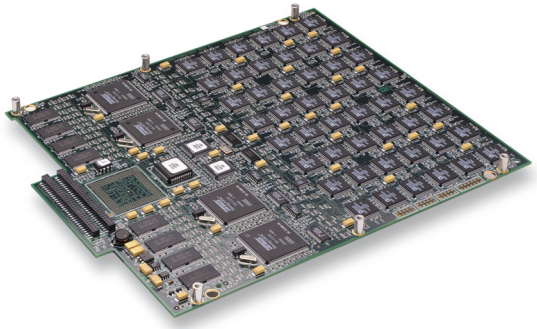
Lucent Technologies
Bell Labs Innovations

48 Port MultiDSP Module



The 48 port MultiDSP module supports a wide range of modem modes and Lucent's MultiVoice™ Voice-over-IP (VoIP) solution at the central site by integrating into the APX 8000 and MAX TNT WAN access switches. This highly flexible digital signal processing (DSP) solution allows ordinary telephones to connect to other telephones using a public or private packet network via Lucent's VoIP gateways, MultiVoice for the APX 8000 and MAX TNT.

This MultiDSP module is available as a single slot 48 port unit. Its flexibility and powerful performance allow for software upgrades as new features expand services. Its lower power consumption allows it to fit seamlessly into the APX 8000 and MAX TNT switches.

Support for wide range of modem modes, as well as HDLC

The MultiDSP modem offers users dialing in on both analog and digital lines support for all of the standard modem modes. With this technology, analog users can achieve a maximum of 56 Kbps as defined by the V.90 modem standard. Support for error correction and data compression maximizes data transfer integrity and boosts data throughput.

- Support for data modem modes: V.90, K56flex, V.34, V.32bis, V.32, V.22bis, V.22 and below
- Support for ISDN: B-channel HDLC
- Error correction and data compression
- Multilink PPP, used for bonding multiple modem or HDLC DS0s

VoIP Services Integration into APX 8000 and MAX TNT platforms

MultiVoice for the APX 8000 and MAX TNT offers an integrated VolP solution that is high quality, high performance, cost justifiable, scalable, and based on international standards. Service providers, carriers, and enterprises now have an immediate and affordable way to introduce real-time voice communications to traditional IP backbone networks.

- Supports voice compression and packetization
- Each port connects to a single DS0 (voice call)
- Dynamic flexibility for VoIP, fax-over-IP and dial-up digital or analog users

GSM rate adaption offers mobile Internet access

The MultiDSP module's V.110 rate-adaption support provides fast mobile Internet access. It allows GSM mobile phones, communicating at 9600 bps, to connect to established 64 Kbps ISDN networks. This allows network service providers to support cellular data traffic on the same high-speed E1/PRI trunk lines used for GSM digital cellular service.

- Establishes a connection in only 2-5 seconds
- Also supports users with V.110 terminal adapters

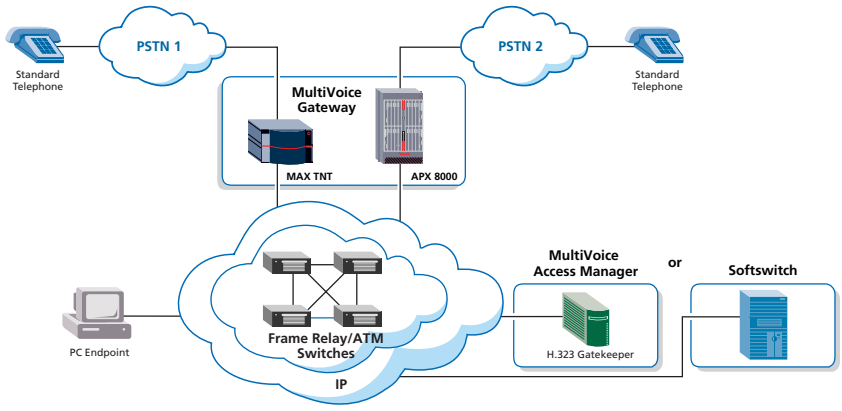
PHS support provides Internet access to mobile phone users

PHS mobile phone users can utilize this high-speed data transmission service based on the PIAFS standard to access the Internet where land lines are not available or conveniently accessible, such as a customer site or a conference room.

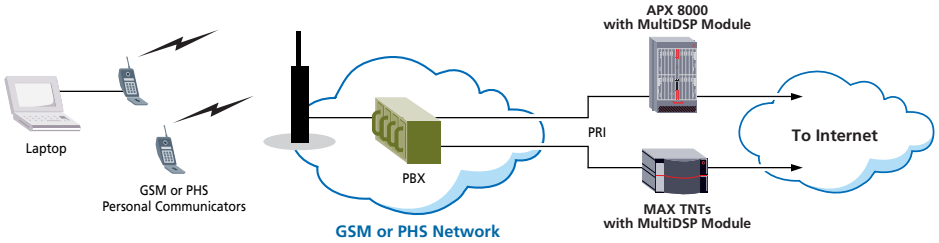
- Wireless data transfer with error correction
- Supports 32 Kbps and 64 Kbps PIAFS data rate standards

48 Port MultiDSP Module

MultiVoice for APX 8000 and the MAX TNT VoIP Network – Trunking and Access Gateway Solutions



V.110 and PHS Solutions



Features

Data Modem Modes
PSTN: ITU-T V.90, K56flex, V.34bis, V.34, V.32bis, V.32, V.22bis, V.22A/B, V.23, and V.21; Bell 212A and 103

ISDN: 64/56 Kbps ISDN BRI B-channel

Error Correction
V.42 LAPM and MNP 2-4

Data Compression
V.42bis and MNP5

Fax Modem
14.4 Kbps transfer rate

V.33, V.17, V.29, V.27ter and V.21 channel 2

Group 3, T.30 protocol and Class 1 and 2

Transfer Rate
PSTN: 56 Kbps downstream/31.2 Kbps upstream

ISDN: 64 Kbps

Multivoice for the APX 8000 and MAX TNT
ITU-T H.323-based gateway

SS7-based voice with the Lucent Softswitch
T.38 real-time fax over IP

Transparent modem and fax

Voice codecs supported: G.711, G.723, G.728, G.729a, RT-24

Software Upgrade
Via uploadable modem code

Multiprotocol Functionality
IP/IPX, PPP, MP, Multilink Protocol Plus (MP+),

AppleTalk

Authentication
RADIUS, TACACS, TACACS+

Security
PAP, CHAP, Callback, CLID, token card

V.110
Rate adaptive, with default to 9600 bps

PHS
PIAFS 1.0, 2.0, and 2.1; indial

Specifications

Dimensions
Size: 15 in x 0.8 in x 11 in [38.1 cm x 2 cm x 28 cm]

Power Requirements
37W

Card Weight
~1.5 lb (0.7 kg)

Hot Swap Capability
Yes

Environmental
Temperature: 32-104˚ F (0-40˚ C)

Relative Humidity: 10-90% (non-condensing)

LED Indicator (per module)
Multi-purpose fault indicator

To learn more, contact your Lucent Technologies Representative, Authorized Reseller, or Sales Agent. Or, visit our Web site. www.lucent.com

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