FULLY DIGITAL & NETWORKED
CONFERENCE, MEETING AND PRESENTATION
DSP SYSTEM

SENATOR™

Xavtel®

DIGITAL CONFERENCE & AEC PROCESSOR   DCP1000

DCP1000 OVERVIEW

The Senator system is a fully integrated digital conference, AEC distance and web conference system, combined in a single DSP unit. The system can be use as a "standard" conferencing system, as an AEC distance conferencing or a USB web-conferencing system while the optional AEC-Card is installed in the DCP1000. With a single DCP1000 processor, it is possible to connect up to 504 Delegate Units via 63 DDB104 Mic Junction Boxes and up to 64 DCA660 digital 6Ch. amplifiers. The integrated 64Ch. Xavnet Audio Network connects to the CDM-Net-Loop Cards guarantees a high speed performance and can be cabled in a redundant. An entire system can connect up to 32 DCP1000 processors via the optional DCP-Net-Loop cards, which are available with either CAT or Fiber Optic connections.

The state-of-the-art audio quality is guaranteed by the fact that each microphones can be individually processed with AGC, 8 Band PEQ, Voice Activated Gate, Hi/Lo Pass Filters, Feedback Suppressors and Gain-Sharing Auto Mixers and AEC(Acoustic Echo Cancellation). The industry first technology of Auto-Mix-Minus Calibration will automatically adjust the suitable parameters to prevent the feedback of the system for every room.

This not only helps for the first system setup, but also when the seating in the room changes. The Senator system supports an NOM of 8 microphones activated simultaneously(changes to NOM of 4 if AEC is activated). The processor has another independent balanced Line In/Out channel, allowing to either connect a microphone(incl. 48V phantom power) to the output to any audio mixer, or to integrate the Senator system to an existing video conferencing system(optional AEC-Card needed). Furthermore, the DCP1000 has a stereo line Input/Output to feed the system with any audio source, or to connect to an audio recorder.

The redundant CDM-Net-Loop which connects the DDB104 Mic Junction Box, and DDB104 box connects to up to 4 Delegate Units has assured the highest possible security. The DCP1000 also contains an RS232 port for 3rd party control(cameras, projectors, etc.) and uses the Ethernet port for either the control and programming of the Senator system, or as the interface to provide VoIP and SIP functionality if the optional AEC-Card is installed into DCP1000. The USB port on the front of DCP1000 provides the ability to record a whole conference. The system will automatically create time stamped recordings in MP3 format. Up to 6 channels of simultaneous translation are integrated into the system. The PC/Laptop based Senator Designer suite software will enable the user to program and control the entire system configuration and any DSP parameter adjustment. The Senator system provides 5 different conferencing modes(FIFS, FIFO, Priority, Delegate Request RQ and Chairman Mode).

FEATURES

· Up to 504 delegate units and 64 DCA660 amplifier can be connected to a single DCP1000

· Up to 32 DCP1000 can be connected via the 64 Ch. Xavnet digital audio network

· Each connected delegate unit will be processed individually and all parameters will be stored in the DCP1000

· Enhanced DSP functions such as 8 Band PEQ, AGC, Feedback Suppressor, Gain Sharing Auto Mixer and Voice Activated Gate

· Optional AEC-Card(Acoustical Echo Cancellation) can be installed in the DCP1000, enabling SIP and VoIP for distance and web conferencing

· Special features like Auto-Mix-Minus Calibration, USB recording, 6Ch. simultaneous translation on board

· Ease of use and setup with auto network deploy and special drag 'n' drop functions with the Senator Designer software
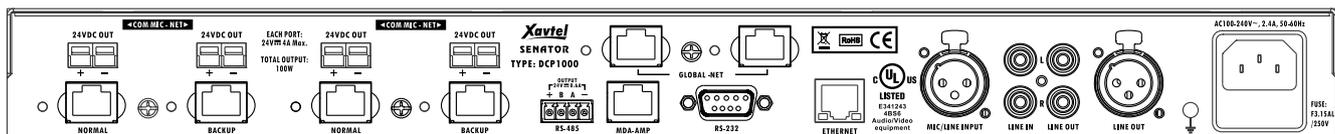
ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The DCP1000 is the digital DSP controller of the Senator system. It has 2 CDM-Net-Loop card slots: One card is on board, and the other optional card can expand the system to 2 redundant loops for up to 504 Delegate Units, connecting thru the DDB104 digital Mic Junction Box via CAT5/6 or Fiber Optic cables. Using the digital link(MDA) between DCP1000 and DCA660 distribution amplifiers allows to cascade up to 64 units via CAT5/6. The DCP1000 supports multiple interfaces like USB2.0 connector(recording), XLR balanced line In/Out, RCA stereo line In/Out, RS485, RS232 and an RJ45 Etherne t port. Audio recording, 3rd party control, even controlling PTZ cameras can be easily handled.

In addition, the DCP1000 processor integrates the DSP functions such as Voice Activated Gate, AEC, PEQ, AGC, Feedback Suppressor, Hi/Lo Pass Filter. Each of them can be adjusted, stored and processed individually for every connected microphone. Moreover, with the optional AEC Card(Acoustical Echo Cancellation) installed, the Senator system is capable to use VoIP and SIP functionality for distance and web-conferencing applications. The outstanding function of Auto-Mix-Minus calibration in conjunction with the DCA660 amplifier makes the Senator system a very unique and ease of use and setup. Multi-purpose conference, presentation, meeting, distance and web-conferencing system will all functions and fully integrated.

Electrical	
Mains power	100 ~ 240 VAC ± 10 %, 50/60 Hz
Power consumption	12 watts
Maximum supply	130W for DDB104 boxes and microphone
Frequency response	20 Hz ~ 20 kHz @ -1 dB
THD+N	< 0.05 %(1 kHz @ 0 dBu)
Sampling	
A/D-D/A converts	24 Bit
Sample rate	48 kHz
XLR/ Mic Input	
Phantom power	24V
Input dynamic range	> 92 dB(20 Hz ~ 20 kHz @ 0 dB)
Input gain range	0 ~ 54 dB(6 dB steps)
Maximum input level	12 dBu
Input impedance	8 kΩ
EIN	< -124 dBu (20 Hz ~ 20 kHz @ 54 dBu)
CMRR	< -80 dB @ 54 dBu(1 kHz)
RCA/Line Input	
Maximum input Level	12 dBu
Input impedance	12 kΩ
SNR	> 92 dB(20 Hz ~ 20 kHz)
XLR/Line Output	
Maximum output level	12 dBu
Output impedance	100 Ω
RCA/Line Output	
Maximum output level	12 dBu
Output impedanc	70 Ω

Front Panel	
USB 2.0 connector	
Eight activated mic channel LED	
Network LED, mic-link LED, Ethernet LED, MDA LED, input LED, REC LED and power LED	
Rear Panel	
CAT5/6 or fiber optic connector for CDM-Net loop x 2	
RS485 and RS232 connector for third party control	
CAT5/6 connector for DCA660 amplifiers	
RJ45 connector for ethernet	
XLR connector for mic input and line output	
RCA connector for line input and line output	
AC power connector with 5A fuse	
Dimension & Weight	
Width	19"(482 mm)
Depth	8-1/4"(210 mm)
Height	1-3/4"(44 mm)
Weight	5.5 lbs(2.5 kg)
Color	
PANTONE 7546C	
Environment	
Operating temperature	23ºF ~ 131ºF(-5ºC ~ 55ºC)
Storage temperature	-40°F ~ 158°F(-40°C ~ 70°C)
Relative humidity	5 % ~ 70 % noncondensing
Certifications	
CE marked, UL listed, RoHs compliant	

Rear Panel

ATEïS Europe B.V.
Celsiusstraat 1, 2652 XN Lansingerland, Netherlands
Phone +31 (0)10 208 86 90, www.ateis-europe.com, info@ateis-europe.com