



Mini-Circuits

USB & ETHERNET & DAISY-CHAIN

# Signal Generator

**SSG-R7N6GD-RC**

50Ω

700 to 6000 MHz

-60 to +24 dBm

SMA Female

Dual Channel

## THE BIG DEAL

- Two independently tunable channels
- Cost effective , Broadband signal generator
- High output power, +24 dBm
- CW, pulsed, AM, FM & chirp outputs
- Compact design for bench top use
- Power over Ethernet (PoE) enabled
- Daisy-chain for multi-module dynamic control

## APPLICATIONS

- Semiconductor high power burn-in & life testing
- Radar, SATCOM, Telecoms, Industrial and Wireless testing
- Benchtop signal generator
- Automated production test systems



Generic photo used for illustration purposes only

## PRODUCT OVERVIEW

Mini-Circuits' SSG-R7N6GD-RC is a dual-channel wide-band signal generator operating from 700 to 6000 MHz. With up to +24 dBm typical output power, it is an ideal signal source for characterization of RF and microwave components and systems at high power. Configure CW / single-tone outputs, flexible pulse sequences, AM, FM and Chirp modulations, or automated frequency / power sweep & hop sequences.

SSG-R7N6GD-RC has been developed in a compact package with powerful software control and automation to provide a cost effective broadband signal generator and LO source for any bench or production test application. This is a high quality, repeatable and reliable signal source with low phase noise and good harmonic rejection useful for a broad range of RF test.

The generator can be controlled via USB or Ethernet (supporting SSH, HTTP & Telnet protocols). Full software support is provided, including our user-friendly GUI application for Windows, flexible API and programming instructions for Windows and Linux environments. The daisy-chain control interface with "dynamic addressing" simplifies control integration and allows multiple units to be combined into a multi-channel signal source with control through a single software interface.

## KEY FEATURES

| Feature                                     | Advantages                                                                                                                                                                                                                                         |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High quality signal source                  | Outstanding combination of fine frequency and power resolution, low phase noise and excellent harmonic rejection, and low spurious signals in a compact package; with two independently tunable channels suited for a wide range of applications . |
| Dual Channel                                | The two channels can operate independently and in coherent or non-coherent modes with 2.8° phase resolution for the complete 360° range.                                                                                                           |
| Flexible pulse, AM, FM and Chirp modulation | Configure various analog modulations according to your needs.                                                                                                                                                                                      |
| Sweep & Hop sequences                       | Configure custom CW output frequency and power sequences to run unaided for high speed, automated test applications.                                                                                                                               |
| Dynamic daisy-chain control                 | Simplify control software and interconnections and develop low-cost, multi-channel signal generator systems by daisy-chaining multiple units with control through a single interface.                                                              |

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ELECTRICAL SPECIFICATIONS <sup>1</sup>, +25°C

| Parameter                           | Condition (MHz)                     |                          | Min. | Typ.  | Max.   | Unit |
|-------------------------------------|-------------------------------------|--------------------------|------|-------|--------|------|
| Output Frequency                    | -                                   |                          | 700  | -     | 6000   | MHz  |
| Frequency Resolution <sup>2</sup>   | 700 - 6000                          |                          | -    | 1     | -      | Hz   |
| Frequency Accuracy                  | Using internal reference            |                          | -    | ±1    | -      | ppm  |
| Return Loss                         | 700 - 6000                          |                          | -    | -10   | -      | dB   |
| Output Power Max                    | 700 - 6000                          |                          | +22  | +24   | -      | dBm  |
| Output Power Min                    | 700 - 6000                          |                          | -    | -60   | -55    | dBm  |
| Power Resolution (nominal)          | 700 - 6000                          |                          | -    | 0.1   | -      | dB   |
| Output Power Accuracy               | -55 to +22 dBm                      | 700 - 6000               | -    | ±0.5  | -      | dB   |
| RF Output Leakage                   | 700 - 6000                          | RF Off                   | -    | -80   | -      | dBm  |
| Harmonics                           | -55 to +22 dBm                      | 700 - 2000               | -    | -10   | -      | dBc  |
|                                     |                                     | 2000 - 4000              | -    | -15   | -      |      |
|                                     |                                     | 4000 - 6000              | -    | -20   | -      |      |
| Non-Harmonic Spurious               | 0 dBm to Max Power                  | Offsets 1 kHz to 150 MHz | -    | -50   | -      | dBc  |
| Boundary Spurs                      |                                     | 700 - 6000               | -    | -40   | -      |      |
| Isolation (between channels)        | -55 to +22 dBm                      | 700 - 3000               | -    | -80   | -      | dB   |
|                                     |                                     | 3000 - 6000              | -    | -60   | -      |      |
| Settling Time <sup>3,4</sup>        | Hop mode <sup>5</sup>               | 700 - 6000               | -    | 0.20  | -      | ms   |
|                                     | Frequency sweep                     | 700 - 6000               | -    | 0.80  | -      |      |
|                                     | Power transition (at set frequency) |                          | -    | 0.015 | -      |      |
|                                     | PC (external) control               |                          | -    | 2     | -      |      |
| Dwell Time (nominal) <sup>4,6</sup> | -                                   |                          | 0.01 | -     | 10,000 | ms   |
| Phase Offset Range                  | -                                   |                          | 0    | -     | 359    | deg  |
| Phase Offset Resolution             | -                                   |                          | -    | 1     | -      |      |

1. Specifications are after 15 minutes warm-up time.

2. Frequency Resolution is tested with 10 MHz external reference.

3. Settling Time - transition time between 2 output states. During the transition, RF output is turned off to avoid transient outputs.

4. Generator response time is Dwell Time + Settling Time.

5. For hop sequences pre-loaded into internal memory (high-speed mode).

6. Dwell Time - duration of each signal point in a Sweep or Hop sequence set by user. Default is minimum dwell time.



### MODULATION SPECIFICATIONS, <sup>7</sup> +25°C

| Parameter                                 |                       | Condition                                                    |                           | Min. | Typ.      | Max. | Unit |
|-------------------------------------------|-----------------------|--------------------------------------------------------------|---------------------------|------|-----------|------|------|
| Modulation types                          |                       | AM, FM, Chirp, Pulse (Rising, Falling and bi-directional)    |                           |      |           |      |      |
| Max modulation freq                       |                       | 3 dB point                                                   |                           | -    | -         | 5    | kHz  |
| FM Max deviation                          |                       | -                                                            |                           | -    | 50        | -    | MHz  |
| AM Modulation depth <sup>8</sup>          |                       | -                                                            |                           | 0    | -         | 100  | %    |
| Chirp step size (nominal) <sup>9</sup>    |                       | Frequency                                                    |                           | 1    | -         | 100  | MHz  |
|                                           |                       | Time                                                         |                           | 50   |           |      | μs   |
| Pulse Width Resolution                    |                       | Nominal value                                                |                           | 0.05 | -         | -    | μs   |
| Pulse Width <sup>10,11</sup>              |                       | Measured at the 50% of pulse level                           | Internal Pulse Modulation | 5    | -         | 10e6 | μs   |
|                                           |                       |                                                              | External Pulse Modulation | 5    | -         | 10e6 |      |
| Pulse Period (regular mode)               |                       | Measured at the 50% of pulse level                           | Internal Pulse Modulation | 10   | -         | 10e6 | μs   |
|                                           |                       |                                                              | External Pulse Modulation | 10   | -         | 10e6 |      |
| Pulse interval <sup>12</sup>              | Fixed freq. & Power   | Measured at the 50% of pulse level                           |                           | 7    | -         | 4e6  | μs   |
|                                           | Varying freq. & Power |                                                              |                           | 150  | -         | 4e6  |      |
| Pulse Rise / Fall Time <sup>13, 14</sup>  |                       | Measured between 10% and 90% of pulse level                  |                           | -    | 180 / 150 | -    | ns   |
| Pulse Width Accuracy <sup>15</sup>        |                       | Measured at 50% of pulse level                               | Internal pulse modulation | -    | ±10       | -    | %    |
|                                           |                       |                                                              | External pulse modulation | -    | ±10       | -    |      |
| External pulse modulation input threshold |                       | External pulse modulation                                    |                           | 3    | -         | -    | V    |
| Trigger Response Delay                    |                       | Trigger edge to 50% of pulse level                           | Internal pulse modulation | -    | 1         | -    | μs   |
|                                           |                       |                                                              | External pulse modulation | -    | 2         | -    |      |
| Pulse Power Ratio                         |                       | PWR <sub>OUT</sub> = +20 dBm, FREQ <sub>OUT</sub> = 700 MHz  |                           | -    | 60        | -    | dB   |
|                                           |                       | PWR <sub>OUT</sub> = +20 dBm, FREQ <sub>OUT</sub> = 6000 MHz |                           | -    | 50        | -    |      |

7. Regular pulse mode has fixed frequency and power supporting internal and external modulation and input / output trigger options. Dynamic mode allows for flexible RF pulse sequences with varying frequency, power pulse width and pulse repetition interval (PRI).

8. In AM modulation, ensure there is sufficient margin between the carrier power and Generator's Min/Max power spec to allow generating the modulated signal without distortions. For example a modulation depth of 50% translates to power of +1.76 dB to -3.01 dB from the carrier.

9. Chirp signal can not cross the frequency band transition frequencies. Frequency band transitions of the SSG model are 937.5 MHz, 1250 MHz, 1875 MHz, 3750 MHz.

10. Pulse Width in normal mode must be less than pulse period by at least 0.5 μs with Internal pulse modulation and by 2 μs in external pulse modulation.

11. Pulse Widths below 0.5 μs can be set, however performance is only guaranteed for the ranges noted in the table.

12. In dynamic mode.

13. Pulse rise time will increase with pulse interval under 3 μs.

14. For signals at same power & frequency.

15. Pulse Width Accuracy is 10% of pulse width, or ±100 ns, whichever is greater.

### PHASE NOISE (SSB), +25°C

| Frequency Offset (kHz) | Carrier Frequency (MHz) |        |        |        |        |        |        |        |        |        |        |        |
|------------------------|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                        | 700                     |        | 2000   |        | 3000   |        | 4000   |        | 5000   |        | 6000   |        |
|                        | Typ.                    | Max    | Typ.   | Max    | Typ.   | Max    | Typ.   | Max    | Typ.   | Max    | Typ.   | Max    |
| 1                      | -116.5                  | -112.0 | -108.5 | -105.0 | -105.0 | -101.0 | -103.0 | -98.5  | -100.5 | -96.5  | -99.0  | -95.0  |
| 10                     | -126.0                  | -123.0 | -119.5 | -116.5 | -115.5 | -111.5 | -113.5 | -110.0 | -111.5 | -108.0 | -110.0 | -106.5 |
| 100                    | -132.0                  | -128.5 | -125.5 | -122.5 | -121.5 | -118.5 | -119.0 | -116.0 | -117.0 | -114.0 | -115.5 | -112.5 |
| 1,000                  | -137.5                  | -134.0 | -132.5 | -129.5 | -125.0 | -122.0 | -126.5 | -123.0 | -124.5 | -120.5 | -119.5 | -116.5 |
| 10,000                 | -142.5                  | -139.5 | -147.0 | -144.5 | -147.5 | -144.5 | -147.0 | -144.0 | -146.5 | -143.5 | -146.0 | -142.5 |
| Noise Floor            | -148.0                  | -145.0 | -150.0 | -148.0 | -150.0 | -148.0 | -150.0 | -148.0 | -150.0 | -148.0 | -150.0 | -148.0 |



## REFERENCE, TRIGGER &amp; DC POWER, +25°C

| Parameter                   | Condition                   |                          | Min. | Typ. | Max.  | Unit     |
|-----------------------------|-----------------------------|--------------------------|------|------|-------|----------|
| Aging                       | Using internal reference    |                          | -    | 2    | -     | ppm/yr   |
| Reference In                | Frequency                   | -                        | -    | 10   | -     | MHz      |
|                             | Power                       | -                        | -3.5 | -    | +12.5 | dBm      |
|                             | Phase noise                 | 10 kHz Offset            | -    | -135 | -     | dBc/Hz   |
| Reference Out               | Frequency                   | -                        | -    | 10   | -     | MHz      |
|                             | Frequency accuracy          | Using internal reference | -    | ±1   | -     | ppm      |
|                             | Power                       | -                        | -    | +10  | -     | dBm      |
|                             | Phase noise                 | 10 kHz Offset            | -    | -140 | -     | dBc/Hz   |
| Trigger Out <sup>16</sup>   | Low                         |                          | 0    | -    | 0.4   | V        |
|                             | High                        |                          | 3.0  | -    | 5.0   |          |
|                             | Pulse width                 |                          | -    | 100  | -     | μs       |
| Trigger In                  | Low                         |                          | 0    | -    | 0.4   | V        |
|                             | High                        |                          | 3.0  | -    | 5.0   |          |
|                             | Pulse width                 |                          | -    | 1    | -     | μs       |
| Supply Voltage ( $V_{DC}$ ) | DC Input port <sup>17</sup> |                          | 5.7  | 6.0  | 6.3   | $V_{DC}$ |
| Supply Current ( $I_{DC}$ ) |                             |                          | -    | 2.4  | 3.0   | A        |
| Supply Current ( $I_{DC}$ ) | USB port <sup>17</sup>      |                          | -    | 20   | -     | mA       |
| Supply Voltage ( $V_{DC}$ ) | LAN port <sup>17, 18</sup>  |                          | 50   | 53   | 57    | $V_{DC}$ |
| Supply Current ( $I_{DC}$ ) |                             |                          | -    | 230  | 350   | mA       |

16. Trigger out voltage specified with impedance load of 10 kΩ minimum.

17. Power must be provided via the 2.1 mm DC Input or LAN port (using PoE systems) before connecting the unit to USB. The same is true in reverse, disconnect unit from USB before disconnecting power supply.

18. Compliant with IEEE 802.3at mode A and mode B.

## ABSOLUTE MAXIMUM RATINGS

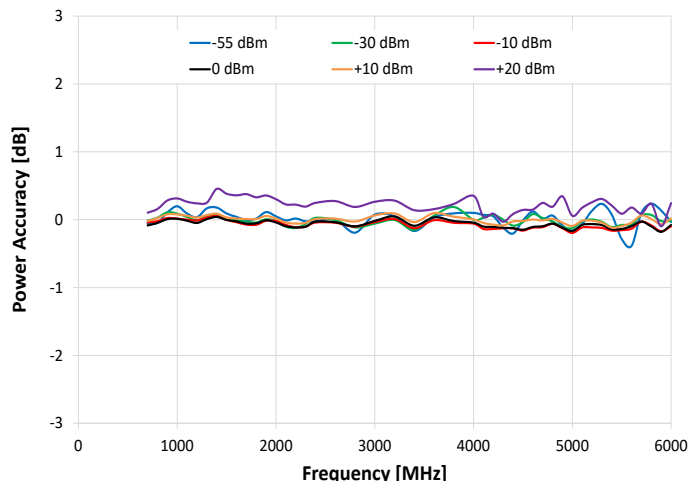
|                                      |                                |
|--------------------------------------|--------------------------------|
| Operating Temperature                | 0°C to 50°C                    |
| Storage Temperature                  | -20°C to 60°C                  |
| Power in @ Reference in              | +15 dBm                        |
| Reverse Voltage (DC) @ Reference out | 8 $V_{DC}$                     |
| Reverse Voltage (DC) @ RF out        | 15 $V_{DC}$                    |
| Reverse Power (RF) @ RF out          | +25 dBm                        |
| Voltage input to trigger ports       | -0.3 $V_{DC}$ to +5.5 $V_{DC}$ |

Permanent damage may occur if any of these limits are exceeded. Operating in the range between operating power limits and absolute maximum ratings for extended periods of time may result in reduced life and reliability.

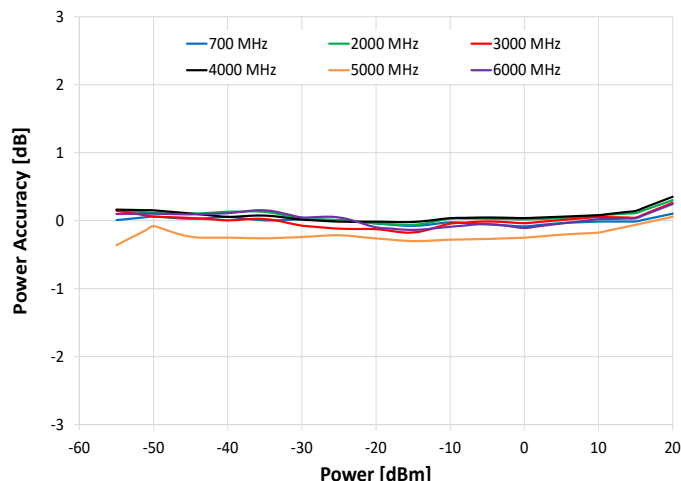


## TYPICAL PERFORMANCE GRAPHS (PER CHANNEL)

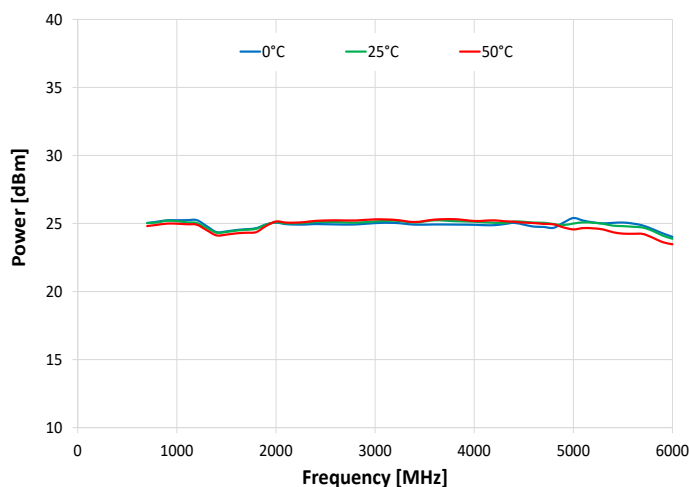
Power Accuracy vs. Output Frequency



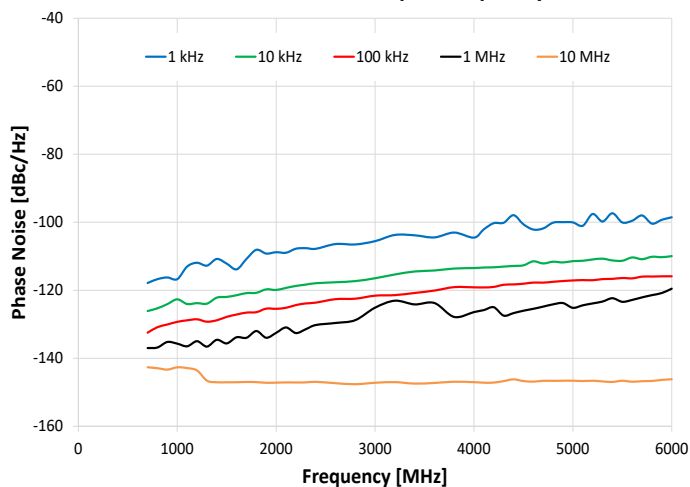
Power Accuracy vs. Output Power



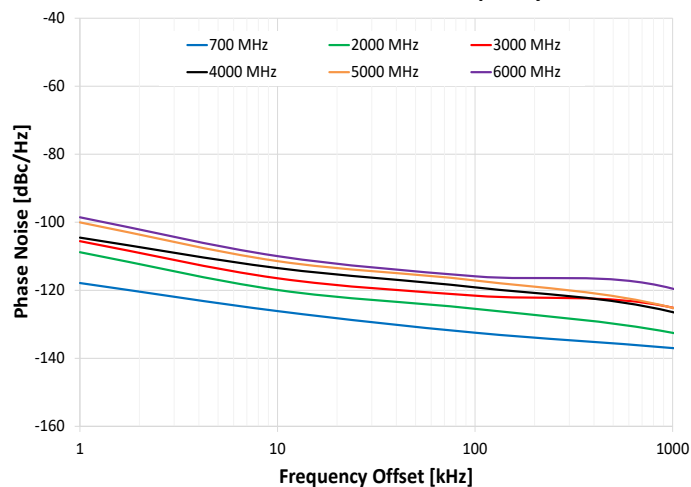
Max Power vs. Output Frequency



Phase Noise vs. Output Frequency



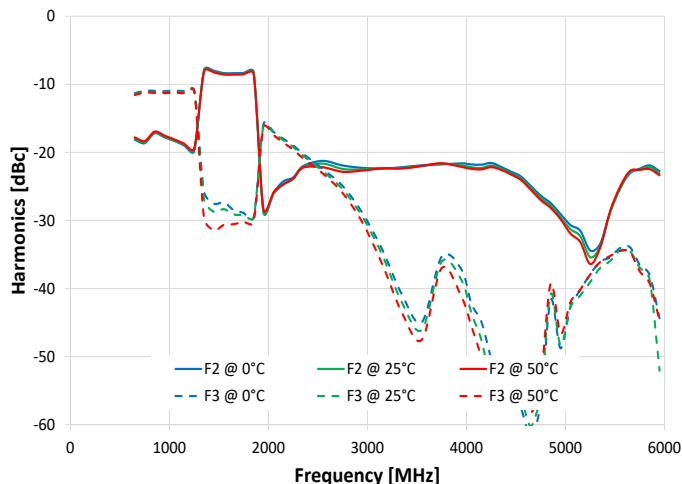
Phase Noise vs. Offset Frequency



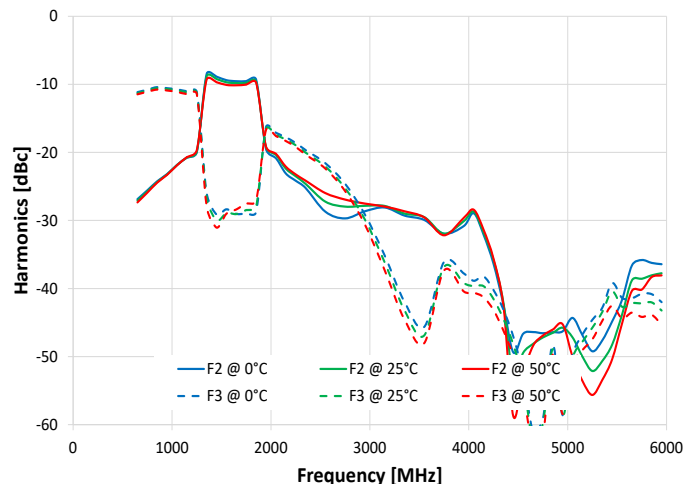


## TYPICAL PERFORMANCE GRAPHS (PER CHANNEL, CONTINUED)

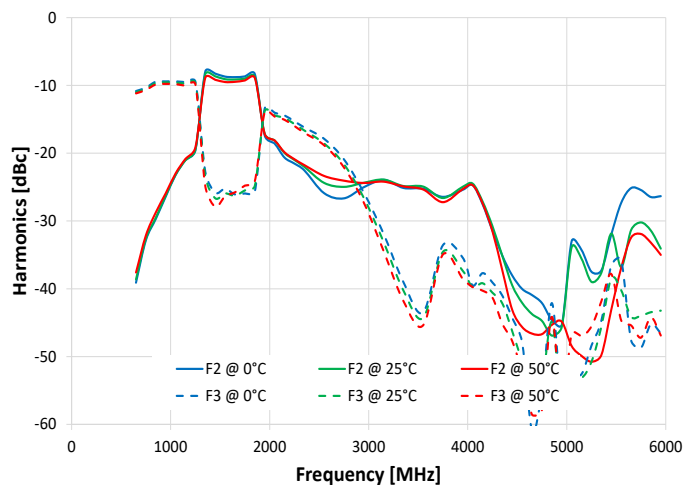
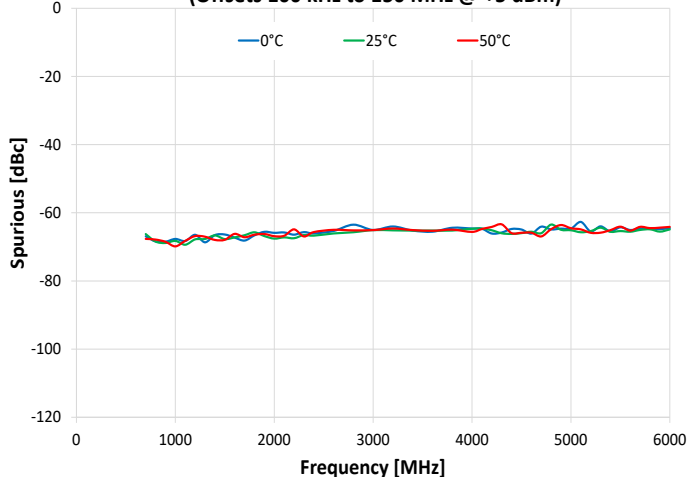
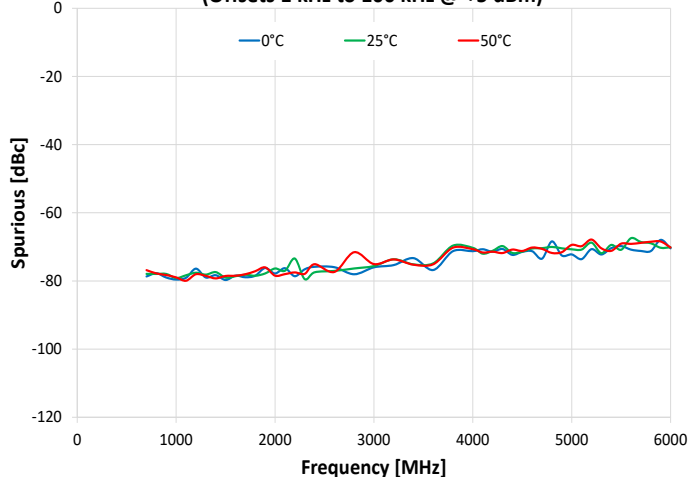
Harmonics vs. Output Frequency @ +20 dBm



Harmonics vs. Output Frequency @ 0 dBm



Harmonics vs. Output Frequency @ -20 dBm

Spurious vs. Output Frequency  
(Offsets 100 kHz to 150 MHz @ +5 dBm)Spurious vs. Output Frequency  
(Offsets 1 kHz to 100 kHz @ +5 dBm)



## CONTROL INTERFACES

|                  |                                      |                                                  |
|------------------|--------------------------------------|--------------------------------------------------|
| Ethernet Control | Supported Protocols                  | TCP / IP, HTTP, Telnet, SSH, DHCP, UDP (limited) |
|                  | Max Data Rate                        | 1 Gbps (1000 Base-T Full Duplex)                 |
| USB Control      | Supported Protocols                  | HID (Human Interface Device) - High-speed        |
|                  | Min Communication Time <sup>19</sup> | 400 μs typ (full transmit/receive cycle)         |

19. USB Min Communication Time is based on the polling interval of the USB HID protocol (125 μs polling interval, 64 bytes per packet), medium CPU load and no other high-speed USB devices using the USB bus.

## SOFTWARE & DOCUMENTATION

Mini-Circuits' full software and support package including user guide, Windows GUI, API, programming manual and examples can be downloaded free of charge (refer to the last page for the download path).

A comprehensive set of software control options is provided:

- GUI for Windows – Simple software interface for control via Ethernet and USB.
- Programming / automation via Ethernet:
  - Complete set of control commands which can be sent via any supported protocol.
  - Simple to implement in the majority of modern programming environments.
- Programming / automation via USB:
  - DLL files provide a full API for Windows with a set of intuitive functions which can be implemented in any programming environment supporting .Net Framework or ActiveX.
  - Direct USB programming is possible in any other environment (not supporting .Net or ActiveX).

Please contact [testsolutions@minicircuits.com](mailto:testsolutions@minicircuits.com) for support.

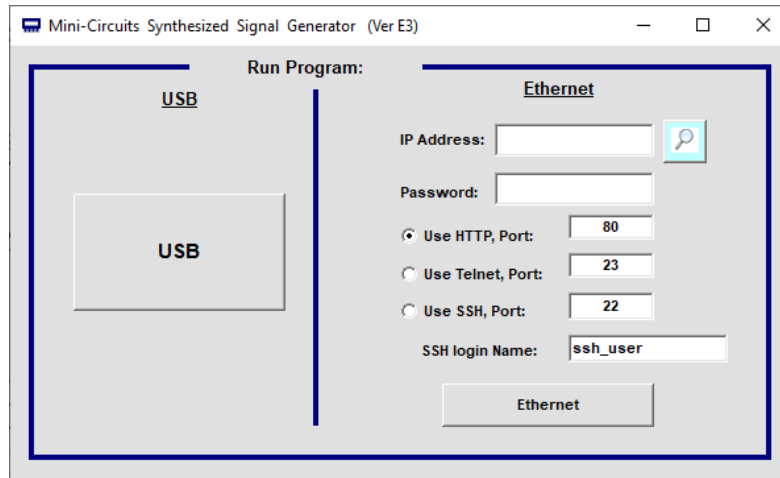
## MINIMUM SYSTEM REQUIREMENTS

|                        |                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------|
| GUI                    | Windows 7 or later                                                                           |
| USB API DLL            | Windows 7 or later and programming environment with ActiveX or .NET support                  |
| USB Direct Programming | Linux, Windows 7 or later                                                                    |
| HTTP, Telnet or SSH    | Any computer with a network port and Ethernet-TCP/IP (HTTP, Telnet or SSH protocols) support |
| Hardware               | Intel i3 (or equivalent) or later                                                            |

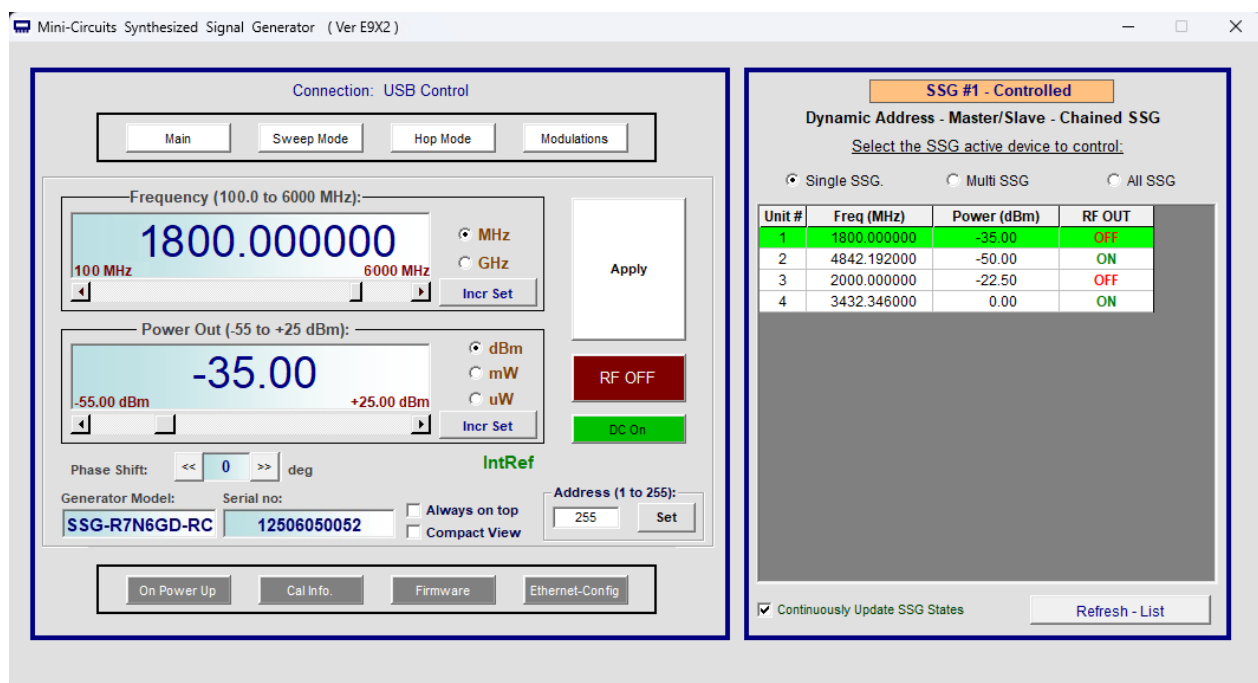


### GRAPHICAL USER INTERFACE (GUI) FOR WINDOWS - KEY FEATURES

- Connect via USB or Ethernet
- Password protected access for safe remote usage over Ethernet



- Set all functions for each channel independently
- Configure output power, frequency, pulse modulation
- Program timed signal output sequences (linear sweep and frequency hop)
- Control timed sequences in multiple generators simultaneously
- Track unit operation time since last calibration and setup calibration reminders



**Note:** A daisy-chain of two dual channel units.



### AUTOMATED SWEEP / HOP SEQUENCES

- Set all functions for each channel independently
- Sweep across a frequency band at a fixed output power.
- Sweep output power levels at a fixed frequency.
- Hop through a list of pre-defined frequency / power settings.
- Set dwell times down to 10  $\mu$ s in high speed mode.
- Run on demand or in response to external triggers.
- Produce triggers to signal switching points or completing a run.

Sweep Mode - SSG timing control

☐ Freq Sweep ☐ Power Sweep ☒ Hop Mode

Generator Model: SSG-R7N6GD-RC Serial Number: 12506050052

Main Control [Icon] [Icon] [Icon]

Hop Mode: Max No Of Points: 100

| Point # | Freq (MHz) | Power (dBm) |
|---------|------------|-------------|
| 1       | 2991.78    | 0.5         |
| 2       | 2504       | 5           |
| 3       | 4000       | -15         |
| 4       | 2000       | 7.5         |
| 5       | 1001       | -35         |
| 6       | 5005       | 10          |
| 7       |            |             |

Note: To delete a point - click on the point # to select the row then press Delete.

Trigger IN: Before Each Point Dwell Time: 100 (10 usec - 10 sec) ☐ Sec ☐ mSec ☒ uSec

Direction: From Start of list Trigger OUT: At End of Cycle

OFF Run Sweep

Go to Hopping - PC timing control...

### MODULATION

- Select AM, FM, Chirp or Pulse modulation
- In the individual screens for each modulation specify the parameters for the modulated signal

Modulation

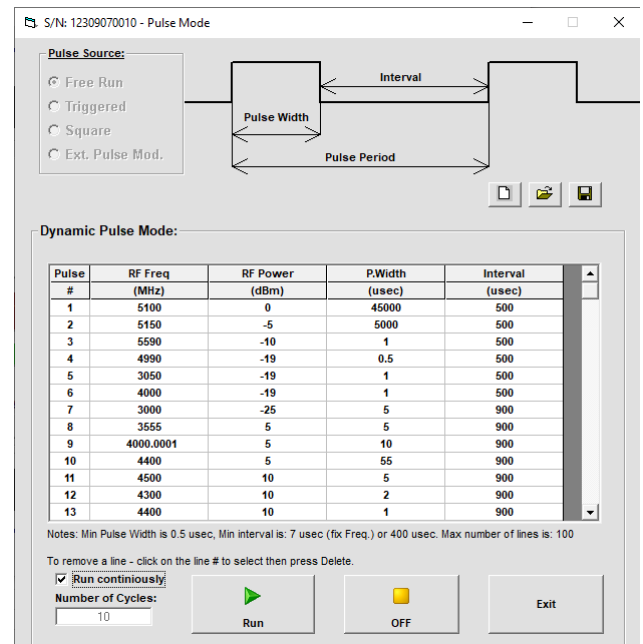
Select Modulation:

PULSE AM FM Chirp Main Control



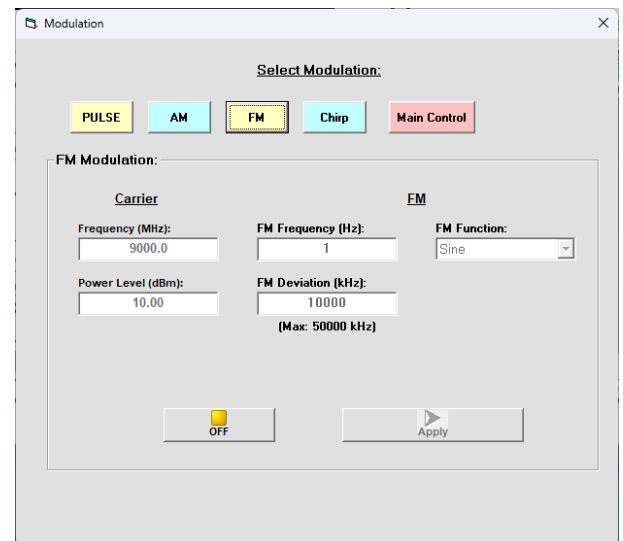
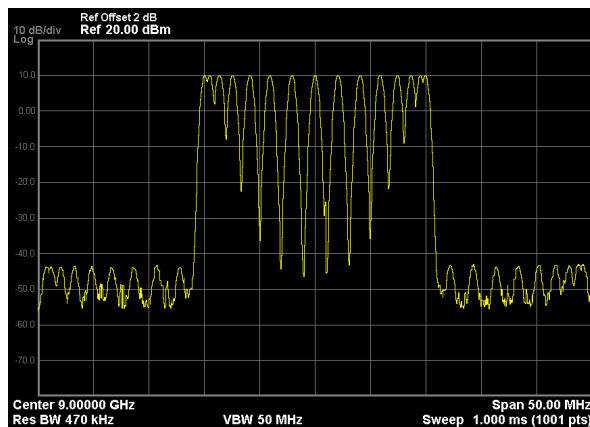
### DYNAMIC PULSE MODULATION

- Configure repetitive pulsed output sequences.
- Define custom pulse lists with a different frequency, power, width & interval at each step.
- Set pulse widths down to 0.5 us.
- Run continuously or for a preset number of cycles.



### FREQUENCY MODULATION (FM)

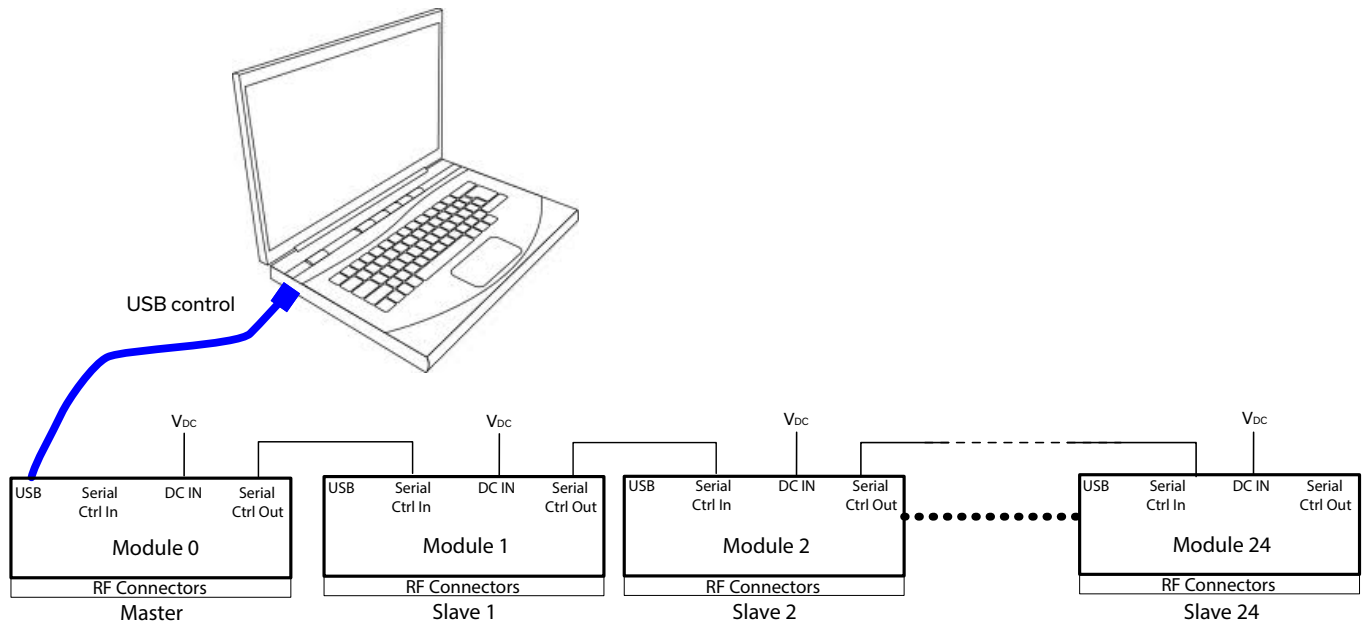
- Set carrier power and frequency.
- Set modulating signal frequency.
- Set desired FM deviation.
- Select Sine or triangle wave modulating signal.





### CONNECTING MULTIPLE MODULES (DAISY CHAIN)

The model is designed to connect up to 25 modules in series (daisy chain) using dynamic addressing, meaning there is no need to specifically set the address of the modules. The addresses will be set automatically as part of establishing the communications with the computer. The module connected to the computer's USB port or Ethernet connection will be assigned address 0 (master), the first module connected to it will get address 1 (slave) and subsequent modules incrementing up to address 24 (slave).



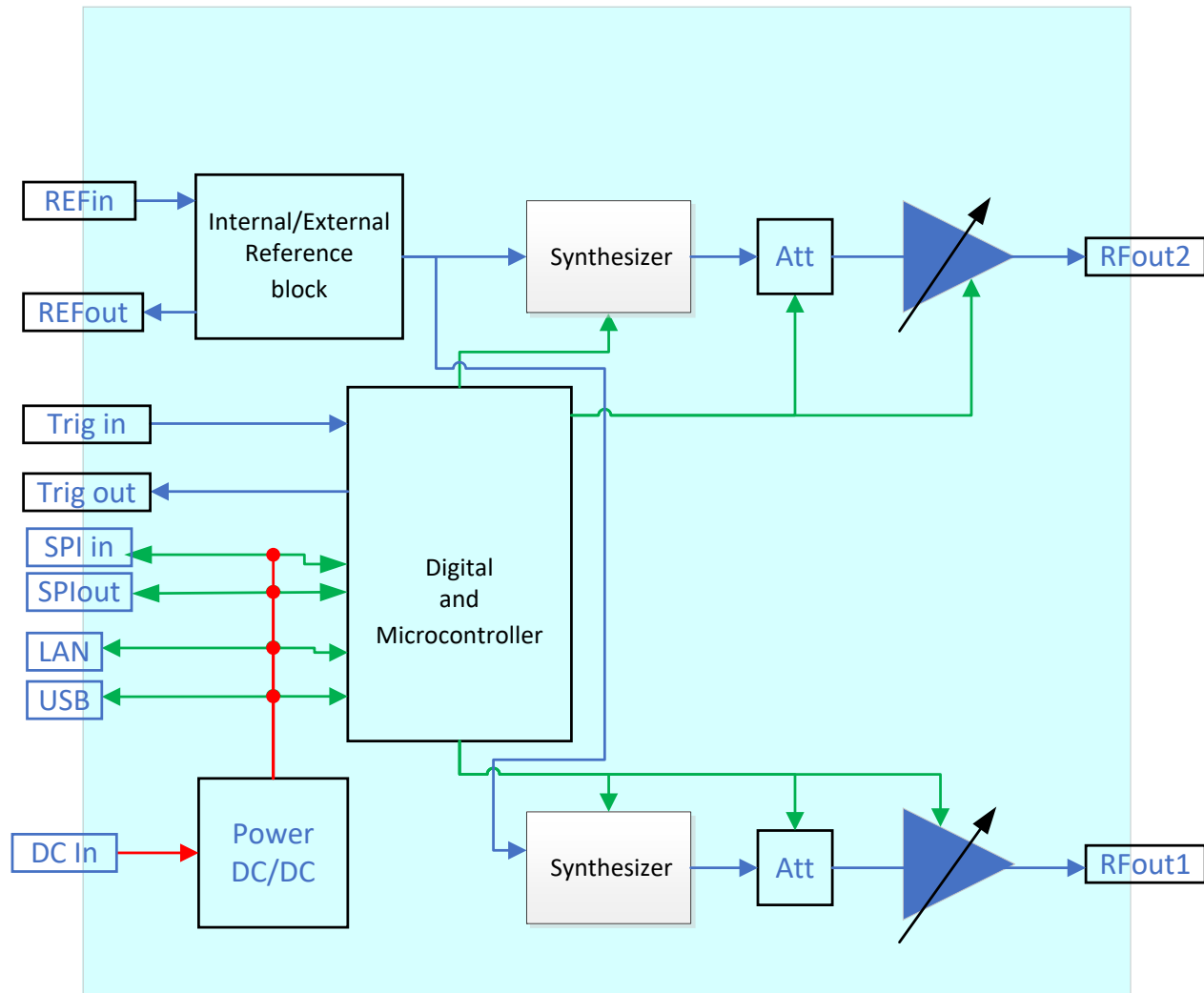
Connections between modules will be made using the serial in/out ports with the module connected to the PC act as a master and all other as slave modules. All control will be through the master module (address 0) which is the only one communicating with the PC or computer network. Serial control out port of each module should be connected to the serial control in port of the next module.

Power must be supplied to each module separately via their individual power supplies.

The serial master/slave bus allows connecting modules of different types to the same daisy chain as long as all support Mini-Circuits Dynamic addressing setup. To add a new module to the setup, simply connect the module and refresh the address listing, no need to reset any of the existing modules or assign addresses manually.



## BLOCK DIAGRAM



## CONNECTIONS

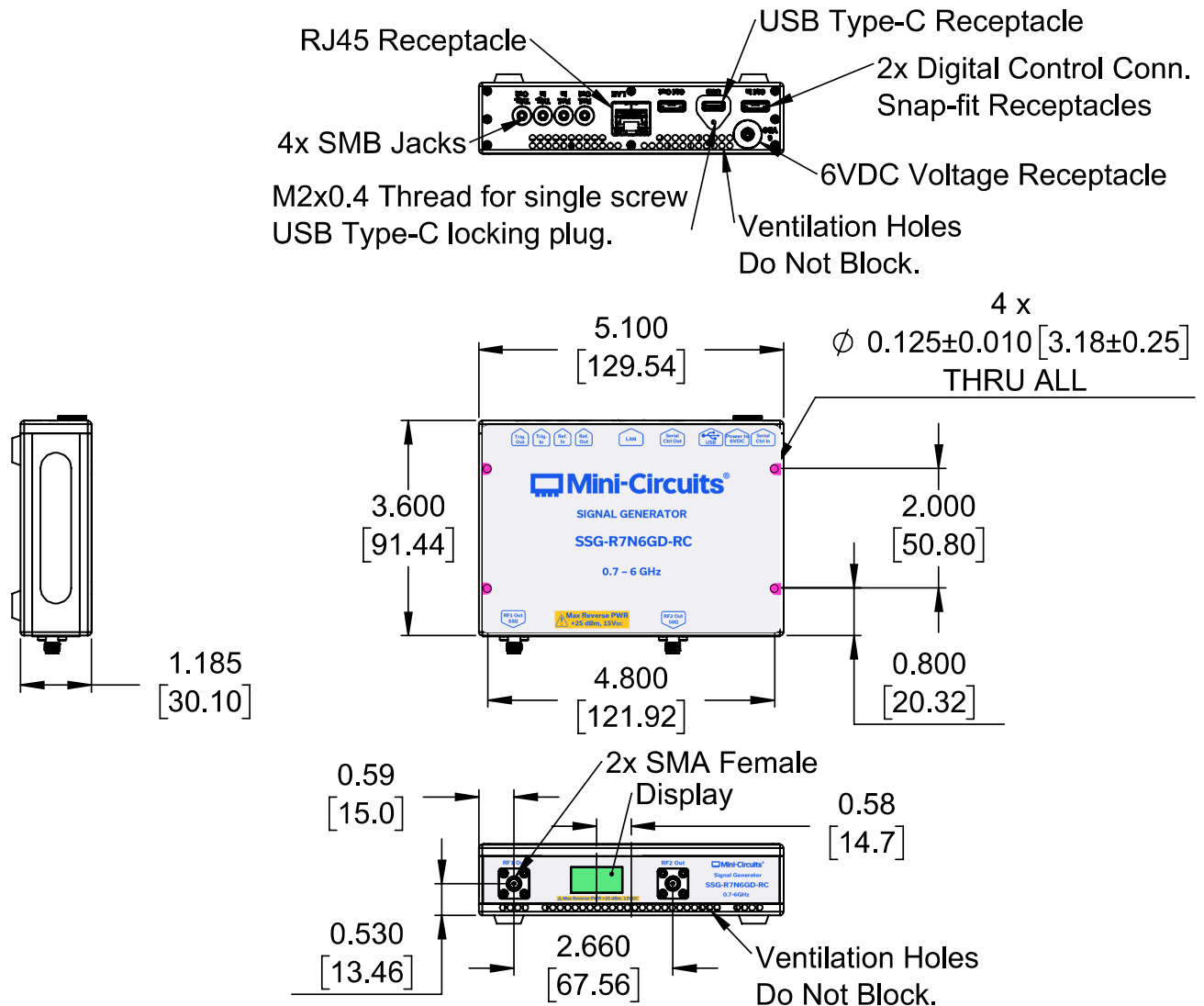
| Port Name                           | Connector Type                           |
|-------------------------------------|------------------------------------------|
| RF output (RF1 & RF2)               | SMA-Female                               |
| Reference in                        | J4 SMB-Male                              |
| Reference out                       | J5 SMB-Male                              |
| Trigger in                          | J3 SMB-Male                              |
| Trigger out                         | J2 SMB-Male                              |
| Power in <sup>20</sup>              | 2.1 mm DC socket                         |
| USB port                            | USB type C female                        |
| Network (Ethernet/LAN)              | RJ45 socket                              |
| Serial Out (Digital Control 1 port) | Digital Snap Fit Connector <sup>21</sup> |
| Serial In (Digital Control 2 port)  | Digital Snap Fit Connector <sup>21</sup> |

20. No power On/Off switch - SSG will power on as soon as power is connected, starting at the specified startup condition (factory default set to 9000 MHz, -50 dBm, RF Off).

21. Mating connector is Hirose ST40X-10S-CV(30)

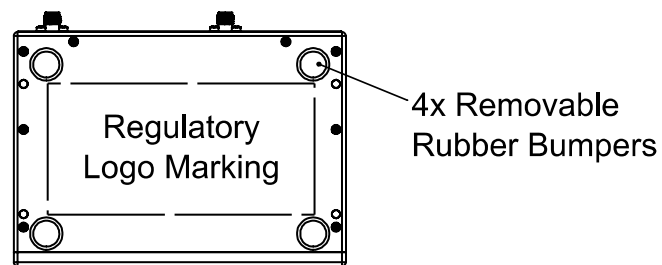


### OUTLINE DRAWING (SL3644)



### NOTES:

1. Case material: Aluminum alloy.
2. Case Finish: Nickel Plate.
3. Weight: 600 grams
4. Marking may contain other features or characters for internal lot control.





## USB & ETHERNET & DAISY-CHAIN

# Signal Generator

## SSG-R7N6GD-RC

Mini-Circuits

50Ω 700 to 6000 MHz -60 to +24 dBm SMA Female Dual Channel

DETAILED MODEL INFORMATION IS AVAILABLE ON OUR WEBSITE

[CLICK HERE](#)

|                                           |                                                                                                                                                                                        |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performance Data & Graphs                 | Data Graphs                                                                                                                                                                            |
| Case Style                                | SL3644                                                                                                                                                                                 |
| Environmental Rating                      | ENV55                                                                                                                                                                                  |
| Software, User Guide & Programming Manual | <a href="https://www.minicircuits.com/softwaredownload/sg.html">https://www.minicircuits.com/softwaredownload/sg.html</a>                                                              |
| Regulatory Compliance                     | <p>Refer to user guide for compliance information</p> <p>CE UK CA</p> <p><a href="https://www.minicircuits.com/app/AN49-003.pdf">https://www.minicircuits.com/app/AN49-003.pdf</a></p> |
| Support                                   | <a href="mailto:testsolutions@minicircuits.com">testsolutions@minicircuits.com</a>                                                                                                     |

### INCLUDED ACCESSORIES <sup>22</sup>

|                    | Part No.        | Description                                                                                                                              | Qty. |
|--------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------|------|
|                    | AC/DC-6-3W      | AC/DC Grounded Power adapter, 0°C to +40°C<br>AC Input: 100-240 V, 50/60 Hz, $I_{Max} = 1.2A$<br>DC Output $6\pm0.3 V$ , $I_{Max} = 3A$  | 1    |
| (See images below) | CBL-3W-xx       | AC Power Cord (Select one power cord from below with each unit)                                                                          | 1    |
|                    | USB-CBL-AC-7SC+ | 6.5 ft (2.0 m) USB Cable: USB type A (Male) to USB type C (Male)<br>Includes a screw lock to securely fasten the USB cable to the module | 1    |
|                    | CBL-5FT-BMSMB+  | 5.0 ft (1.5 m) Trigger cable: BNC (Male) to SMB (Female)                                                                                 | 2    |

22. Additional quantities are available for purchase as optional accessories.

### AC POWER CORD OPTIONS <sup>23</sup>

| United States | Europe    | United Kingdom | Australia and China | Israel    |
|---------------|-----------|----------------|---------------------|-----------|
|               |           |                |                     |           |
| CBL-3W-US     | CBL-3W-EU | CBL-3W-UK      | CBL-3W-AU           | CBL-3W-IL |

23. Select one option from the list with each unit. Please contact [testsolutions@minicircuits.com](mailto:testsolutions@minicircuits.com) if your region is not listed.





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# Signal Generator

**SSG-R7N6GD-RC**

50Ω    700 to 6000 MHz    -60 to +24 dBm    SMA Female    Dual Channel

## OPTIONAL ACCESSORIES

|                                                                                   | Part No.       | Description                                                                            |
|-----------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------|
|  | CBL-RJ45-MM-5+ | 5.0 ft (1.5 m) Ethernet cable: RJ45 (Male) to RJ45 (Male) Cat 5E cable                 |
|  | CBL-5FT-MMD+   | 5.0 ft (1.5 m) Cable assembly for serial control daisy chain with snap fit connectors  |
|  | CBL-1.5FT-MMD+ | 1.5 ft (0.45 m) Cable assembly for serial control daisy chain with snap fit connectors |

## CALIBRATION <sup>24</sup>

| Part No.         | Description                           |                            |
|------------------|---------------------------------------|----------------------------|
| CALSSG-R7N6GD-RC | Calibration Service for SSG-R7N6GD-RC | <a href="#">CLICK HERE</a> |

24. Model supports 3rd party calibration services.

### NOTES:

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at <https://www.minicircuits.com/terms/viewterm.html>

