

MG37020A

Fast Switching Microwave Signal Generator,
100 μ sec Switching Speed, 10 MHz to 20 GHz



Value without compromise

Where speed and connectivity are critical, Anritsu delivers affordable quality in high-performance microwave sources. The MG37020A meets these challenges by building on a defense architecture based on high-speed VCO technology, backed by a Windows® XP environment. Upon this stage, you can expect exceptional quality and consistent results for your data-intensive measurements.

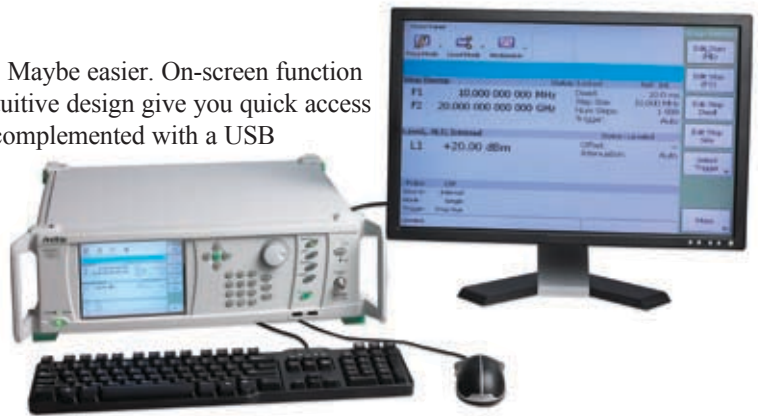
Interface

Using the MG37020A is as easy as using your home PC. Maybe easier. On-screen function keys, drop-down menus, familiar icons and an overall intuitive design give you quick access to desired instrument commands. Operation also can be complemented with a USB keyboard and mouse.

Environment

Using the universally-recognized environment of Windows® XP, the MG37020A builds upon this powerful platform, providing you with additional functionality and security:

- Offers enhanced connectivity with USB 2.0 Device and Host, Ethernet LAN, IEEE-488 GPIB and Serial I/O (RS-232)
- Allows for an external monitor, and other Windows XP compliant accessories
- Protects sensitive data and instrument settings via a removable memory hard drive option
- Provides a clear path for future upgrades

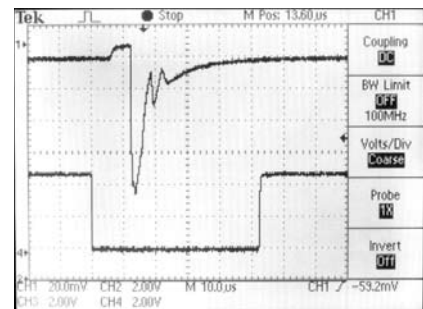


High performance

Reduced test time, more accurate results. How does the MG37020A do it? First, it takes advantage of a newly optimized VCO-based architecture that offers switching speeds of 100 µsec per point while maintaining low phase noise. Plus, the MG37020A is also designed to minimize command and trigger delays.

The fast switching time is applicable in all modes of operation, manual, step and list, not just limited to list mode. The list mode has been optimized with four tables of 10,001 points each, with flexible indexing and triggering for maximum ease of use.

Top Trace: Frequency Settling
(discriminator output at 10 GHz)
Bottom Trace: Lock indicator signal
10 µsec per division



Frequency switching of 100 MHz step
(to within 1 kHz) in less than 55 µsec.

Ideal for your most demanding applications

Whether you need radar and defense signal simulation or flexibility to develop your own tests or faster tests for data intensive applications, you need only one instrument — the MG37020A.

High Performance Pulse Modulation

Where accuracy and reliability are a must, the MG37020A comes through with dependable high-performance capabilities for antenna, radar and defense test applications. In addition to higher throughput, the MG37020A delivers high-quality pulse modulation for radar and defense signal simulation.

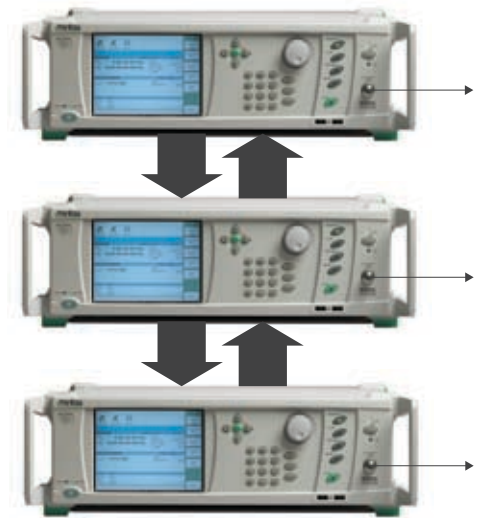
- Internal pulse generator including single, double, triple, and quadruple pulses
 - 100 nsec Leveled Pulse Width
 - 10 nsec Unleveled Pulse Width

Phase Track Multiple Synthesizers

Using an internal 100 MHz reference frequency with optimized instrument architecture, the MG37020A reigns in phase drift, with the capability to phase track up to four synthesizers. Ultra-stable phase tracking option provides typical phase wander $< \pm 1$ degree in 100 seconds.

Speed-up MFG ATE

The MG37020A's fast switching speed lowers cost of test while increasing productivity for high volume microwave component testing including RFIC and MMIC devices.



Phase track multiple generators with a minimum of phase drift

Test and test and test again.

For repetitive, high-throughput automated test systems, antenna and satellite payload testing, there is no substitute for speed. And at 100 μ sec per point frequency switching speed, the MG37020A meets the challenge of data-intensive applications full on. The result? You can test smaller positional step sizes and measure a greater number of frequency test points in the same overall test time.



Anritsu MG37020A

Fast-switching Microwave Signal Generator

Color touch screen

View status and measurement setup menus easily

Windows XP environment

Logical menu flow and familiar icons improve productivity

On-screen function keys

Group functions intuitively



Other features include:

- 0.001 Hz Frequency resolution standard
- Standard output power: +17 dBm at 20 GHz
- High output power option: +23 dBm at 20 GHz
- Low phase noise (10 GHz, 10 kHz offset):
-92 dBc/Hz (-105 dBc/Hz typical)
- Low harmonics and spurious
- CW and step sweep modes
- Pulse modulation optional
- 100 ns leveled width >2 GHz
- 10 ns unlevelled width
- DC to 10 MHz
- Internal pulse waveform generator

100 μ sec Switching Speed, 10 MHz to 20 GHz

Easy input

Conveniently enter and edit parameters on the keypad, cursor keys or rotary data knob

Small footprint

Maximum performance in minimum ATE rack space (13.3 cm high by 45 cm deep)



Enhanced connectivity

USB 2.0 Device and Host, Ethernet LAN, IEEE-488 GPIB and RS-232 Serial I/O are all standard.

RF output

Set frequency from 10 MHz to 20 GHz in 0.001 Hz steps; Set power levels from +30 dBm to -130 dBm in 0.01 dB steps

Great Options. Greater Value.

Not only does the MG37020A come ready to save you time and money right out of the box. It also comes with several options, including our popular, fully-loaded Performance Suite option package. So you can configure your fast-switching microwave signal generator to best match your application.

Standard options include:

- 10 MHz to 2.2 GHz coverage using a digital down-converter for low phase noise.
- Mechanical step attenuator, 110 dB in 10 dB steps
- High power output
- Pulse modulation, including internal pulse generator
- Ultra-stable phase tracking

Performance Suite option package:

- 10 MHz to 20 GHz frequency range coverage
- High output power
- Step attenuator, +19 dBm to -105 dBm
- Pulse modulation suite
- Package savings (contact your Anritsu Sales Rep)

Full-featured solutions

Pairing the fast-switching MG37020A with Anritsu's high-accuracy Power Meters and Power Sensors, high-performance Signal Analyzers and Spectrum Analyzers, provides the highest value solution for your test and measurement needs.



MG37022A Signal Generator with ML2495 Power Meter

Comparison Analyzers and Power Meters

Anritsu offers a full selection of high-performance RF and microwave test solutions that make ideal companions for our Microwave Signal Generators. Please contact your Anritsu sales representative or visit www.us.anritsu.com/products for details.

Synthesized Signal Generator Solutions

Signal Generator	Frequency Range	Key Features	Key Applications
MG3633A Synthesized Signal Generator	10 kHz to 2700 MHz	<ul style="list-style-type: none"> ■ High-performance ■ Analog modulation ■ Super low phase noise 	<ul style="list-style-type: none"> ■ Mobile communication
MG3641A Synthesized Signal Generator	125 kHz to 1040 MHz	<ul style="list-style-type: none"> ■ 0.01 Hz resolution ■ -100 dBc non-harmonic spurious 	<ul style="list-style-type: none"> ■ Radio receiver interference testing ■ On-site maintenance ■ R&D
MG3642A Synthesized Signal Generator	125 kHz to 2080 MHz	<ul style="list-style-type: none"> ■ 0.01 Hz resolution ■ -100 dBc non-harmonic spurious 	<ul style="list-style-type: none"> ■ Radio receiver interference testing ■ On-site maintenance ■ R&D
MG3681A Digital Modulation Signal Generator	250 kHz to 3000 MHz	<ul style="list-style-type: none"> ■ Broadband vector modulation ■ Excellent ACPR ■ Analog modulation 	<ul style="list-style-type: none"> ■ 3GPP applications ■ All major mobile and communication applications ■ HSDPA
MG3690B Series RF/Microwave Signal Generator	0.1 Hz to 67 GHz/325 GHz and greater	<ul style="list-style-type: none"> ■ High-performance ■ High-output power ■ Ultra-low phase noise ■ Analog/Pulse modulation 	<ul style="list-style-type: none"> ■ Microwave communications ■ Aerospace/defense ■ Applications signal simulation ■ Manufacturing ATE systems
MG37020A Fast Switching Microwave Signal Generator	10 MHz to 20 GHz	<ul style="list-style-type: none"> ■ Fast Switching Speed ■ High-output power ■ Low phase noise ■ Pulse modulation 	<ul style="list-style-type: none"> ■ Microwave communications ■ Aerospace/defense ■ Applications signal simulation ■ Manufacturing ATE systems
MG3700A Vector Signal Generator	250 kHz to 3 GHz (6 GHz option)	<ul style="list-style-type: none"> ■ 160 MHz arbitrary waveform generator yields high-level accuracy and large capacity baseband memory 	<ul style="list-style-type: none"> ■ Digital modulation of signals for all major wireless communication systems
MG442A Synthesized Level Generator	10 Hz to 20/30 MHz	<ul style="list-style-type: none"> ■ High-precision ■ Balanced and unbalanced 	<ul style="list-style-type: none"> ■ Telecommunications
MG724E1/G1 Signal Generator	6.3 to 7.8 GHz 12 to 13 GHz	<ul style="list-style-type: none"> ■ Compact high-performance 	<ul style="list-style-type: none"> ■ Line repeater ■ Maintenance



MG3694B Signal Generator with MG37022A Signal Generator

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Ordering Information

Order Number	Description
MG37022A	2 to 20 GHz Signal Generator

Options*

MG37022A-001	Rack mount with slides
MG37022A-002	Mechanical step attenuator
MG37022A-004	10 MHz to 2.2 GHz coverage
MG37022A-009	Rear panel output
MG37022A-015	High power output
MG37022A-017	Delete front panel
MG37022A-026	Pulse modulation
MG37022A-035	Removable hard drive
MG37022A-036	Ultra-stable phase track
MG37022A-037	Performance suite, bundles Options 2, 4, 15, and 26

MG37022A-088	250 μ s Switching Speed Limit for Export Control
MG37022A-098	Standard Calibration Certificate
MG37022A-099	Premium Calibration Certificate with Option 98 plus text report

All Anritsu products come with a 3-year standard warranty and a 2-year calibration interval backed by Anritsu's dedication to quality.

*For detailed information including complete specifications, please refer to the MG37020A datasheet at www.us.anritsu.com/products or contact your Anritsu sales representative.

Please Contact:



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