DIS-CCU Central Control Unit

Overview

The DIS-CCU Central Control Unit is the centerpiece of the DDS 5900 Digital Discussion System and the DCS 6000 Digital Conference System. It distributes digital audio, control data, and power to chairman, delegate, and interpreter units over a standard shielded CAT 5e (or higher) cable in serial 'daisy-chain' topology using the proprietary DCS-LAN protocol.

The DIS-CCU includes 2 analog audio inputs for external audio sources, and 8 analog audio outputs for connection to a videoconferencing system, audio/video recorder, sound reinforcement system, or wireless language distribution system.

The DIS-CCU distributes the 'floor' audio mix plus interpretation channels to each discussion or conference unit. Up to 8 microphones may be active simultaneously. Four different microphone operating modes are supported: Automatic, First-In/First-On (FIFO), VOX (voice activated), and Manual.

A web browser interface allows microphone control and system configuration using a computer or tablet. Separate web addresses are provided for Administrator, Chairman, and Display functions. A TCP/IP connection is provided for connection to a third-party media control system.

APPLICATIONS

Interpretation Systems

Hotel / Conference Center

Education Multi-purpose Training

Corporate / Board Room

Courtroom

PRODUCT HIGHLIGHTS

Control of up to 250 DDS 5900 discussion units

Control of up to 3,800 DCS 6000 conference units with optional Feature License FL6000

2 analog audio inputs

8 configurable analog audio outputs

Description

DCS 6000 Operating Mode

As shipped, the DIS-CCU can control up to 250 DDS 5900-series discussion units and 32 interpreter units. When Feature License FL6000 has been installed, the DIS-CCU can be used with either DDS 5900 discussion units or DCS 6000 conference units (but not both at the same time). Additional Feature Licenses are available to expand the system:

•FL6000-3800

Allows control of conference units for up to 3,800 participants and 200 interpreters (with optional hardware)

• FL6000-INT-8, FL6000-INT-16, FL6000-INT-31

Allows expansion to 8, 16, or 31 languages

The DCS-LAN connection can be branched using the RP 6004 Repeater or EX 6010 Extension Unit. Additional conference units can be powered using the PI 6000 Power Inserter + PS-CCU-XX Power Supply, or by the EX 6010. Inserting JB 6104 Junction Boxes in the DCS-LAN chain enables hot-plugging up to 4 discussion or conference units.

Features

- Compatibility with either DDS 5900-series discussion units or DCS 6000-series conference units when Feature License FL6000 is installed
- Fully digital audio transmission with selectable scrambling to prevent eavesdropping
- Support for four microphone operation modes: Automatic, FIFO, Manual, and VOX (voice activated)
- Up to 8 simultaneous open microphones with Auto-Off
- Powers up to 60 discussion or conference units without the need for an additional power supply
- Control of up to 250 microphone units, 2 languages, and 32 interpreter units
- Control of up to 3,800 microphone units, 31 languages, and 200 interpreter units with optional Feature Licenses
- Two analog audio inputs for connection to external audio sources
- Eight analog audio outputs for connection to a videoconferencing system, audio/video recorder, sound reinforcement system, or wireless language distribution system
- DCS-LAN serial 'daisy-chain' topology using shielded CAT 5e (or higher) F/UTP or U/FTP cabling
- Web browser interface for control of microphones, request list, and system setup using a computer or tablet
- Separate web addresses for Administrator, Chairman, and Display functions
- Built-in seat table for assigning participant names and/or seat numbers to units

System Performance

	With DDS 5900	With DCS 6000 components and FL6000 Feature License
Maximum number of microphone units controlled	250	250 3,800 with FL6000-3800 Feature License
Maximum number of microphone units powered	60	60
Maximum number of open microphones	8	8
Maximum number of languages (interpretation channels)	2	4 8 with FL6000-INT-8 Feature License 16 with FL6000-INT-16 Feature License 31 with FL6000-INT-31 Feature License
Maximum number of interpreter units	32	200

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	Four (4) 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 (Audio In or Emergency input - EEM)	One 3-pin female XLR socket (electronically balanced) with contact closure

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	22W/48V (150W max.)
Supply voltage for microphone 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 CCU 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 Control Unit for DDS5900 or DCS6000 system.
Includes built-in webserver for device control.
In-line Power Supply not included. Order separately.
DCS6000 requires FL6000 Feature License.

Model	Description
DIS-CCU	Central Control Unit, less power supply
PS-CCU-AR	In-line Power Supply, Argentina
PS-CCU-AZ	In-line Power Supply, Australia
PS-CCU-BR	In-line Power Supply, Brazil
PS-CCU-CHN	In-line Power Supply, China
PS-CCU-E	In-line Power Supply, Europe
PS-CCU-IN	In-line Power Supply, India
PS-CCU-J	In-line Power Supply, Japan
PS-CCU-K	In-line Power Supply, Korea
PS-CCU-TW	In-line Power Supply, Taiwan
PS-CCU-UK	In-line Power Supply, UK
PS-CCU-US	In-line Power Supply, United States

Included Accessories

- Terminal block for EEM connector
- 19" rack brackets
- USB memory stick with user manuals
- Tool for securing the GM 59xx Gooseneck Microphone

Feature Licenses

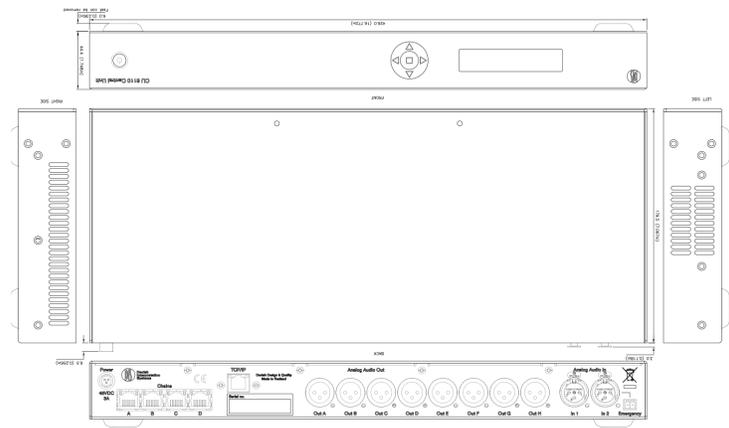| Model	Description
FL6000	Enables DCS 6000 Operating Mode
FL6000-3800	Expand to 3800 participants and 200 interpreters
FL6000-INT-8	Expand to 8 languages
FL6000-INT-16	Expand to 16 languages
FL6000-INT-31	Expand to 31 languages

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

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
Power Inserter (excl. power supply)	PI 6000
DCS-LAN Power Kit	PI 6000 + PS-CCU-XX

Drawing

Back Panel

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