

PULSE PATTERN GENERATOR
MP1758A
 100 MHz to 12.5 GHz (4 channels)



The MP1758A has a 4-channel data output and a 2-channel clock output. It can generate two patterns: programmable and pseudo-random. The programmable pattern can be up to 128 K bit long for each channel. In addition, seven pseudo-random patterns with periods from 2^7-1 to $2^{31}-1$ can be generated with a 1/4 phase difference for each channel.

The amplitude and offset voltage of the data/clock output can be set independently for each channel. The setting ranges are 0.5 to 2.0 Vp-p for amplitude, -2.0 to +2.0 V_{OH} for offset voltage, and -500 to +500 ps for delay between the data and clock outputs.

Features

- Four independently adjustable output channels
- PRBS pattern with max. $2^{31}-1$ bits
- Built-in synthesized clock signal

Specifications

Operation frequency	0.1 to 12.5 GHz (internal or external clock)
External clock	Input level: 0.8 to 2.0 Vp-p Input waveform: sine wave (≥ 500 MHz) or square wave Connector: APC-3.5
Internal clock	Frequency setting resolution: 1 kHz, 1 MHz Reference signal: 10 MHz (internal/external, selectable)
Pattern	Pseudo-random pattern: 2^n-1 (n=7, 9, 11, 15, 20, 23, 31) Programmable pattern: max. 128 Kbit x 4 channels Logic inversion: provided Error addition (error rate): 10^{-n} (n=4, 5, 6, 7, 8, 9), single
Data output	Output waveform: NRZ Number of outputs: 4 (CH 1, CH 2, CH 3, CH 4) Amplitude: 0.5 to 2.0 Vp-p (10 mV steps)*1 Offset voltage: -2.0 to +2.0 V _{OH} (5 mV steps)*1 ECL termination: provided Load impedance: 50 Ω Connector: APC-3.5
Clock output	Number of outputs: 2 (CLOCK 1, CLOCK 2) Amplitude: 0.5 to 2.0 Vp-p (10 mV steps)*1 Offset voltage: -2.0 to +2.0 V _{OH} (5 mV steps)*1 Delay: -500 to +500 ps (1 ps steps) ECL termination: provided Load impedance: 50 Ω Connector: APC-3.5

Sync. output	Number of outputs: 1 (1/32 CLOCK OUTPUT/PATTERN SYNC. OUTPUT, selectable) Amplitude: 0/-1 V Load impedance: 50 Ω Connector: SMA
Control	Control interface: GPIB, parallel Parameter memory: 3.5-inch FD (MS-DOS*2 compatible)
Dimensions and mass	426 (W) x 221 (H) x 450 (D) mm, ≤ 37 kg
Operating temperature	15° to 35°C
EMC	EN55011 (1991, Group 1, Class A), EN50082-1 (1992)
Safety	EN61010-1: 1993 (Installation Category II, Pollution Degree II)

*1: Each channel independently

*2: MS-DOS is a registered trademark of Microsoft Corporation.

Ordering information

Please specify model/order number, name, and quantity when ordering.

Model/Order No.	Name
MP1758A	Main frame Pulse Pattern Generator
	Standard accessories
F0087	Fuse, 10 A: 2 pcs
F0090	Fuse, 8 A: 2 pcs
J0491	Power cord, 2.5 m: 1 pc
J0008	GPIB cable, 2 m: 1 pc
J0496	Conversion connector (APC3.5-J•APC3.5-J): 7 pcs
J0696A	Measurement coaxial cable, SMA-P•SMA-P, 0.5 m: 6 pcs
J0696B	Measurement coaxial cable, SMA-P•SMA-P, 0.8 m: 1 pc
J0515	Measurement coaxial cable, SMA-P•SMA-P, 1.0 m (for sync. output): 1 pc
Z0168	3.5-inch floppy disk (2HD): 2 pcs
W0926AE	MP1758A operation manual: 1 copy
W0927AE	MP1758A GPIB operation manual: 1 copy
Z0286A	Wrist strap
	Options
MP1758A-01	CLOCK/CLOCK output (factory option)
MP1758A-02	Cross point adjustment (factory option)
	Optional accessories
J0500A	Semi-rigid cable, SMA-P•SMA-P, 0.5 m
MB24B	Portable Test Rack (rating current of power cord and plug: 20 A)
J0007	GPIB cable, 1 m