

CU 6110 Central Unit

- Central processor for the DCS 6000 Digital Conference System
- Controls a system with up to 3,800 conference units
- Supports up to 31 interpretation channels
- Provides microphone and voting control
- TCP/IP Ethernet interface
- Reply function allows brief comments or questions without interrupting the speaker list or request queue
- Web browser control
- Eight analog outputs (group or interpretation channels out)



Description

The CU 6110 is a system controller for the DCS 6000 Digital Conference System. It is used for installations ranging from small systems with only a few conference units, to large systems with thousands of conference units, channel selectors, interpretation and voting facilities.

The CU 6110 controls a system of up to 3,800 conference units and 150 interpreter units. Units are connected in a single bus cable structure known as the DCS-LAN; a proprietary high-speed digital audio, data and power bus. Units are connected in series daisy chained using CAT 5e (or higher) F/UTP or U/FTP cables, enabling highly flexible and inexpensive installations. To expand the number of participants, simply add inline data repeaters, junction boxes and power supplies to support thousands of participants in multiple languages.

The CU 6110 features fully digital audio transmission of the floor channel, 31 interpretation channels and audio from the conference units at the same time. The audio from units can be combined into eight groups using a built-in group matrix.

The CU 6110 features two analog audio inputs and eight analog audio outputs. The eight analog audio outputs are routed from eight groups of conference units, the floor mix or the interpreter channels. This is useful for connecting to external PA systems, recording audio, or language distribution systems like the DIS Digital Wireless Infrared System. An Emergency Evacuation Message (EEM) is available using input 2 and a contact closure switch, overriding the audio content in the event of an emergency.

The OLED display on the front of the unit enables the user to setup basic system configurations in terms of maximum number of speakers/requests, microphone operation mode etc.

The CU 6110 provides a web interface that is accessed from a mobile device or computer over TCP/IP. The interface allows system setup and simple microphone control from any computer connected to the network. For advanced system management and conference control, SW 6000 Conference Management Software is available. The CU 6110 also provides a simple to use protocol for external control over Ethernet.

Features

The CU 6110 has the following features:

- System control for the DCS 6000 Digital Discussion system
- Powers up to 60 units without an extra power supply
- Supports a system of up to 3,800 conference units and 128 interpretation stations
- Supports up to 31 interpretation channels and a floor mix of up to eight open microphones
- Expanded functionality with SW 6000 Conference Management software
- Multi-language web browser for system configuration, microphone control and basic operational parameters
- RJ-45 ports provide power, audio, and control transport across a chain of chairman, delegate, and interpretation units
- Daisy-chain topology with loop-through connections or star topology
- Digital audio transmission with proprietary codec algorithm prevents unauthorized listening of the audio signal
- DCS-LAN connection using CAT 5e (or higher) shielded F/UTP or U/FTP cabling
- Supports Reply functionality to briefly comment or ask a question to the present speaker
- Support for 4 microphone modes; Automatic, FIFO and Manual and VOX (voice activation)
- Four analog audio outputs for group or interpretation channels
- TCP/IP Ethernet connection for browser control, SW 6000 and third party external control (AMX, Crestron etc.)
- Built-in table for attaching seat numbers/names to units using a browser

Upgrade the CU 6110 with feature licenses for the following features:

- Control of up to 3,800 conference units
- Up to 31 interpretation channels
- Voting (3- and 5-button, attendance check)
- Microphone operation mode VOX (voice activation)

Specifications

System Performance

The following table provides maximum number unit and channel counts per DCS 6000 system.

Max. number of conference units	3,800
Max. number of open "floor" microphones	8
Max. number of languages (interpreter channels)	31
Max. number of interpreter units	System: 128 In each booth: 32
Max. number Audio Output Units	20
Max. number Channel Selectors	Unlimited

Network

DCS-LAN outputs	Four (4) RJ45 female sockets
TCP/IP	One (1) RJ45 female sockets

Audio

Audio inputs

Analog Inputs	Two (2) 3-pin female XLR socket (electronically balanced)
Emergency input - EEM	Input 2 with contact closure
Nominal input level	switchable: • 0 dBm (0.775V RMS) • -10 dBm (0.245V RMS)
Max. input level	+15 dBm (4.5V RMS)
Input Impedance	50-100 kΩ

Audio outputs

Analog audio out	Eight (8) 3-pin male XLR sockets (electronically balanced)
Maximum load	> 1 k ohm
Nominal output level	0 dBm at nominal input
Max. output level	4.9V RMS ~ +16 dBm

Electrical

Power consumption	25W/48V (150W max.)
Supply voltage for discussion units	119W/48V
Sound quality	24 bit audio, 32 kHz sampling frequency
Frequency response	65 Hz-16 kHz
THD	< 0.1 %
Signal-to-noise ratio	> 85 dBA

Mechanical

Mounting	• tabletop • standard 19" rack
Dimensions (H x W x D)	44.4 x 426 x 186 mm (1.75 x 16.8 x 7.2 in.)
Color	Black
Weight	2.8 kg (6.17 lbs.)
Temperature range	Storage: -20° to 60° C, 10-80% humidity Operation: 5° to 40° C, 35-80% humidity

PS CU External Power Supply (SNP-A15T):

Main voltage	100-240 V, 50-60 Hz nominal
Max. consumption	175 W
Total supply power	144 W (power factor: >0.9)
Standby consumption	<0.5 W (no load)
Supply voltage	48V/3A @ 40° C ^[1]
Efficiency	87%, typical
Inrush Current	• 230 V: <80 A • 115 V: <40 A

[1] De-rate linearly to 50% @ 60° C



Certifications

The DCS 6000 system conforms to standard IEC 60914.

How To Order

Central Unit for DCS 6000 system. Includes license for 50 conference units and 4 interpreter channels (maximum of 3,800 units and 31 interpretation channels can be added with upgrade licenses). **CU 6110**

Included Accessories

- PS CU in-line, universal power supply with mains cable
- Terminal block for EEM connector
- 19" rack brackets
- USB memory stick with user manuals

Feature Licenses

Number of units; max 100	FL 6000 1B
Number of units; max 500	FL 6000 1C
Number of units; max 1000	FL 6000 1D
Number of units; max 3800	FL 6000 1E
Voice Activation (Vox); max 50 units	FL 6000 3A
Voice Activation (Vox); max 100 units	FL 6000 3B
Voice Activation (Vox); max 500 units	FL 6000 3C
Voice Activation (Vox); max 1000	FL 6000 3D
Voice Activation (Vox); max 3800 units	FL 6000 3E
Voting; max 50 units	FL 6000 4A
Voting; max 100 units	FL 6000 4B
Voting; max 500 units	FL 6000 4C
Voting; max 1000 units	FL 6000 4D
Voting; max 3800 units	FL 6000 4E
Interpretation channels; 1-8	FL 6000 5-8
Interpretation channels; 1-16	FL 6000 5-16
Interpretation channels; 1-31	FL 6000 5-31

Connection Cables for DCS-LAN

0.5 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-0.5
1 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-01
2 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-02
3 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-03
5 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-05
10 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-10
20 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-20
30 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-30
50 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-50

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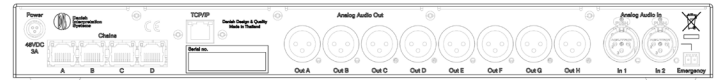
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Advanced Setup

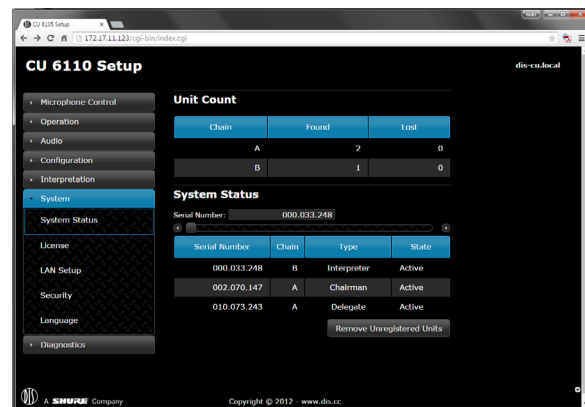
Distribution box with 4 outputs. DCS 6000 and DDS 5900 systems	JB 6104
DCS-LAN extension unit for additional 160 conference units	EX 6010
DCS-LAN Power Kit	PS 6001

Drawing

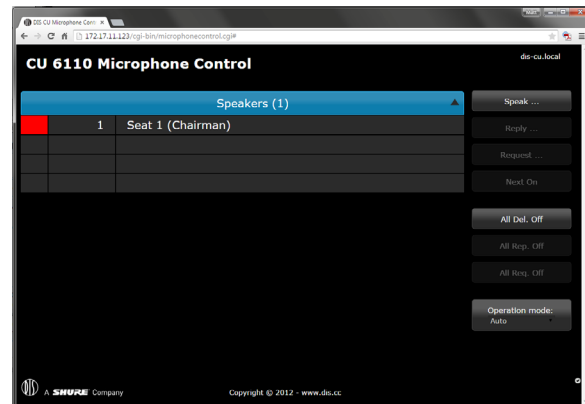


Back Panel

Browser Interface



Setup and Configuration



Microphone Control

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