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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 83711

Agilent Keysight 83711 Synthesized CW Generator 1.0 GHz to 20 GHz The Agilent/Keysight 83711 is a synthesized CW generator covering 1.0 GHz to 20 GHz. OEM 83711/83712B/83731B/83732B datasheet 5963-6615E lists 1 kHz resolution (1 Hz Option 1E8), minus 4 dBm minimum leveled power, and Option 1E1 to minus 110 dBm. Microwave CW or modulated stimulus to 20 GHz, ATE source replacement, and noise-figure meter compatibility via Special Function 41.5. Instrument Type: Synthesized CW Generator The Agilent/Keysight 83711 is a synthesized CW generator covering 1.0 GHz to 20 GHz. OEM 83711/83712B/83731B/83732B datasheet 5963-6615E lists 1 kHz resolution (1 Hz Option 1E8), minus 4 dBm minimum leveled power, and Option 1E1 to minus 110 dBm. Microwave CW or modulated stimulus to 20 GHz, ATE source replacement, and noise-figure meter compatibility via Special Function 41.5. Instrument Type: Synthesized CW Generator Series Family: Agilent 83711/83712B/83731B/83732B



MODEL

**Agilent / Keysight
83711**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83711

LISTING

<https://aumictechlabs.com/products/83711-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 83711 is a synthesized CW signal generator engineered for precision frequency and power control across microwave and millimeter-wave applications. Available in two frequency variants - 83711A/11B covering 1 GHz to 20 GHz and 83712A/12B spanning 10 MHz to 20 GHz - the instrument delivers maximum leveled output power of +11 dBm across 1-18 GHz

(standard) with a dynamic range exceeding 100 dB. Minimum leveled output reaches -4 dBm (standard) or -110 dBm with Option 1E1, enabling demanding attenuation requirements. Technical Specifications Frequency & Resolution Frequency range: 1–20 GHz (83711A/11B); 10 MHz–20 GHz (83712A/12B) Frequency resolution: 1 kHz standard; 1 Hz with Option 1E8 Frequency switching: <50 ms to within 1 kHz for any step Output Power Maximum leveled output (1–18 GHz): +11 dBm standard; +10 dBm Option 1E1 Maximum leveled output (18–20 GHz): +10 dBm standard; +8 dBm Option 1E1 Minimum leveled output: -4 dBm standard; -110 dBm Option 1E1 Output below 1 GHz: +20 dBm typical Level resolution: 0.01 dB Level switching: <17 ms without attenuator range change Output Accuracy & Flatness Accuracy (50 MHz–20 GHz): ± 1.0 dB standard; ± 2.0 dB at power ≥ -90 dBm Flatness: ± 0.5 dB (power ≥ -90 dBm); ± 0.7 dB (power < -90 dBm) Spectral Purity Harmonics: < -55 dBc Spurious: 3 MHz PRF max) Physical & Power Dimensions: 426 mm W $\times$ 498 mm D $\times$ 133 mm H Weight: <16 kg Supply: 90–132 V or 198–264 V, 48–66 Hz; 400 VA maximum Compatibility & Integration Recommended as local oscillator for the HP 8970B noise figure meter.

83711 Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Synthesized CW Generator
Series Family	Agilent 83711/83712B/83731B/83732B
Frequency Range	1.0 GHz to 20 GHz
Frequency Resolution Standard	1 kHz
Frequency Resolution Option 1E	1 Hz
Aging Rate Option 1E	less than 1.5e-9 per day after 24 hour warm up
Temperature Effects Option 1E	less than 1e-7 over 0 to 55 C
Line Voltage Effects Option 1E	less than 5e-10 for 10 percent line change
Aging Rate Standard Timebase	less than 1.0e-8 per day after 72 hours at 25 C plus or minus 10 C
Frequency Switching Time Any Step	less than 50 ms to within 1 kHz
Frequency Switching Time Under 1 GHz Not Across 10 GHz	less than 35 ms to within 1 kHz
Maximum Leveled Power 0.01 to 1 GHz	not specified (starts at 1 GHz)
Maximum Leveled Power 1 to 18 GHz	plus 11 dBm
Maximum Leveled Power 18 to 20 GHz	plus 10 dBm
Minimum Leveled Output Power	minus 4 dBm
Minimum Leveled Output Power Option 1E	minus 110 dBm
Display Resolution Power	0.01 dB
Level Accuracy 50 MHz to 20 GHz	plus or minus 1.0 dB from minus 4 dBm to maximum specified leveled power
Level Accuracy 10 to 50 MHz	plus or minus 1.3 dB from minus 4 dBm to maximum specified leveled power
Flatness Power Greater Than or Equal minus 90 dBm	plus or minus 0.5 dB
Level Switching Time	less than 17 ms without step attenuator range change
Output SWR Nominal	less than 2.0 to 1

PARAMETER	VALUE
Harmonics at Levels Below plus 6 dBm	less than minus 50 dBc
Nonharmonic Spurious 3 kHz or Greater	less than minus 60 dBc
Nonharmonic Spurious Below 3 kHz	less than minus 50 dBc
Subharmonics	none
SSB Phase Noise 10 kHz Offset 10 to 20 GHz	minus 76 dBc/Hz
Residual FM at 1 GHz	less than 15 Hz in 50 Hz to 15 kHz bandwidth
User Flatness Points per Table	2 to 401
User Flatness Tables	up to 4
RF Output Connector	Type-N precision; 3.5 mm Option 1E9
Output Impedance Nominal	50 ohm
Operating Temperature	0 C to 55 C
Line Power	90 to 132 V 48 to 440 Hz or 198 to 264 V 48 to 66 Hz; 260 VA maximum
Dimensions DxWxH	498 mm x 426 mm x 133 mm
Net Weight	less than 16 kg
Remote Programming	SCPI IEEE 488.2 with 8673 emulation
Modulation	CW generator; pulse AM FM not in 83711/83712B base
Bandwidth	User Flatness Points per Table: 2 to 401

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
Line Power	90 to 132 V 48 to 440 Hz or 198 to 264 V 48 to 66 Hz; 260 VA maximum
Dimensions DxWxH	498 mm x 426 mm x 133 mm
Net Weight	less than 16 kg
Remote Programming	SCPI IEEE 488.2 with 8673 emulation
Modulation	CW generator; pulse AM FM not in 83711/83712B base Notes Numeric rows from Agilent 83711/83712B Synthesized CW Generators and 83731B/83732B Synthesized Signal Generators data sheet 5963-6615E model 83711.

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
Instrument Type	Synthesized CW Generator
Series Family	Agilent 83711/83712B/83731B/83732B
Frequency Range	1.0 GHz to 20 GHz
Frequency Resolution Standard	1 kHz
Frequency Resolution Option 1E8	1 Hz
Aging Rate Option 1E5	less than 1.5e-9 per day after 24 hour warm up
Temperature Effects Option 1E5	less than 1e-7 over 0 to 55 C
Line Voltage Effects Option 1E5	less than 5e-10 for 10 percent line change
Aging Rate Standard Timebase	less than 1.0e-8 per day after 72 hours at 25 C plus or minus 10 C
Frequency Switching Time Any Step	less than 50 ms to within 1 kHz
Frequency Switching Time Under 1 GHz Not Across 10 GHz: less than 35 ms to within 1 kHz	
Specifications	
PARAMETER	VALUE
Maximum Levelled Power 0.01 to 1 GHz	not specified (starts at 1 GHz)
Maximum Levelled Power 1 to 18 GHz	plus 11 dBm
Maximum Levelled Power 18 to 20 GHz	plus 10 dBm
Minimum Levelled Output Power	minus 4 dBm
Minimum Levelled Output Power Option 1E1	minus 110 dBm
Display Resolution Power	0.01 dB
Level Accuracy 50 MHz to 20 GHz	plus or minus 1.0 dB from minus 4 dBm to maximum specified leveled power
Level Accuracy 10 to 50 MHz	plus or minus 1.3 dB from minus 4 dBm to maximum specified leveled power
Flatness Power Greater Than or Equal minus 90 dBm: plus or minus 0.5 dB	
Specifications	

PARAMETER	VALUE
Level Switching Time	less than 17 ms without step attenuator range change
Output SWR Nominal	less than 2.0 to 1
Harmonics at Levels Below plus 6 dBm	less than minus 50 dBc
Nonharmonic Spurious 3 kHz or Greater	less than minus 60 dBc
Nonharmonic Spurious Below 3 kHz	less than minus 50 dBc
Subharmonics	none

SSB Phase Noise 10 kHz Offset 10 to 20 GHz: minus 76 dBc/Hz

Specifications

PARAMETER	VALUE
Residual FM at 1 GHz	less than 15 Hz in 50 Hz to 15 kHz bandwidth
User Flatness Points per Table	2 to 401
User Flatness Tables	up to 4
RF Output Connector	Type-N precision; 3.5 mm Option 1E9
Output Impedance Nominal	50 ohm
Operating Temperature	0 C to 55 C
Line Power	90 to 132 V 48 to 440 Hz or 198 to 264 V 48 to 66 Hz; 260 VA maximum
Dimensions DxWxH	498 mm x 426 mm x 133 mm
Net Weight	less than 16 kg
Remote Programming	SCPI IEEE 488.2 with 8673 emulation
Modulation	CW generator; pulse AM FM not in 83711/83712B base

Notes

Numeric rows from Agilent 83711/83712B Synthesized CW Generators and 83731B/83732B Synthesized Signal Generators data sheet 5963-6615E model 83711.

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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30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.