

2021

# IP PLANT COMMUNICATION SYSTEM CATALOGUE

INDUSCOM-D Series

LISTING OF INDUSTRIAL GRADE COMMUNICATION PRODUCTS





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## INTRODUCTION

BNA introduces India's first Plant Communication System **INDUSCOM-D SERIES** for paging and private communication based on the **STATE OF ART ETHERNET BASED TECHNOLOGY**. This system has been designed using Audio over IP technology.

BNA's **INDUSCOM-D SERIES** Paging and Communication System, a next-generation product offers enhanced voice quality over wired, fiber cable network.

Equipments are designed for voice communication in hostile environments where reliability, efficiency and safety are of paramount importance.

BNA's Ethernet-based communication solution provides direct and instant two-way communication over TCP/IP networks, utilizing minimum bandwidth which suits the needs of Small Establishments and Industries, as well as large plant areas like Power Plants or Steel Plants. The system is easy to configure, simple to deploy and cost-effective.

With over three decades expertise in audio communication and networking solutions, BNA is the ideal solution provider for IP plant communication that is easy to connect, operate and manage

**INDUSCOM- D- SERIES** employs voice over IP technology. This system is designed on central server architecture for communication, and distributed amplifier architecture for paging.

All **INDUSCOM-D** units are digital and Ethernet-enabled with field call stations and speakers that are individually addressable for two-way communication and paging respectively.

System Benefits include:

- ❖ Use of existing fiber network infrastructure.
  - ❖ Cost effective and easy installation and implementation.
  - ❖ Seamless integration with existing networks like plant EPABX, fire alarm and security.
  - ❖ Integrations that can easily scale above 500 units - locally, regionally or globally.
- Network support for RJ45 connections.



## AUDIO COMMUNICATION CONTROLLER



**Paging**



**Communication**



**Conference**



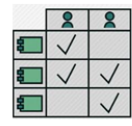
**Priority Levels**



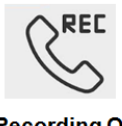
**Pre-recorded  
Messages**



**Schedule  
Pre-recorded  
Messages**



**Call Matrix**



**Recording Of  
All Audio Calls**



**Call Detail Records**



**Server Status  
Mobile Notification**



**Zone Creation**



**Grouping**



**SIP TRUNKS**



**SYSTEM  
MONITORING**



**SPEAKER HEALTH  
MONITORING**

### IP - 9000

Audio Communication Controller is a rack-mountable hardware bundled with software based on an IP core. IP-9000 is programmable by means of user-friendly browser based menu driven software. The controller is 100% completely non-blocking switching software system with call recognition and acknowledgement. The features, such as paging, private call, all call, group call, alarm call, etc., are resident in the controller as a software program which is re-programmable at site.

Central server is wide band, IP based, software switching type having associated facility for calling station identification and modular design. The server consists of all the necessary software required for operation, monitoring, protection, indication, switching, testing of the entire system, facility for checking of the operation of all the stations and quality of speech from the server etc.

Server can be duplicated for redundant mode for automatic transfer of operation in case of failure of main server.

Model	9000-I100	9000-I200	9000-I300	9000-I500
Processor	Intel Xeon Quad-Core	Intel Xeon Hexa-Core	Intel Xeon Hexa-Core	Intel Xeon Dual CPU Quad-Core
Memory	8GB DDR4	16GB DDR4	16GB DDR4	32GB DDR4
Storage	2 X 500GB Raid 1	2 X 1000 GB Raid 1	2 X 1000 GB Raid 1	2 X 1000 GB Raid 1
Raid Controller	Soft Raid	Hardware Raid	Hardware Raid	Hardware Raid
Interface	2 x Gigabit Ethernet	2 x Gigabit Ethernet	2 x Gigabit Ethernet	2 x Gigabit Ethernet
No of Page Channels	100	200	300	500
No of Comm. Channels	100	200	300	500
Codecs	G729,G711alaw,GSM, G722	G729,G711alaw,GSM, G722	G729,G711alaw,GSM, G722	G729,G711alaw,GSM, G722
Concurrent Calls	100%	100%	100%	100%
High Availability	<b>9000-I100-HA</b>	<b>9000-I200-HA</b>	<b>9000-I300-HA</b>	<b>9000-I500-HA</b>



## MASTER CONTROL STATION



**BNA -9100/24**








**BNA-9100/8**

Master Control Station is desktop mounted type/flush mounted in console made aluminium material consists of a handset for duplex communication, gooseneck microphone, display device for displaying location, station number, paging zone identification and group identification, 1-watt built-in speaker, response key for instantaneous communication, conference key, twenty four/eight programmable keys functions such as direct communication, response key, conference call, priority and LED indications to meet the operational requirements. The master control station is having 3x4 full key -pad along with different function keys for making calls to different call stations by means of single digit/multi-digit dialling. The keypad along with the function keys also used for invoking different features like paging, all call, group call, alarm tone etc. All announcements made from MCS have priority over the announcements made from field to field call stations.

Model	IP-PA-AZU-250W	IP-PA-AZU-1200W
Protocol support	Pv4, TCP, UDP, HTTP (RFC 2617, RFC 3310), RTP, RTCP, DHCP, SRTP, SIP (RFC 3261), SNMPv2, STUN, TFTP, URI (RFC 2396),DTMF Decoding (RFC 2833),SIP User Agent (UDP RFC 3261).	Pv4, TCP, UDP, HTTP (RFC 2617, RFC 3310),RTP, RTCP, DHCP, SRTP, SIP (RFC 3261), SNMPv2, STUN, TFTP, URI (RFC 2396),DTMF Decoding (RFC 2833),SIP User Agent (UDP RFC 3261).
Telephony Features	Selective calling 100 % Non- Blocking	Selective calling 100 % Non- Blocking
Keypad	4x4 dail pad	4x4 dial pad
Programmable keys	24	8
No. of direct access keys	50	8
Display	Alphanumeric – Mono chromic	Alphanumeric – Mono chromic
Handset	Dynamic Noise cancelling type	Dynamic Noise cancelling type
Gooseneck Microphone	Support	Support
Hands free operation	Available – 1 W Speaker	Available – 1 W Speaker
Operating Voltage	230 V AC or POE	230 V AC or POE
Ingress Protection	IP-55	IP-55
Operation Temperature	- 10° C to + 60° C	- 10° C to + 60° C
Relative Humidity	Up to 90% non- condensing	Up to 90% non- condensing
Dimensions	400x250x125 / 3 Kg	330x185x65 / 2.5 Kg



## FIELD CALL STATIONS

					
<b>BNA-9200</b>	<b>BNA-9300</b>	<b>BNA-9400</b>	<b>BNA-9500</b>	<b>BNA-9200/10</b>	
<p>Field call station provides reliable industrial communications in environment where all call or all page and common communication are required. All field call stations and their internal components are capable of continued satisfactory operation at an ambient temperature of 55 deg. C. The power amplifier and line amplifier are housed inside the enclosure as a single unit. BNA wall mounted field call stations provide paging coverage for all types of industrial applications. Field call Stations are designed for voice communication in the hostile environments where reliability, efficiency and safety are of prime importance. The handset is equipped with a dynamic Noise cancelling microphone, microphone gains, and receiver volume; anti side tone controls are provided. Portable handset stations are used in conjunction with socket boxes for making paging and communication.</p>					
<b>Model</b>	<b>BNA -9200</b>	<b>BNA-9300</b>	<b>BNA-9400</b>	<b>BNA- 9500</b>	<b>BNA-9200/10</b>
<b>Type</b>	Wall Mounted	Desk Mounted	Wall Mounted	Wall Mounted	Portable
<b>Enclosure Type</b>	Weather proof	Weather Proof	Flame/ Explosion proof Ex-d	Pilfer proof	Weather Proof
<b>Telephony Features</b>	Selective calling 100 % Non-Blocking	Selective calling 100 % Non- Blocking	Selective calling 100 % Non- Blocking	Selective calling 100 % Non-Blocking	Selective calling 100 % Non-Blocking
<b>Keypad</b>	4x4 Dial pad	4x4 Dial pad	4x4 Dial pad	4x4 Dial pad	4x4 Dial pad
<b>Programmable keys</b>	4	4	4	4	4
<b>Display</b>	Alphanumeric-Mono chromic	Alphanumeric – Mono chromic	No Display	Alphanumeric – Mono chromic	Alphanumeric – Mono chromic
<b>Handset</b>	Dynamic Noise cancelling type	Dynamic Noise cancelling type	Dynamic Noise cancelling type	Dynamic Noise cancelling type	Dynamic Noise cancelling type
<b>Mode of communication</b>	Full Duplex	Full Duplex	Full Duplex	Full duplex	Full Duplex
<b>Paging &amp; Pvt Communication</b>	Available	Available	Available	Available	Available
<b>Operating Voltage</b>	230 V ± 10 V AC	230 V ± 10 V AC	230 V ± 10 V AC	230 V ± 10 V AC	PoE
<b>Ingress Protection</b>	IP-65	IP-55	IP-65	IP-65	IP-41
<b>Operation Temperature</b>	- 10° C to + 60° C	- 10° C to + 60° C	- 10° C to + 60° C	- 10° C to + 60° C	- 10° C to + 60° C
<b>Relative Humidity</b>	Up to 90% non-condensing	Up to 90% non-condensing	Up to 90% non-condensing	Up to 90% non-condensing	Up to 90% non-condensing
<b>Material</b>	LM-6	ABS	LM-6	GRP	Aluminium
<b>Dimensions (H x W x D ) Weight</b>	365 x 165x 135 6 Kg	290x210x110 2.5 Kg	410 x 240x230 8.9 Kg	400x300x200 5Kg	300x125x100 2 Kg



## NETWORK AMPLIFIER



**IP-PA-AZU-250W**



**IP-PA-AZU-1200W**

Network Amplifier is IP Based 250 W rack Mountable power amplifier. It is designed to suit for industrial PA System. No. of speaker i.e. Horn type, Cone Type, Ceiling Type, etc. could be connected through 100V line in loop in Loop out topology.

Model	IP-PA-AZU-250W	IP-PA-AZU-1200W
Wattage	300 W Max	1200 W Max
Output voltage	100 V, 70 V 8ohm, 4 ohm for direct speaker	100V, 70 V 8Ohm, 4ohm for direct speaker
Inputs	200mV Pre-Amp. Input & 1V Line Input Selectable by Slide Switch	200mV Pre-Amp. Input & 1V Line Input Selectable by Slide Switch
Frequency Response	60Hz-15kHz $\pm$ 3dB	60Hz-15kHz $\pm$ 3dB
Tone controls	Cut and Booster Type (Active)	Bass , Mid, Treble
Indications	Power, overload LED	Power ,overload LED
Power Requirement	220V AC / 24V Battery	220V AC / 24V Battery
Miscellaneous	Reset button for the overload condition,	Reset button for the overload condition,
Dimensions	435W x 340D x 160H mm / 15 Kg	490W x 405D x 155H mm / 24 Kg



## EXTENSION AMPLIFIERS – DISTRIBUTED TYPE



**9300/10**



**9400/10**







Ethernet enabled Extension Amplifiers are designed for voice paging only in the hostile environment where ambient noise is high and additional speaker is required for paging clarity. Amplifiers are solid state, class-D. Amplifiers are modular type in construction for ease of maintenance and trouble shooting. Amplifiers have 0 — 100% volume control setting. One coarse setting potentiometer is located inside the PCB for volume control. Power amplifiers are capable of continuous volume control through software from the central server.

Model	BNA -9300/10	BNA-9400/10
Type	Wall Mounted	Wall Mounted
Enclosure Type	Weather Proof	Flame Proof
Amplifier	Class D	Class D
Power	25 W RMS dual channel	25 W RMS dual channel
Audio Codec / Protocol	G.711u/a-law, SIP(RFC 2833) , SIP (RFC3261),MP3 , PCM	G.711u/a-law, SIP(RFC 2833) , SIP (RFC3261),MP3 , PCM
Speaker Impedance	8 ohms	8 ohms
Frequency response	(-3 dB) 19 Hz .. 20 kHz	(-3 dB) 19 Hz .. 20 kHz
Signal to Noise Ratio	87dB	87dB
Operating Voltage	230 V AC or POE	230 V AC or POE
Ingress Protection	IP-65	IP-65
Operation Temperature	- 10° C to + 60° C	- 10° C to + 60° C
Relative Humidity	Up to 90% non- condensing	Up to 90% non- condensing





## PA SPEAKERS

					
<b>7301</b>	<b>7302</b>	<b>7303</b>	<b>7400</b>	<b>7304</b>	<b>7305</b>
<p>BNA high quality weather proof horn speakers are compact, light weighted, rugged and moulded in industrial grade ABS material and suitable for outdoor applications. Cone type speakers and ceiling type speakers are industrial grade speakers for indoor application. BNA Flame proof speakers are high grade CMRI certified outdoor speakers and suitable for the Ex"d" zone -1 &amp; 2, Group -IIA , IIB &amp; IIC , T6. BNA Cabinet speakers are suitable for Indoor, outdoor of areas like airport, schools and buildings etc. The Projector speakers are powerful 30W Bi-directional sound projector intended for speech and music reproduction in indoor and outdoor applications.</p>					

Model	BNA-7301	BNA-7302	BNA-7400	BNA- 7303	BNA-7304	BNA-7305
Type	Horn Type	Cone Type	Horn Type	Ceiling Type	Box type	Projector type
Enclosure Type	Weather proof	Weather Proof	Flame/ Explosion proof Ex-d	Weather Proof	Weather Proof	Weather Proof
Input Power	25W RMS /38W Max	6W RMS/ 10 W Max	25W RMS /40 W Max	6W RMS/ 10 W Max	30W RMS/45W Max	30W RMS/45W Max
Power taping	25/20/15/10/5 W	6/4/3/2 W	25/20/15/10/5 W	6/4/3/2 W	30/20/15/10/5 W	30/20/10/5 W
Impedance	8 ohms /100V	8 ohms / 100 V	8 ohms / 100 V	8 ohms / 100 V	8 ohms / 100 V	8 ohms / 100 V
SPL@ 1W/1m	108 dB± 3 dB	94 dB ± 3 dB	108 dB± 3 dB	92dB ± 3 dB	87dB ± 3 dB	94dB ± 3 dB
Frequency Response	100 Hz- 15 KHz	100 Hz- 15 KHz	100 Hz- 15 KHz	100 Hz- 15 KHz	100 Hz- 15 KHz	100 Hz- 15 KHz
Ingress Protection	IP-65	IP-54	IP-65	-	-	-
Operation Temperature	- 10° C to + 60° C	- 10° C to + 60° C	- 10° C to + 60° C	- 10° C to + 60° C	- 10° C to + 60° C	- 10° C to + 60° C
Relative Humidity	Up to 90% non-condensing	Up to 90% non-condensing	Up to 90% non-condensing	Up to 90% non-condensing	Up to 90% non-condensing	Up to 90% non-condensing
Material	ABS	MS	LM-6	ABS	ABS	ABS
Dimensions /Weight	Ø274 x L 280 2 Kg	220 x 190 x 85 2.1 Kg	Ø260 x L 430 8 Kg	210Φ X 78H 1 Kg	180 x 248 x 140 2 Kg	Ø175x256 2.6Kg
Colour	RAL-7032	Shade -631	Shade -631	RAL-7032	Black	RAL -7032



## EPABX INTERFACE UNITS



### EPABX INTERFACE UNIT

It acts like gateway between the IP PBX server & existing Plant EPABX exchange to provide the paging & private communication from the campus telephones. offers superb voice quality ,it contains the 4 line interface for the EPABX exchange ,simple configuration.

Model	EI-4104	EI-4108	EI-4124
<b>Number of Telephone Lines</b>	4	8	24
<b>Audio Codecs</b>	G711u/a, G723, G729 & GSM	G711u/a, G723, G729 & GSM	G711u/a, G723, G729 & GSM
<b>Protocols supported</b>	UDP, RTP,TCP, DHCP	UDP, RTP,TCP, DHCP	UDP, RTP,TCP, DHCP
<b>IP Signaling</b>	SIP (RFC 3261)	SIP (RFC 3261)	SIP (RFC 3261)
<b>Ethernet ports</b>	2 RJ45 10/100Mbps (LAN/WAN)	2 RJ45 10/100Mbps (LAN/WAN)	2 RJ45 10/100Mbps (LAN/WAN)
<b>Caller ID</b>	Bellcore Type 1 & 2, ETSI, BT, NTT, and DTMF-based CID	Bellcore Type 1 & 2, ETSI, BT, NTT, and DTMF-based CID	Bellcore Type 1 & 2, ETSI, BT, NTT, and DTMF-based CID
<b>Compliance</b>	FCC , CE	FCC , CE	FCC , CE
<b>Indication</b>	LED indication for 4 lines, LAN & WAN ,power, ready	LED indication for 8 lines, LAN & WAN ,power, ready	LED indication for 24 lines, LAN & WAN ,power, ready
<b>Mount Type</b>	Rack Mount	Rack Mount	Rack Mount
<b>Power requirements</b>	240V AC ,50hz	240V AC ,50hz	240V AC ,50hz



## GSM INTERFACE UNIT



### IP-GSM-GX

IP GSM Interface gateway is used establish voice Channel between the External Mobile network to Central server for Paging & Private Communication, Using this feature on the go Paging & Private Communication Possible from enabled /Pre Programmed Numbers, 4 simultaneously Communication possible, External Antenna provided for better Signal, Server Status information is intimated to pre designated Mobile Number on Server UP & Failure Status

Model	IP-GSM-G4	IP-GSM-G8
<b>Number of GSM Line Interface</b>	4	8
<b>Audio Codecs</b>	G711u/a, G723, G729 & GSM	G711u/a, G723, G729 & GSM
<b>Protocols supported</b>	UDP, RTP,TCP, DHCP	UDP, RTP,TCP, DHCP
<b>IP Signaling</b>	SIP (RFC 3261)	SIP (RFC 3261)
<b>Ethernet ports</b>	2 RJ45 10/100Mbps (LAN/WAN)	2 RJ45 10/100Mbps (LAN/WAN)
<b>Channels</b>	4 lines GSM/CDMA/WCDMA GSM: Quad-band 850/900/1800/1900MHz , CDMA: 800MHz	8 lines GSM/CDMA/WCDMA GSM: Quad-band 850/900/1800/1900MHz , CDMA: 800MHz
<b>Compliance</b>	FCC , CE	FCC , CE
<b>Indication</b>	LED indication for 4 lines, LAN & WAN, power	LED indication for 8 lines, LAN & WAN, power
<b>Mount Type</b>	Rack Mount	Rack Mount
<b>Power requirements</b>	240V AC ,50hz	240V AC ,50hz



## FIRE ALARM INTERFACE UNIT – CENTRALIZED MODEL



**IP-X8E-100**

It's an IP based fire alarm interface unit connected to plant fire alarm panel through potential free contact(Com, NO/NC),totally 8/16/24 PFC (Potential Free Contacts) alarms can be connected, individual message for each alarm preceded by siren, message will be paged to all the zone, it will repeat the message playing if the contact is still closed, Queue facility provided when multiple alarms triggered, alarm message can be changed through network.

Model	IP-X8E-100	IP-X16E-100	IP-X24E-100
<b>Number Of PFC</b>	8	16	24
<b>Audio Codecs</b>	G.711 (uLaw/aLaw @ 8 or 24 kHz),MPEG(8..48 kHz sample freq)	G.711 (uLaw/aLaw @ 8 or 24 kHz),MPEG(8..48 kHz sample freq)	G.711 (uLaw/aLaw @ 8 or 24 kHz),MPEG(8..48 kHz sample freq)
<b>Frequency Response</b>	19Hz-22kHz *	19Hz-22kHz *	19Hz-22kHz *
<b>Signal-to-Noise Ratio</b>	87 dB *	87 dB *	87 dB *
<b>Protocols supported</b>	UDP, RTP,TCP/IP, DHCP AutoIP, SonicIP, IPzator,FTP	UDP, RTP,TCP/IP, DHCP AutoIP, SonicIP, IPzator,FTP	UDP, RTP,TCP/IP, DHCP AutoIP, SonicIP, IPzator,FTP
<b>Network Interface</b>	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP
<b>Storage</b>	8GB	8GB	8GB
<b>Certifications</b>	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)
<b>Interface Connector</b>	16 pin(for each alarm 2 pin) Phoenix /Terminal block	2 x 16 pin(for each alarm 2 pin) Phoenix /Terminal block	3 x 16 pin(for each alarm 2 pin) Phoenix /Terminal block
<b>Mount Type</b>	19" Rackmount	19" Rackmount	19" Rackmount
<b>Power Requirements</b>	230vac ,50hz	230vac ,50hz	230vac ,50hz
	* depends on used codec, best results @48kHz PCM		



## FIRE ALARM INTERFACE CONTROLLER – DISTRIBUTED MODEL



**IP-FIC-ZX**

IP based fire alarm Controller unit, Which communicate with the IP PA Fire interface units through IP network, it can handle up to 8/16/24/32 IP PA Fire Interface units. Individual message for each alarm/Zone preceded by siren, message will be paged to all the Paging zone ,it will repeat the message playing if the contact is still closed , Queue facility provided when multiple alarms triggered

Model	IP-FIC-Z8	IP-FIC-Z16	IP-FIC-Z24	IP-FIC-32
<b>Number Of IP PA Interface Units</b>	2	4	6	8
<b>Fire Zones Supported</b>	8	16	24	32
<b>Audio Codec's</b>	G.711 (uLaw/aLaw @ 8 or 24 kHz),MPEG(8..48 kHz sample freq)	G.711 (uLaw/aLaw @ 8 or 24 kHz),MPEG(8..48 kHz sample freq)	G.711 (uLaw/aLaw @ 8 or 24 kHz),MPEG(8..48 kHz sample freq)	G.711 (uLaw/aLaw @ 8 or 24 kHz),MPEG(8..48 kHz sample freq)
<b>Frequency Response</b>	19Hz-22kHz *	19Hz-22kHz *	19Hz-22kHz *	19Hz-22kHz *
<b>Signal-to-Noise Ratio</b>	87 dB *	87 dB *	87 dB *	87 dB *
<b>Protocols supported</b>	UDP, RTP,TCP/IP, DHCP AutoIP, SonicIP, IPzator,FTP	UDP, RTP,TCP/IP, DHCP AutoIP, SonicIP, IPzator,FTP	UDP, RTP,TCP/IP, DHCP AutoIP, SonicIP, IPzator,FTP	UDP, RTP,TCP/IP, DHCP AutoIP, SonicIP, IPzator,FTP
<b>Network Interface</b>	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP
<b>Storage</b>	8GB	8GB	8GB	8GB
<b>Certifications</b>	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)
<b>Mount Type</b>	19" Rackmount	19" Rackmount	19" Rackmount	19" Rackmount
<b>Power Requirements</b>	230vac ,50hz	230vac ,50hz	230vac ,50hz	230vac ,50hz
<b>* depends on used codec, best results @48kHz PCM</b>				



## FIRE ALARM INTERFACE UNIT – DISTRIBUTED MODEL



### IP-FAI-ZX

IP based interface unit connected to plant fire alarm panel through potential free contact (Com,NO/NC),totally 4/8/16/24 alarms can be connected , when Contact trips Information is sent to Central IP PA Fire alarm Controller through IP network , an individual message for each alarm preceded by siren, message will be paged to all the zone ,it will repeat the message playing if the contact is still closed , Queue facility provided when multiple alarms triggered , Message Playing is from Central IP PA Fire alarm Controller.

Model	IP- FAI-Z4	IP- FAI-Z8	IP- FAI-Z16	IP- FAI-Z24
<b>Number Of Alarm interface</b>	4	8	16	24
<b>Protocols supported</b>	UDP, RTP,TCP/IP, DHCP	UDP, RTP,TCP/IP, DHCP	UDP, RTP,TCP/IP, DHCP	UDP, RTP,TCP/IP, DHCP
<b>Network Interface</b>	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP	RJ45 10/100 Mbit Ethernet (Auto), TCP/IP
<b>Interface Connector</b>	8 pin(for each alarm 2 pin) Phoenix /Terminal block	16 pin(for each alarm 2 pin) Phoenix /Terminal block	32 pin(for each alarm 2 pin) Phoenix /Terminal block	48 pin(for each alarm 2 pin) Phoenix /Terminal block
<b>Mount Type</b>	Wall Mount	Wall Mount	Wall Mount	Wall Mount
<b>Certifications</b>	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)	FCC B, CE B, RoHS compliant (lead free)
<b>Power requirements</b>	12 VDC , 1A	12 VDC , 1A	12 VDC , 2A	12 VDC , 2A



## BGM UNIT



### BNA-IP-PA-BGM

BNA IP PA BGM unit is an IP based mp3 player with USB, FM, Aux Input For External Audio Source to feed. Unit encodes analog audio sources in real time in a configurable format (MP3, PCM, G.711, and G.722) and streams via TCP, UDP, and Multicast RTP format to configurable destinations. Used in high quality broadcast applications, a surveillance and VoIP market alike, the IP PA BGM has proven its simplicity where Audio over IP encoding is required.

Model	BNA-IP-PA-BGM
Built-in Input	USB ,FM
External Input	1 -Aux Input
Output	Network Audio Stream
Audio format	MP3 (Variable Bit Rate up to 192 Kbit) G.711(u Law/a Law @ 8 or 24 kHz) PCM (16 bit @ 8 or 24 kHz)
Protocols supported	UDP, RTP, DHCP, SNMP, Auto IP, Sonic IP, IPzator
Network Interface	RJ45 10/100 M bps Ethernet (Auto), TCP/IP
Mount	2U , 19 inch Rack mount
Power requirements	230 VAC, 50 Hz



## AUDIO SCHEDULER



**IP-ICS-10**





Professional standard IP based Audio scheduler for use in IP audio scheduling application. TCP/IP based, Audio over IP codec's supported, low power, high reliability, PC-FREE design, Server-Less Solution Totally 10 audio schedules can be set ,each schedule contains 15 bells , Each Bell contains Target Zone/Group, Audio message File, Time Scheduled message will be broadcasted to single zone, Group , all zone overhead speakers as programmed/setting through Network ,Supports Unicast , Multicast ,Broadcast Audio file can be voice messages/ prayers/bells/ sirens/alarms One audio file can be of one hour For each day of week you can specify the schedule ,Weekly Schedule available ,co-exists with BNA IP Paging station Monitoring speaker is provided for local hearing the Scheduled messages with a volume control.

Model	BNA-IP-PA-BGM
No of Schedules	10
No of Bells in Each Schedule	15
Schedule Types	Daily, Weekly
No of Groups	10
Protocols Supported	UDP, RTP, DHCP, SNMP, Auto IP, Sonic IP, IPzator
Ethernet Ports	RJ45 10/100 Mbps Ethernet (Auto), TCP/IP
Storage	8GB
Audio Format	U / A Law (8 KHz / 24 KHz)
Monitoring Speaker	Yes
Display	LCD with Backlight
Mount Type	2U Rack mount
Power Requirements	230V AC, 5A





## JUNCTION BOXES

			
<b>Station Junction Box 7200</b>	<b>Power Distribution Box 7300</b>	<b>RJ-45 Socket Box 7200/100</b>	<b>Loud Speaker Junction Box 7201</b>
<p>Station Junction Box is used in conjunction with Field stations. The unit Provides DC power to Field stations. Station Junction has facility for Power line Connection from Previous station &amp; to Next station. Enclosure material is industrial grade LM-6 having ingress protection IP-65</p> <p>Power Distribution box has facility to create multiple power lines. Minimum 5 power output loops can be created. MCB is provided for extra protection. Enclosure material is industrial grade LM-6 having ingress protection IP-65.</p> <p>Socket Box is used to connect PA Stations with Network switches. It has RJ-45 port (Ethernet Port). Enclosure Material is LM-6 , IP-65.</p> <p>Loudspeaker Junction Box is used to connect speakers with PA Stations. It has 2 way type connectors housed inside LM-6 Enclosure, IP-65.</p>			



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