The ORBAN
OPTICODEC 7600

A Legendary Codec

The new ORBAN OPTICODEC 7600, designed and engineered by our German engineering team in Ludwigsburg, is the next step forward in audio transmission using ISDN – X.21 – V.35 – TCP/IP and POTS. The ORBAN OPTICODEC 7600 is the natural successor of one of the most used codecs the MusicTAXI.

The OPTICODEC 7600 is an extremely powerful codec using the latest MOTOROLA DSP (we do not use PC processors). With our unique AUTOMATIC CODEC DETECT function, you do not have to worry about what codec is on the other side.

It is one of the easiest codecs to work with, whether you are using only the front panel control, or our OPTICODEC-PC remote. Everything is straight forward. Simplicity comes first.

With the POTS interface you can use your analog telephone system to send a contribution. The POTS interface uses the latest codec aacPlus™ allowing High Audio Quality at low bit-rates.

In 2003 we started our cooperation with AETA France, and as a result we offer full AETA 4SB ADPCM compatibility. AETA ADPCM is the perfect codec when transmitting sports-events. The delay is less than 7 ms.

When using OPTICODEC 7600 on a LAN/WAN/ATM/Internet you will appreciate our Windows 2000/XP based NETControl remote control software. NETControl allows you to monitor/configure and connect any ORBAN OPTICODEC connected to your network.

The OPTICODEC comes with up to 3x ISDN (64 – 384 kbps) , 1x X.21/V.35 – 10/100 Base T – Alarm/Control Interface – Remote Port / Ancillary Data Port over RS232 or USB Full speed – External Sync on BNC – AES/EBU and Analog I/O on XLR.

We currently support the following algorithms: MPEG 1 Layer II and III – MPEG 2 Layer II and III – aacPlus™ – 4SB ADPCM (AETA standard) – G.711 – G.722.

orban europe

www.orban-europe.eu

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SPECIFICATIONS

DESCRIPTION: Fully duplex audio codec with ISDN and Ethernet 10/100-Base-Tx connection for remote control and the possibility to distribute audio over networks such as Intranet, ATM, etc.. SIP/RTP for audio over IP.
Additionally, an X.21 or V.35 interface as well as optionally up to three ISDN interfaces or mixed with POTS interfaces. Configuration and operation directly with the keypad. High resolution graphical display.

DIMENTIONS: 19", 2 U, depth: 340 mm, weight: approx. 6 kg.

POWER SUPPLY: 90 ... 240 V AC, 50 – 60 Hz,
0,28 ... 0,13 A, max. 30 VA.

AALGORITHMS: ISO/MPEG 11172-3 Layer 2 (MUSICAM) MPEG 1 & 2
ISO/MPEG 11172-3 Layer 3 MPEG 1 & 2
4SB ADPCM (optionally; in mono or stereo)
AAC, aacPLUS™ (optionally)
Linear 8, 12, 16, 20 and 24 bits (in mono and stereo
G.711 and
G.722 with H.221 and SRT.

TRANSMISSION DATA RATES: Ethernet: 8 ... 2304 kbps.
ISDN: n x 64 kbps (n=1 to 6).
X.21: 32, 64, 96, 128, 160, 192, 224, 256, 320, 384 kbps.

AUDIO MODES: Mono, Dual Mono, Stereo, Joint Stereo.

SAMPLING FREQUENCIES: 16, 22.05, 24, 32, 44.1 and 48 kHz.

ANALOG AUDIO INTERFACES: Input: 24 bit, adjustable level range from –4 to 21 dBu, impedance >10 kΩ / 600 Ω.
XLR-type female.
Output: 24 bit, adjustable level range from –4 to 21 dBu, impedance <50 Ω. XLR-type male.

DIGITAL AUDIO INTERFACES: AES/EBU input and output according to IEC 958 prof. Format.

EXTERNAL SYNC (Selectable via menu)
- DISABLED (Word clock is generated from the ISDN transmission clock)
- DIGITAL IN (Word clock is generated from the AES input signal)
- SYNC IN (Word Clock is taken over from the SYNC IN)

SAMPLE RATE CONVERTER (Standard for input and output):
32, 44.1 or 48 kHz.

ANCILLARY DATA: 0, 1200, 2400, 4800, 9600 baud.

ALARM/CONTROL INTERFACE WITH RS232: 8 bit optocoupled bidirectional alarm port and additional RS232 for remote control or ancillary data.

X.21 OR V.35: Serial transmission interface (32 .. 384 kbps).

PC REMOTE CONTROL: With RS232 or USB Full speed.
NETControl software for the remote control of one or more OPTICODEC 7600 units over the 10/100 Base-Tx interface using a PC.

HEADROOM ADJUSTMENT: Via menu from 0...20 dB.

FREQUENCY RESPONSE: 20 Hz to 20 kHz, +0.5/-1 dB.

SIGNAL-TO-NOISE RATIO: Weighted >80 dB, unweighted >85 dB.
DISTORTION (THD+N): (With a 20 kHz filter, to f=5 kHz) at maximum level <0.06%.

CROSSTALK ATTENUATION: (Ratio) at 1 kHz › 100 dB.

PHASE ERROR: <1.5 degree.

ISDN INTERFACES: RJ45 for S_0 connections and RJ11 for U connections.

ISDN EXTENSION: 'Plug In' module for master board. Extendible up to 3x S_0 and 3x U.

ISDN D-CHANNEL PROTOCOLS (Selectable via menu): There are including: EURO (DSS1), NATIONAL 1/2 (North America), JATE (Japan), AT&T (USA), VNx (France) and AUSTEL (Australia).

ISDN SYNCHRONIZATION (Selectable via menu):
- Bonding for MusicTAXI
- Sync for CDQPRIMA, CDQ2000 and Telos Zephyr in Stereo (Layer 2), 64 & 128 kbps
- Sync for Telos Zephyr in Stereo (Layer 3), 64 & 128 kbps
- AETA Sync for 4SB ADPCM (optionally)
- No Sync / No Sync Inverse
- G.722/H.221 / G.722/SRT
- AUTO.

NETWORK PROTOCOLS (Selectable via menu): For all algorithms SIP/RTP.

POTS INTERFACE: For analogue telephone lines.

ISDN SETTING (Selectable via menu):
- Own number for operation at private exchange (sent during connection establishment)
- SPID number for operation on U.S. networks
- Accept incoming calls (telephone and MPEG): ALWAYS / NEVER / ASK
- Accept incoming calls: own number (MSN) check YES / NO

CONNECTION ESTABLISHMENT (Selectable via menu):
- "Directory" using built-in telephone book with 96 entries
- "Quick Dial" using entry number
- "Manually" using numeric keypad

CONNECTION MONITORING (Online menu displays):
- Peak Level Tx (send)
- Peak Level Rx (receive)
- IP address / ISDN number of connection
- Encoder configuration
- Decoder configuration
- Selected headroom setting
- Decoder SYNC of remote unit
- On-line connection time

TELEPHONE DIRECTORY: 96 entries can be configured individually:
- Name
- IP address / ISDN number
- Audio configuration
- Type of Ethernet Connection (SIP/RTP)
- ISDN SYNC mode

SOFTWARE DOWNLOAD: From Internet Server (www.orban-europe.eu) or from the CD-ROM on the PC over the RS232/ USB/Ethernet.

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