



REVISIONS

DOC. NO. SPC-F004 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1190	A	RELEASED	JWM	10/25/02	HO	10/25/02	DJC	10/25/02



FEATURES:

- 0.2Hz to 20MHz frequency Range
- 10mV to 20V pk-pk from 50 Ω
- TTL/CMOS auxilliary output
- DC offset control with zero detent
- Variable symmetry control
- External sweep input

SPC-F004.DWG

TOLERANCES:

UNLESS OTHERWISE
SPECIFIED,
DIMENSIONS ARE
FOR REFERENCE
PURPOSES ONLY.

DRAWN BY:	DATE:
Jeff McVicker	10/25/02
CHECKED BY:	DATE:
Hisham Odish	10/25/02
APPROVED BY:	DATE:
John Cole	10/25/02

DRAWING TITLE:

20MHz Function Generator

SIZE DWG. NO.

A

72-6859

ELECTRONIC FILE

19C7731.dwg

REV

A

SCALE: NTS

U.O.M.: Millimeters [Inches]

SHEET: 1 OF 2

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Technical Specifications

FREQUENCY

Frequency Range: 0.2Hz to 20MHz in 8 overlapping decade ranges with fine adjustment by a vernier.

Vernier Range: >10:1 on each range.

Vernier Accuracy: Typically $\pm 5\%$ of full scale.

SWEEP MODE (EXTERNAL)

Input Impedance: 82 k Ω

Sweep Range: Typically > 20:1

Input Sensitivity: Typically 0 to 2V for 10:1 sweep

Max. Input Voltage: $\pm 10V$

Max. Slew Rate of sweep voltage: 0.1V/us

OPERATING MODES

(Specifications apply for the top decade of each frequency range and output 10V peak-to-peak into 50 Ω termination).

SINE

Distortion: Typically 2% on 200, 2k and 20k ranges.

Amplitude Flatness: $\pm 0.2\text{dB}$ to 200kHz; $\pm 2\text{dB}$ to 20MHz.

TRIANGLE

Linearity: Typically 99% on kHz ranges.

SQUAREWAVE

Rise and Fall Times: <22ns

DC

Range: $\pm 10V$ from 50 Ω

SYMMETRY

Symmetry Range: Typically variable from 1:6 to 6:1 up to 500kHz.

OUTPUTS

50 Ω

Three switch-selectable ranges with 26dB vernier control within each range.

0dB Range: 1V to 20V peak-to-peak (0.5V to 10V into 50 Ω).

-20dB Range: 100mV to 2V peak-to-peak (50mV to 1V into 50 Ω)

-40dB Range: 10mV to 0.2V peak-to-peak (5mV to 0.1V into 50 Ω)

DC Offset Range: $\pm 10V$ from 50 Ω . DC offset plus signal peak limited to $\pm 10V$ ($\pm 5V$ into 50 Ω). DC offset plus waveform attenuated proportionally in -20dB and -40dB position.

TTL/CMOS

Capable of driving 4 standard TTL loads.

GENERAL

Power: 115V nominal 50/60Hz operating range $\pm 14\%$ of nominal; 30VA max. Installation Category II.

Operating Range: +5°C to +40°C, 20% to 80% RH.

Storage Range: -10°C to +65°C

Environmental: Indoor use at altitudes to 2000m, Pollution Degree 1.

Electrical Safety: Complies with EN61010-1.

EMC: Complies with EN55011 and EN50082-1.

Size: 220(W) x 82(H) x 230(D) mm, (10.3 x 3.4 x 9.2") excluding feet.

Weight: 1.5 Kg (3.3lb).