



## 11 DA-30

### Protocol analyzers for test and measurement tasks in heterogeneous data networks

The DA-30 and DA-31 portable data analyzers are tailor-made for the wide-ranging test and measurement tasks in LANs, WANs and MANs and internetwork components such as bridges, routers and gateways. The modular instrument architecture ensures problem-free matching to existing and future networks and technologies.

The DA-30 provides all facilities necessary for performing simultaneous and synchronized measurements on two separate physical interfaces (pincer measurement). This function is absolutely necessary for realistic testing of internetwork coupling elements such as bridges, routers and gateways. Just like the DA-30, the DA-31 can be fully programmed for a wide range of measurement tasks such as tracking down impairments, investigating

utilization for planned network extensions or measuring the network performance data. Protocols can be decoded and simulated in any layer. The DA-31 represents an economical alternative to the DA-30 where the functions of a single analyzer are sufficient, e.g. for on-site servicing.

All common interface types are available for both instruments:

- Ethernet (coax and AUI)
- Token ring (4/16 Mbit/s)
- FDDI (SAS and DAS)
- V.24, V.35, V.36
- X.21
- G.703 / S(PRA), S(BRA)

Other special features of both instruments are:

- Simultaneous decoding and analysis of all 7 protocol layers in real time
- Simultaneous protocol decoding and network statistics
- Simultaneous filter and trigger functions in all 7 layers

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- Analysis of all common protocols
- Simultaneous loading and testing of the network
- User-editable application programs, supported by comprehensive program library
- Several interfaces can be fitted, eliminating the need to exchange modules frequently
- Compact, robust and portable equipment.

The two analyzers provide freedom of choice: DA-30 for multi-layer special measurement tasks in coupled networks; DA-31 for more general use in service applications, where a single analyzer is sufficient.

### Main applications

**Test and measurement tasks on LANs, WANs and MANs**

**Analysis of all common protocols: IPX/SPX, XNS, TPC/IP, LAT, DECnet IV, ISO, Apple Talk, SNA, NETBIOS, X.25, Frame Relay, SMB, OSPF, SMDS, D channel (E-DSS1, 1 TR 6)**

**Simultaneous real time analysis of LAN-WAN couplings**