

JDSU

ANT-5

The JDSU ANT-5 (originally developed by Acterna) is a handheld SDH, SONET, and PDH transmission analyzer designed for the installation, commissioning, and maintenance of optical and electrical network interfaces. Its compact form factor, touch-screen display, and battery operation make it a versatile tool for field-testing high-rate communication networks up to 2.5 Gbps (STM-16/OC-48).

SPECIFICATIONS

General

Interfaces	Dual SFP slots, BNC (75 Ω), RJ-48 (100/120 Ω), USB, LAN (Ethernet), RS-232, external clock reference input/output (BNC)
Display	1/4 VGA color touchscreen (320 $\times$ 240 pixels)

Physical

Power Supply	100 to 240 V AC (50/60 Hz) external power adapter, 12 V DC input, internal rechargeable NiMH battery
Operating Temperature	0 to +40 $^{\circ}\text{C}$ $^{\circ}\text{C}$
Dimensions (W $\times$ H $\times$ D)	125 $\times$ 215 $\times$ 63 mm mm
Weight	1.1 kg kg

Supported Bit Rates

SDH Bit Rates	155 Mbps (STM-1), 622 Mbps (STM-4), 2.5 Gbps (STM-16, optional)
SONET Bit Rates	51.84 Mbps (STS-1), 155 Mbps (OC-3), 622 Mbps (OC-12), 2.5 Gbps (OC-48, optional)
PDH Bit Rates	1.544 Mbps (DS1), 2.048 Mbps (E1), 8.448 Mbps (E2), 34.368 Mbps (E3), 44.736 Mbps (DS3), 139.264 Mbps (E4)

Optical Interfaces

Optical Connector Type	Dual SFP (Small Form-factor Pluggable) transceivers
Supported SFP Wavelengths	850 nm, 1310 nm, 1550 nm (transceiver-dependent)

Electrical Interfaces

Unbalanced Connector Type	BNC (75 Ω impedance)
Balanced Connector Type	RJ-48 (100 Ω for DS1, 120 Ω for E1)
External Clock Input Connector	BNC (75 Ω impedance)

Test Modes & Configurations

PDH/DSn Receiver Input Modes	Terminate (nominal), Monitor (resistive), Protected Monitoring Point (PMP), High Impedance (bridged)
E1 Framing Formats	Unframed, PCM30, PCM30C, PCM31, PCM31C (according to ITU-T G.704)
DS1 Framing Formats	Unframed, SF (D4), ESF (Extended Superframe)
DS3 Framing Formats	Unframed, M13, C-bit parity

Analysis & Measurement

Error Generation Types	Bit (TSE), Frame (FAS), BPV/Code, CRC-4, E-bit, Parity
Alarm Generation Types	LOS, LOF, AIS, RDI, LOP, LSS (pattern loss)
Error Analysis Standards	ITU-T G.821, G.826, M.2100, M.2101, M.2110, M.2120
Jitter and Wander Testing	Supported according to ITU-T O.171 / O.172 / G.823 / G.824 / G.825 (requires optional software/hardware)

ATM Testing (Optional)

ATM Mappings	DS1, E1, DS3, E3, STM-1/OC-3
ATM Functionality	OAM cell generation/analysis (F4/F5), cell statistics, traffic contract verification

Voice Frequency (VF) Testing

VF Capabilities	Built-in microphone and loudspeaker, channel drop/insert, A-law and μ -law decoding
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Data Storage & Connectivity

Internal Data Storage	Non-volatile memory for up to 99 test configurations and results
External USB Support	USB 1.1 Type A host port for USB flash drives and printers
Remote Control	Via Ethernet LAN or RS-232 using SCPI commands

Power Specifications

Battery Operating Time	Up to 5 hours (continuous operation, application-dependent)
Battery Charging Time	Approx. 4 hours from empty to full charge
AC Adapter Input	100 V to 240 V AC, 50/60 Hz
DC Instrument Input	12 V DC, max. 2 A
Battery Technology	Internal NiMH (Nickel-Metal Hydride) rechargeable battery pack

Environmental Specifications

Storage Temperature	-20 to +60 °C
Operating Humidity	10% to 90% non-condensing

Transmitter Clock

Internal Clock Accuracy	± 4.6 ppm
Frequency Offset Range	Up to ± 100 ppm in 1 ppm steps

Measurement Capabilities

T1/E1 Pulse Shape Analysis	ANSI T1.102 / ITU-T G.703 compliance masks
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Interfaces

64 kbps Co-directional Interface	Supported (G.703)
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Round Trip Delay Measurement

Round Trip Delay Resolution	1 μs
Round Trip Delay Range	0 to 10 s

Service Disruption Time

Service Disruption Time Resolution	0.1 ms
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SDH/SONET Testing

Pointer Test Sequences	ITU-T G.783, Bellcore GR-253
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General Features

Auto-Setup Feature	Automatic detection of bit rate, framing, and test pattern
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Standards and Compliance

Laser Safety Class	Class 1 (IEC 60825-1)
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TECHNOLOGY

SDH/PDH/SONET Transmission Testing

APPLICATIONS

Optical and electrical transmission network installation, commissioning, and troubleshooting

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