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Data Sheet

August 13, 2026

ANRITSU

Anritsu MG3693A Synthesized Signal Generator, 0.1Hz to 65GHz

Anritsu MG3693A Synthesized Signal Generator 2 to 30 GHz The Anritsu MG3693A is an RF/microwave synthesized signal generator in the MG3690A Series with standard coverage from 2 GHz to 30 GHz on a K-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 MG3693A is an RF/microwave synthesized signal generator in the MG3690A Series with standard coverage from 2 GHz to 30 GHz on a K-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 MG3693A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

MG3693A

LISTING

<https://aumictechlabs.com/products/mg3693a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Anritsu MG3693A is a synthesized signal generator delivering precise frequency synthesis across 2 to 30 GHz with optional coverage extending to 0.1 Hz via Direct Digital Synthesizer (Option 22). The instrument combines exceptional spectral purity, broad modulation support, and flexible sweep modes to meet demanding requirements in RF/microwave component characterization, system validation, and advanced signal simulation.

Technical Specifications

Frequency Performance Frequency range: 2 to 30 GHz (base model) Frequency resolution: 0.01 Hz (optional) Frequency accuracy: ± 0.01 ppm Phase noise: Typically 5 MHz from carrier Harmonic distortion: -55 dBc Output Power Maximum leveled output power: $+17$ dBm to 30 GHz With electronic step attenuator: -120 dBm minimum With electronic attenuator: -140 dBm minimum Option 15 (High Power): -5 dBm typical maximum without attenuator, -105 dBm with attenuator

Switching & Sweep Switching time: 5 ms for <100 MHz steps; typically <40 ms to within 1 kHz of final frequency Phase-locked step sweep: Typically <15 ms + 1 ms/GHz or <40 ms, whichever is less Sweep modes: Linear, logarithmic, step, list, manual, and alternate Sweep width: 0.01 Hz to full range Dwell time: 1 ms to 99 seconds per step List sweep: Up to 4 tables with 2000 frequency/power sets Time Base & Reference Internal or external 10 MHz time base 10 MHz reference output: 1 Vp-p into $50\ \Omega$ (rear panel BNC)

Key Features AM, FM, and phase modulation (internal or external) Pulse modulation and FSK/PSK capability IQ modulation with IF input for external signal up-conversion Direct Digital Synthesizer option (Option 22) extends low-frequency coverage to 0.1 Hz High Power option (Option 15) for elevated output levels

Typical Applications Telecommunications equipment validation, aerospace and defense system testing, component characterization, receiver sensitivity assessment, and broadband signal simulation.

Compatibility & Integration External multipliers support frequency extension beyond 30 GHz. Configurable 10 MHz reference enables integration with external frequency standards and synchronized multi-instrument test setups.

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

MG3693A Characteristics / Specifications

PARAMETER	VALUE
Model	MG3693A
Manufacturer	Anritsu
Instrument Type	RF/Microwave Synthesized Signal Generator
Alias	MG3693A; Anritsu MG3693A
Series	MG3690A
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 20 GHz	+9.0 dBm
Leveled output power STD greater than 20 to 30 GHz	+6.0 dBm
Leveled output with step attenuator STD 2 to 20 GHz	+7.0 dBm
Leveled output with step attenuator STD greater than 20 to 30 GHz	+3.0 dBm
Leveled output with Option 5 at or below 2 GHz	+13.0 dBm
Leveled output Option 15 high power 2 to 10 GHz class	+15.0 dBm
Leveled output Option 15 high power greater than 10 to 20 GHz class	+12.0 dBm
Leveled output Option 15 high power greater than 20 to 30 GHz class	+14.0 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

PARAMETER	VALUE
Internal time base aging Option	less than 5×10^{-10} /day
Switching time typical max	less than 40 ms to within 1 kHz
SSB phase noise standard 2 to 6 GHz at 10 kHz	-86 dBc/Hz class
SSB phase noise greater than 10 to 20 GHz at 10 kHz	-77 dBc/Hz class
SSB phase noise greater than 20 to 40 GHz at 10 kHz	-72 dBc/Hz class
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 -20 dBm
Minimum leveled power with mechanical attenuator class	to -120 dBm
Weight	18 kg maximum
DimensionsHxWxD	133 mm x 429 mm x 450 mm
Remote control	GPIO
Related lower band model	MG3692A 2 to 20 GHz
Related higher band model	MG3694A 2 to 40 GHz Notes Specs from Anritsu MG3690A Series technical data sheet for MG3693A (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	
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PARAMETER	VALUE
Model	MG3693A
Manufacturer	Anritsu
Instrument Type	RF/Microwave Synthesized Signal Generator
Specifications	
PARAMETER	VALUE
Alias	MG3693A; Anritsu MG3693A
Series	MG3690A
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 20 GHz: +9.0 dBm	
Leveled output power STD greater than 20 to 30 GHz: +6.0 dBm	
Leveled output with step attenuator STD 2 to 20 GHz: +7.0 dBm	
Leveled output with step attenuator STD greater than 20 to 30 GHz: +3.0 dBm	
Leveled output with Option 5 at or below 2 GHz: +13.0 dBm	
Leveled output Option 15 high power 2 to 10 GHz class: +15.0 dBm	
Leveled output Option 15 high power greater than 10 to 20 GHz class: +12.0 dBm	
Leveled output Option 15 high power greater than 20 to 30 GHz class: +14.0 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

SSB phase noise standard 2 to 6 GHz at 10 kHz: -86 dBc/Hz class

SSB phase noise greater than 10 to 20 GHz at 10 kHz: -77 dBc/Hz class

SSB phase noise greater than 20 to 40 GHz at 10 kHz: -72 dBc/Hz class

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 -20 dBm
Minimum leveled power with mechanical attenuator class	to -120 dBm
Weight	18 kg maximum

Specifications

PARAMETER	VALUE
DimensionsHxWxD	133 mm x 429 mm x 450 mm
Remote control	GPIO
Related lower band model	MG3692A 2 to 20 GHz

Related higher band model: MG3694A 2 to 40 GHz

Notes

Specs from Anritsu MG3690A Series technical data sheet for MG3693A (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.