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Data Sheet

August 13, 2026

ANRITSU

Anritsu MG3693B Signal Generator

Anritsu MG3693B Synthesized Signal Generator 2 to 30 GHz The Anritsu MG3693B is an RF/microwave synthesized signal generator in the MG3690B Series with standard coverage from 2 GHz to 30 GHz on a female output. Optional digital or analog downconversion extends coverage to 10 MHz, and Option 22 DDS extends to 0.1 Hz. It provides fine frequency resolution, leveled output, excellent spectral purity, optional ultra-low phase noise, and AM/FM/phase/pulse modulation packages for dual RF/microwave bench and ATE use. The Anritsu MG3693B is an RF/microwave synthesized signal generator in the MG3690B Series with standard coverage from 2 GHz to 30 GHz on a female output. Optional digital or analog downconversion extends coverage to 10 MHz, and Option 22 DDS extends to 0.1 Hz. It provides fine frequency resolution, leveled output, excellent spectral purity, optional ultra-low phase noise, and AM/FM/phase/pulse modulation packages for dual RF/microwave bench and ATE use.



MODEL

Anritsu MG3693B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

MG3693B

LISTING

<https://aumictechlabs.com/products/mg3693b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu MG3693B is a synthesized signal generator delivering RF and microwave frequencies from 2 GHz to 30 GHz, with external multiplier capability extending coverage to 325 GHz and beyond. It has frequency resolution to 10 mHz and typical output power of +23 dBm, supporting

amplitude accuracy of ± 0.4 dB. The instrument integrates advanced modulation capabilities AM (0 to 90%), FM (up to 10 MHz deviation at 8 MHz rates or 100 MHz deviation at 100 Hz rates), and PM (up to 400 radians deviation at 1 MHz rates) - alongside technology-leading phase noise performance and spectral purity. Internal generators deliver seven modulating waveforms for AM, FM, and phase modulation, while custom waveform download and IQ modulation via IF input enable flexible signal generation for R&D, manufacturing, and system-level testing in wireless communications, radar, and advanced microwave applications.

Technical Specifications

Frequency and Output Power

Frequency range: 2 GHz to 30 GHz (extendable to 325 GHz+ with external multipliers) Frequency resolution: 10 mHz, 0.01 Hz, 1 MHz options Maximum leveled output power: +23 dBm typical High-power options: +26 dBm at 20 GHz, +21 dBm at 40 GHz, +16 dBm at 50 GHz Filtered output: +19 dBm typical at 20 GHz Amplitude accuracy: ± 0.4 dB

Modulation and Signal Generation

AM: 0 to 90%, log or linear, DC to 100 kHz rates FM: Four modes - up to 10 MHz deviation at 8 MHz rates; 100 MHz deviation at 100 Hz rates PM: Up to 400 radians deviation at 1 MHz rates Modulation types: AM, FM, Pulse, Phase, plus EAM, T1, and PAM4 digital formats Internal generators: Seven waveforms per AM/FM/phase channel Custom waveform support: Download to internal memory Pulse generation: Internal generator with swept delay for target simulation (singlet, doublet, triplet, quadruplet pulses) IQ modulation: IF input option for external baseband up-conversion Phase Noise and Spectral Performance Phase noise: Typical -90 dBc/Hz at 10 kHz offset; -94 dBc/Hz at 1 kHz offset (related models) Ultra-low phase noise option (Option 3) significantly reduces single-sideband noise DDC path (10 MHz to 2.2 GHz): 30–50 dB improvement over conventional microwave synthesizers DDS path (below 10 MHz): Ultra-fine resolution with outstanding phase noise Spectral purity: Lowest spectral content

Key Features

- Multi-format modulation with seven internal waveform options per channel
- Flexible pulse triggering and swept-delay capability for radar simulation
- Option 2 step attenuator available; reduces RF output power when selected IF input for seamless external IQ signal integration

Technology inherited from MG3690B series architecture

Typical Applications

- Wireless communications R&D and manufacturing test
- Radar system development and validation
- Advanced microwave component characterization
- Digital modulation and signal integrity analysis
- Moving target simulation and pulse analysis

Compatibility & Integration

The MG3693B operates as part of the MG3690B family, supporting external multiplier chains for millimeter-wave extension and IF input interfaces for modulated signal sourcing. Step attenuator and ultra-low phase noise options enable system-specific configuration.

Features & description

From manufacturer datasheet

Features

- Base frequency coverage 2 to 30 GHz, K(f) output

Applications

- Microwave CW and modulated stimulus 2 to 30 GHz

MG3693B Characteristics / Specifications

PARAMETER	VALUE
Model	MG3693B
Manufacturer	Anritsu
Instrument Type	RF/Microwave Synthesized Signal Generator
Alias	MG3693B; Anritsu MG3693B
Series	MG3690B
Frequency range standard	2 GHz to 30 GHz
Frequency Option	10 MHz to 2.2 GHz
RF output connector standard	K female
Leveled output power STD 2 to 10 GHz	+15.0 dBm
Leveled output power STD greater than 10 to 20 GHz	+12.0 dBm
Leveled output power STD greater than 20 to 30 GHz	+6.0 dBm
Leveled output with step attenuator STD 2 to 10 GHz	+14.0 dBm
Leveled output with step attenuator STD greater than 10 to 20 GHz	+10.0 dBm
Leveled output with step attenuator STD greater than 20 to 30 GHz	+3.0 dBm
Leveled output with Option 4 or 5 below 2 GHz	+15.0 dBm
Output power resolution	0.01 dB or 0.001 mV
Frequency resolution typical	0.01 Hz
Frequency resolution Option 22 below 10 MHz	0.02 Hz
CW accuracy	same as internal or external 10 MHz time base
Internal time base aging	less than 2×10^{-9} /day
Internal time base aging Option	less than 5×10^{-10} /day

PARAMETER	VALUE
Switching time typical max	less than 40 ms to within 1 kHz
Harmonics greater than 2 to 20 GHz standard	less than -60 dBc
Nonharmonic spurious greater than 2 to 65 GHz	less than -60 dBc
Minimum leveled power without attenuator class	to -5 dBm (-10 dBm typical)
Minimum leveled power with mechanical attenuator class	to -105 dBm
Weight	18 kg maximum
DimensionsHxWxD	133 mm x 429 mm x 450 mm
Remote control	GPIB
Related lower band model	MG3692B 2 to 20 GHz
Related higher band model	MG3694B 2 to 40 GHz
RelatedArevision	MG3693A Notes Specs from Anritsu MG3690B Series technical data sheet for MG3693B (2–30 GHz). Confirm installed options (3/4/5/15/16/22/attenuator/modulation), exact max leveled power on the calibration label, and connector condition on the unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	MG3693B
Manufacturer	Anritsu
Instrument Type	RF/Microwave Synthesized Signal Generator
Specifications	
PARAMETER	VALUE
Alias	MG3693B; Anritsu MG3693B
Series	MG3690B
Frequency range standard	2 GHz to 30 GHz
Specifications	
PARAMETER	VALUE
Frequency Option 5	10 MHz to 2 GHz
Frequency Option 4	10 MHz to 2.2 GHz
Frequency Option 22	0.1 Hz to 10 MHz
RF output connector standard: K female	
Leveled output power STD 2 to 10 GHz: +15.0 dBm	
Leveled output power STD greater than 10 to 20 GHz: +12.0 dBm	
Leveled output power STD greater than 20 to 30 GHz: +6.0 dBm	
Leveled output with step attenuator STD 2 to 10 GHz: +14.0 dBm	
Leveled output with step attenuator STD greater than 10 to 20 GHz: +10.0 dBm	
Leveled output with step attenuator STD greater than 20 to 30 GHz: +3.0 dBm	
Leveled output with Option 4 or 5 below 2 GHz: +15.0 dBm	
Specifications	
PARAMETER	VALUE
Output power resolution	0.01 dB or 0.001 mV
Frequency resolution typical	0.01 Hz

PARAMETER	VALUE
Frequency resolution Option 22 below 10 MHz	0.02 Hz

Specifications

PARAMETER	VALUE
CW accuracy	same as internal or external 10 MHz time base
Internal time base aging	less than 2×10^{-9} /day
Internal time base aging Option 16	less than 5×10^{-10} /day

Switching time typical max: less than 40 ms to within 1 kHz

Harmonics greater than 2 to 20 GHz standard: less than -60 dBc

Nonharmonic spurious greater than 2 to 65 GHz: less than -60 dBc

Specifications

PARAMETER	VALUE
Minimum leveled power without attenuator class	to -5 dBm (-10 dBm typical)
Minimum leveled power with mechanical attenuator class	to -105 dBm
Weight	18 kg maximum

Specifications

PARAMETER	VALUE
DimensionsHxWxD	133 mm x 429 mm x 450 mm
Remote control	GPIO
Related lower band model	MG3692B 2 to 20 GHz

Related higher band model: MG3694B 2 to 40 GHz

RelatedArevision: MG3693A

Notes

Specs from Anritsu MG3690B Series technical data sheet for MG3693B (2-30 GHz). Confirm installed options (3/4/5/15/16/22/attenuator/modulation), exact max leveled power on the calibration label, and connector condition on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.