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Diva™ Server PRI/E1/T1-8

Digital T1 or E1 interfaces are often the most economic means of connecting server based fax, voice and data applications to a telephony switch, even when all 24 or 30 available channels are not required for the initial size of the application.

Diva Server PRI/E1/T1-8 has been specifically designed to meet market requirements. Offering digital network interfaces selectable for full and fractional E1, T1 or ISDN Primary Rate (PRI) standards, Diva Server PRI/E1/T1-8 allows for proven and reliable connectivity with all kinds of PBX and switch systems. As such, Diva Server PRI/E1/T1-8 offers key voice processing functionality required for voice mail, IVR, call center or alarm server applications. Thanks to an additional eight dedicated DSP-based media processing resources, up to eight calls out of the total E1 or T1 span can concurrently handle the most demanding operations such as V.90 data modem, high-speed 33.6 kbps fax or enhanced echo cancellation.

Diva Server PRI/E1/T1-8 offers a simple and powerful, yet cost-effective entry-level CTI and Fax platform.

The Multifunction Telephony Adapter with 8-channel Fax support for PRI, E1 and T1

Eicon Networks Certified
ISO 9001 2000

diva® server

Key Benefits

Computer Telephony at its best

Diva Server PRI/E1/T1-8 adapters provide a comprehensive set of voice processing features that enable all of the most popular computer telephony applications. DTMF processing is built-in and dedicated to each channel. Thanks to full-duplex operation on all voice channels, IVR applications can efficiently utilize "Barge-In" to enhance the user experience. Sophisticated switching capabilities allow calls on any Diva Server board in the server to be interconnected. Finally, powerful call control functions enable application developers to easily put calls on hold, place a consultation call, put parties in conference or transfer the call.

High-Performance Media Processing

Powerful DSPs for up to eight communication channels ensure real-time processing of complex operations such as V.90 data modem, V.34 fax receiving and transmitting, sophisticated tone detection, voice activity detection, voice compression, and echo cancellation. By offering these high-performance media processing functions, the Diva Server PRI/E1/T1-8 enhances overall system performance and lowers implementation costs.

Cutting-Edge Hardware Design

Utilizing the latest hardware technology Diva Server PRI/E1/T1-8 is fully compliant with the current PCI 2.2 specifications. It offers 3.3/5V universal signaling, up to 66MHz clock support and can be operated in any PCI or PCI-X based server, all with very low power consumption. Diva Server PCI/E1/T1-8 complies with half-size PCI form factor and therefore can be deployed in even the most compact PC/Server systems.

Across the Board Programming Interface

Port your application to Diva Server once, then your work is done. Whether using industry standard CAPI and TAPI, or the Diva Server API via the Software Development Kit (SDK), an application designed to work with any Diva Server adapter can be used with the Diva Server PRI/E1/T1-8 without modification. This allows application developers and system integrators to minimize porting effort and reduces time to market.

State-of-the-Art Operating Systems Supported

Diva Server PRI/E1/T1-8 telephony adapters are ready to be used with all state-of-the-art operating systems, offering drivers for both Microsoft Windows and Linux. Even support of the latest 64-bit edition of Windows Server 2003 and Window XP is readily available. Diva Server for Windows 2000/2003/XP is officially certified by the Windows Hardware Quality Labs (WHQL).

Superior Scalability and Flexibility

Up to eight Diva Server adapters – offering from 2 to 240 channels - can be installed and operated concurrently in a single server. All types of Diva Server adapter, including Analog, ISDN BRI, ISDN PRI or E1/T1, can be mixed and matched.

Easy to Install and Configure

Ease of installation is assured as all Diva Server PRI/E1/T1-8 adapters conform to Plug and Play standards, eliminating the need to manually configure your server. A GUI-based tool makes configuration simple and straight -forward.

Technical Specifications

Hardware	• 64-bit RISC CPU, 300 MHz, 420 MIPS
	• 10 x DSP, 33 MHz, 60 MIPS each
	• Telephony Interface
	  - RJ-45 connector, software-selectable E1/T1 interface
	  - ISDN Primary Rate Interface (PRI) configuration
	  - High-Impedance Mode for passive monitoring
	• Physical dimensions:
	  - 176,41 mm x 106,68 mm
	  - 189,72 mm x 126,37 mm (incl. bracket and retainer)
		• 32 MB onboard SDRAM Memory
		• Host Interface
		  - Half-size PCI form factor
		  - PCI 2.2 up to 66 MHz
		  - 3.3/5 V universal signaling
		  - PCI Plug and Play
		  - Scaleable to 8 adapters per system

Environmental	• Operating temperature: 10°C to 50°C • Storage temperature: 0°C to 70°C	• Operating humidity: 10% to 90% (non-condensing)
Power	• Power consumption: 650 mA @+5 V typical	• Maximum tolerance in power supply variation: -5% to +5%
Warranty	• 5 year warranty	
Certifications and Approvals	• EMC: FCC part 15, ICES-003, EN55022, EN55024 • Safety: UL 60950, CSA 60950, EN 60950	• Telecom: TIA 968-A (FCC part 68), IC CS03, TBR4 • CE Mark
Driver Software	• *Supported Operating Systems:* Microsoft: Windows 2000, Windows 2003 Server, and Windows XP, including 64-Bit Editions. Linux: Red Hat, SuSE and Debian distributions • *Application Interfaces:* Microsoft: WAN Miniport, COM Port, CAPI 2.0, TAPI, Diva Server API (SDK) Linux: TTY, CAPI 2.0, Diva Server API (SDK) • *M-Adapter Feature (patent pending):* Combined Virtual Adapter, Internal Call Transfer,Explicit Call Transfer Emulation	

Call Control Features

D-Channel and Signaling Protocols	ETSI-DSS1 (Euro-ISDN), NI-1 (North America National ISDN 1), 1TR6 (Germany), NET3 (Belgium), VN3/4/6 (France), 4ESS (AT&T), 5ESS (AT&T), 5ESS (Lucent), DMS100 (Nortel), T1/RBS (Robbed Bit Signaling), INS-64 (Japan), INS-1500 (Japan), Australia on-ramp, Q-SIG, E1/R2 (China), E1/R2 (India), Channelized E1, External Signaling (transparent D-channel), Direct Access Mode (no signaling), Network Termination (NT Mode)
ISDN Supplementary Services	Number identification services (CLIP, CLIR, COLP, COLR, KEY, MSN, DDI, SUB), Call offering services (TP, CFU, CFB, CFNR), Call completion services (CW, HOLD, ECT), Charging Services (AoC), Three-party conference, Large Conference

Media Processing Features

	Basic, available for up 24 (T1) and up to 30 (E1) concurrent connections	**Enhanced, additionally available for up to 8 concurrent connections**
B-Channel Protocols	Transparent HDLC, Transparent (Voice), Synchronous PPP and MLPPP, X.75 (LAPB), X.25, T.90NL, T.70NL, Rate adaptation (56 kbps), V.42bis, V.120, PIAFS	T.30, Modem up to V.90, V.42, V.110
Voice and speech	G.711, Full-duplex voice, "barge-in", DTMF Detection and Generation, Recording and Playback, OKI ADPCM, 8 KHz sampling, Audio Tapping	DTMF Clamping and Filtering, Generic Tone detection and generation, Voice Activity Detection, Silence Detection, Human talker detection, G.168 echo cancellation
Switching & Conferencing	On-board switching, Cross-board switching	Automatic Gain control (AGC)
Voice over IP (VoIP)	–	Voice codecs: G.711, G.726, GSM, G.168 echo cancellation, Adaptive jitter buffer, Voice activity detection (VAD), Comfort noise generation (CNG)
Fax Support	Fax group 4	Fax class 1 and 2, Fax Group 3, V.17, V.29, V.27ter, V.21, V.34 Modulation, Up to 33.6 kbps (send and receive)
Remote Access (RAS)	Via HDLC, V.90, GSM, V.120, X.75	via GSM (V.110), via analog modem (up to V.90)

Ordering Information

Product Name	Product Code
Diva Server PRI/E1/T1-8 – International	306-206
Diva Server PRI/E1/T1-8 – North America	306-207
Diva Server PRI/E1/T1-8 – Australia	306-227
Diva Server PRI/E1/T1-8 – China	306-245

National variants might be available. Please contact the Eicon Networks office in your region or look at www.eicon.com for further information.

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