

# Digital Network Conference Solution with DSP Sound Processing

## Digital Networked Wired DSP Conference Solution

### Excellency in Sound Performance

Advanced voice processing technology, with the unique design of the microphone, this unit can be accurate pickup and restore the human voice through a high-quality built-in speakers or an external PA system, original AUDIO-LINK digital ring network technology, Automatic Gain Control Volume (AGC) / automatic frequency control (AFC) technology help reach higher volume without triggering the howling effect, ensures each word spoken is well understood.

### High tech intelligence platform

Timing function, overtime reminder, voting results multi-platform synchronization, network control and meeting management, conference smart reservation, worldwide firmware real-time updates, and the integration of IT technologies ensures smart conferencing platform.

### Simple control with convenient recording

We try to use less buttons to simplify the operation, and a LCD screen helps you monitor real-time action obviously. The USB slot enable it record every important meeting discussion, to file up every contents simply

### Complete easy-handling management

The Central Unit is the center of the system –Provide power to the whole discussion units, control the cameras and link to other third-party devices. The 1U compact design is easily to put anywhere while keep a low profile in meeting room.

## INT-ICU45

### Networked Wired Central Control Unit

#### Features

- The unique AUDIO-LINK digital ring network technology achieve full-digital signal transmission and processing
- One CAT5e cable to transmit up to 64 channels audio and other signals.
- INT-ICU45 support up to 120 microphone with single device and 5200 microphone with its extension device.
- All microphone units support audio, ID independent output. Working with voice recognition system to achieve voice role separation.
- High-fidelity sound quality by lossless audio transmission technology, 48K audio sampling rate and 20Hz ~ 20KHz frequency response
- A single conference controller can realize the independent control and merging of 4 conference rooms, can handle the cascade of multiple conference controllers to realize the merging and separation of larger conference rooms (Optional).
- "Hand-in-Hand-Loop-Network" connection makes the system always working perfectly no matter changing discussion unit or having any malfunctioned units
- The sensitivity of the unit microphone and 8 segment equalizer EQ adjusted independently. Conference controller can output 16 segment equalized EQ to achieve sound field adjustment; pressure limit, which can recognize the noise gate passed by human voice. AGC automatic volume gain control; AFC automatic feedback suppression and auto-mix technology.
- Sound output by separated zones function, each zone is automatically adjusted according to the volume of the position of the microphone, achieve longer distances pickup without whistle.
- Echo cancellation, remote two-way real-time call with another conference controller or another third-party video conferencing terminal.
- USB recording, controller monitor, advanced noise cancellation technology to realize clearer recording.
- System date, time management, and support count-down speech.
- Optional DANTE output module with other DANTE equipment used.
- Can drive 2x120W POE speaker, through extension main unit, support up to 16 POE speakers.

#### Functions

- "Hand-in-Hand-Loop-Network" connection and the system assigned to each unit independently ID to avoid ID conflict.
- Only wired discussion units can connect to the controller, fast and easily to adding delegate of meetings.
- 2 channel audio input, XLR or RCA type, for local audio input or remote video-conferencing input.
- Maximum 8-channel audio output, XLR, RCA or Phoenix type, can be connected to simultaneous interpretation output or partitioned output.
- Add the audio input box, the system can be connected to other condenser microphones or dynamic microphones, more choices for users.
- Built-in multi-way internal communication function.
- TCP/IP connection between controller and PC
- RS232 central control, realize microphone switch, priority, volume and other controls.
- RS232 or RS485 to send the PELCO/VISCA protocol to realize camera auto-tracking function.

- Hot plug-and-play and auto-recovery function.
- Without using PC software, our conference controller still owns following settings:
  - Limit on the number of speaking persons: By Setting the number of active units at the same time (Number is 1/2/4/6/ units), supports up to open 32 wired microphones in full-on mode.
  - Discussion modes:

"**OPEN**" Free for all, limited by the active units setting by controller, "**VOICE**" Can activate MIC by detecting sound without press button, "**OVERRIDE**" First in First out, "**APPLY**" To apply then to speak, "**PTT**" Press to speak(Optional),"**ALL**" Full open mode(Optional).

- Voting function: Approve/Abstain/Object
- Chairman unit has priority to close all other units or mute them temporarily
- Chairman unit can consent the application for speaking from delegate
- Simultaneous language interpretation
- With PC software to add more ways of voting:
  - Approve/Object
  - Approve/Abstain/Object
  - Level: 1/2/3/4/5
  - Ranking: --/-/0/+/>++
- By using RFID card to identify, can realize voting with names.

### *Control & Indicators*

LCD display to show all the operations and results

4-Way button for menu operate

One-button press to start recording

Light indicator

Master volume control knob

### *Interfaces*

Front panel USB recording interface

3.5mm headphone for monitoring

1x RCA audio input

1x XLR audio input

1x RCA audio output

1x XLR audio output

- 6x Phoenix audio output connector
- 2x RJ45 digital audio connection
- 2x RJ45 for chairman unit, delegate unit, unit translators and other connection
- 1x RJ45 for wireless AP or router
- 1x DP9 male interface for external control
- 1x DP9 female interface for camera
- 1x three-pin phoenix interface for camera control keyboard
- 1x RJ45 for computer connection or network switcher
- 1x grounding screw
- 1x 100 ~ 240V AC Power Interface

### *Technical Parameters*

- Power 100V / 240V AC
- Static power consumption 12W
- Maximum power consumption 150W
- Frequency Response 20Hz ~ 20KHz
- Noise ratio (S / N) > 80dB
- Total harmonic distortion < 0.05%
- Channel Crosstalk > 80dB

## INT-ICC / INT-ICD

CAT5/Cat6 Wired Digital Discussion Chairman/Delegate Unit



### Features

- Stylish, low profile design with touchable interface
- Standard CAT5e and RJ45 connectors are used in INT-ICC/ICD to provide more convenient on projectand maintenance.
- The connection cable of units are either hiding underneath or from the rear of the unit, makes it convenient for different request of installation
- OLED screen, providing excellent brightness, contrast, wide viewing angle but low power consumption
- Internal high-fidelity loudspeaker
- Head-set interface in both sides with volume adjust
- Line-in interface which allows microphone or other line-in device like cell phone, laptop to pass audio through to perform teleconference
- The unique AUDIO-LINK digital ring network technology achieves full-digital signal transmission and processing, completely avoid the RF interference from cell phone or similar devices.
- "Hand-in-Hand-Loop-Network" connection makes the system always working perfectly and more reliable.
- The unit showing time/date on the screen. Timer on display to set certain time for each delegate to speak will remind user or close the MIC automatically.
- All units can be configured as Chairman or Delegate unit through software settings.

### Functions

- Single CAT5e cable transmits 64 channels of audio and various information
- High fidelity sound by zero loss audio transmit technology, 48K audio sampling frequency, 20Hz~20KHz response frequency
- "Hand-in-Hand-Loop-Network" connection makes the system always working perfectly no matter changing discussion unit or having any malfunctioned units
- This system assigned to each unit independently ID to avoid duplicate ID conflict
- AGC (Automatic Gain Control)/AFC (Adaptive Feedback Cancellation)/ANC (Active Noise Control)/Mix (Auto-Mix) technology
- Build-in functions for intercom

- Hot-swap for any system unit, and the controller has auto-recovery function
- Precise cardioid directional microphone capsule with anti-wind microphone foam, with two-color LED indicator
- Button for MIC ON/OFF, Priority & Apply Answer button for chairman unit
- Built-in high-fidelity speakers, it automatically mutes to prevent howling when press MIC ON
- Head-set interface in both sides with volume adjust
- Without using PC software, our conference controller still owns following settings:
  - Limit on the number of speaking persons: By Setting the number of active units at the same time (Number is 1/2/4/6/ units)
  - Discussion modes:
    - "OPEN" Free for all, limited by the active units setting by controller, "OVERRIDE" First in First out, "VOICE" Can activate MIC by detecting sound without press button, "APPLY" To apply then to speak

### *Control & Indicators*

Each unit with two-color LED indicator, red for speaking on microphone, green means need acceptance from chairman to speak

128x32 OLED display with volume bar, clock, time span of microphone activating, MIC ON/OFF etc. and other information.

Indicator for Volume adjustment

Indicator for MIC ON/OFF

Chairman unit with priority button and consent button for the delegates

### *Interfaces*

Pluggable gooseneck microphone base

2x 3.5mm stereo headphone jack

1x 3.5mm stereo input jack

2x RJ45 connectors

### *Technical Parameters*

Button: Touchable interface

Sound Pickup: heart type capacitance

Display: OLED display 128 × 32

Sensitivity: -46 dBV / Pa

Maximum power consumption: 2.0W

Directivity: 0 ° / 180 ° > 20 dB (1 kHz)

Input impedance: 2kΩ

SNR: 70dB

Frequency response: 20 ~ 20000Hz

Connection: CAT5 / CAT6 cable + snap

Equivalent noise: 20dBA (SPL)

Main material: ABS

The maximum sound pressure: 125dB (THD <3%)

Operating temperature: 0 °C to + 55 °C

## Pluggable Gooseneck Microphone

**INT-GM600/ INT-GM485/ INT-GM410/ INT-GM330/ INT-GM220**



### Features

- Precise unidirectional microphone head with Mini design
- Two color LED ring indicator
- anti-wind microphone foam cover
- Strong audio collection ability to work with different length of microphone

### Functions

- Two-color LED indicator on microphone, red for speaking, green means need acceptance from chairman to speak
- Screw lock socket to connect removable microphone

### Technical Parameters

Item	INT-GM600	INT-GM485	INT-GM410	INT-GM330	INT-GM220
Directivity	Cardioid				
Sensitivity	-46dBV/Pa				
Frequency response	30Hz~20KHz				
Equivalent noise	20dBA (SPL)				
Signal-To-Noise Ratio Ref	≥96dB				
Microphone Type	Condenser				
Maximum SPL (1 kHz at 1% THD, 1 kΩ load)	125dB ( THD<3% )				
Conference unit connection	Mini 6 pin.				