



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 V_{p-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	
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	

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Specifications are subject to change without notice.

ANRITSU CORPORATION MEASUREMENT SOLUTIONS

5-10-27, Minamiazabu, Minato-ku, Tokyo 106-8570, Japan
Phone: +81-3-3446-1111
Telex: J34372
Fax: +81-3-3442-0235

• U.S.A. ANRITSU COMPANY

North American Region Headquarters
1155 East Collins Blvd., Richardson, Tx 75081, U.S.A.
Toll Free: 1-800-ANRITSU (267-4878)
Phone: +1-972-644-1777
Fax: +1-972-671-1877

• Canada ANRITSU ELECTRONICS LTD.

Unit 102, 215 Stafford Road West
Nepean, Ontario K2H 9C1, Canada
Phone: +1-613-828-4090
Fax: +1-613-828-5400

• Brasil ANRITSU ELETRÔNICA LTDA.

Praia de Botafogo 440, Sala 2401 CEP 22250-040,
Rio de Janeiro, RJ, Brasil
Phone: +55-21-5276922
Fax: +55-21-537-1456

• U.K. ANRITSU LTD.

200 Capability Green, Luton, Bedfordshire LU1 3LU, U.K.
Phone: +44-1582-433200
Fax: +44-1582-731303

• Germany ANRITSU GmbH

Grafenberger Allee 54-56, 40237 Düsseldorf, Germany
Phone: +49-211-96855-0
Fax: +49-211-96855-55

• France ANRITSU S.A.

9, Avenue du Québec Z.A. de Courtabœuf 91951 Les
Ulis Cedex, France
Phone: +33-1-60-92-15-50
Fax: +33-1-64-46-10-65

• Italy ANRITSU S.p.A.

Via Elio Vittorini, 129, 00144 Roma EUR, Italy
Phone: +39-06-509-9711
Fax: +39-06-502-24-25

• Sweden ANRITSU AB

Botvid Center, Fittja Backe 1-3 145 84 Stockholm,
Sweden
Phone: +46-853470700
Fax: +46-853470730

• Spain ANRITSU ELECTRÓNICA, S.A.

Europa Empresarial Edificio Londres, Planta 1, Oficina
6 C/ Playa de Liencres, 2 28230 Las Rozas. Madrid,
Spain
Phone: +34-91-6404460
Fax: +34-91-6404461

• Singapore ANRITSU PTE LTD.

10, Hoe Chiang Road #07-01/02, Keppel Towers,
Singapore 089315
Phone: +65-282-2400
Fax: +65-282-2533

• Hong Kong ANRITSU COMPANY LTD.

Suite 719, 7/F., Chinachem Golden Plaza, 77 Mody
Road, Tsimshatsui East, Kowloon, Hong Kong, China
Phone: +852-2301-4980
Fax: +852-2301-3545

• Korea ANRITSU CORPORATION

14F Hyun Juk Bldg. 832-41, Yeoksam-dong,
Kangnam-ku, Seoul, Korea
Phone: +82-2-553-6603
Fax: +82-2-553-6604-5

• Australia ANRITSU PTY LTD.

Unit 3/170 Forster Road Mt. Waverley, Victoria, 3149,
Australia
Phone: +61-3-9558-8177
Fax: +61-3-9558-8255

• Taiwan ANRITSU COMPANY INC.

6F, 96, Sec. 3, Chien Kou North Rd. Taipei, Taiwan
Phone: +886-2-2515-6050
Fax: +886-2-2509-5519