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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 3787B

HP Agilent 3787B T1/T1C DDS Digital Data Test Set The HP 3787B combines T1/T1C and DDS (DS0A/B) testing in one portable set. OEM 3787B product data listabuilt-in multiplexer/demultiplexer that inserts or extracts test patterns, control codes, or external data in individual timeslots, subrates, and overhead channels, with measurements from BER to full error analysis plus signal level and optional DS1 jitter (Option 001). Option 002 adds DC capability. T1, T1C, and DDS installation, maintenance, and jitter testing inaportable digital data test set. The HP 3787B combines T1/T1C and DDS (DS0A/B) testing in one portable set. OEM 3787B product data listabuilt-in multiplexer/demultiplexer that inserts or extracts test patterns, control codes, or external data in individual timeslots, subrates, and overhead channels, with measurements from BER to full error analysis plus signal level and optional DS1 jitter (Option 001). Option 002 adds DC capability. T1, T1C, and DDS installation, maintenance, and jitter testing inaportable digital data test set.



MODEL

**Agilent / Keysight
3787B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

3787B

LISTING

<https://aumictechlabs.com/products/3787b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 3787B is a Digital Data Test Set (BERT) engineered for in-service and out-of-service testing of T1 leased lines, Digital Data Systems (DDS), 56 kbit/s switched services, and Packet Switched transmission equipment. It delivers bit error rate measurement, full error analysis, frame slip detection, and signal-level monitoring across multiple digital hierarchies. The

instrument integrates transmit and receive capability with built-in multiplexer/demultiplexer functions for inserting or extracting test patterns, control codes, and external data into individual timeslots, subrates, and overhead channels. Technical Specifications Supported Interfaces: DS0 A/B, DS1 (D4, ESF, T1DM, SLC-96), DS1C, DDS/Dataport Operating Frequencies: DS0 at 64 kbit/s; DS1 at 1.544 Mbit/s; DS1C at 3.152 Mbit/s Framing: DS1, DS1C, and DS0B Line Codes: B8ZS, AMI Test Patterns: 2^{15} , 2^{20} , 2^{23} PRBS; QRSS, 3 in 24, 8-bit word, loop, and control codes; TA55 DDS stress patterns; 256-byte user-defined pattern (DS0 only); logic (binary) patterns Jitter Measurement: Optional DS1 jitter measurement (Option 001) Key Features Full transmit and receive capability with built-in multiplexer/demultiplexer Comprehensive bit error rate measurement and full error analysis Error detection and logging on all test patterns Availability metrics: % Availability, % Unavailability, % Severely Errored Seconds, % Error Seconds, % Degraded Minutes Frame slip measurement and analysis Signal level and DS1/DS1C signal voltage measurement DS0 bit monitor and signaling bit analysis ISDN 'B' or 'D' Channel Protocol Analyzer capability External clock input for jitter generation Built-in data logging and printer Remote control via HP-IB and RS-232 Typical Applications T1 leased line characterization and troubleshooting DDS and 56 kbit/s switched service validation In-service circuit deterioration and intermittent detection Out-of-service loopback testing with T1/DDS codes Packet-switched network transmission verification Compatibility & Integration Remote control interfaces include HP-IB and RS-232 for integration into automated test environments and network monitoring systems.

Features & description

From manufacturer datasheet

Built-in mux/demux for timeslot and subrate access

T1/T1C plus DDS DS0A/B in one box Optional DS1 jitter measurements Optional DC capability Pattern, control-code, and external-data insert/extract Technical Specifications Model: 3787B Instrument Type: digital data test set Primary Rates: T1, T1C, and DDS DS0A/B Architecture: built-in multiplexer/demultiplexer Insert Extract: test patterns, control codes, or external data Access Points: individual timeslots, subrates, and overhead channels Measurements: BER through full error analysis plus signal level Jitter Option: 001 DS1 jitter measurements Dc Option: 002 DC capability Mechanical Package: portable test set Manufacturer: HP Agilent Keysight Use Case: T1/T1C and DDS testing Framing Class: T1/T1C Dds Channels: DS0A and DS0B Error Analysis: full error analysis class Signal Level: yes Pattern Generation: yes Control Codes: yes External Data: insert and extract Overhead Access: yes Subrate Access: yes Timeslot Access: yes Jitter Domain: DS1 with Option 001 Power Class: portable AC with optional DC Interface Class: digital transmission hierarchy Notes From HP/Agilent 3787B digital data test set product literature (T1/T1C/DDS, mux/demux, Option 001/002). Exact jitter masks and level ranges are on the 3787B data sheet matching the serial.

3787B Characteristics / Specifications

PARAMETER	VALUE
Model	3787B
Instrument Type	digital data test set
Primary Rates	T1, T1C, and DDS DS0A/B
Architecture	built-in multiplexer/demultiplexer
Insert Extract	test patterns, control codes, or external data
Access Points	individual timeslots, subrates, and overhead channels
Measurements	BER through full error analysis plus signal level
Jitter Option	001 DS1 jitter measurements
Dc Option	002 DC capability
Mechanical Package	portable test set
Manufacturer	HP Agilent Keysight
Use Case	T1/T1C and DDS testing
Framing Class	T1/T1C
Dds Channels	DS0A and DS0B
Error Analysis	full error analysis class
Signal Level	yes
Pattern Generation	yes
Control Codes	yes
External Data	insert and extract
Overhead Access	yes
Subrate Access	yes
Timeslot Access	yes
Jitter Domain	DS1 with Option 001
Power Class	portable AC with optional DC
Interface Class	digital transmission hierarchy

3787B Specifications

PARAMETER	VALUE
HP Agilent 3787B T1 T1C DDS Digital Data Test Set	Overview
Applications	T1, T1C, and DDS installation, maintenance, and jitter testing in a portable digital data test set.
T1/T1C plus DDS DS0A/B in one box	Optional DS1 jitter measurements
Technical Specifications	Model: 3787B

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.

Specifications	
Specifications	
PARAMETER	VALUE
Model	3787B
Instrument Type	digital data test set
Primary Rates	T1, T1C, and DDS DS0A/B
Architecture	built-in multiplexer/demultiplexer
Insert Extract	test patterns, control codes, or external data
Access Points	individual timeslots, subrates, and overhead channels
Measurements	BER through full error analysis plus signal level
Jitter Option	001 DS1 jitter measurements
Dc Option	002 DC capability
Mechanical Package	portable test set
Manufacturer	HP Agilent Keysight
Use Case	T1/T1C and DDS testing
Framing Class	T1/T1C
Dds Channels	DS0A and DS0B
Error Analysis	full error analysis class
Signal Level	yes
Pattern Generation	yes
Control Codes	yes
External Data	insert and extract
Overhead Access	yes
Subrate Access	yes
Timeslot Access	yes
Jitter Domain	DS1 with Option 001
Power Class	portable AC with optional DC
Interface Class	digital transmission hierarchy

Notes

From HP/Agilent 3787B digital data test set product literature (T1/T1C/DDS, mux/demux, Option 001/002). Exact jitter masks and level ranges are on the 3787B data sheet matching the serial.

Ordering Information

OPTION	DESCRIPTION
Option 002	adds DC capability.
Option 001	Power Class: portable AC with optional DC

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

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NIST-traceable calibration · SAM registered ·
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Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.