

TEKTRONIX

DTG5274

The Tektronix DTG5274 is a 4-slot Data Timing Generator belonging to the DTG5000 Series. It combines the capabilities of a high-speed data generator and a high-performance pulse generator in a bench-top mainframe, designed for generating complex data patterns, low-jitter clocks, and multi-channel parallel or serial streams.

SPECIFICATIONS

General

Interfaces	GPIB, LAN, USB, VGA, RS-232, Parallel (LPT), PS/2 Keyboard/Mouse
Display	10.4-inch TFT color touchscreen (1024 x 768)

Physical

Power Supply	100 to 240 V AC ($\pm 10\%$), 47 to 63 Hz
Operating Temperature	10 to 40 °C
Dimensions (W×H×D)	435 mm × 221 mm × 563 mm mm
Weight	17 kg (unloaded) kg

Timing & Clock

Maximum Data Rate	2.7 Gb/s
Minimum Data Rate	50 kb/s
Frequency Range	50 kHz to 2.7 GHz
Internal Clock Accuracy	± 1 ppm
Fine Delay Resolution	0.2 ps
Total Delay Range	-5 ns to 5 μ s

Pulse & Pattern

Pattern Depth per Channel	Up to 64 Mb (configuration dependent)
Data Formats	NRZ, RZ, R1

Mainframe Configuration

Number of Slots	4 slots
Maximum Channels (Single Mainframe)	16 channels (using 4-channel modules)
Maximum Channels (Master/Slave)	32 channels

Auxiliary DC Source

Auxiliary DC Outputs	8 channels
DC Output Voltage Range	-3.0 V to +5.0 V
DC Output Voltage Resolution	10 mV
DC Output Max Current	30 mA per channel

Trigger & Sync

Trigger Input Level Range	-5.0 V to +5.0 V
Trigger Input Impedance	1 k Ω
External Clock Input Frequency Range	10 MHz to 2.7 GHz
External Clock Input Amplitude	0.4 Vp-p to 2.0 Vp-p
External Clock Input Impedance	50 Ω
Reference Clock Input Frequency	10 MHz
Reference Clock Input Amplitude	0.2 Vp-p to 3.0 Vp-p
Reference Clock Input Impedance	50 Ω
Reference Clock Output Frequency	10 MHz
Reference Clock Output Impedance	50 Ω

System & Interface

Operating OS	Windows-based
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Power & Environmental

Storage Temperature Range	-20 °C to +60 °C
Operating Humidity Range	20% to 80% RH (non-condensing)

Sequencer

Maximum Sequence Steps	8,000
Maximum Blocks	1,024
Sequence Repeat Count	1 to 65,536 or Infinite
Maximum Sub-sequences	128

Performance

Frequency Resolution	12 digits
Trigger Input Minimum Pulse Width	5 ns
External Clock Input Minimum Pulse Width	185 ps
Random Jitter (Typical)	< 3 ps RMS (at 2.7 Gb/s)

Power

Maximum Power Consumption	450 VA
AC Input Voltage Range	100 V to 240 V AC ($\pm 10\%$)
AC Input Frequency Range	47 Hz to 63 Hz

Regulatory & Compliance

Safety Standards	UL3111-1, CAN/CSA C22.2 No. 1010.1, EN61010-1
EMC Standards	EC Council Directive 89/336/EEC, FCC Part 15 Class A, AS/NZS 2064

Storage

Hard Disk Drive Capacity	≥ 40 GB
Floppy Disk Drive	3.5-inch (1.44 MB)
CD Drive	Internal CD-R/RW

Environmental

Operating Altitude	Up to 3,000 m (10,000 ft)
Non-operating Altitude	Up to 12,192 m (40,000 ft)
Operating Vibration	0.27 G RMS (5 Hz to 500 Hz)
Non-operating Vibration	2.28 G RMS (5 Hz to 500 Hz)
Non-operating Shock	294 m/s² (30 G), half-sine, 11 ms

APPLICATIONS

High-speed digital design, semiconductor characterization, receiver testing, and multi-channel serial/parallel bus testing.

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.