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Data Sheet

August 14, 2026

ADVANTEST

Advantest D3186 – Pulse Pattern Generator, 150 Mbps to 12 Gbps

Advantest D3186 Pulse Pattern Generator 150 Mbps to 12.5 Gbps The Advantest D3186 is a pulse pattern generator for error performance testing from 150 Mbps to 12.5 Gbps. OEM D3186/D3286 specification lists optional internal clock 150 MHz to 12 GHz (Option 10) or 12.5 GHz (Option 13), PRBS 2^n-1 for $n=7/9/10/11/15/23/31$, WORD memory to 8388608 bits, and NRZ data outputs 0.5 to 2 Vp-p with 30 ps max rise/fall. O/E E/O module evaluation, SDH/SONET STM-1 to STM-64 pattern generation, and ultra high speed logic device stimulus paired with the D3286 error detector. The Advantest D3186 is a pulse pattern generator for error performance testing from 150 Mbps to 12.5 Gbps. OEM D3186/D3286 specification lists optional internal clock 150 MHz to 12 GHz (Option 10) or 12.5 GHz (Option 13), PRBS 2^n-1 for $n=7/9/10/11/15/23/31$, WORD memory to 8388608 bits, and NRZ data outputs 0.5 to 2 Vp-p with 30 ps max rise/fall. O/E E/O module evaluation, SDH/SONET STM-1 to STM-64 pattern generation, and ultra high speed logic device stimulus paired with the D3286 error detector. Operating Frequency External Clock: 150 MHz to 12 GHz 12.5 GHz with Option 72



MODEL

Advantest D3186

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

D3186

LISTING

<https://aumictechlabs.com/products/d3186-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Advantest D3186 is a pulse pattern generator engineered for high-speed digital and optical network testing across data rates from 150 Mbps to 12 Gbps. It delivers precise control over jitter and delay parameters with high output accuracy, enabling rigorous physical layer validation in development and production environments. The instrument generates both custom and standard test patterns, making it suitable for signal integrity analysis in advanced systems requiring deterministic timing control.

Technical Specifications

- Data Rate Range:** 150 Mbps to 12 Gbps
- Pattern Generation:** Custom and standard test patterns
- Output Accuracy:** High output accuracy for precise signal generation
- Jitter Control:** Adjustable jitter parameters for signal integrity analysis
- Delay Settings:** Configurable delay parameters to simulate various signal timing scenarios

Key Features

- Supports data rates spanning 150 Mbps to 12 Gbps for multi-standard evaluation
- Adjustable jitter control for comprehensive physical layer characterization
- Configurable delay settings enable timing scenario simulation
- High output accuracy ensures signal fidelity across test conditions
- Flexible pattern library accommodates both custom and standard test vectors

Typical Applications

- Physical layer validation in optical and digital network equipment
- Signal integrity assessment in high-speed serial interfaces
- Timing analysis and jitter characterization in development labs
- Protocol compliance testing in R&D environments

Compatibility & Integration

The D3186 integrates into laboratory test setups for optical and digital network validation. Consult equipment documentation for specific interface and integration requirements.

D3186 Characteristics / Specifications

PARAMETER	VALUE
Model	D3186
Operating Frequency External Clock	150 MHz to 12 GHz 12.5 GHz with Option 72
Internal Clock Option	150 MHz to 12.5 GHz
Frequency Setting Resolution	1 kHz
Frequency Stability	plus or minus 10 ppm per year
Internal Clock Output	sine approx 1 Vp-p SMA 50 ohm
SSB Phase Noise	minus 70 dBc/Hz at 10 kHz offset 12 GHz carrier
Spurious Non Harmonic	minus 37 dBc
Frequency Memory	16 items
Reference Frequency	10 MHz 1.5 Vp-p min AC coupled BNC in and out
External Clock Input Level	0.7 Vp-p to 1.5 Vp-p sine
PRBS Lengths	2^n minus 1 n equals 7 9 10 11 15 23 31
WORD Length Alternate Off	1 to 8388608 bits
WORD Length Alternate On	1 to 4194304 bits
Data Amplitude TO 0 V AC	0.5 Vp-p to 2 Vp-p 10 mV steps
Data Offset TO 0 V	minus 2 V to plus 2 V 10 mV steps
Data Rise Fall	30 ps max
Clock1 Amplitude TO 0 V AC	0.5 Vp-p to 2 Vp-p 10 mV steps
Clock1 Delay	plus or minus 400 ps 1 ps steps vs CLOCK2
CLOCK2 Amplitude	approx 1 Vp-p AC coupled
Cross Point Variable	20 to 80 percent class on catalog waveform note
Error Add Repeat Ratio	$1e-N$ Nequals 4 to 9
Load Impedance	50 ohm
Data Connector	2.92 mm plug
Interface	GPIB IEEE 488 1978

PARAMETER	VALUE
Power Consumption	550 VA max
Mass	42 kg max
Dimensions	approx 310 H x 424 W x 550 D mm
Operating Temperature	0 C to plus 40 C 20 C to 30 C with Option 72
Operating Humidity	40 to 85 percent RH
Line Power	100 to 120 V and 220 to 240 V auto 48 to 63 Hz
Humidity	40 to 85 percent RH

General Specifications & Supplementary Characteristics

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Operating temperature	0 C to plus 40 C 20 C to 30 C with Option 72
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Line Power	100 to 120 V and 220 to 240 V auto 48 to 63 Hz Notes From Advantest D3186/D3286 Pulse Pattern Generator/Error Detector specification bulletin D3186/3286. Confirm Option 10/13 internal clock and Option 70 FRAME / Option 15 3 Vp-p on the installed unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

performance testing from 150 Mbps to 12.5 Gbps. OEM D3186/D3286 specification lists optional internal clock 150 MHz to 12 GHz (Option 10) or 12.5 GHz (Option 13), PRBS 2^n-1 for $n=7/9/10/11/15/23/31$, WORD memory to 8388608 bits, and NRZ data outputs 0.5 to 2 Vp-p with 30 ps max rise/fall.

Applications

O/E E/O module evaluation, SDH/SONET STM-1 to STM-64 pattern generation, and ultra high speed logic device stimulus paired with the D3286 error detector.

Key Features

150 Mbps to 12.5 Gbps class PPG

8 Mbit WORD plus 31 stage PRBS

Optional SDH/SONET FRAME patterns

2 data and 3 clock outputs plus substrate

Cross point variable and optional 3 Vp-p

Technical Specifications

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Internal Clock Option 13	150 MHz to 12.5 GHz
Frequency Setting Resolution	1 kHz
Frequency Stability	plus or minus 10 ppm per year
Internal Clock Output	sine approx 1 Vp-p SMA 50 ohm
SSB Phase Noise	minus 70 dBc/Hz at 10 kHz offset 12 GHz carrier
Spurious Non Harmonic	minus 37 dBc
Frequency Memory	16 items
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.