

CU 5905 Central Unit

- Control of up to 250 discussion units
- Support for 2 interpretation channels
- Web browser interface for mic control & configuration
- TCP/IP control interface
- Emergency connection (EEM)
- 4 configurable analog audio out



Description

The CU 5905 is the controller in the DDS 5900 Digital Discussion System.

It controls and supplies power to the chairman/delegate discussion units and interpreter units and operates up to 250 discussion units and 32 interpreter units in a single bus cable structure known as the DCS-LAN; a proprietary high-speed digital audio, data and power bus. All units are connected to the DCS-LAN in daisy chains using standard CAT 5e (or higher) F/UTP or U/FTP cables.

The CU 5905 features fully digital audio transmission of the floor channel, two interpretation channels and audio from up to eight discussion microphones at the same time. The audio from units can be combined into four groups using a built-in group matrix.

The CU 5905 features one analog audio input and four analog audio outputs, the four analog audio outputs are used for distribution of audio from the four groups, the floor channel or one of the two interpreter channels. This is used either for connection to external PA systems, for recording purposes or for connection to a language distribution system, like the DIS digital wireless infrared system.

The sound for the built-in loudspeakers in the discussion units is taken from Group A and/or from the Analog Audio In 1 XLR sockets.

Connection for Emergency Input (EEM) is available as well, using Analog Audio In 2 and the contact closure switch. When activated the signal on Analog Audio In 2 is available in the loudspeakers and in the headphones.

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

All system settings are available in a web browser interface. The CU 5905 provides TCP/IP communication for external control over Ethernet.

The DCS-LAN chain can be branched using repeater RP 6004 or extension unit EX 6010. Additional units can be powered using power supplies PS 6000 or extension unit EX 6010

Inserting JB 6104 junction boxes in the DCS-LAN chain enables hot plugging of single units. Each JB 6104 junction box features the connection of a single unit to each of the four outputs on the junction box.

Features

The CU 5905 has the following features:

- Fully digital audio transmission
- Support for four microphone operation modes; Automatic, FIFO Manual and VOX (Voice activated On/Off of the microphone)
- Support for delegate interrupt mode
- Auto Off of the microphones
- Scrambled audio to prevent eavesdropping
- Powers up to 60 units without the use of an additional power supply
- Control of up to 250 discussion units
- Connection of up to 32 interpreter units
- Up to eight simultaneous open microphones
- Floor + two interpretation channels
- Four analog audio outputs, configurable as a 'group out' or 'interpretation channels out'
- DCS-LAN daisy chain topology with loop-through connections or hot plug connection, when using JB 6104 junction boxes
- DCS-LAN connection using shielded CAT 5e (or higher) F/UTP or U/FTP cabling
- TCP/IP Ethernet connection for external control
- Web browser interface for easy setup of the system
- Web browser interface for microphone control, request list control and basic operational parameters
- Built-in seat table for attaching seat numbers to units
- Assigning names to the seats using the web browser

Specifications

System Performance

The following table provides maximum number unit and channel counts per DDS 5900 system.

Max. number of discussion units	250
Number of discussion units powered by CU 5905	up to 60
Max. number of open "floor" microphones	8
Max. number of languages (interpreter channels)	2
Max. number of interpreter units	32

Network

DCS-LAN outputs	Two (2) RJ45 female sockets
TCP/IP	One (1) RJ45 female sockets

Audio

Audio inputs

Analog Input 1	One 3-pin female XLR socket (electronically balanced)
Nominal input level (Input 1)	switchable: • 0 dBm (0.775V RMS) • -10 dBm (0.245V RMS)
Max. input level	+15 dBm (4.5V RMS)
Input Impedance	50-100 kΩ
Analog Input 2 (Emergency input - EEM)	One 3-pin female XLR socket (electronically balanced) with contact closure

Audio outputs

Analog audio out	Four (4) 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	22W/48V (150W max.)
Supply voltage for discussion units	122W/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 DDS5900 system. Includes built-in webserver for device control.	CU 5905
In-line, universal power supply	PS CU

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
- Tool for securing the GM 59xx Gooseneck Microphone
- DC 5980 P Button Overlays
 - Chairman (x2)
 - Interpreter (x3)
 - Delegate with speech (x1)

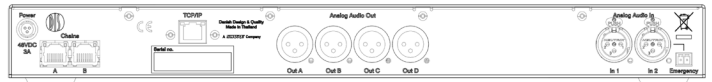
Connection Cables for DCS-LAN

0.5 m black shielded Cat5e U/FTP cable (RJ45)	EC 6001-05
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

Advanced Setup

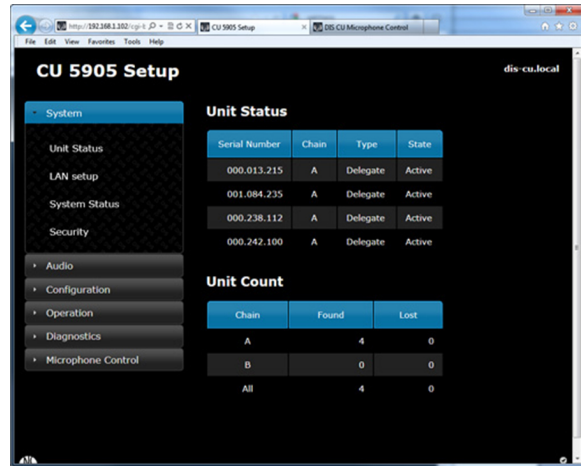
Distribution box with 4 outputs. DCS 6000 and DDS 5900 systems	JB 6104
DCS-LAN extension unit for additional 160 conference units	EX 6010
DCS-LAN Power Kit	PS 6001

Drawing

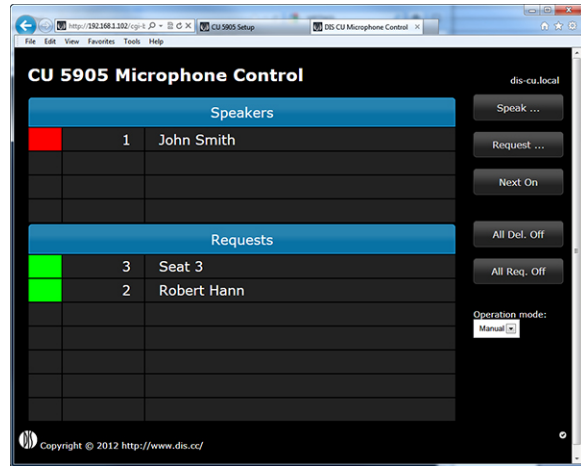


Back Panel

Browser Interface



Setup and Configuration



Microphone Control



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