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Find the *Keysight / Agilent N1725A auroraDuet* at our website: *Click HERE*



N1725A
Agilent aurora^{Duet}
Primary & Basic Rate ISDN Handheld Testing





Agilent Technologies
Innovating the HP Way

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auroraDuet



In Tune With ISDN Technicians

The auroraDuet has been designed to provide all-round capability to ISDN technicians and engineers no matter what their role or responsibility.

Available as a Basic Rate or combined Basic and Primary Rate ISDN tester, the auroraDuet is easy to operate, displays meaningful and understandable results and is functionally complete. The auroraDuet has been developed to suit any business that depends on telecommunications. Its features recommend it equally to installers, maintainers, carrier companies, ISDN equipment suppliers, and to the users of ISDN services. The auroraDuet – one tool which enables a technician to complete the job with one visit.

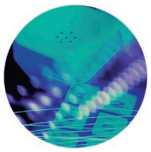






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Features





Emulation

- TE Mode – emulates Customer Premises Equipment (S and U interface) and supports a range of supplementary services such as Caller ID.
- NT Mode – emulates the network on the S interface
- LT Mode – emulates the network on the U interface
- T1 signaling capability to emulate switch or user side and monitor using Ground Start, Loop Start and E&M commands
- Phantom power (PS 1) for S-bus devices
- B1, B2, Bx channel selection for Basic Rate
- Establish up to 23 simultaneous calls for Primary Rate
- Dual port Primary Rate for NFAS testing
- Simultaneous cross-connection of 11 pairs of B channels
- Display and capture of FEBEs, NEBEs and maintenance messages on the U interface
- Generation of EOC messages and Sealing Current on U interface
- Generation of 40 kHz test tone

Monitor and Analysis Capability

- Monitoring, capture and filtering of signalling traffic on S, U and Primary Rate interfaces
- On-screen real time decode of D-channel activity
- Physical-layer monitoring using LEDs and screen indication of Remote Alarm, CRC Error, Sync Alarm, Signal Detect, AIS, Activation and Info states
- Listen to B channel traffic on all interfaces
- Onboard storage of captured signalling traffic for analysis with auroraExpert

Automatic Service Tests

- Identifies services available on the line under test
- Checks line configuration
- BER Tests check Quality of Service
- 2B check for 128 kbps applications
- Validates service across all Primary Rate channels

Voice and Data Testing

- Complete 1.544 Mbps BER Testing for out of service qualification of T1 lines
- Hands-free capability for listening to voice calls
- Selectable pre-set and user defined patterns and time periods for Bit Error Rate (BER) Tests
- Bit Error Injection - automatic or manual
- Automatic or manual call answer with data loopback
- Unattended mode with call screening
- Display of Bit Errors, Bits Received, Errored Seconds and Sync Loss during test
- Full Remote Control across PSTN or ISDN TA through “Virtual Instrument” control on PC

BERT Statistics

- Statistics conform to G.821 recommendations
- Results displayed as absolute values or percentages
- Pass/Fail indication on timed tests against a pre-set threshold
- Results on-screen or on hard copy using local printer

Multiple Interfaces

- 2B1Q interface for Basic Rate
- S/T interface for Basic Rate
- Dual T1 interface for Primary Rate

Multi-Protocol

- Multiple protocols and monitor software stored on-board
- Down-loadable software updates from local PC to maximize the unit availability

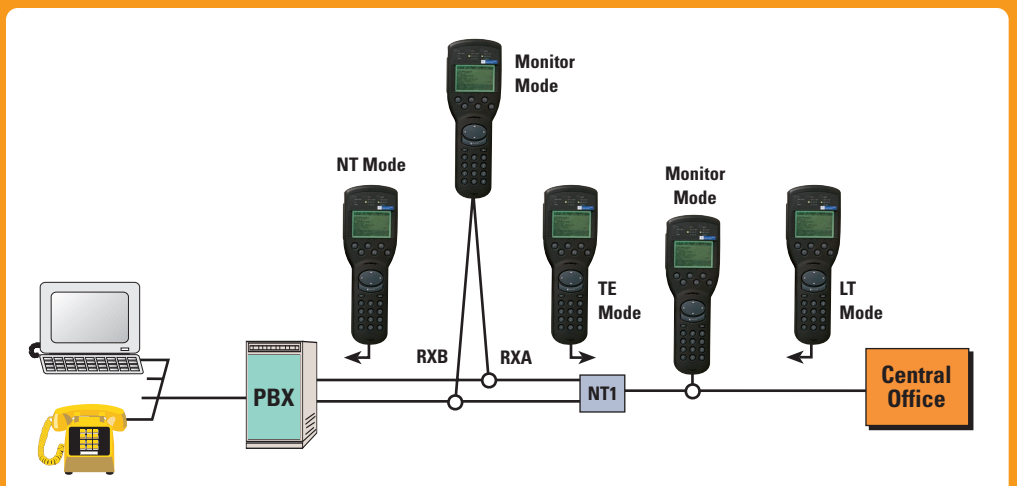
Battery/AC Operation

- Rechargeable Nickel Cadmium battery
- AC/DC adapter for charging and AC operation

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Applications

The auroraDuet in the ISDN Network



Emulate ISDN from both the network or customer sides.

Perform monitoring and diagnostics.

Provides voice and data testing.

Use national, AT&T, Nortel, and custom protocols.

The ability of the auroraDuet to emulate ISDN from both the network and customer sides is the key to its versatility.

For the service provider, whose primary concern is the provision and maintenance of ISDN, the trouble-shooting strengths of the auroraDuet are evident when problems occur.

- Testing the local loop at the U-interface
- Using TE mode to simulate terminal equipment and validate line operation on the S/T and U interfaces
- Checking cable continuity for S bus problems
- Monitor D-channel traffic on the S/T and U interface for problem analysis

The auroraDuet can also simulate the operation of the NT and LT, and appear to be the network itself to test Customer Premises Equipment. For the equipment installer, the auroraDuet proves itself as an ISDN turn-up tool.

- In NT or LT mode, commission and set up equipment before delivery to the customer site
- In TE mode, validate the ISDN service provided to the customer site

Save time and expense on site. Improve the quality of service to the customer. The ability of the auroraDuet to act as both network and terminal equipment is invaluable to the maintainer of ISDN equipment.

- Monitoring and Diagnostics
- Voice and Data testing
- National, AT&T and Nortel Custom protocols

One tool can diagnose the problem in one visit. For the equipment manufacturer, the auroraDuet has the sophistication to be used in a development and manufacturing environment.

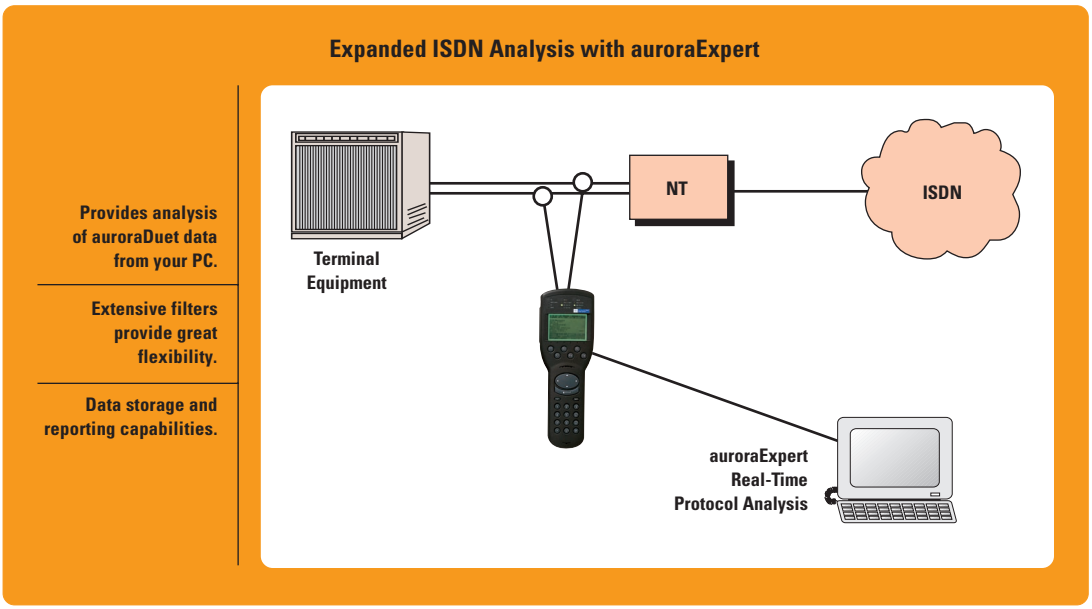
- Cost effective simulator and analyzer
- A highly configurable quality assessment tool
- Validates protocol development in a software laboratory

The auroraDuet allows ISDN users to validate the services they've ordered and to maintain their own private digital networks.

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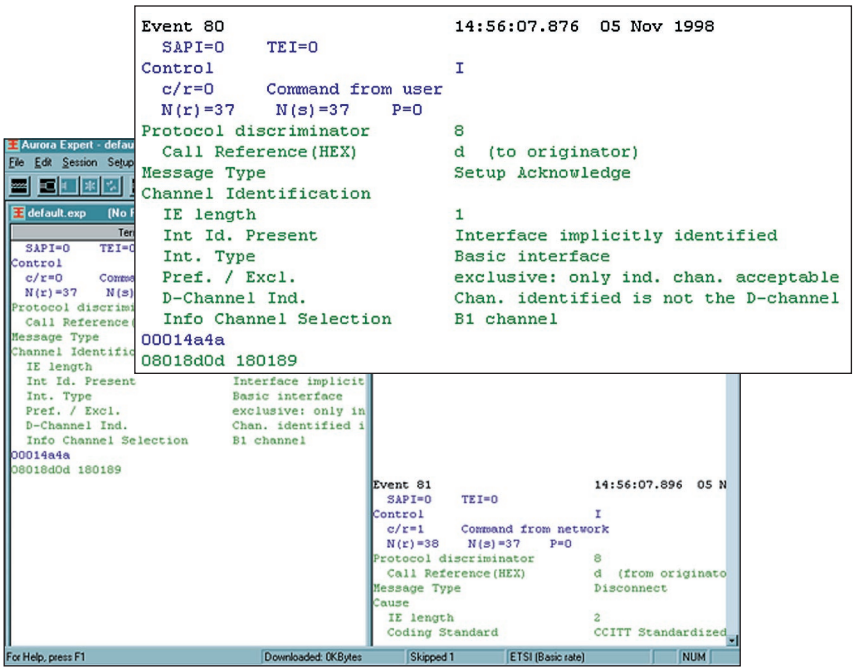
auroraExpert

Protocol Monitoring, Trace and Analysis



It's not enough to know what is wrong, it's knowing why it's wrong. Capture the awkward, intermittent errors that cause the underlying problems.

- On-screen Real-time decode and trace of D-Channel activity
- Filters allow specific protocols to be selected with frame timestamps
- Many filter criteria including layer, call reference, SAPI, TEI, and many more
- Onboard storage of data for analysis with auroraExpert



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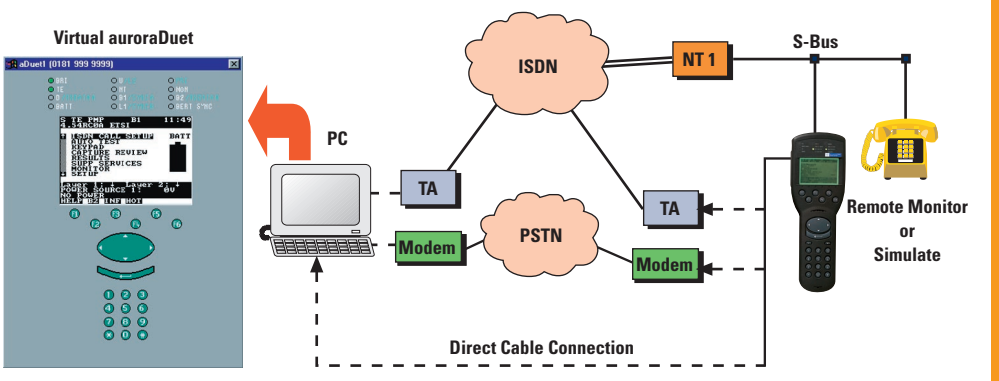
Remote Control

Remote Testing and Diagnosis

Intermittent faults may result in many unproductive and costly site visits before the fault is observed. The auroraDuet may be controlled remotely via a PSTN modem or ISDN TA. This will allow real-time testing to take place or tests to be set running with dial-up and download of results later.

- Full remote operation
- PC control through “Virtual Instrument” representation of the auroraDuet
- Up to 20 instrument and location profiles for central testing control
- Analyze the remote traces with auroraExpert

Control auroraDuet Remotely from Your PC



Virtual instrument controls – no need to learn a new interface.

Store profiles for different locations and instruments.

Use with auroraExpert for remote protocol and trace analysis.

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Specifications

PHYSICAL MEASUREMENT

Measurement of Power source 1 and 2. Indication of U interface Sealing Current and Optional Power Display of T1 alarms and line coding

VOICE

3.1 kHz and ISDN voice calls on user selected B channel. Manual or automatic answer. Hands free listening

DATA

Automatic answer, Range of call types, Auto or manual bit error inject. Loop of receive to transmit data
Selectable BER Test Length: 1 min, 15 mins, 1 hr, continuous and user defined time
Selectable BER Test Patterns: Binary 0, Binary 1, 1:1, 1:3, 3:1, 63PR(5+6), 511PR(5+9)(V.52), 2047PR(9+11)(O.152, O.153), 2^{12}-1PR, 2^{15}-1PR, 2^{20}-1PR(O.153), or user defined 16 bit pattern; QRSS available for PRI only
Results: Bits received, Bit errors, Bit error ratio, Errored Seconds, Error Free Seconds, Severely Errored Seconds, Unavailable Seconds, Degraded Minutes, Elapsed time, Sync losses; Display of results in accordance with G.821
Protocol: Display of call progress and explanation of clear/fail causes. Monitor and Tracer facility gives time stamped three layer decode on screen or via selected printer port or for output to auroraExpert for detailed analysis

INTERFACES

S/T
- **Bit Rate:** 192 kbps; Electrical characteristics to CCITT rec I.430
- **Connector:** RJ45, S-bus cable test connector RJ45

U
- Electrical characteristics to T1.601
- Connector: RJ45 (with adapter for RJ11 and alligator clips)

T1/DS1
- Selectable line build out
- **Bit Rate:** 1.544 Mbps
- **Connector:** RJ45 and Bantam connectors
- **Clocking:** Transmit clock recovered from received data, internally generated 1.544 Mbps ± 10ppm, or supplied from external source
- **Coding:** B8ZS or AMI

RS232
- **Transmission:** Asynchronous up to 19.2 kbps
- **Connector:** 15 way Elco

Parallel
- **Transmission:** Synchronous
- **Connector:** 15 way Elco

External Headset
- **Connector:** RJ11, Activation selected by menu command

Display
- Backlit, Supertwist liquid crystal display 24 characters by 16 lines

Keypad
- 25 key keypad incorporating 6 function keys

Indicators
- **LEDs to indicate the following functions:** LEDs with Single Use **(BRI)**;LEDs with Joint Use **(PRI)**
  - **TE Mode:** (BRI) NT/LT mode; (PRI) NT mode
  - **Monitor Mode:** (BRI) B1 Channel selected; (PRI) B8ZS coding detected
  - **D Channel Active:** (BRI) B2 Channel selected; (PRI) Signal detected (port 1 rx)
  - **Battery Charge/Low Level:** (BRI) PS 1/Sealing current detected; (PRI) Signal detected (port 1 tx)
  - **BERT Sync:** (BRI)PS 2/Optional power detected, L1 Status; (PRI) Signal detected (port 2 rx), Signal detected (port 2 tx), AIS detected

ENVIRONMENTAL

Size: 12.6 x 4.1 x 2.4 inch (32.0 x 10.5 x 6.0 cm) BRI only; 12.6 x 4.1 x 3.0 inch (32.0 x 10.5 x 7.5 cm) PRI option installed
Weight: 2.2 lbs (1.0 kg) BRI only; 3.5 lbs (1.6 kg) PRI option installed
Operating Temperature: 0 to 40 °C (32 to 104 °F)
Storage Temperature: -25 to +60 °C (-13 to +140 °F) to ETS 300 019-1-1 Class 1.2

POWER SUPPLY

- Rechargeable Nickel Cadmium battery
- Supplied with 110V AC to DC adapter

STANDARD PACKAGE

The auroraDuet main unit with National, AT&T and Nortel Custom protocols; S/T and U interface allowing TE/NT Emulation and Monitoring and Decoding of D channel protocol; Operating manual, ISDN interface cable, RS232 cable, power adapter and soft carry case

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Related Products

Agilent's growing family of aurora handheld testers provide powerful, affordable and rugged solutions for field installation and maintenance testing. The aurora handhelds support deployment of ISDN, Frame Relay and ATM services, and provide field organizations with comprehensive, yet easy-to-use testing capabilities for commissioning, troubleshooting and service verification.

auroraJazz

The auroraJazz tablet features full physical and ATM service testing, with field interchangeable line interface modules for testing at speeds up to OC-3.

auroraTempo

The auroraTempo combines physical layer and Frame Relay protocol testing over T1 and V-series interfaces, with full PVC and SVC simulation.

auroraPlus

The auroraPlus is an entry-level handheld Basic Rate ISDN and POTS tester that supports a wide range of ISDN call and connection types at both the S and U interface, with added BERT capabilities. Both North American and ITU versions of the auroraPlus are available.

auroraSonata

The auroraSonata is an advanced, modular ISDN test handheld that combines physical layer testing, multi-mode simulation, add-on service testing and protocol analysis in one rugged unit. S, U and T interface modules can be field-swapped, as needed.

auroraExpert

The auroraExpert is an add-on Windows software package that provides real-time filtering, display, storage and analysis of all ISDN protocol data captured by the aurora handheld. The software runs on any standard Windows PC or notebook, and supports all aurora products that capture D-Channel output.

Ordering Information

N1725A auroraDuet (must order w/option)
opt 001: ISDN BRI S and U
opt 011: ISDN BRI/PRI S/U/2x T1
opt 111: BRI/PRI/2x T1 software

ITU version also available (features and technical specifications may vary)

N1726A ITU auroraDuet (must order w/option)
opt 001: ISDN BRI S and U
opt 021: ISDN BRI/PRI S/U/2x E1
opt 121: ISDN BRI/PRI S/U/2x E1 software

N1731A auroraExpert for Windows
opt 900: Additional manual

N1732A Remote Control PC software for auroraDuet

N1733A Modem adapter assembly for auroraDuet

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U.S.A.
(tel) (305) 267 4245
(fax) (305) 267 4286

Canada:
Agilent Technologies Canada Inc.
5150 Spectrum Way
Mississauga, Ontario
L4W 5G1
(tel) 1 877 894 4414

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