

AOE-212N

Audio & Data Transmit Solution



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Development Background

THE AOE AUDIO over ETHERNET NETWORK is an easy to use solution for transporting audio signals over Ethernet TCP/IP based local and wide area networks (LAN/WAN), as well as the Internet.

Applications include campus wide paging or messaging, background music, audio distribution for airports, railway stations, ground transportation, and anywhere audio required to be transported easily over long distances.

Type / Distance—Comparison

	FTA/FRA-108S	ITX/IRX-108 / ITX/IRX-102	AOE-212N
Cable Type	Single mode optical cable (SC)	UTP (Dedicated Line)	UTP (ETHERNET)
Max Distance	15km	150m	∞
Audio Channel	8CH		2CH
Sampling Frequency	24 Bit, 48kHz		24 Bit, 8~48kHz
Frequency Response	20Hz ~ 20kHz		
S/N	more than 100dB		more than 80dB
T.H.D	less than 0.01%		less than 0.1%
Data Type	RS-232C, RS-422		
Data Speed	Max. 19200bps		
Channel	8CH		
Power Source	AC 220V-240, 50/60Hz~, DC 24V		
Operating Temperature	-10℃ ~ +40℃ / 14°F ~ 104°F		
Dimension	482(W) x 44(H) x 280(D)mm / 19(W) x 3.4(H) x 11(D) in		
Optional Accessories	Optional data / Contact interface module		LAN 1:60, WAN 1:20

FEATURE

High-quality audio and data transmission

- Audio + control transmission system over a single cat 5e cable
- Long-distance transmission using Ethernet network
- Multiple transfer functions (WAN 1:20, LAN 1:60)
- Uncompressed and compressed digital audio transmission
- High-quality audio, S/N greater than 85 dB, THD less than 0.1 %
- 2-channel bi-directional Data transfer (422/232/8x8 contact I/O)
- Supports 19200bps data communication.

User-friendly

- Front panel monitor control and head output jack
- Signal indicators
- Network connection, operation, power LED
- Network information display window
- Compact 1U size
- Hardware reset switch
- Audio Input volume control
- AC, DC simultaneous power

Contractors Convenience

- Easy audio wiring using Euroblock terminals
- Balance Audio input / output
- Removable front handles

Software support

- System monitoring
- Software user security features
- Log file storage
- Transmission matrix control functionality (audio, contact support)

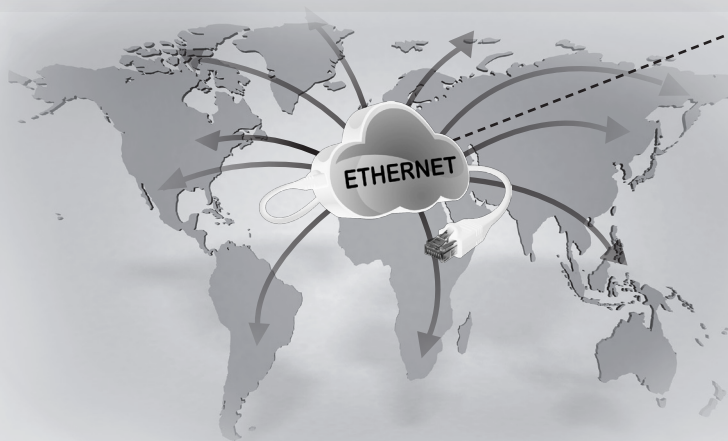


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Ethernet Transport

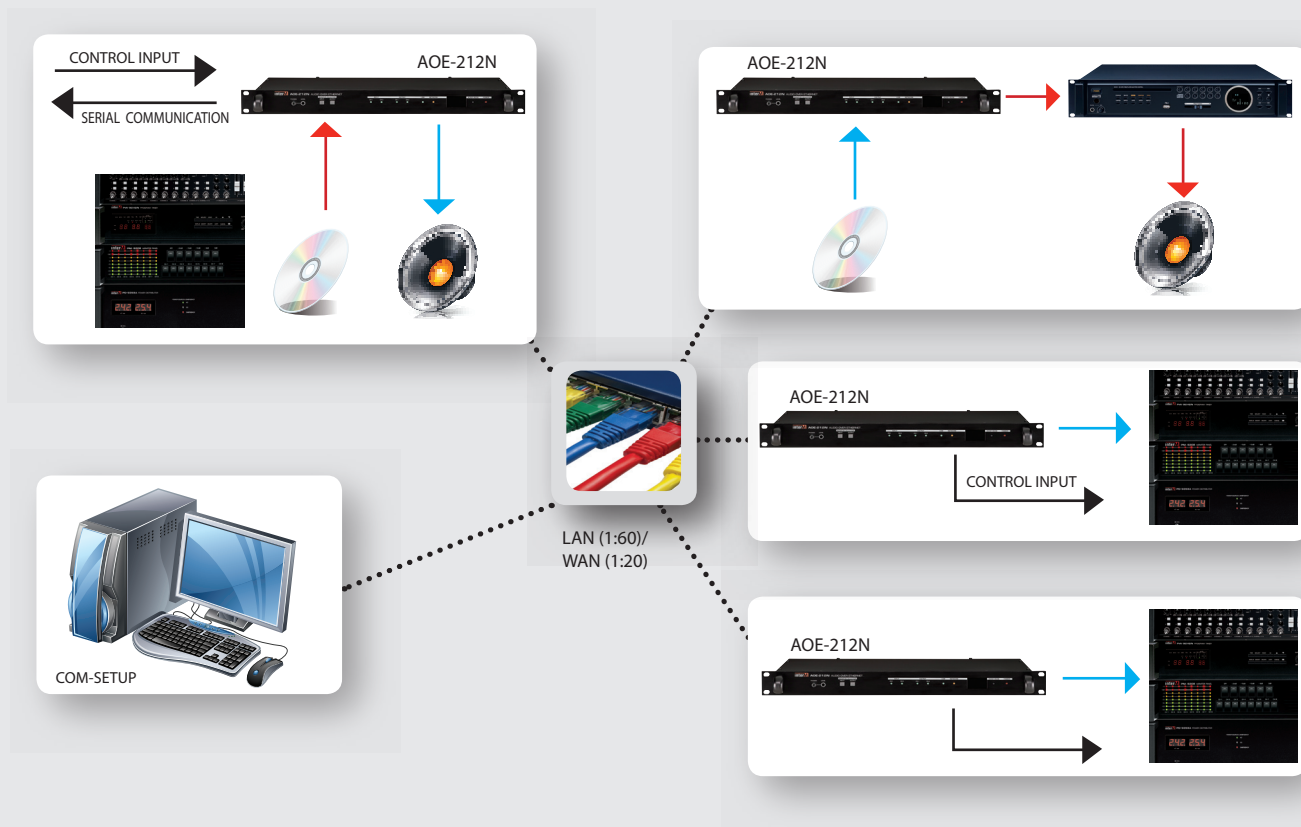
Bi-directional 2 channel audio transmission over TCP/IP LAN or WAN ethernet network. Control of local and remote equipment is possible using the built-in eight programmable trigger inputs to initiate and terminate audio transmissions, 8 programmable open connector control outputs as well as the RS-232 and RS-422 serial port for data transmission/reception.



Hi-Fi Audio

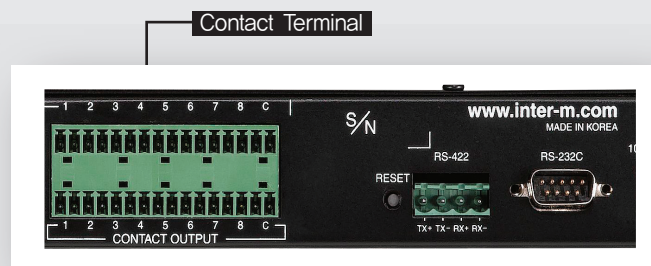
Long-distance digital transmission of balanced analogue audio signal without electro-magnetic interference, signal loss or distortion. High quality uncompressed 24bit digital audio at 48kHz transmission over TCP/IP network with a S/N better than 85dB, THD less than 0.01.

System Block Diagram



Data Tunneling

- 8 Contacts input / output dry contact
- Transfer data (422/232)
- 19200bps data transition



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Single-cable transmission

Long-distance, 2-channel bi-directional audio and data transmission system over a single cable.



AUDIO 2CH



AUDIO 2CH



Contact



RS-422

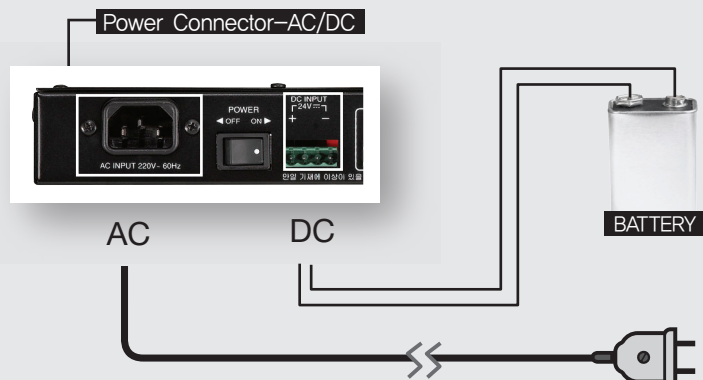


RS-232



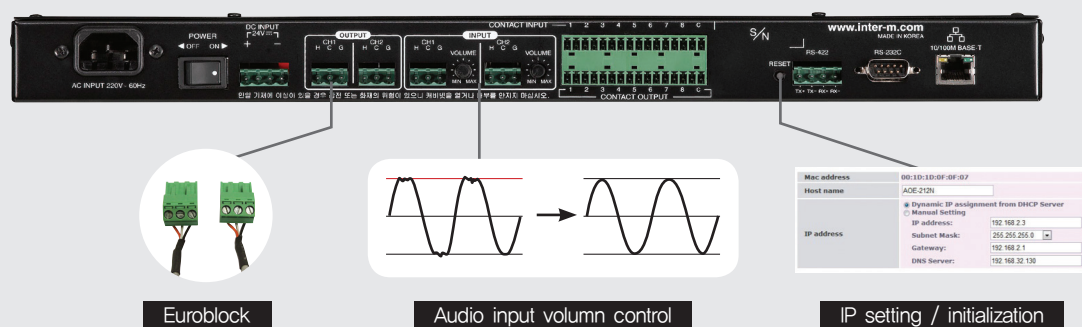
Power

Simultaneous support of AC and DC power offering un-interrupted broadcast with emergency battery back up in the event of a power outage.



Easy to use

Monitoring of input and output signals as well as network status via the front panel LED indicators. Monitoring of the audio signal is made possible using the front panel mounted headphone output jack.



Software support

Easy to use browser based software allows for user system monitoring and control of the transmission matrix.

System security prevents non-administrator users to tamper with the equipment operation and prevent malfunction.

Equipment operation history is stored in a log file to check the operating status of the equipment, and equipment malfunction traceability making it easy to identify system faults.

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GUI

Network Setting

AOE-212 Setup Page
192.168.48.181/oper/start_gray.html

interM Audio Over Ethernet AOE-212 v0.0.0.1
English 한국어

Setup network configurations

Mac address	00:1D:1D:0F:0F:07		
Host name	AOE-212N		
IP address	<input checked="" type="radio"/> Dynamic IP assignment from DHCP Server <input type="radio"/> Manual Setting		
	IP address:	192.168.2.3	
	Subnet Mask:	255.255.255.0	
	Gateway:	192.168.2.1	
	DNS Server:	192.168.32.130	

Set Reset

*** Help&Tips**

- DATA Setup
- BAUD RATE
- Sampling
- It configures the way for system to connect to Internet.

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1. HOST NAME Setting Tab

2. Dynamic/Fixed IP Setting tab

Audio Network Setting

AOE-212 Setup Page
192.168.48.181/oper/start_gray.html

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AUDIO SETUP

SEND ADDR	PORT:	5454
	RTP 1:	192.168.1.97
	RTP 2:	
	RTP 3:	
	RTP 4:	
	RTP 5:	
RECEIVE ADDR	PORT:	5454
	RTP ADDR:	192.168.1.97

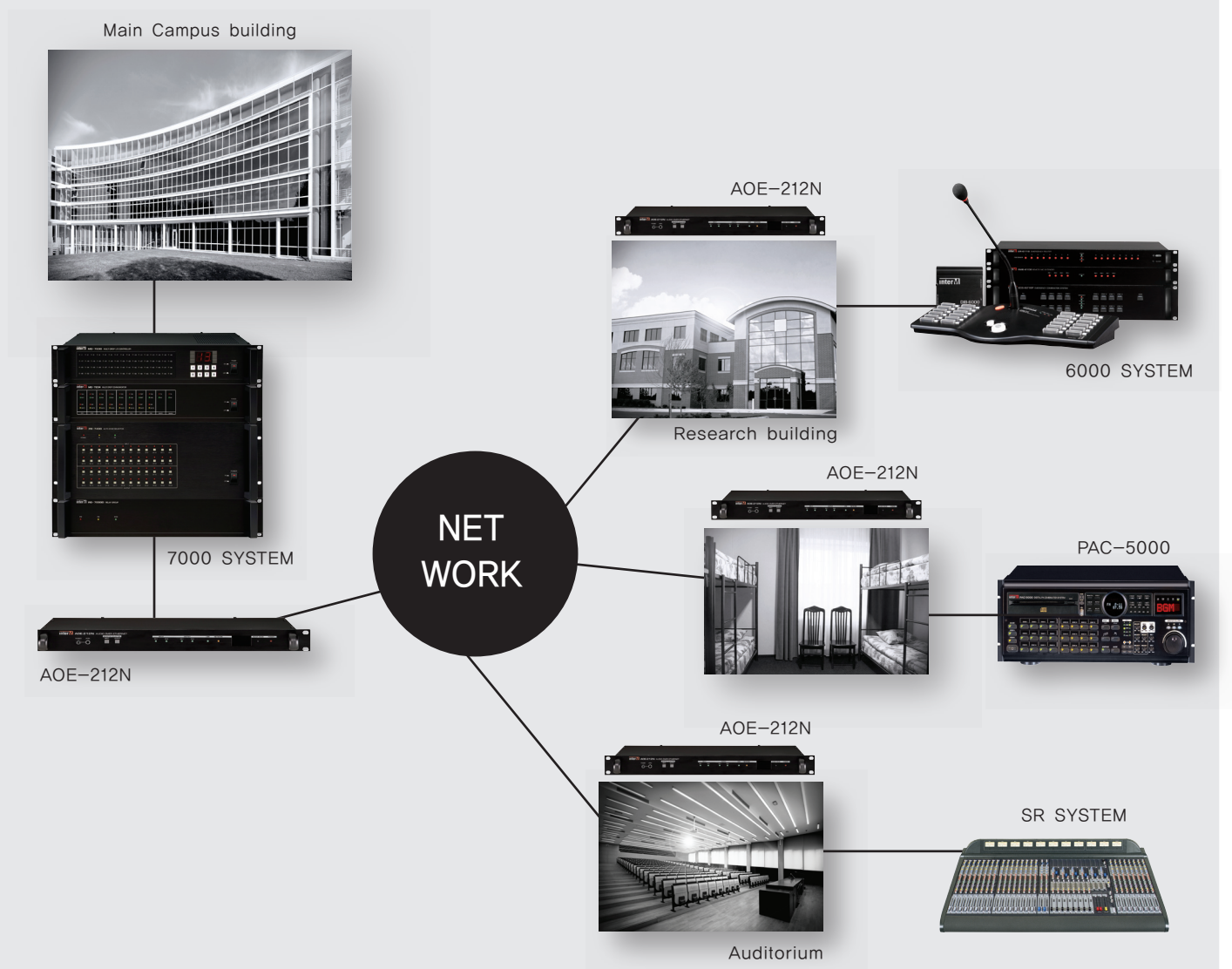
Set Reset

1. Server address (sender)

2. Server address (reciever)

APPLICATION

APPLICATION 1



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APPLICATION

APPLICATION 2



City Hall



6000 SYSTEM

AOE-212N



NET
WORK

Local Branch



AOE-212N



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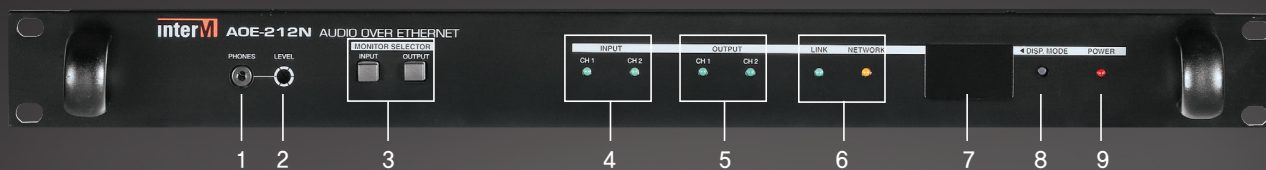
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| AOE 212N Front Panel



No.	Desc	No.	Desc
1	Monitoring Headphone Socket	6	Network Connection Display LED
2	Monitor Volume	7	LED Display
3	Monitor Selector	8	Display Mode Selector
4	Input Signal Display LED	9	Power Display LED
5	Output Signal Display LED		

| AOE 212N Rear Panel



No.	Desc	No.	Desc
1	AC Power Input Socket	6	Input Volumn Control Switch
2	Main Power Switch	7	Contact Terminal (8x8)
3	DC Power Input Socket	8	RS-422 Terminal
4	Audio Signal Output Socket	9	RS-232 Terminal
5	Audio Signal Input Socket	10	RJ-45(Ethernet Input)

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Specifications

AOE-212N	
INPUT (CHANNEL 1, 2)	
Input Sensitivity (± 3 dB)	0 dB
Line Output (± 3 dB)	0 dB
Frequency Response (± 3 dB)	100 Hz ~20 kHz
T.H.D (Total Harmonic Distortion)	less than 0,1 %
SNR (Signal To Noise Ratio)	80 dB
Operation Temperature	-10 °C ~ 40 °C / 14°F ~ 104°F
Power Source	AC120V, AC 220 ~ 240V 50/60 Hz
Weight (set)	3Kg / 6.6 Lbs
Dimensions (set)	482 (W) X 44 (H) X 280 (D) mm / 19(W) x 1.7(H) x 11(D)in

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※ Design and specification are subject to be changed without pre notice.