

The Specification of ~~CM1120-A~~

Signal output characteristics

Frequency Range	10 mHz to 20 MHz
Output impedance	50 Ohms
Amplitude(No load) / Resolution	2.1 ~ 20.0 Vpp / 100 mV 0.21 ~ 2.0 Vpp / 10 mV 20 ~ 200 mVpp / 1mV
Amplitude accuracy	(sine, 1 kHz) +/- 1% of setting (squarewave) +/- 4% of setting
Flatness	< 100KHz +/- 0.20 dB 100KHz to 2 MHz +/- 0.50 dB 2 MHz to 20 MHz +/- 1.00 dB

Waveform characteristics

Sine

Frequency range	10 mHz to 20 MHz
Amplitude (no load)	20 mVpp ~ 20.0 Vpp
Harmonic distortion	10 mHz to 20 kHz < - 46 dBc 20 kHz to 3 MHz < - 40 dBc 3 MHz to 20 MHz < - 30 dBc
Non-harmonic distortion	10 mHz to 1 MHz < - 65 dBc 1 MHz to 20 MHz < - 65 dBc + 6 dBc / oct.
Phase noise	0 dBm, 1kHz off carrier < - 100 dBc / Hz

Square

Frequency range	10 mHz to 20 MHz
Amplitude (no load)	20 mVpp ~ 20.0 Vpp
Rise / Fall time	< 8.0 ns
Overshoot	< 5 %
Asymmetry	< 5 % of period + 10 ns

Pulse

Frequency range	10 mHz to 5 MHz
Amplitude (no load)	20 mVpp ~ 20.0 Vpp
Rise / Fall time	< 8.0 ns
Overshoot	< 5 %
Pulse width	100 ns to 80 s

Ramp

Frequency range	10 mHz to 500KHz
Amplitude (no load)	20 mVpp ~ 20.0 Vpp
Linearity (< 100 kHz)	better than 1 %

Triangle

Frequency range	10 mHz to 2 MHz
Amplitude (no load)	20 mV _{pp} ~ 20.0 V _{pp}
Linearity (< 100 kHz)	better than 1 %

Arbitrary

Frequency range	10 mHz to 100 kHz
Amplitude (no load)	20 mV _{pp} ~ 20.0 V _{pp}
Sampling rate	80 Msps
Resolution	Vertical 14 bit
Waveform length	64K Points
Memory waveforms	4 Patterns Waveform

Modulation

AM

Carrier Waveforms	Sine, Square, Pulse, Ramp, Tri. Arb.
Depth	0 % ~ 100 %

FM

Carrier Waveforms	Sine, Square, Pulse, Ramp, Tri. Arb.
Frequency deviation	10 mHz ~ 50 MHz

PM

Carrier Waveforms	Sine, Square, Pulse, Ramp, Tri. Arb.
Phase deviation	0 degrees ~ 360 degrees

FSK

Carrier Waveforms	Sine, Square, Pulse, Ramp, Tri. Arb.
-------------------	--------------------------------------

External modulation input

Input level	10 V _{pp}
Input resistance	> 2 kOhms
Frequency range	< 20 kHz

Sweep

Type	Linear / Log
Sweep time	10 ms ~ 100 s
Sweep output	0 to 5 V, output resistance 1 kOhms
Start / Stop Freq	10mHz to 20 MHz