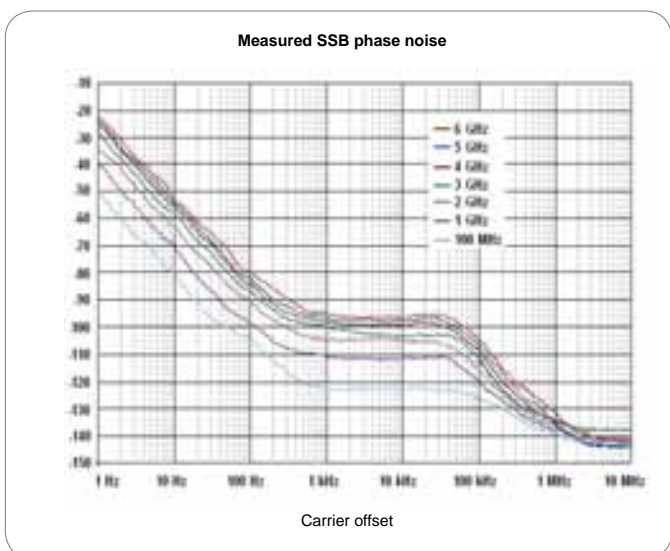
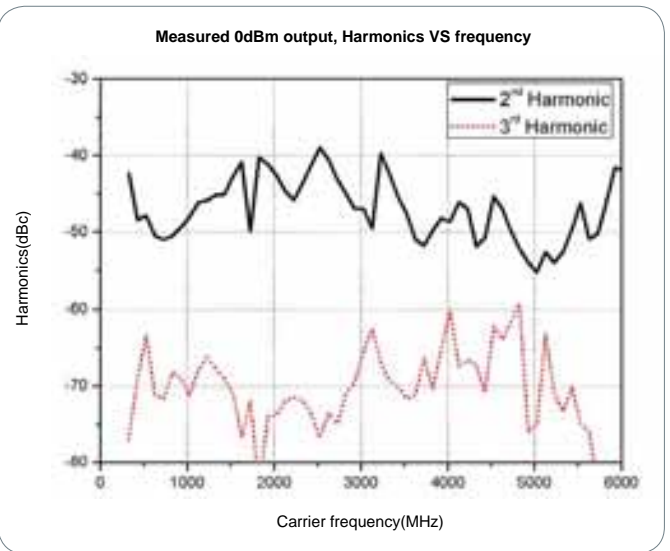
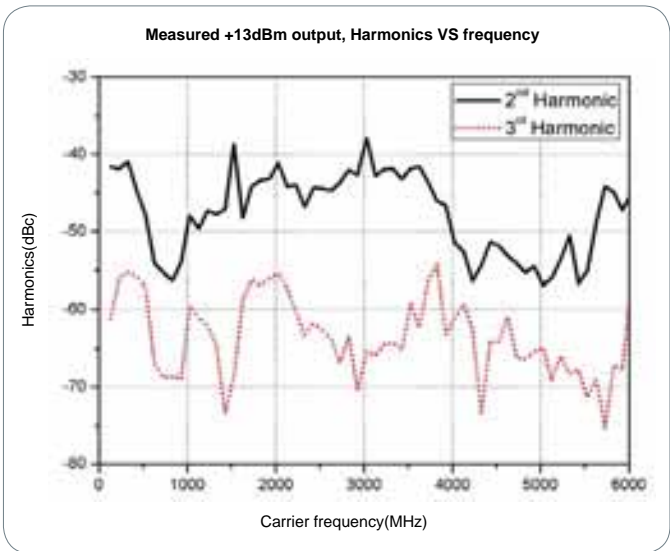
| Internal Reference Frequency | | |
|---|--|----------------|
| Reference frequency | 10MHz | |
| Temperature stability | In temperature range 0°C to 50°C , reference to 25°C | < 0.5ppm |
| | With OCXO-A08 option | < 5ppb |
| Aging rate | | < 1ppm/year |
| | With OCXO-A08 option | < 30ppb/year |
| Output for internal reference frequency | Frequency | 10MHz |
| | Level | +8dBm (typ.) |
| | Output impedance | 50Ω (nom.) |
| Input for external reference frequency | Frequency | 10MHz |
| | Level | 0dBm to +10dBm |
| | Maximum deviation | ±5ppm |
| | Input impedance | 50Ω (nom.) |

| Frequency Sweep | | |
|------------------|--|------------|
| Operating modes | Step sweep (equally or logarithmically spaced frequency steps) List sweep (the list of arbitrary frequency steps) | |
| Sweep modes | Single, continuous | |
| Sweep range | Full frequency range | |
| Sweep shapes | Triangle, ramp | |
| Step change | Linear or logarithmic | |
| Number of points | Step sweep | 2 to 65535 |
| | List sweep | 1 to 6001 |
| Dwell time range | 20ms to 100s | |
| Triggering | Auto, trigger key, external, bus (GPIB, USB, LAN) | |

NOTE: [1] Except in the case of the band1 is switched with the other band.

[2] N is a factor used to help define certain specifications within the document.

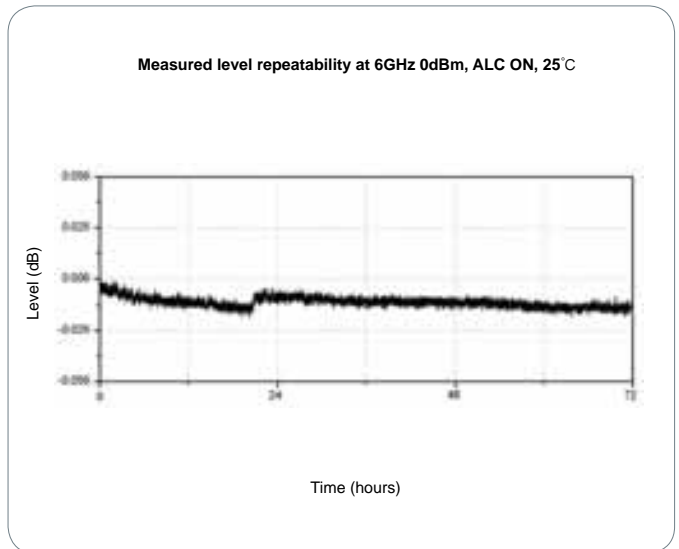
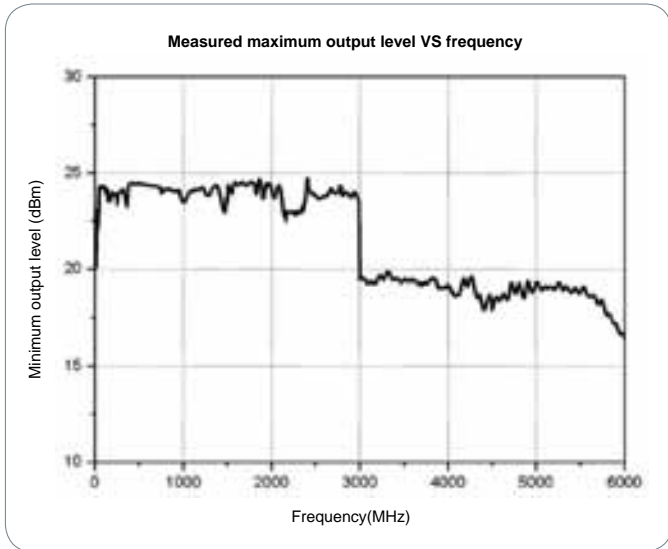
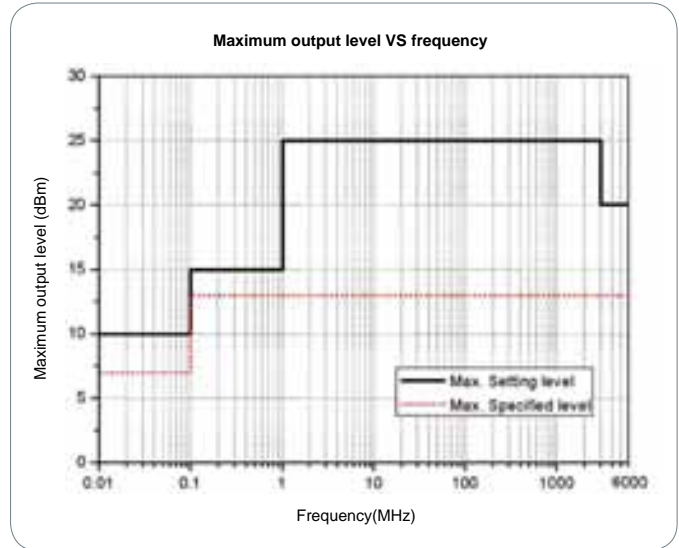
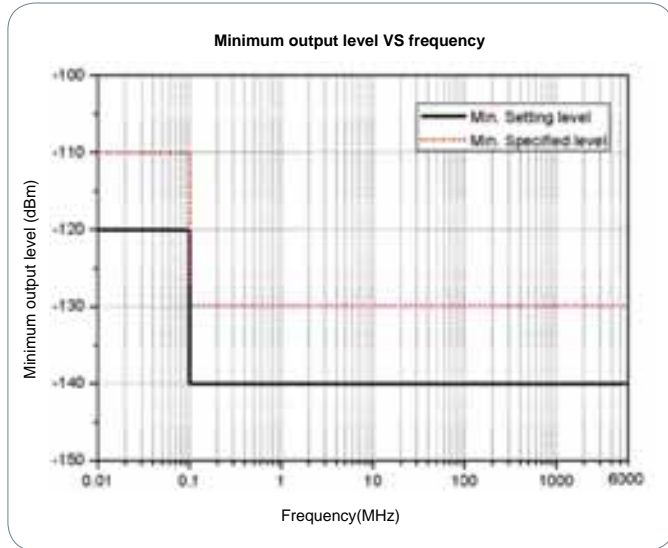
| Spectral Purity ^[1] | | |
|--------------------------------|---|---------------------------------|
| Harmonics | CW mode, 1MHz ≤ f ≤ 6GHz, level ≤+13dBm | <-30dBc |
| Sub harmonics | CW mode | |
| | f ≤ 3GHz | <-65dBc, <-80dBc (typ.) |
| | 3GHz < f ≤ 6GHz | <-52dBc, <-70dBc (typ.) |
| Non harmonics | CW mode, level>-10dBm, carrier offset >10kHz | |
| | f ≤ 1.5GHz | <-64dBc, <-70dBc (typ.) |
| | 1.5GHz < f ≤ 3GHz | <-58dBc, <-64dBc (typ.) |
| | 3GHz < f ≤ 6GHz | <-52dBc, <-58dBc (typ.) |
| SSB phase noise | CW mode, at 20kHz carrier offset, 1Hz measurement bandwidth | |
| | f = 100MHz | <-120dBc/Hz |
| | f =1GHz | <-108dBc/Hz, <-110dBc/Hz (typ.) |
| | f =3GHz | <-102dBc/Hz, <-104dBc/Hz (typ.) |
| | f =6GHz | <-96dBc/Hz, <-98dBc/Hz (typ.) |
| Residual FM | CW mode, RMS value at f= 1GHz | |
| | 0.3kHz to 3kHz | <5Hz rms, <1Hz rms (typ.) |
| | 0.03kHz to 20kHz | <30Hz rms, <8Hz rms (typ.) |



NOTE: [1] Without IQ-DSG3000 option.

Level

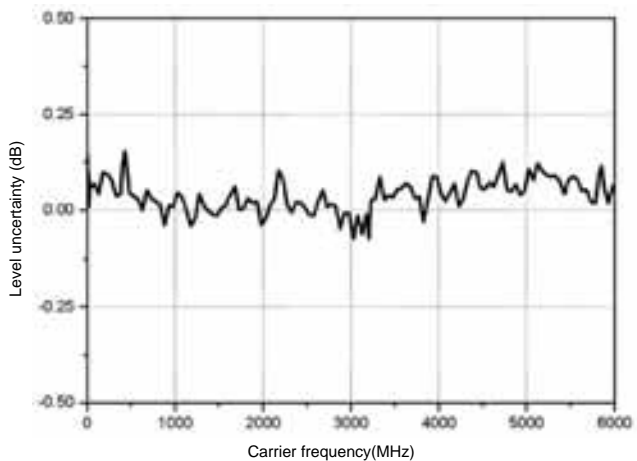
| Setting Range | | Specification level range | Setting range |
|----------------------|---|---------------------------|---------------|
| Maximum output level | $9\text{kHz} \leq f < 100\text{kHz}$ | +7dBm | +10dBm |
| | $100\text{kHz} \leq f < 1\text{MHz}$ | +13dBm | +15dBm |
| | $1\text{MHz} \leq f \leq 3\text{GHz}$ | +13dBm | +25dBm |
| | $3\text{GHz} < f \leq 6\text{GHz}$ | +13dBm | +20dBm |
| Minimum output level | $9\text{kHz} \leq f < 100\text{kHz}$ | -110dBm | -120dBm |
| | $100\text{kHz} \leq f \leq 6\text{GHz}$ | -130dBm | -140dBm |
| Setting resolution | 0.01dB | | |



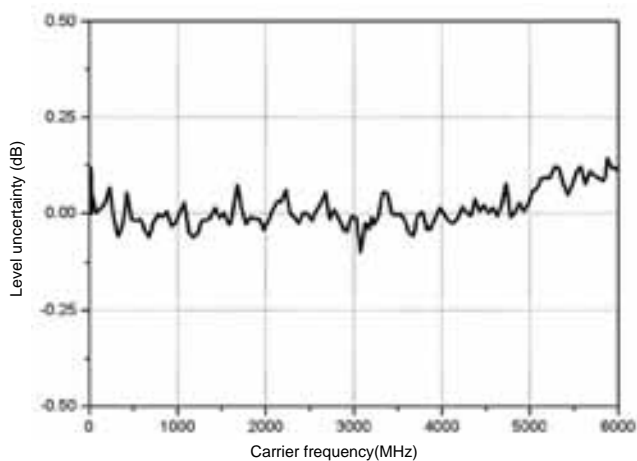
| Absolute Level Uncertainty ^[1] | | | | |
|---|---|--|--|----------------------------|
| Level uncertainty | $9\text{kHz} \leq f < 100\text{kHz}$ | +13 ~ -60dBm | -60 ~ -110dBm | -110 ~ -130dBm |
| | $100\text{kHz} \leq f \leq 3\text{GHz}$ | $\leq 0.5\text{dB (typ.)}$ | $\leq 0.7\text{dB (typ.)}$ | $\leq 0.7\text{dB (typ.)}$ |
| | $3\text{GHz} < f \leq 6\text{GHz}$ | $\leq 0.9\text{dB,}$ $\leq 0.5\text{ (typ.)}$ | $\leq 0.9\text{dB,}$ $\leq 0.5\text{ (typ.)}$ | $\leq 0.9\text{dB (typ.)}$ |
| | $1\text{MHz} \leq f \leq 6\text{GHz}$ | $\leq 0.9\text{dB,}$ $\leq 0.5\text{ (typ.)}$ | $\leq 1.1\text{dB,}$ $\leq 0.5\text{ (typ.)}$ | $\leq 0.9\text{dB (typ.)}$ |
| VSWR ^[2] | $1\text{MHz} \leq f \leq 6\text{GHz}$ | $< 1.8\text{ (typ.)}$ | | |

NOTE: [1] ALC state: on or auto mode, 20°C to 30°C
 [2] In 50Ω system, typical, level $\leq -10\text{dBm}$, ATT auto mode

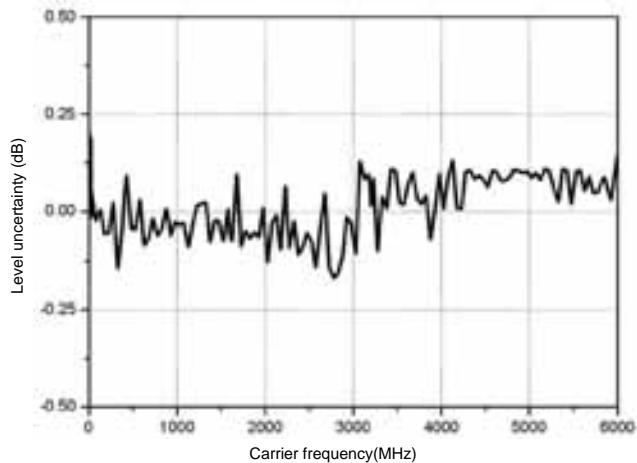
Measured +13dBm output level VS frequency



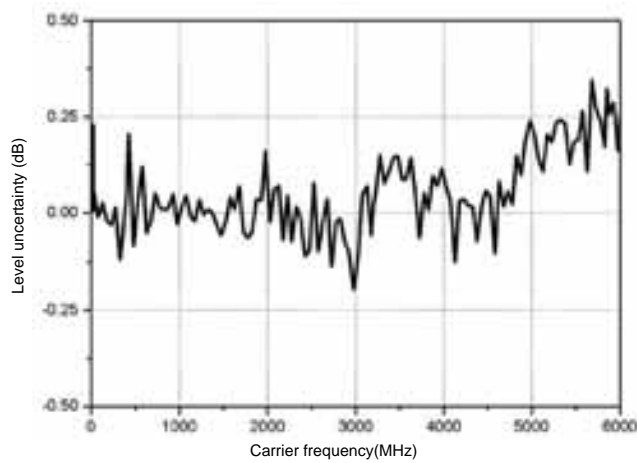
Measured 0dBm output level VS frequency



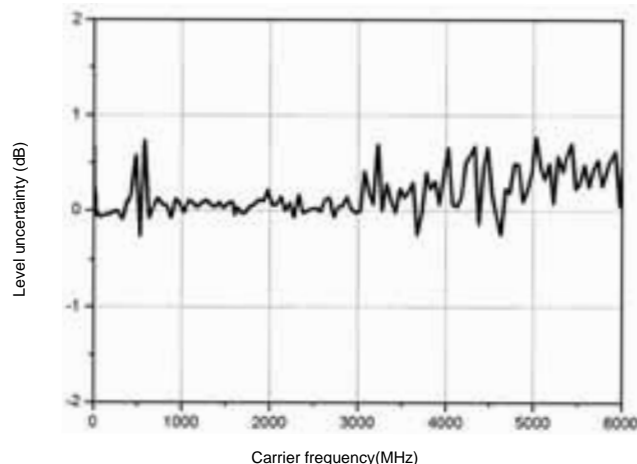
Measured -60dBm output level VS frequency



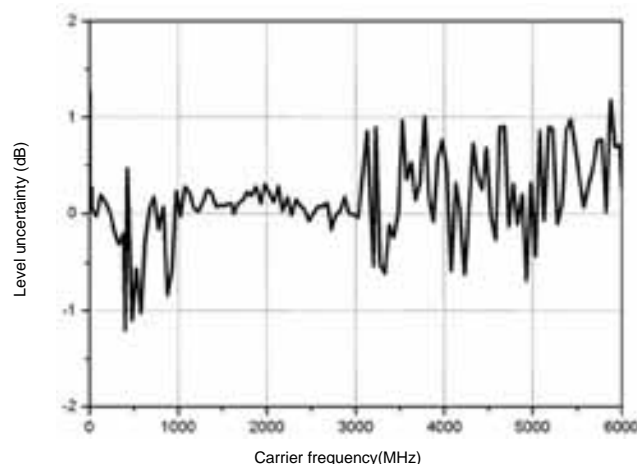
Measured -110dBm output level VS frequency



Measured -127dBm output level VS frequency



Measured -136dBm output level VS frequency



| Level Setting | | |
|-----------------------------------|--|--------------|
| Setting time | ALC state on, frequency fixed, temperature range: 20°C to 30°C | ≤ 5ms (typ.) |
| Uninterrupted level setting range | ATT fixed mode, ALC state on, level range -110dBm to +13dBm | >20dB (typ.) |

| Max. Reverse Power | | |
|--------------------|-----------------|-----|
| Max. reverse Power | Max. DC voltage | 50V |
| | 1MHz < f ≤ 6GHz | 10W |

| Level Sweep | | |
|------------------|---|------------|
| Operating modes | Step sweep (equally spaced level steps) List sweep (the list of arbitrary level steps) | |
| Sweep modes | Single, continuous | |
| Sweep range | Full level range | |
| Sweep shapes | Triangle, ramp | |
| Step change | Linear | |
| Number of points | Step sweep | 2 to 65535 |
| | List sweep | 1 to 6001 |
| Dwell time range | 20ms to 100s | |
| Triggering | Auto, trigger key, external, bus(GPIB, USB, LAN) | |

Internal Modulation Generator (LF)

| Internal Modulation Generator (LF) | | |
|------------------------------------|--|---|
| Waveforms | Sine, square, triangle, ramp, sine sweep | |
| Frequency range | Sine, sine sweep | 0.1Hz to 1MHz |
| | Square | 0.1Hz to 20kHz |
| | Triangle, ramp | 0.1Hz to 100kHz |
| Resolution | 0.01Hz | |
| Frequency error | Same as RF reference source | |
| Output voltage ^[1] | Setting range | 1mV to 3V |
| | Resolution | 1mV |
| Output impedance | 50Ω (nom.) | |
| Sine sweep | Sweep modes | Single, continuous |
| | Sweep range | Frequency range of LF output |
| | Sweep time | 1ms to 1000s |
| | Sweep shapes | Triangle, ramp |
| | Triggering | Auto, trigger key, external, bus (GPIB, USB, LAN) |

Modulation^[2]

| Simultaneous Modulation | | | | | |
|-------------------------|----|----|----|------------|-------------------|
| | AM | FM | ØM | Pulse mod. | I/Q mod. (option) |
| AM | – | ○ | ○ | △ | × |
| FM | ○ | – | × | ○ | ○ |
| ØM | ○ | × | – | ○ | ○ |
| Pulse mod. | △ | ○ | ○ | – | ○ |
| I/Q mod.(option) | × | ○ | ○ | ○ | – |

NOTE: ○:compatible; ×: incompatible; △:compatible with AM performance reduced

| Amplitude Modulation | | |
|---------------------------------|---|-------------------|
| Modulation source | Internal, external, internal + external | |
| Modulation depth ^[3] | 0% to 100% | |
| Resolution | 0.1% | |
| AM depth uncertainty | f _{mod} =1kHz | <4% of setting+1% |
| AM distortion | f _{mod} =1kHz, m<30%, level=0dBm | <3% (typ.) |
| Modulation frequency response | m<80%, 10Hz to 50kHz | <3dB (nom.) |

NOTE: [1] Measurement in high-impedance state.

[2] The modulation source is sine waveform unless otherwise noted.

[3] Peak power of the envelope is no more than the maximum value of the specification output range.

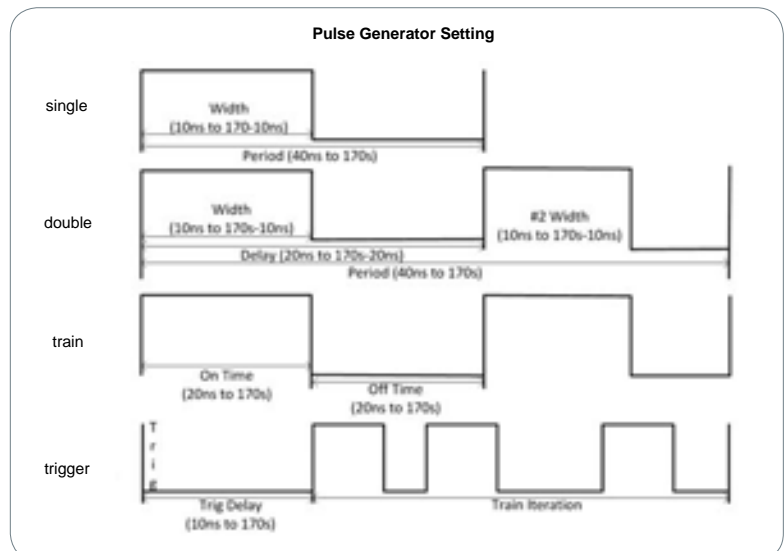
| Frequency Modulation | | |
|--|--|---------------------|
| Modulation source | Internal, external, internal + external | |
| Maximum deviation | N×1MHz (nom.) | |
| Resolution | <0.1% of deviation, or 1Hz, which ever is greater (nom.) | |
| Setting uncertainty | $f_{mod}=1\text{kHz}$, internal mode | <2% of setting+20Hz |
| FM distortion | $f_{mod}=1\text{kHz}$, deviation= N×50kHz | <2% (typ.) |
| Modulation frequency response ^[1] | 10Hz to 100kHz | <3dB (nom.) |

| Phase Modulation | | |
|--|---|-----------------------|
| Modulation source | Internal, external, internal + external | |
| Maximum deviation | $f \leq 23.4375\text{MHz}$ | 3rad (nom.) |
| | $f > 23.4375\text{MHz}$ | N×5rad (nom.) |
| Resolution | <0.1% of deviation, or 0.01rad, which ever is greater, (nom.) | |
| Deviation accuracy | $f_{mod}=1\text{kHz}$, internal modulation source | <1% of setting+0.1rad |
| ØM total harmonic distortion | $f_{mod}=1\text{kHz}$, deviation=5rad | <1% (typ.) |
| Modulation frequency response ^[2] | 10Hz to 100kHz | <3dB (nom.) |

| Pulse Modulation | | |
|----------------------------|---------------------------------------|-------|
| Modulation source | External, internal | |
| On/off ratio | $25\text{MHz} \leq f < 3\text{GHz}$ | >80dB |
| | $3\text{GHz} \leq f \leq 6\text{GHz}$ | >70dB |
| Rise/fall time (10%/90%) | <50ns ^[3] , 10ns (typ.) | |
| Pulse repetition frequency | DC to 1MHz | |

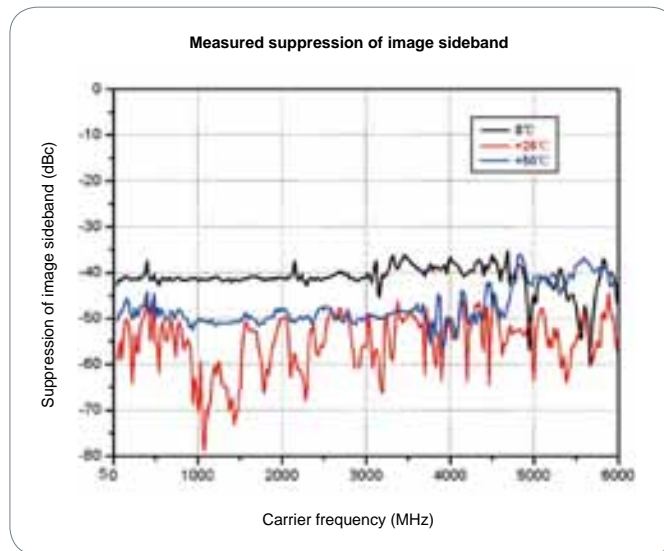
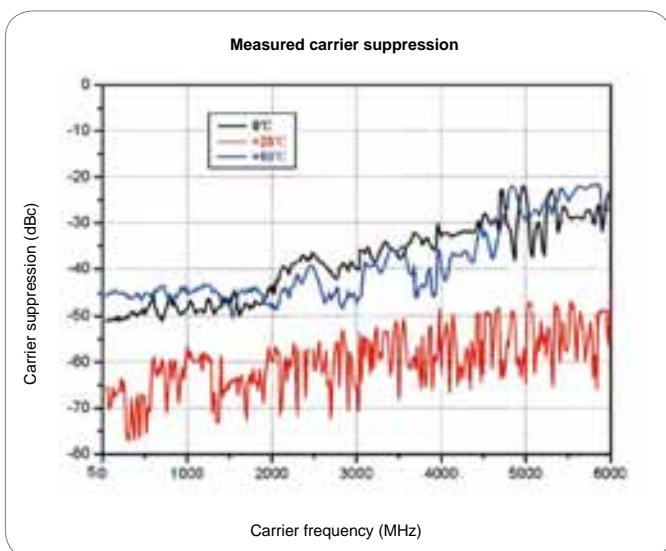
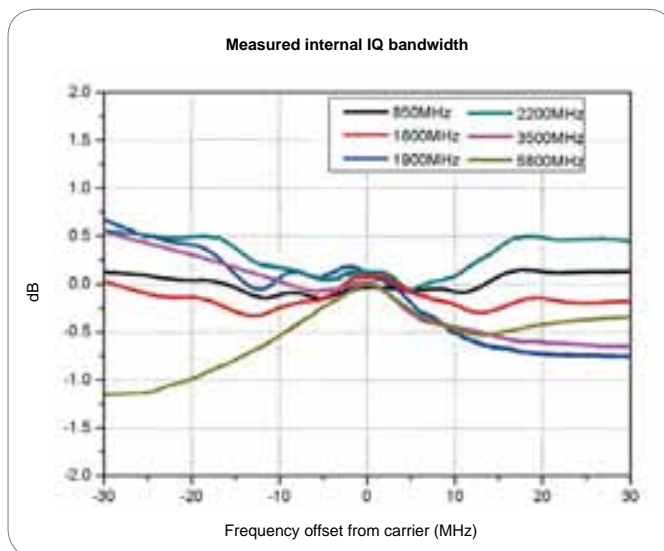
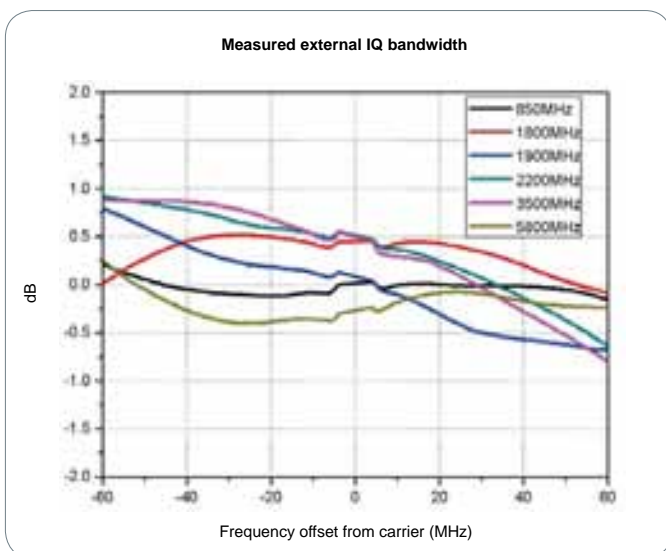
| Pulse Generator | | |
|----------------------|--|---------------------|
| Operating modes | Single pulse, double pulse, pulse train(option PUG-DSG3000) | |
| Pulse period | Setting range | 40ns to 170s |
| | Resolution | 10ns |
| Pulse width | Setting range | 10ns to (170s-10ns) |
| | Resolution | 10ns |
| Trigger delay | Setting range | 10ns to 170s |
| | Resolution | 10ns |
| Double-pulse spacing | Setting range | 20ns to (170s-20ns) |
| | Resolution | 10ns |
| Triggering | Auto, external trigger, external gate, trigger key, bus (GPIB, USB, LAN) | |

| Pulse Train Generator (Option PUG-DSG3000) | | |
|--|--------------------------|--------------|
| Pulse train generator | Number of pulse patterns | 1 ~ 2047 |
| | On/off time range | 20ns to 170s |
| | Repetition per pattern | 1 to 256 |



NOTE: [1] External operating mode, measured at 100kHz deviation.
[2] External operating mode, measured at 5rad deviation.
[3] The state of ALC is off.

| I/Q Modulation (Option IQ-DSG3000) | | |
|--|--|--|
| Modulation source | External, internal | |
| Bandwidth.(RF) | External modulation | |
| | Baseband (I or Q) | Up to 60MHz (nom.) |
| | RF (I + Q) | Up to 120MHz (nom.) |
| | Internal modulation | |
| Carrier suppression ^[1] | Baseband (I or Q) | Up to 30MHz (nom.) |
| | RF (I + Q) | Up to 60MHz (nom.) |
| Carrier suppression ^[1] | Carrier frequency range:50MHz ≤ f ≤ 6GHz | ≥40dBc (typ.) |
| Suppression of image sideband ^[2] | Modulation bandwidth up to ±10MHz | ≥40dBc (typ.) |
| External I/Q inputs | VSWR | <1.5 |
| | Full scale input | $\sqrt{I^2 + Q^2} = 0.5V_{rms}$ |
| Internal modulation | 16QAM , root cosine filter (α=0.22), 4MSps | |
| EVM | 50MHz ≤ f ≤ 3GHz (level≤4dBm) | ≤0.7%rms (typ.) |
| | 3GHz < f ≤ 6GHz (level≤0dBm) | ≤1.2%rms (typ.) |
| | QPSK , root cosine filter (α=0.22), 4MSps | |
| | 50MHz ≤ f ≤ 3GHz (level≤4dBm) | ≤0.7%rms (typ.) |
| External modulation | 3GHz < f ≤ 6GHz (level≤0dBm) | ≤1.2%rms (typ.) |
| | EVM | CDMA2000/1xEV-DO,1.2288 Mcps, frequency 800 to 900MHz, 1800 to 1900MHz, level≤4dBm |
| ACPR | | ≤ 1.2%, ≤ 0.8% (typ.) ≥ 70dB |



NOTE: [1] [2]The parameter is measured at room temperature. When the temperature is difference from room temperature, the specification will deteriorate.

| I/Q Baseband Generator (Option IQ-DSG3000) | | | |
|--|------------------------------|--|---------------|
| Output impedance | 50Ω (nom.) | | |
| Output voltage | Setting range | 0.1Vp to 1.5Vp | |
| | Resolution | 1mV | |
| Frequency response | Referenced to 1MHz | ≤ 10MHz | <0.5dB (nom.) |
| | | ≤ 30MHz | <1dB (nom.) |
| I/Q imbalance | Magnitude | ≤ 10MHz | <0.1dB (nom.) |
| | | ≤ 30MHz | <0.2dB (nom.) |
| | Nonlinear phase | ≤ 10MHz | 200ps (nom.) |
| | | ≤ 30MHz | 500ps (nom.) |
| SFDR | Sine | ≤ 30MHz | >50dB (nom.) |
| Waveform memory | Waveform length | 1 Msample to 16 Msample in one-sample steps | |
| | Resolution | 14 bits | |
| | Loading time 1Msample | <10 s ^[1] (nom.) | |
| | Nonvolatile memory | 1G Bytes | |
| Sample rate | Setting range | 1 kHz to 50 MHz | |
| | Resolution | 0.01 Hz | |
| Trigger | Triggering | Auto, trigger key, external, bus(GPIB, USB, LAN) | |
| | Operating modes | Retrig, armed auto, armed retrig, single | |
| | External trigger delay | | |
| | Setting range | 0 to (2 ¹⁶ - 1) | |
| | Resolution | 1 | |
| | External trigger inhibit | | |
| | Setting range | 0 to (2 ¹⁶ - 1) | |
| | Resolution | 1 | |
| | External trigger pulse width | >20 ns (nom.) | |

Inputs and Outputs

| Front Panel Connectors | | |
|---|-----------|------------|
| RF output | Impedance | 50Ω (nom.) |
| | Connector | N female |
| External modulation signal input | Impedance | 50Ω (nom.) |
| | Connector | BNC female |
| Internal modulation generator.(LF) output | Impedance | 50Ω (nom.) |
| | Connector | BNC female |

| Rear Panel Connectors | | |
|---|----------------------|-----------------|
| External trigger in | Impedance | 1kΩ (nom.) |
| | Connector | BNC female |
| | Trigger voltage | 5V TTL level |
| Signal valid output | Connector | BNC female |
| | Output voltage | 0V/3.3V (nom.) |
| Sweep out | Connector | BNC female |
| | Output voltage | 0 to 10V (nom.) |
| Pulse input or output | Impedance | 50Ω (nom.) |
| | Input/output voltage | 0V/3.3V (nom.) |
| 10MHz in (external frequency reference input) | Impedance | 50Ω (nom.) |
| | Connector | BNC female |
| 10MHz out (external frequency reference output) | Impedance | 50Ω (nom.) |
| | Connector | BNC female |
| I/Q baseband input/output (option IQ-DSG3000) | Impedance | 50Ω (nom.) |
| | Connector | BNC female |

| Rear Panel Communication Interface | | |
|------------------------------------|----------------------------|-------------------|
| USB host | Connector | A plug |
| | Protocol | Version2.0 |
| USB device | Connector | B plug |
| | Protocol | Version2.0 |
| LAN | LXI core device 2011 class | 10/100Base, RJ-45 |
| IEC/IEEE bus (GPIB) | | IEEE488.2 |

NOTE: [1] Load from flash internal non-volatile memory.

General Specifications

| | | |
|------------|---------|--|
| Display | | |
| Type | TFT LCD | |
| Resolution | 480*272 | |
| Size | 4.3" | |

| | | |
|--------------------|---|----------|
| Mass Memory | | |
| Mass memory | Flash non-volatile memory (internal); USB disk (not supplied) | |
| Data storage space | Flash non-volatile memory (internal) | 1G Bytes |

| | | |
|-------------------------|---------------------|----------------------|
| Power Supply | | |
| Input voltage range, AC | 100V to 240V (nom.) | |
| AC supply frequency | 45Hz to 440Hz | |
| Power consumption | With all options | 50W (typ.), max. 60W |

| | | |
|--|--|--|
| Electromagnetic Compatibility and Safety | | |
| EMC | In line with EN61326-1:2006 | |
| | IEC 61000-4-2:2001 | ±4.0kV (contact discharge), ±4.0kV (air discharge) |
| | IEC 61000-4-3:2002 | 3V/m (80MHz to 1GHz) 3V/m (1.4GHz to 2GHz) 1V/m (2.0GHz to 2.7GHz) |
| | IEC 61000-4-4:2004 | 1kV power lines |
| | IEC 61000-4-5:2001 | 0.5kV (phase to Neutral) 0.5kV (phase to PE) 1 kV (neutral to PE) |
| | IEC 61000-4-6:2003 | 3V,0.15-80MHz |
| | IEC 61000-4-11:2004 | Voltage dip: 0 % UT during half cycle 0 % UT during 1 cycle 70 % UT during 25 cycles Short interruption: 0 % UT during 250 cycles |
| Electrical safety | In line with UL 61010-1:2012 CAN/CSA-C22.2 No. 61010-1-12 EN 61010-1:2010 | |

| | | |
|---------------|-----------------------------|------------------------|
| Environmental | | |
| Temperature | Operating temperature range | 0°C to 50°C |
| | Storage temperature range | -20°C to 70°C |
| Humidity | 0°C to 30°C | ≤95% rel. humidity |
| | 30°C to 40°C | ≤75% rel. humidity |
| Altitude | Operating height | Up to 3,048m (10000ft) |

| | | |
|-------------|---|--|
| Dimensions | | |
| (W × H × D) | 364 mm × 112 mm × 420 mm(14.33 in × 4.41 in × 16.54 in) | |

| | | |
|------------------------|---------------|--|
| Weight | | |
| | 6.4kg(14.1lb) | |
| With IQ-DSG3000 option | 6.7kg(14.8lb) | |

► Ordering Information


| | Description | Order Number |
|----------------------|---------------------------------------|--------------|
| Model | Signal Generator, 9kHz to 3GHz | DSG3030 |
| | Signal Generator, 9kHz to 6GHz | DSG3060 |
| Standard accessories | Quick Guide (Hard Copy) | - |
| | CDROM (User Guide, Programming Guide) | - |
| | Power Cable | - |
| Options | Pulse Train Generator | PUG-DSG3000 |
| | High Stable OCXO Reference Clock | OCXO-A08 |
| | I/Q Modulation, Baseband Output | IQ-DSG3000 |
| | Power Meter Controller | PMC-DSG3000 |
| | Rack Mount Kit | RM-DSG3000 |

NOTE: All instruments, accessories and options can be ordered from your local RIGOL distributors.

Warranty

Three –year warranty, excluding probes and accessories.

RIGOL



SETUP
E L E C T R Ó N I C A

Setup Electrónica, S.L.

| | |
|---|--|
| <p>BARCELONA Via Augusta 125, Ático 2ª 08006 - BARCELONA Tel. 934140372 Fax. 934140991</p> | <p>CENTRO Camino de Santiago, 20 19290 - FONTANAR Tel. 949 329337</p> |
|---|--|

www.setup-electronica.es / setup@setup-electronica.es

Headquarter

RIGOL TECHNOLOGIES, INC.
No.156,Cai He Village,
Sha He Town,
Chang Ping District, Beijing,
102206 P.R.China
Tel:+86-10-80706688
Fax:+86-10-80705070
Email: info@rigol.com

USA

RIGOL TECHNOLOGIES
USA,INC.
7401 First Place,Suite N
Oakwood Village
OH 44146,USA
Tel/Fax: 440-232-4488
Toll free: 877-4-RIGOL-1
Email: info@rigol.com

Europe

RIGOL TECHNOLOGIES EU,
GmbH
Lindbergh str. 4
82178 Puchheim, Germany
Tel: +49(0)89-8941895-0
Email: info-europe@
rigoltech.com



RIGOL® is the registered trademark of RIGOL Technologies, Inc. Product information in this document subject to update without notice. For the latest information about RIGOL's products, applications and services, please contact local RIGOL office or access RIGOL official website:

www.rigol.com

Augus,2013