



MP1758A

Pulse Pattern Generator

100 MHz to 12.5 GHz (4 channels)



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

The MP1758A Pulse Pattern Generator has a 4-channel data output and a 2-channel clock output. It can generate two patterns: programmable, and pseudorandom. The programmable pattern can be up to 128 Kbit long for each channel. In addition, seven pseudorandom 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, and -2.0 to $+2.0$ V_{OH} for offset voltage, -500 to $+500$ ps for delay between the data and clock outputs.

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	Pseudorandom 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	221 (H) x 426 (W) x 450 (D) mm, ≤ 37 kg
Operating temperature	15° to 35°C
EMC	EN61326: 1997/A1: 1998 (Class A), EN61000-3-2: 1995/A2: 1998 (Class A), EN61326: 1997/A1: 1998 (Annex A)
LVD	EN610101-1: 1993/A2, 1995 (Installation Category II, Pollution degree 2)

*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-
F0079	Fuse (10 A): 2 pcs
	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
J0693A	Measurement coaxial cable (HRM202B-3D2W-HRM202B), 1.0 m (For sync. output): 1 pc

Model/Order No.	Name	Quantity
Z0168	3.5-inch floppy disk (2 HD):	2 pcs
Z0306A	Wrist strap:	1 pc
W0926AW	MP1758A operation manual:	1 copy
W0927AW	MP1758A GPIB operation manual:	1 copy
	-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	



Specifications are subject to change without notice.

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