Broaden Your Voice our Network Delivers

In the coming future, our lives would evolve around IT, and so will the field of EVAC or BGM broadcasting in buildings. Amperes is pursuing this evolution by expanding its product range in the interests of providing total solutions with stability, quality and reliability. Amperes IP System shall enable flexibility for system configuration, expansion, monitoring and much more to your imagination.

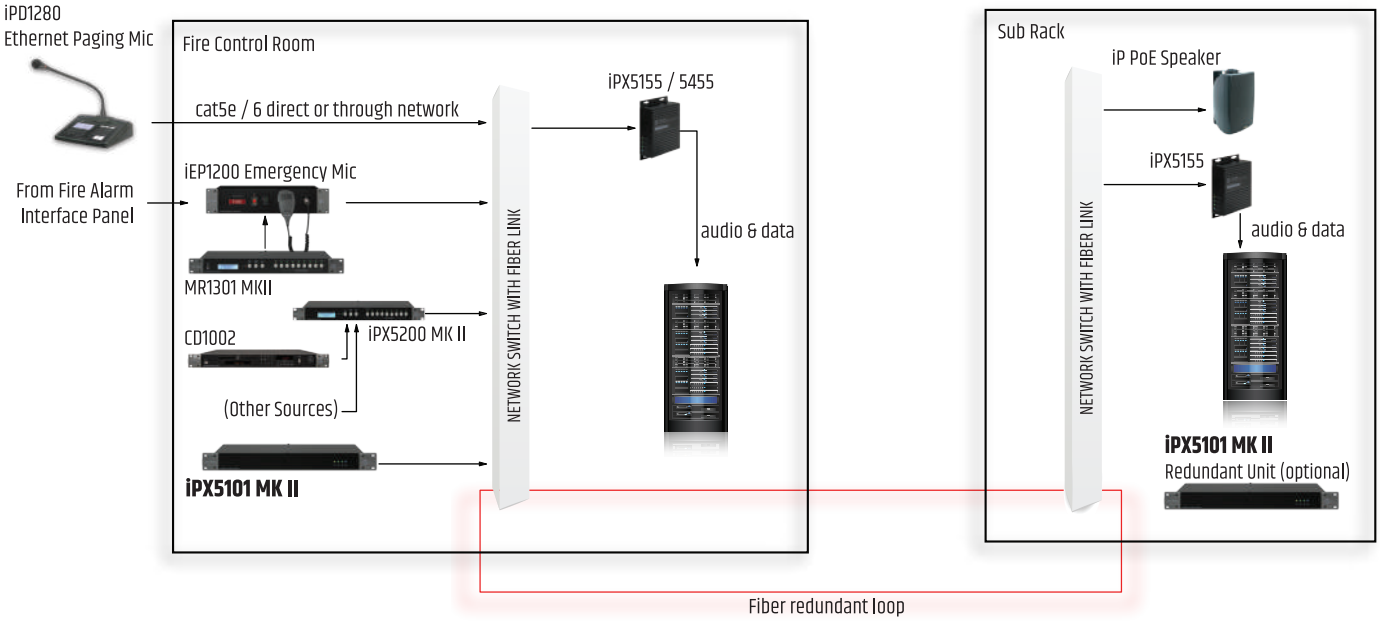
- ULTRA LOW LATENCY AUDIO TRANSMISSION
- SIMPLEX & DUPLEX MODE
- MULTICHANNEL AUDIO BROADCAST
- DECENTRALIZED SYSTEM
- FLEXIBLE SYSTEM EXPANSIONS
- REMOTE MONITOR AND CONTROLS
- NO LIMITATIONS ON DISTANCE
- MOBILITY
- CHOICE OF SYSTEM LINKS

iPX5101 MKII
Ethernet Network Controller

improved

iPX5101 MK II is an improved version of network controller, powerful enough to cater for large pool of client connectivities, simultaneous processing requests and redundancy. It is used to regulate and monitor all paging traffics in the IP system.

Application Schematic



Technical Specifications

Power requirement :	
Voltage	24 V DC
Current	350 mA
Connectivity :	
LAN interface	RJ-45, 10 / 100 Base-T
Common protocols	TCP / IP, UDP, IGMP, HTTP
Priority protocols	UDMP, ADP
Client connection	1024 max
User interface	MS Edge, Firefox V90+, Google Chrome V90+
Firmware upgrade	Via Web Browser
Operating condition :	
Temperature	-10 °C ~ 60 °C
Humidity	80%
Case :	
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	1.9 kg

- **Paging log**
- **Redundancy** setup
- **Sync** with ntp server
- **Self reset** with watchdog
- Manages over **1000** paging clients

Packing Information

Carton size : 555 (L) x 295 (W) x 95 (H) mm
Gross weight : 2.9 kg
1 unit per carton

iPX5200 MKII
Ethernet Music Server

iPX5200 MKII is a total revamp of iPX5200, which many features had been improved plus newly added functions. It is used to stream music to iPX clients or IP speakers from the files stored or live from music source.

NEW Preliminary Information

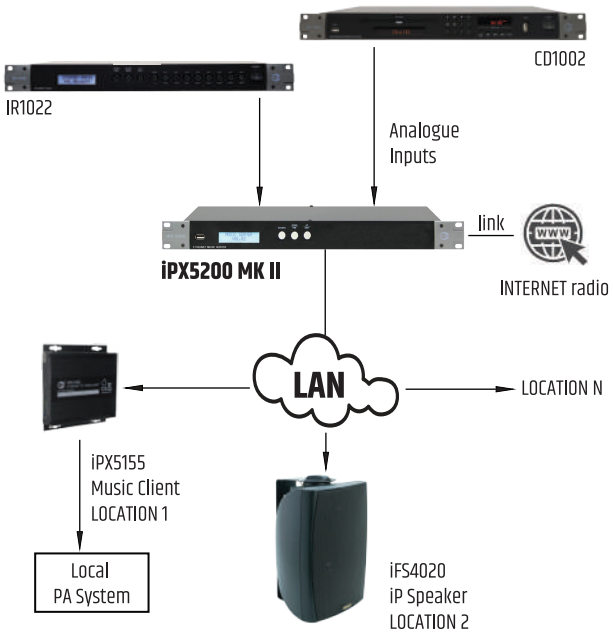
A star feature is that it is able to stream from INTERNET station directly with quality audio streaming of up to 320 kbps. This enables it to receive music from central station creating a private radio station. Other notable improvement is the simultaneous multi channel streaming, allowing multiple audio matrix broadcast.

Technical Specifications

Power requirement	
Voltage	24V DC
Current	150 mA (3.6W)
Configurations	6 input sources :
	- 2 x line unbalanced RCA
	- Internal media files
	- USB
	- 2 x Internet radio streaming (RTMP)
Analogue input	RCA - Unbalanced stereo x 2
Input impedance	10 k Ohm
Connectivity	10 / 100 Base-T
Output channels	10 matrix streaming
User interface	Web browser Chrome V90+
Max iPX clients	248
THD	0.1 %
S/N ratio	>60 dB
Digital format	IMA ADPCM / MP3 / WAV
Internal storage	32 GB SD Card
External storage	USB 2.0
Operating temp	-10 to 60 °C
Humidity	80 %
Dimensions (W x H x D)	482 x 44 x 180 mm
Weight	2.0 kg

- **6 input** channels : 2 RCA lines, USB, Internal music and INTERNET radio inputs
- Up to **10** channel audio broadcast / matrix audio streaming
- User **friendly setup** via browser
- **Volume and EQ controls** for each music channel
- Programmable **groupings** for direct zone access
- Supports **INTERNET radio streaming** ; enabling private radio network

Application Schematic



Packing Information

Carton size : 525 (L) x 295 (W) x 95 (H) mm

Gross weight : 2.7 kg

1 unit per carton

iEP1200

Ethernet Emergency Paging Mic

iEP1200 is an IP based Emergency Paging Panel which is an essential tool for firemen to perform highest priority paging in EVAC system. It shall bypass all other audio streaming such as message playback, normal paging or BGM whenever it is activated.

iEP1200 has dual mode application : local or global and can be integrated in conventional system as well.

- **Visual** FIRE Indicator
- Aux **RS485** data comm port
- **Dry contact** for unit's activation
- **Local** or **global** high priority setting
- Simple initial setting via **web browser**
- **Volume controls** for siren, mic and message sources
- **Built in siren** tone generator with dual mode activation

Technical Specifications

Power requirement :	
Voltage	24V DC
Current	<200 mA
Connectivity	
Data / LAN interface	RJ-45, 10 / 100 Base-T
Common protocols	TCP / IP, UDP, IGMP, HTTP
Priority protocols	UDMP, ADP
User Interface	Web browser Google Chrome V90 +
Audio	
Microphone	Condenser omni directional mic
Analogue line input (max)	1.25 Vrms unbalanced (+4 dBU)
Input impedance	10 K Ohm
Siren frequency	8 kHz continuous
Priority sequence	Paging mic - siren - message - line input (pre amp)
Total harmonic distortion (THD)	< 1 %
S/N ratio (full scale signal)	83 dB
Indicators	Fire LED, Front siren switch
Operating condition	
Temperature	-10°C ~ 60°C
Humidity	80%
Dimensions (W x H x D)	482 x 88 x 180 mm
Weight	2.85 kg

Packing Information

Carton size : 555 (L) x 295 (W) x 165 (H) mm
Gross weight : 3.85 kg
1 unit per carton

iEP1202

Ethernet Desktop Emergency Paging Mic

iEP1202 is a desktop version of Emergency Paging Mic which has several more added feature as compared to iEP1200.

There are 8 programmable zone groupings to facilitate targeted zone or specific building emergency paging. It also comes with 4 message banks to allow fast access to broadcast emergency message to targeted area.

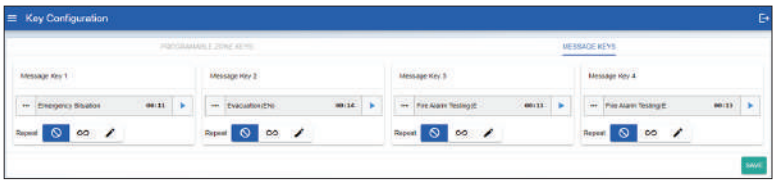
iEP1202 is suitable to be placed at guardhouse, reception, or security control console.

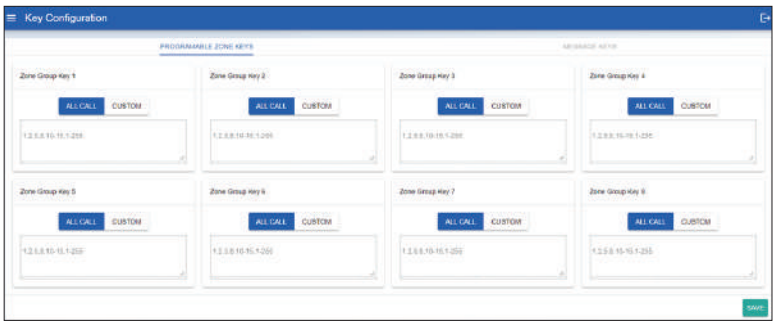
- **Siren** tone generator
- User **friendly setup** via browser
- **Volume controls** for Mic and Siren
- 8 Programmable **zone groupings** for direct zone access
- 4 **message banks** of 14 min duration and up to 20 files

Technical Specifications

Power requirement	
Voltage	24V DC
Current	0.1 A (2.4W)
Audio	
Microphone	Handheld condenser omni directional
Siren frequency	Continuous at 8 KHz
Connectivity	
Data	RJ45 ; 10/ 100 Base-T
Protocols	TCP/IP, UDP, IGMP, Http
Priority Protocols	ADMP, ADP
Transmission mode	Unicast & Multicast
Audio conversion format	IMA ADPCM 36 KHz 16Bit
Zone groupings	8
Zones per group	128 (or 248 for All Call)
Message	
Total duration	590 seconds
Max files	20
Message storage	4 (configuration via browser)
Format	MP3 64k Bit/s
User interface	Google Chrome V90+ preferred
Dimension (W x H x D)	248 x 65 x 190 (exclude mic)
Weight	900 g

Key configurations and message storage UI





Packing Information

Carton size : 525 (L) x 270 (W) x 85 (H) mm

Gross weight : 1.9 kg

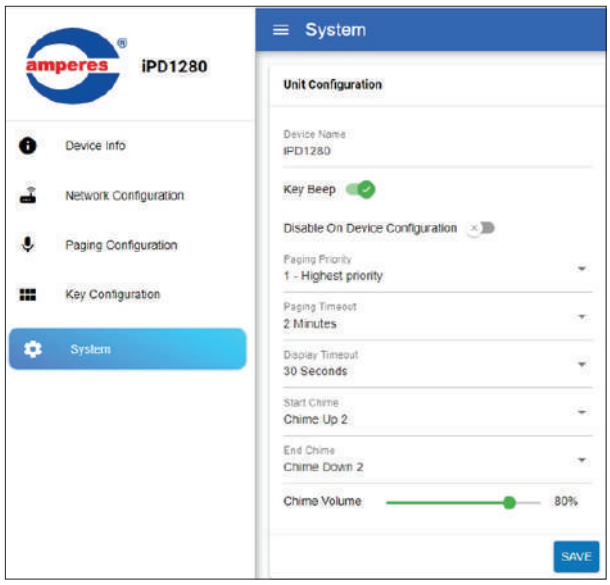
1 unit per carton

iPD1280
Ethernet Paging Microphone

iPD1280 is an Ethernet based paging microphone with soft touch keys, zone groupings and with a large LCD screen for ease of monitoring. It has all the features of conventional PD1280 such as zone groupings, priority settings, etc.

- **Soft touch** keypad
- Ultra **low latency** audio transmission
- Adjustable **volume** for mic and chime
- Built in **chime** with selectable tone file
- Large **multi point paging** setup within network
- Ease of **programming** with user friendly GUI
- **Large LCD** display for easy viewing with **name setting**

Configuration UI with various possible features



Technical Specifications

Operating voltage	24V DC
Power consumption	2.0 W
24V power connector	1 x male barrel jack
Zone selection	Numerical keypad for Zones, Groups, Siren, All Call, Repeat, Chime + Talk
Switching selection	Sensor touch keypad
Microphone	Gooseneck condenser capsule ; unidirectional
Chime	4 tone up and 4 tone down
LED Indicator	Zone, power, audio, data, gooseneck ring LED
Displays	LCD display ; white back illumination
Frequency response	100 - 12 kHz @ 1kHz +/- 3 dB
S/N ratio	>70 dB @1 kHz
Audio conversion format	IMA ADPCM 36 kHz 16 bit
Audio output controls	Mic from local and Chime from Web
Data Interface	RJ45, 10 / 100 Base-T
Protocols	TCP / IP, UDP, IGMP, HTTP
Priority protocols	ADMP, ADP
Transmission mode	Unicast & Multicast
User interface	Google Chrome V90+ preferred
Gooseneck mic length	370 mm
Dimension (W x H x D)	230 x 192 x 65 mm (exclude mic)
Weight	850 g

Packing Information

Carton size : 525 (L) x 270 (W) x 85 (H) mm
Gross weight : 1.75 kg
1 unit per carton

iPD1220 iPD1230

Ethernet Paging Microphone

iPD1220 is an Ethernet based desktop paging microphone with simplified function suitable localized paging in iPX System. It has zone or group calling buttons and 4 message banks with total of 590 seconds of messages. The message and zone calling buttons are programmable via web browser.

iPD1230 is similar to iPD1220 but is designed for wall mounting and comes with handheld microphone.

iPD1220 or iPD1230 is suitable for localized paging, integrated in iPX system. Among applications are pharmacy counters, ward nurse station, departmental counters, airport departure holding areas in which a paging will only concentrate and restrict on particular zone or adjacent zones.

iPD1230 which is wall mounted type and is suitable for factory production floors, warehouse, hotel car calling or within school / campus compounds, such as calling for arriving cars at particular area only.

NEW Preliminary Information

iPD1220 Desktop Paging Microphone

iPD1230
Wall Mount Paging Microphone

Technical Specifications

Power requirement	
Voltage	24V DC
Current	0.1 A (2.4W)
Audio	
Microphone	Condensor microphone, omni directional
	iPD1220 : Gooseneck with screw base
	iPD1230 : Handheld Push to Talk
Connectivity	10 / 100 Base-T
Protocols	TCP/IP, UDP, IGMP,http
Transmission mode	Unicast & Multicast
Audio conversion	IMA ADPCM 36 kHz 16 bit
Zone grouping	4
Zones per group	8
Message	590 seconds in total ; 4 groups
Max files	20
File format	MP3 64 k bit/s
User interface	Google Chrome V90+ preferred
Operating temp	-10 to 60 C
Humidity	80 %
Dimensions (W x H x D)	PD1220 : 248 x 65 x 190 mm (exclude mic)
	PD1230 : 220 x 185 x 40 mm (exclude mic)
Weight	900 g (iPD1220), 950 g (iPD1230)

- 4 programmable zone / **zone grouping**
- **4 message** banks with total 590 seconds
- Available in **desktop** version with gooseneck mic or **wall mount** type
- Mic **volume controls**
- Powered via local power adaptor or **PoE** with split connectors

Packing Information

Carton size : 525 (L) x 270 (W) x 85 (H) mm
Gross weight : 1.9 kg
1 unit per carton

iPX5455 iPX5155 iPX5500

Ethernet Paging / BGM Clients & Comm Box

iPX5455

4 Ch BGM / Paging Client

iPX5155

Single Ch
Ethernet BGM / Paging Client

iPX5155 & 5455 are BGM & Paging clients, also known as audio extract, available in single and 4 channels versions. They provide audio output for BGM and Paging audio which is of higher priority. RS485 data is fed to rack zone decoder for zone selection.

It can be used as audio insert for conventional series of paging mic to enable them to work seamlessly in iPX system.

iPX5500

IP Communication Box

iPX5500 is an interface unit for remote equipment with Amperes PMX III software for remote monitoring and controls. RS485 data of up to 16 devices can be connected to iPX5500 before being fed to IP environment.

Technical Specifications

	iPX5455	iPX5155	iPX5500
Power requirement			
Voltage	24 V DC		
Current	280 mA (6.8 W)	60 mA (1.5 W)	
Connectivity			
Channels	4 ch	Single	16 RS485 nodes max
Interface	RS485 (19.2 kbps), 10 / 100 Base-T		
Protocols	TCP / IP, UDP. IGMP, HTTP		
Broadcast mode	Unicast / Multicast		Multicast
Audio			
In / Out (rms)	1.25 V rms (+ 4 dBU)		Not applicable
THD	< 1 %		
S/N ratio	83 dB		
Audio format	IMA ADPCM / MP3 320 kbps max / WAV		
User interface	Web browser Google Chrome V90+ preferred		
Operating conditions			
Temperature	-10 to 60 deg C		
Humidity	0 - 70 %		
Dimensions (W x H x D)	482 x 44 x 180 mm	127 x 137 x 22 mm	
Weight	2.4 kg	300g (excl adaptor)	

Packing Information

iPX5155 / 5500

Carton size : 155 (L) x 105 (W) x 125 (H) mm

Gross weight : 1.0 kg incl. adaptor

1 unit per carton

iPX5455

Carton size : 555 (L) x 295 (W) x 95 (H) mm

Gross weight : 3.4 kg

1 unit per carton

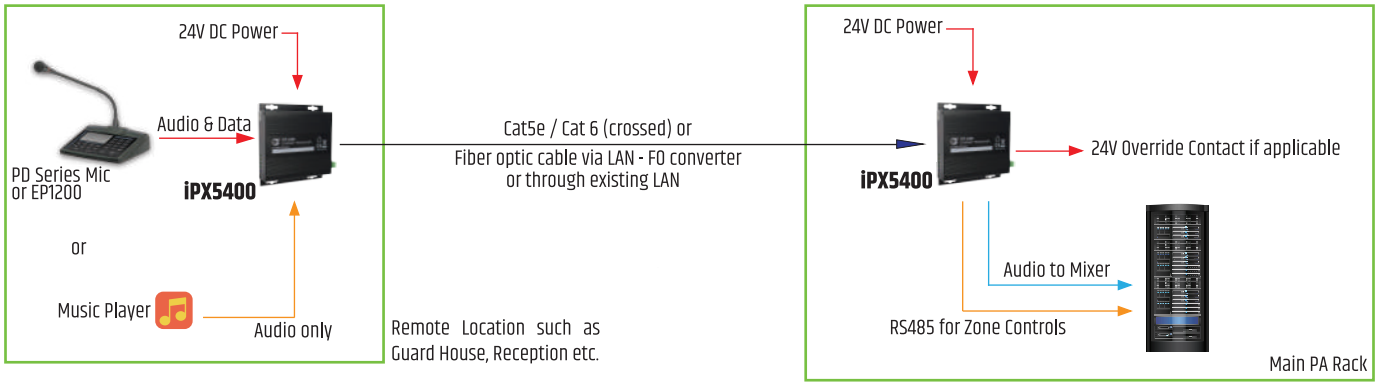
iPX5400
Ethernet Transceiver

iPX5400 works in a pair, and is convenient way of sending audio and RS485 data to another location through LAN, dedicated fiber or network cable. In the case of using dedicated fiber link, an Ethernet to fiber converter shall be required.

- **Low latency** audio and data transmission
- **Dry contact** for remote triggering
- **Easy setup** via web browser
- RS485 and voice at **full duplex**, hi definition audio at **simplex**
- **2 modes** available with : 1. Always ON, 2. ON on remote trigger
- Works **independently** without other IP equipment or iPX5101 controller

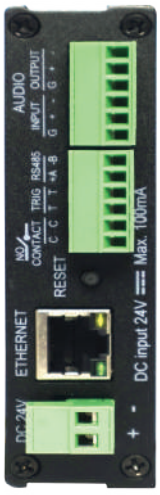
Application Schematic

Application Example: Peer to Peer Direct Connectivity



Technical Specifications

Power requirement :	
Voltage	24V DC
Current	60 mA (1.5W)
Connectivity :	
Data Interface	RJ-45, 10 / 100 Base-T
Protocols	TCP / IP, UDP, IGMP, HTTP
Priority protocols	UDMP, ADP
Audio	
Analogue in / out (peak to peak)	1.25V (line)
THD	< 1 %
S/N ratio	83 dB
Conversion format	WAV PCM 48 KHz 16 Bit (Bidirectional & Half Duplex
Data	UART RS485 (Bidirectional & Full Duplex)
User interface	Google Chrome V90+ preferred
Case	
Dimensions (W x H x D)	127 x 132 x 22 mm
Weight	300 g



Packing Information

Carton size : 155 (L) x 105 (W) x 125 (H) mm
Gross weight : 1.0 kg incl. adaptor
1 unit per carton

www.ampereselectronics.com

iPA5120 iPA5240 iPA5360
Ethernet Power Amplifier

improved

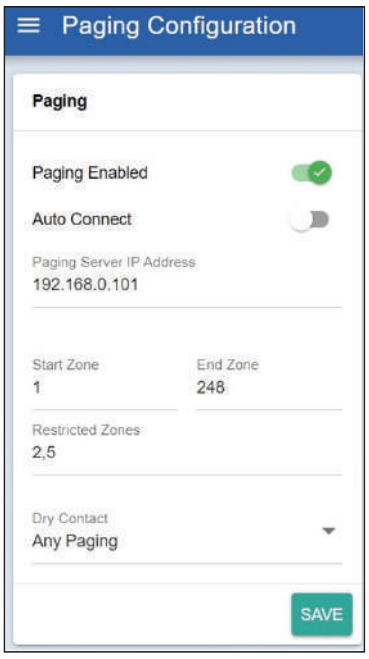
iPA5120	iPA5240	iPA5360
120W 100V	240W 100V	360W 100V

iPA5000 series Ethernet amplifier terminal area available in 120, 240 and 360W 100V line power ratings driven by high efficiency Class D amplifier circuits.

They are suitable for decentralized IP PA setups in mid to large installations such as parks, classrooms, high rise buildings, resorts, ports as well as pole mounted security alert systems.

It has local audio insert to enable local paging or music broadcast such as in classrooms, entrance gates or kiosks. The local source allows central paging bypass and with the built in relay overriding for emergency paging, it enables volume controller overriding.

- High efficiency **Class D** amplifiers
- Plays remote BGM / Paging and **local input** source with selection button
- **Audio priority** level, bypassing local input source
- Available in **120, 240 and 360W** 100V line output
- Audio priority for emergency paging with **relay contact** activation



Technical Specifications

	iPA5120	iPA5240	iPA5360
Power rating (W rms 100V out)	120W	240W	360W
Operating voltage	220 - 240 V AC : 50 / 60 Hz		
Power consumption - load (240V ac)	160 W / 1.1 A	285 W / 2.0 A	450 W / 2.9 A
Power consumption - standby (240V ac)	18 W / 0.25 A		
Analogue input sensitivity	Balanced : line - 1 Vrms / Mic - 50 m Vrms		
Input impedance	Line - 10 k Ohm / Mic - 6k Ohm		
Gain controls	-40 to 4 dBU		
THD + N at rated power	< 1 %		
S/N ratio	> 68%		
Frequency response	120 - 20 kHz (+/- 3 dB)		
Output voltage (at 4 Ohm)	50 V Max		
Network / Paging protocol	TCP / IP, UDP, HTTP, ADP		
Playback format	WAV, MP3		
Tone / volume controls	5 band EQ / local input / streaming input / speaker output		
Local / remote stream selection	Push button		
Relay contact	3A on emergency paging		
User interface	Web browser ; Google Chrome V90+ preferred		
Protections	Thermal (70 Deg C), over current, short circuit, AC fuse		
Indicators	Power, link status to paging server, steaming, local input source active		
Cooling system	Thermostat auto fan switching at 45 Deg C		
Operating temperature / humidity	-10° to 60°C		
Dimensions (W x H x D)	250 x 83 x 200 mm (excluding hinge)		
Weight	3.10 kg		

Packing Information

Carton size : 295 (L) x 260 (W) x 115 (H) mm

Gross weight : 3.40 kg

1 unit per carton

iQD2402 iQD2405 iQD2410

Ethernet 4 Zone Power Amplifier

iQD2000 Series of IP amplifiers are rack mounted type power pack available in 3 power ratings of 250, 500 and 1000W 100V line.. They are designed to integrate various components for remote amplifier setup in iPX systems ie. IP client, zone decoder, selector and class D amplifier in one power pack.

NEW Preliminary Information

Each power amp unit comes with 4 zone outputs with A / B terminals to comply with EN54 requirement. Various protection and detection features are incorporated and will be able to link directly to Amperes PMX III software for remote monitoring such as volume, temperature and speaker line condition.

- **IP amplifier** pack available in 250, 500 and 1000W 100V line outputs
- **4 zone output** with A / B speaker terminals and fuse protected
- Speaker **line monitoring** for open and short
- Balanced audio **line output**
- Built in **changeover** relay for standby amplifier
- **Remote monitoring** available with Amperes PMX III software
- **24V DC** back up

Technical Specifications

	iQD2402	iQD2405	iQD2410
Operating voltage	220 - 240 V AC : 50/60 Hz		
Rated output (rms at 100V)	250 W	500 W	1000 W
Power consumption (240V AC)	400 VA (1.6 A)	700 VA (2.9 A)	1350 VA (6.4 A)
Current consumption (24V DC)	15.5 A	25.5 A	50.5 A
DC back up standby current	0.5A		
Network / paging protocol	TCP/IP, UDP, HTTP		
Playback format	WAV, MP3		
Tone / volume controls	Bass, Treble, input volume knob		
Monitoring	Fan, temperature, zone controls, speaker line, volume		
User interface	Web browser Google Chrome V90+ preferred		
THD + N at rated power	< 1 %		
S/N ratio	70 dB min		
Frequency response	120 - 20 kHz (+/- 3dB)		
Output zones	4 zones with A / B fused terminals		
Output audio line	1.2 V rms line balanced		
E/M relay contact	3A NO		
Protections	Fuse, thermal, short circuit, in-rush current, DC soft start		
Operating temperature / humidity	-10° to 60° C		
Dimensions (W x H x D)	482 x 88 x 420 mm		
Weight	9.8 - 10 kg		

Packing Information

Carton size : 555 (L) x 545 (W) x 190 (H) mm

Gross weight : 11 kg

1 unit per carton

IFS4020 ICS6020 IHS8020 IPS8020

IP PoE Speakers

iFS4020
20 W IP PoE Full Range

iCS6020
20W IP PoE Co-axial Ceiling

iHS8020
20W IP PoE Horn Speaker

iPS8020
20W IP PoE Pendant

IP Speakers provide a convenient way to place your speakers in whatever place there is a need for either BGM or paging purpose in IP PA Setup. Home run cabling shall not be required, thus a great savings in wiring works, provided that a network port is available in the vicinity.

Amperes IP speakers are available in 4 versions, being full range box, ceiling, pendant ball and horn. They are all powered from PoE network switch.

All the IP versions are PoE powered and amplified by Class D amplifiers. They work seamlessly with Amperes iPX environment, receiving audio from PMX Software or through iPX5200 while paging audio is broadcasted via iPD or iEP paging microphones as well as PMX Software.

Technical Specifications

	iFS4020	iCS6020	iPS8020	iHS8020
Power rating	20 W			
Power source	PoE+ (IEEE802.3 af : 48V)			
Standby power consumptions	0.5W			
Operating power consumptions	15W Max			
Amplifier rating	20W 4 Ohm			
Speaker type	2 way : 4" + 1" tweeter	2 way : 6" + 1" tweeter	2 way : 8" + 1" tweeter	Compression coil
Speaker drive diameter	4" (100 mm)	6.5" (165 mm)	8" (200 mm)	2" (50 mm)
Sensitivity @ 1 kHz / w / m	87 dB	90 dB	110 dB	92 dB
Frequency response @ 1 kHz +/- 3dB	105 - 18 kHz	115 - 19 kHz	90 - 18 kHz	200 - 8 kHz
S/N ratio	85 dB			
Audio codec	IMA ADPCM / MP3 / WAV			
Network & Protocols	100 Base T / TCP / IP, UDP, IGMP, HTTP, ADMP, ADP			
User interface incl. firmware upgrade	Via web browser ; Google Chrome V90+ preferred			
Priority controls	Paging over BGM			
Operating temperature / humidity	0 -60°C / 70%			
Housing	ABS / Aluminium	ABS / Metal	ABS	
Dimensions (W X H x D)	165 x 270 x 170 mm	250 diameter x 142 H	254 diameter	293 x 212 x 290 mm
Weight	1.95 kg	1.85 kg	1.90 kg	1.80 kg
Colour	Black	White		

Packing Information

iFS4020 :

Carton size : 175 (L) x 175 (W) x 285 (H) mm
Gross weight : 2.05 kg
1 unit per carton

iCS6020 :

Carton size : 270 (L) x 270 (W) x 175 (H) mm
Gross weight : 2.15 kg
1 unit per carton

iHS8020 :

Carton size : 220 (L) x 290 (W) x 290 (H) mm
Gross weight : 1.90 kg
1 unit per carton

iPS8020 :

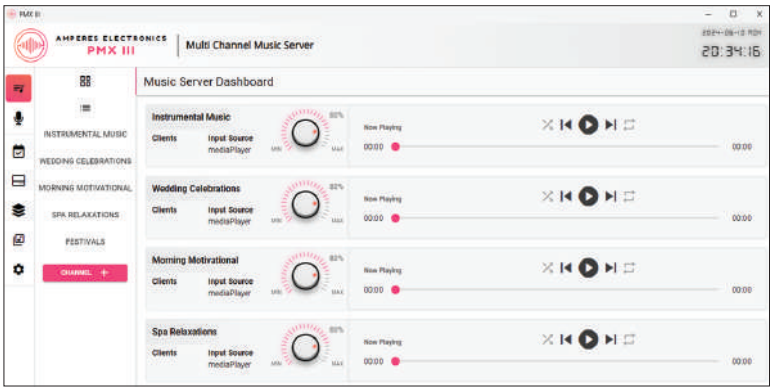
Carton size : 320 (L) x 320 (W) x 305 (H) mm
Gross weight : 3.05 kg
1 unit per carton

PMX III
Integrated PA Management Software

PMX III is a totally new software designed for Amperes iPX System, which is IP based PA installation. Many features has been incorporated in this new version based on contemporary requirement.

Amperes PMX III is available in 2 versions: Standard and Pro. Standard version contains Multi Channel BGM server of up to 10 channels, enable the system to broadcast different music to different BGM clients (iPX5155 / 5455 / IP Speakers). Zone management has been further refined to provide user greater convenience and flexibility to page from PC.

The Pro version shall include device monitoring, zone mapping and Google base Text to Speech converter which would able to broadcast text messages in various languages and with natural voices.



Features

Music Channel Dashboard

Up to 10 channels of different musics can be streamed to different clients or IP speakers, providing a flexible audio assignment to cater for different taste of listeners.

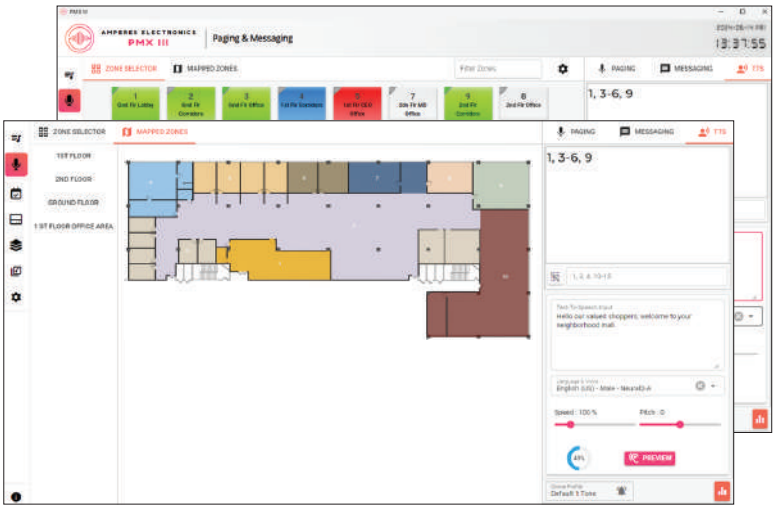
As such, PMX III functions as matrix audio streamer and is suitable for installations with multiple audience types.

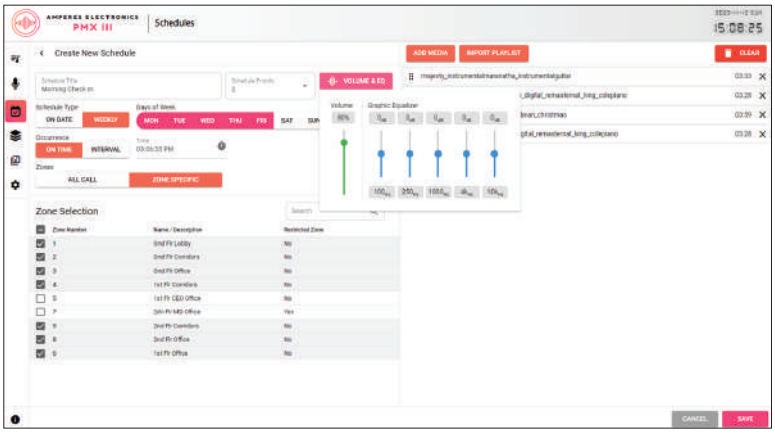
Paging & Messaging

PC paging has been made much simpler with designated zone or group buttons in alternative to conventional key pad zone selections. PMX III can page up to 254 zones.

For ease of zone selection, each zone can be named for easy identification.

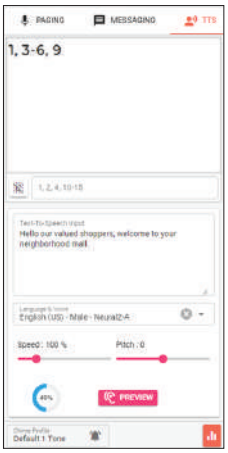
Premium version comes with zone mapping feature for a more convenience look up for desired paging zones.





Scheduling

PMX allows scheduling for time and date specific triggering, weekly repetitive and interval playback of tone or files stored in the system. The schedule can be targeted to specific zone or groups.



Text to Speech Synthesizer

When live paging is a hard task, PMX III Premium provides a platform to make announcement via text to the language of your choice and speaker to your likings, be it male or female, native accent or otherwise.

The speech of announcement is adjustable to suit the acoustic environment and the pitch of voice can be set as well.

The announcement voice is based on Google TTS engine which is almost similar to be natural human voice. Preview the message by pressing "Preview" button before sending out the announcement. The available quota for this service is shown in order to make further top up in advance.

Remote Monitoring

PMX III Premium version has live monitoring module which can monitor remotely connected devices such as amplifier, line monitoring, battery charger and other devices either connected directly to LAN or through iPX5500 Comm Box.

Application Concept