

News and Events

RIGOL ceremoniously released the first high-performance RF signal source
Release date :2013 -07-02

July 1, 2013, Beijing Rigol Technologies Co., Ltd. (hereinafter referred to as: RIGOL) today announced the first independently developed high-performance RF signal source --- DSG3000 series. 2009 RIGOL officially entered the RF test and measurement field, and has released two spectrum analyzer, spectrum analyzer off the popularity of the storm. Two years later, DSG3000 series RF signal source launch, once again demonstrated RIGOL in constant breakthroughs in the field of RF test. As we all know, the RF signal source in the general market, people can choose products rarely, with 6G and vector signal generator frequency RF signal source capacity is very few, and procurement costs are prohibitive. RIGOL DSG3000 series RF signal source introduction to the unique product positioning and innovative features designed to bring no small surprise.



Figure I: RIGOL DSG3000 positive RF signal source



Figure II: RIGOL DSG3000 RF signal source on the back

<p>9kHz~3/6GHz +25dBm~-140dBm</p>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 5px;">CW</div> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 5px;">LF</div> </div>	<p>正弦波, 方波, 三角波, 锯齿波, 扫描正弦波</p>
<p>频率扫描, 幅度扫描, 频率加幅度扫描</p>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 5px;">Sweep</div> <div style="background-color: #FFB300; color: white; padding: 10px; border-radius: 5px;">PMC</div> </div>	<p>功率计控制器, 测试系统自动校准</p>

<p>内调制 外调制</p>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 5px;">AM</div> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 5px;">FM ΦM</div> </div>	<p>内调制 外调制</p>
<p>内调制, 外调制, 自定义脉冲串, 脉冲发生器</p>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 5px;">Pulse</div> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 5px;">I/Q</div> </div>	<p>内调制, 外调制, I/Q基带发生器, 基带输出</p>

Figure III: RIGOL DSG3000 main function of RF signal source

RIGOL DSG3000 series RF signal source has three characteristics: excellent performance, comprehensive solutions and modulation for production line application features and enhanced reliability and stability of the design.

RIGOL DSG3000 series RF signal source has a much higher than similar RF signal source of economic performance indicators, it is the highest frequency of 6GHz / 3GHz, only the high-end market in order to achieve 6GHz RF signal source frequency; output power is -130dBm to +13dBm, while the measured maximum output power exceeds +23 dBm. Typical amplitude accuracy <0.5dB, in order to obtain high frequency accuracy and high stability, standard 0.5ppm internal clock (both optional up 5ppb high stability clock). In addition, RIGOL DSG3000 series or a high signal purity RF signal source, its phase noise of -110dBc/Hz, residual FM typical values only 1Hzrms.

RIGOL DSG3000 series RF signal source provides, including IQ modulation vector modulation, including a comprehensive solution. First comes standard with AM / FM / Φ M analog modulation, followed by standard pulse modulation, and its on-off ratio of up to 80dB, rise and fall times <10ns, and it can be equipped with custom pulse sequences, the user can in the PC Easily edit using EXCEL software on the pulse sequence, and then import DSG3000, to complete the custom pulse modulated output pulse sequence.

RIGOL DSG3000 there is a very important feature, it is one with I / Q modulation vector signal source, it can not only external input IQ modulated signals, interior also designed internal IQ modulation function, the host computer can be edited modulation After downloading the waveform modulation output. RIGOL provides Ultra IQ Station can complete digital signal source editing, including QAM, FSK, ASK, etc., digital modulation, as well as a variety of common tunable filter, and facilitate the completion of the waveform download. Users can also use the application requirements include matlab, labview other common tool to generate its own waveform, and then through Ultra IQ Station downloaded to DSG3000 in. RIGOL DSG3000 provides all the analog and vector modulation support external modulation and internal modulation.

For production line applications, RIGOL DSG3000 series RF signal source provides simple and efficient, user-friendly design. Its height 2U standard compliance, saving rack space and provides rack mounting kit; it comes standard with USB / LAN / GPIB remote control interface, standard SCPI command set, and provides, including trigger input / output signal is active / Scan Status output and 10MHz reference input and output, to facilitate automatic test system integration and remote control, enabling production line capacity to improve; in response to the production line of high intensity use of the instrument loss, it uses no wear electronic attenuator design, which to improve the life of the instrument, the cost savings for the enterprise. In order to adapt the production line of high strength applications, DSG3000 in the design phase of the more than 150, including a variety of tests under extreme circumstances assessment, it has a high reliability and stability.

Production lines for RF signal source with the use of a power meter, RIGOL DSG3000 series designed a unique solution, it has a unique rapid completion RIGOL systematic error correction function, the system can automatically complete the test amplitude error correction (cables, attenuators, amplifier, etc.), and is compatible with mainstream power meter probe, also built a wealth of power test operation function.

RIGOL DSG3000 series RF signal source release, so that the RF product line RIGOL richer, more engineers to meet the needs of both. The birth of this product, but also reflects the development of RIGOL has consistently adhered to the corporate vision, and strive to enhance the "Made in China" a good image in the global market, so that China's products to become a symbol of high performance and high quality.