



RadiGen®

RF Signal Generator

Fast Accurate Monotone



RadiGen® 2000 Series



The ideal EMC/RF Signal Generator

Fast Accurate Monotone

An important component of an EMC immunity test system is the RF signal generator. It produces the modulated or un-modulated RF carrier signal at a certain frequency and signal level. The RadiGen® RF Signal generators are optimized for EMC test purposes in order to perform fast and accurate EMC immunity tests without the need of external modulation. .sources.

Flexible | The RadiGen® EMC/RF signal generator is available in three models; the model RGN2400A covers a frequency range from 9 kHz to 400 MHz. The RGN2006B covers the frequency range from 9 kHz to 6 GHz. These models offer a solution for all conducted and radiated immunity test applications. The generator provides CW, AM, FM and Pulse modulated signals using a digital internal modulator. The pulse on/off times can be individually set between 200 ns and 100 s. Pulse duration/repetition times can be configured separately offering very flexible pulse modulation settings including Automotive Radar Gated Pulse (ARGP) tests (Ford, GM and PSA).

Accurate and pure signal | The RadiGen® is an EMC/RF signal generator with a frequency error of less than 1 ppm, a modulation frequency accuracy of 0.5% and an output level settling time which is shorter than 1 ms. These figures make it the perfect generator for fast and accurate EMC immunity testing. Due to the fully solid state design of the RadiGen® issues caused by defects to the output attenuator or RF switches are eliminated. Thus allowing variations in the output power level while maintaining a completely monotone signal without any glitches. Also mechanical defects to the output attenuator cannot occur, thereby resulting in a better Mean Time Between Failure (MTBF) for the RadiGen®.

Modular system | The RadiGen® signal generator is delivered as a very compact, one slot, plug-in card designed to fit into the modular RadiCentre® system. The RadiGen® plug-in card is compatible with the RadiCentre® two or seven slot systems. The system is muntifunctional and can for example contain a RF signal generator (RadiGen®), one or more different E-field probes (RadiSense®), coaxial switch cards (RadiSwitch®), RF power meters (RadiPower®) and an E-field generator (RadiField®). If needed, even larger EMC test systems can be built by combining multiple RadiCentre® systems, still controlled as one system.

Easy to use | The RadiCentre® systems are "Plug and Play", which means that every plug-in card is automatically recognised and initialised by the RadiCentre® and immediately ready to use. The user can configure and control the system using USB, LAN* and GPIB* or through the touchscreen*.

Software support | The system can be controlled by the RadiMation® integral EMC test and measurement software or by any other EMC measurement software packages using the RadiGen® software command codes.

(*) = only applicable for the 2-slot and 7-slot RadiCentre®

- All specifications are measured alowing 10 minutes warm-up time and -0 dBm output level unless specified otherwise.
- Typical specifications indicate that the specifications are met on at least 80% of the measurements.
- Standard one year of warranty is given on Raditeq equipment. After you register your new Raditeq product two (2) years of warranty will be added for free resulting in three (3) years of warranty. Registration can be done at: www.raditeq.com

Product connector 16 5MA 5 5MA	Model	RGN2400A	RGN2006B	
Federal Content Federal C	Frequency range	9 kHz – 400 MHz	4 kHz – 6 GHz	
Federal Content Federal C				
VSWR (9 bit - 400 Metr) 9.5 - 4 typical VSWR (60 Mit - 50 city) 9.5 - 4 typical VSWR (60 Mit - 50 city) 9.5 - 4 typical Mannand (respue) 4.5 cypical Prequency 1.5 point 1 ke/c Prequency 1.5 point 1 ke/c Actions 1.5 point 1 ke/c United in reference output level 1.5 point 1 ke/c Determined reference output level 8.5 point 1 ke/c Determined reference to connector 8.5 point 1 ke/c External reference to provide the self intent of the point 1 ke/c 1 ke/c External reference to provide the self intent of the point 1 ke/c 1 ke/c Broad reference to provide the self intent of the point 1 ke/c 1 ke/c Color (resolution) 3 color (ke/c) point 4 ke/c) point	RF output connector	1x SMA	1x SMA	
	Frequency resolution	1 Hz		
Accuracy	VSWR (9 kHz - 400 MHz):	2.5 : <1 typical		
Propertions Propertions	VSWR (400 MHz - 6 GHz)	3 : <1 typical		
Trequency	Internal frequency standard			
Aging 1 pom / year Internal reference output seven 8 PC Extend reference soutput comment BNC Extend reference standard BNC Frequency 10 MHz Exposit feed range 10 MHz Exposit feed range 10 MHz Exposit feed range 13 dBm in 20 dBm (guscanteed over whole feed range arrange)() Cut put level feeried to 17 dBm when AM is appled. Exposit feed action 10 dBm (guscanteed over whole frequency manys)() Cut put level feeried to 17 dBm when AM is appled. Level resolution 0.000dB Amplitude occurrency (08th reference) 1 dBm (guscanteed over whole frequency manys)() Cut put level feeried to 17 dBm when AM is appled. Clopped free acting free 1 dBm (guscanteed over whole frequency manys)() Cut put level feeried to 17 dBm when AM is appled. Clopped free acting free 1 dBm (guscanteed over whole frequency manys)() Cut put level feeried to 17 dBm when AM is appled. Clopped free acting free 2 dBm (guscanteed over whole frequency garden feering) Amount (guscanteed acting free acting free acting feering free acting feering feeri	Accuracy	± 1 ppn	±1ppm ±1Hz	
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Internol netroence output connector Capability Capa	Aging	1 ppm / year		
External reference standard In Metral reference productions of the production o	Internal reference output level	+10 dBr	+10 dBm typical	
Focusing of the process of the pr	Internal reference output connector	В	NC	
Popul Fool Forage 10 dBm to +10 dBm to	External reference standard			
External reference input connector SIX of Six Into -70 dBm (quoranteed over whole frequency ranging) Output level lemited to +7 dBm when AM is opplied. Amplitude accuracy (Oditim reference) +13 dBm to -70 dBm (quoranteed over whole frequency ranging) Output level limited to +7 dBm when AM is opplied. Amplitude accuracy (Oditim reference)	Frequency	10 MHz		
Output level No. 100 mm (Minute Level resolution) + 15 dBm to -70 dBm (guaranteed over whole frequency range)() Output level limited to +7 dBm when AM is applied. Level resolution Amplitude accurregy (DeBm reterence) 1 dB x 00 dBx 00 dBx/B Output level setting time - 1 ms Output level setting time - 2.00 dBx (lipical < +0 dBx)	Input level range	-10 dBm to +10 dBm		
Range #15 Birs to -70 Birs (quaranteed over whole frequency range)(Y) Output level limited to +70 Birs when AM is applied. Level resolution 0.0016B Amplitude accuracy (OBBir reference) 1 81 Bits 201 dB/4B Output level setting time 1 18 Bits 201 dB/4B Output level setting time 50 Ohm Flammonics 4 90 dBc (lysical < 40 dBc)	External reference input connector	BNC		
Level resolution 0.010 HB Amplitude accurroug (048m reference) 1 all 8 ± 0.01 dB / dB Output level setting time < 1 ms	<td>Output level</td> <td></td> <td></td>	Output level		
Amplitude accuracy (0dBm reference) 1 dB + 0.01 dB/dB Output level setting time < 1 ms Output limpedance \$0 0hm Harmonics < 20 dBc (tupical < 40 dBc) Sub harmonics < -50 dBc (tupical < 40 dBc) Non harmonic spurious < -60 dBc (9 kHz - 400 MHz) < -60 dBc (4 kHz - 400 MHz) Environmental Township (100 mm (30), 220 mm, 40 mm (000 mm) (000 mm) (000 mm, 40 mm (000 mm) (000 mm, 40 mm (000 mm) (000 mm) (000 mm) (000 mm, 40 mm (000 mm) (000 mm) (000 mm, 40 mm (000 mm) (000 mm) (000 mm, 40 mm (000 mm) (000 mm) (000 mm) (000 mm, 40 mm (000 mm) (000 mm) (000 mm) (000 mm, 40 mm (000 mm) (000 mm) (000 mm) (000 mm) (000 mm, 40 mm (000 mm) (000 mm) (000 mm) (000 mm) (000 mm) (000 mm) (000 mm, 40 mm (000 mm)	Range	+ 13 dBm to -70 dBm (guaranteed over whole frequency range)(1) Output level limited to +7 dBm when AM is applied.		
Output level setting time < 1 ms	Level resolution	0.01dB		
Output impedance 50 Ohm Harmonics < 20 dBc (lypical < 40 dBc)	Amplitude accuracy (0dBm reference)	±1 dB ±0.01 dB/dB		
Sub harmonics	Output level setting time	< 1 ms		
Sub harmonics < -90 dBc (9 kHz - 400 MHz)	Output impedance	50 Ohm		
Non harmonic spurious < -60 dBc (9 kHz - 400 MHz) < -60 dBc (4 kHz - 400 MHz) < -60 dBc (40 MHz - 6 GHz) Environmental Commental	Harmonics	< -20 dBc (typical < -40 dBc)		
Environmental Environmental 100 mm (3U), 220 mm, 40 mm Dimensions (Height, Depth, Width) 100 mm (3U), 220 mm, 40 mm Temperature range (operating) 0 to +35 °C (up to 40 °C with reduced specifications) Temperature range (storage) -20 to +70 °C Relative humidity (storage) 0% to 95% (non-condensing) Supply voltage 12 °C 28V Power consumption 30W Modulation types CW, AM, FM, belas and gated pulse Frequency range 114z - 100 kHz Frequency resolution 0.3% AM Modulation seperator 114z - 100 kHz Frequency accuracy 0.5% AM Modulation resolution 0.3% AM Modulation depth range 0.10% AM modulation resolution 0.3% AM modulation resolution 0.3% FM modulation 0.1% FM equancy modulation range 1.1z - 100 kHz FM equancy modulation range 1.1z - 100 kHz FM equancy modulation range 0.5% FM exercises 0.5% FM exercises 0.5% FM exercis	Sub harmonics	<-90 dBc		
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Coccupies one RadiCentre slot) Temperature range (operating) 0 to +35 °C (up to 40 °C with reduced specifications) Temperature range (storage) -20 to +70 °C Relative humidity (operating) 10% to 90% (non-condensing) Relative humidity (storage) 0% to 95% (non-condensing) Supply voltage 12∨ 6.28∨ Power consumption 250W Modulation types CW, AM, FM, Pulse and gated pulse LF modulation generator Frequency range 1 Hz − 100 kHz Frequency range 1 Hz − 100 kHz Frequency accuracy 0.5% AM Modulation Modulation depth range 0 − 100% AM modulation resolution 0.1% AM accuracy 0.5% FM modulation range 1 Hz − 100 kHz Frequency modulation range 0 − 100% AM modulation resolution 0.1% AM accuracy 0.5% FM modulation range 0.5% FM modulation resolution 0.1% Frequency modulation range 0.1% Frequency modulation range 0.5% Full modulation resolution 0.1% Flue accuracy 0.5% Full modulation range 0.5% Full modulatio	Environmental			
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Pulse accuracy 0.1% ± 20 ns	Pulse modulation range	200 ns	200 ns – 100 s	
	Pulse modulation resolution	100	O ns	
On/Off ratio > 100 dB	Pulse accuracy	0.1% ±	± 20 ns	
	On/Off ratio	> 10	> 100 dB	

