WorldNet Milano

WorldNet Milano is a full duplex, multi-channel audio codec offering both fixed line and ISDN connection. It incorporates both Standard and Enhanced apt-X™ and comes with optional SMPTE timecode. WorldNet Milano has been designed to deliver high quality audio for post-production facilities, studio to transmitter, studio to studio links and outside broadcast applications.

The apt-X™ algorithm is in daily use throughout the world delivering superior audio quality over countless networks and is the defacto standard across the professional audio industry. apt-X™ is a real time digital audio data reduction system that compresses audio samples by a factor of 4:1 with no perceivable audio degradation and negligible coding delay. Offering resilience to multiple coding, apt-X™ overcomes the problems associated with multiple psycho-acoustic passes of audio in the broadcast chain. Enhanced apt-X™ offers 16, 20 and 24-bit resolution and increases both stereo and mono audio channel performance. It also offers a reduction in coding delay, improvements in audio quality and increased dynamic range.

WorldNet Milano offers key benefits for studio and broadcast audio networking :-

- Available audio bandwidths from 10Hz through to 22.5kHz with corresponding synchronous bit rates from 56kbit/s to 576kbit/s (512kbit/s ISDN)

- Incorporates both Standard and Enhanced apt-X™ thus ensuring backward compatibility with previous APT products

- Optional SMPTE timecode

- Flexibility of use over both dial up ISDN networks and permanent digital links such as T1, E1, Satellite or Microwave.

- S and optional U ISDN interfaces

- Auxiliary data to 9600 Baud for additional control and data transmission, such as RDS

- Inverse multiplexing of up to 4 ISDN lines (8 Bearer channels)

- Analog and AES/EBU I/O capability on a standard XLR-3 audio interface

- Operational setup and monitoring through front panel control and display

- 5 status alarms and 4 opto-coupled I/PS for remote status

- Speed-dial redial back-up facility in the event of line failure

- Headphone monitoring of I/PS or O/PS with volume control

APT
AUDIO PROCESSING
TECHNOLOGY
Website: www.aptx.com

WorldNet Milano

Technical Specification

Physical

Size	1U x 19″ rack mount (44mm x 482mm x 255mm)
Weight	2.25kg
Power Supply	100-250VAC, 50-60Hz (optional 48 DC supply)
Power Consumption	<25W
Environmental	0°C to 55°C , 95% humidity

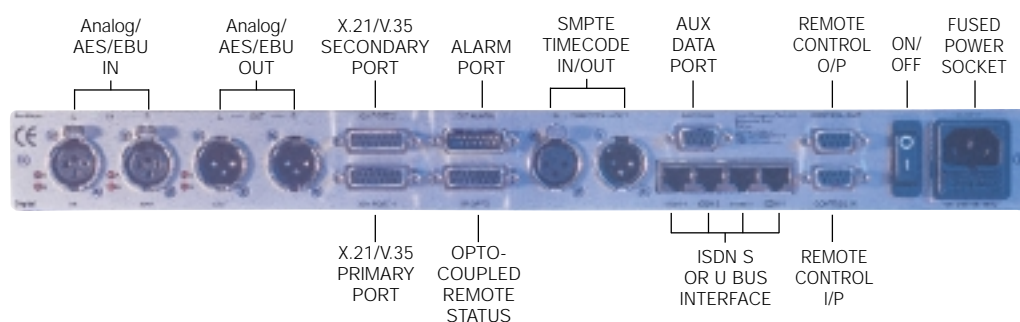### Interfaces

ISDN	S/U Interface, 4xRJ45, Rates 56-512 kbit/s
X.21/V.35	15 Way D type DTE Interface, RS422 levels, Rates 56-576 kbit/s
Aux. Data	9 Way D type, RS232 level
Data Rates	1200, 2400, 4800, 9600 Baud
Digital Operation	Audio I/O, AES/EBU, Balanced XLR-3
	Impedance 110Ω
	Digital Reference Input, XLR-3
Analog Operation	Balanced XLR-3
	Input Impedance >10kΩ/600kΩ
	Output Impedance <50Ω/600Ω
Alarms	15 Way D type
Timecode I/O	XLR-3
Opto-coupler	15 Way D type

Audio

Sampling Frequencies:	
Digital Operation	32kHz, 44.1kHz, 48kHz
Analog Operation	8kHz-48kHz
Sample Rate Convertor	3:1 (with bypass modes)
Audio Bandwidth:	
Digital Operation	10Hz through to 22.5kHz mono & stereo
Analog Operation	10Hz through to 22.5kHz mono & stereo
Source Coding	Standard and Enhanced apt-X™
Compression Ratio	4:1
Coding Delay:	
Standard apt-X™	2.5ms @ 48kHz
Enhanced apt-X™	1.9ms @ 48kHz
Dynamic Range	16-bit > 85dB, 20-bit > 105dB, 24-bit > 110dB
Phase Response	Linear : DC to $F_S/2$
Pass Band Ripple	<-0.2dB

Back panel view.

Analog/ AES/EBU IN — Analog/ AES/EBU OUT — X.21/V.35 SECONDARY PORT — ALARM PORT — SMPTE TIMECODE IN/OUT — AUX DATA PORT — REMOTE CONTROL O/P — ON/ OFF — FUSED POWER SOCKET

X.21/V.35 PRIMARY PORT — OPTO-COUPLED REMOTE STATUS — ISDN S OR U BUS INTERFACE — REMOTE CONTROL I/P

NB: All specifications are subject to change without notice.
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Contact Details :

Corporate Headquarters

Audio Processing Technology Ltd

Edgewater Road

Belfast, BT3 9JQ

Tel: +44 28 9037 1110

Fax: +44 28 9037 1137

US Office

Audio Processing Technology Inc

6255 Sunset Boulevard, Suite 1025

Los Angeles, CA 90028

Tel: +1 323 463 2963

Fax: +1 323 463 8878

Japan Office

Audio Processing Technology KK

2-14-4 Shinonome

Kouto-Ku

Tokyo 135-0062

Tel: +81 3 3520 1020

Fax: +81 3 3520 1022

Website: www.aptx.com

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