

SMART

MASTER CONTROL STATION MODEL MCS-IP

SMART INDUSTRIAL PA SYSTEM (MODEL MCS IP) Distributed Amplifier Design Concept **INDUSTRIAL PA SYSTEM (MODEL WMHS IP)** with unique features of **MULTIPLE PAGE CHANNELS & PRIVATE INTERCOM CHANNELS** for Paging and talkback facility on existing plant **EPBX**.

The first of its kind **PA SYSTEM ON VOIP** allows Individual location paging, zone paging & **ALL** call paging feature, Talk Back. Multiple private channels and special **Mobile APP** for making page call from **ANDROID MOBILE PHONES** using the **VOIP wifi** network.



MASTER CONTROL STATION

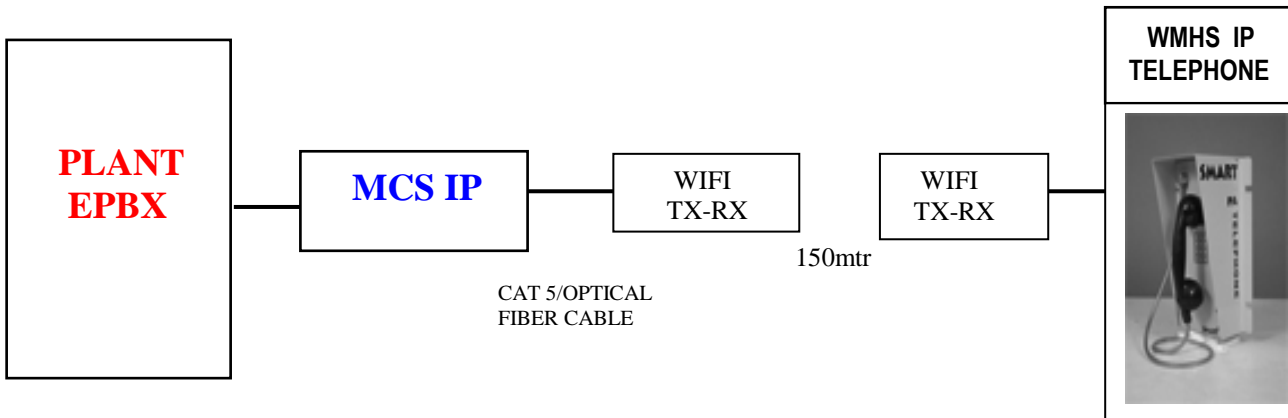
MULTIPLE PAGE CHANNEL: This feature is used for:-

- MULTI CHANNEL SMART IP TELEPHONE PAGING.
- SIMULTANEOUS DIFFERENT ZONE PAGE CALL FROM MULTIPLE LOCATIONS.
- ALL CALL paging.
- The SMART IP TELEPHONES IN AN AREA formed as Zones.
- Locating and contacting people in a Particular location, zone or all over the plant.

MULTIPLE PRIVATE INTERCOM CHANNEL: This feature is used for:-

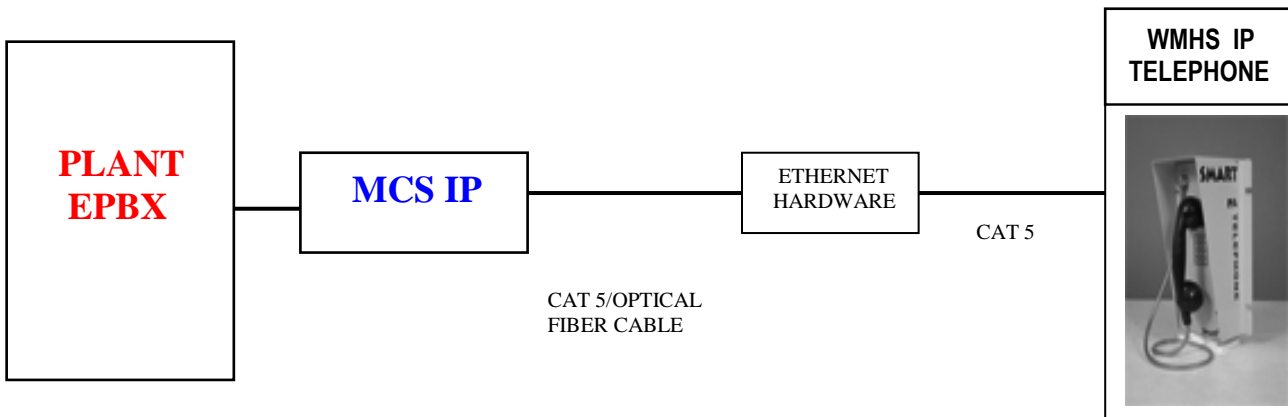
- Multi Channel point to point communication.
- Selective communication by dialing individual access code.
- Talk back after Individual / zone & All Call page by called person in private mode.

System Configuration 1



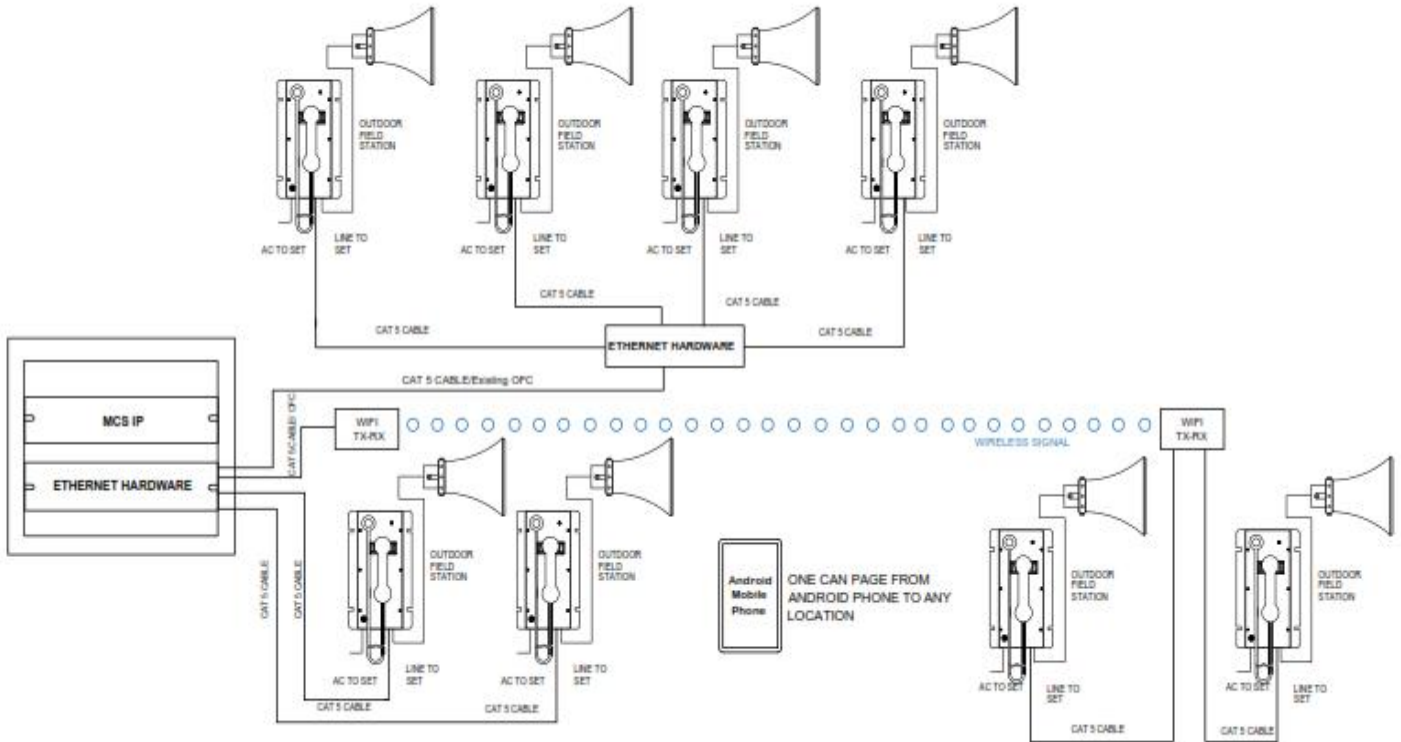
One can page from android mobile phone to any location.

System Configuration 2

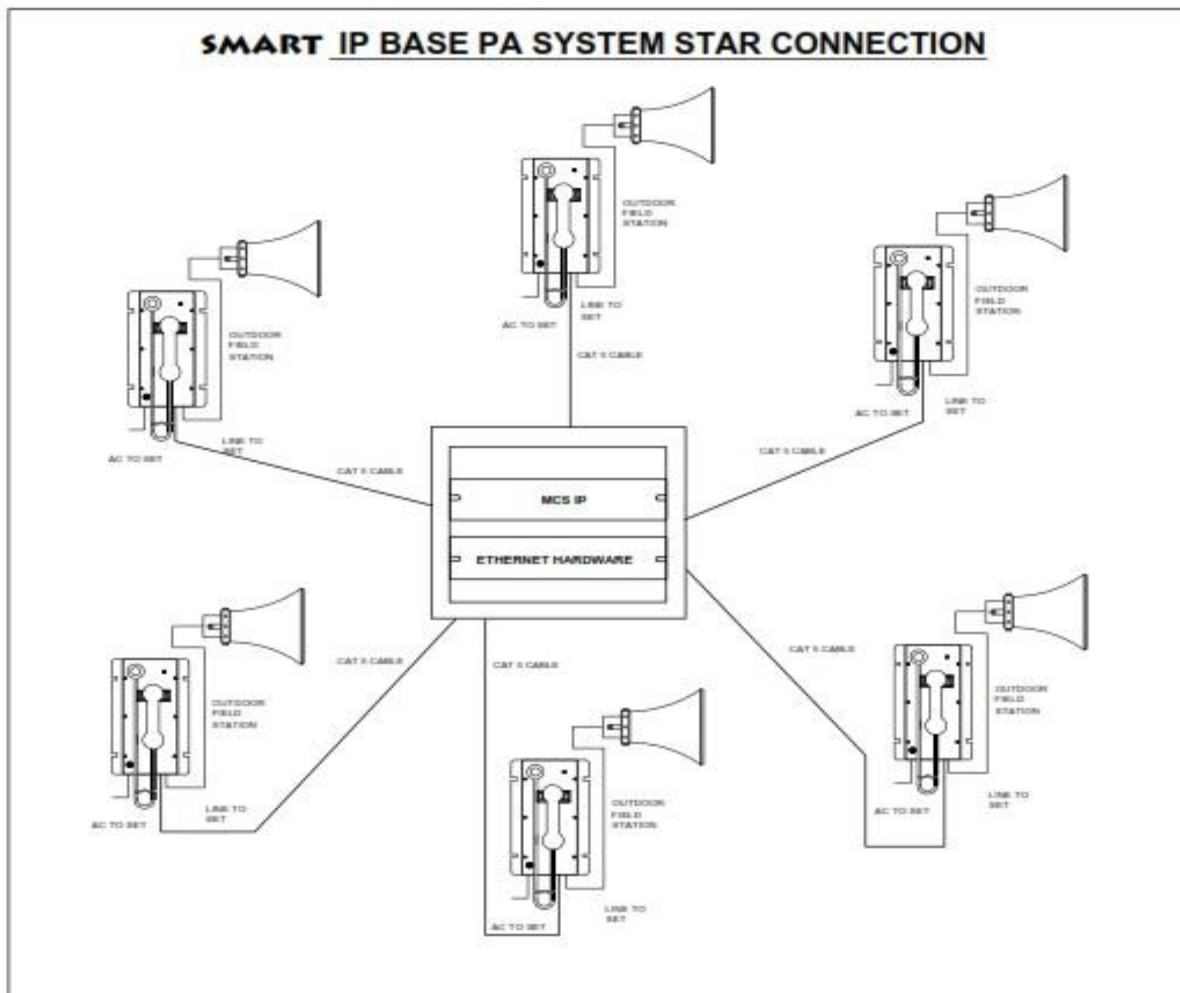


One can page from android mobile phone to any location.

SMART IP BASE PA SYSTEM



SMART IP BASE PA SYSTEM STAR CONNECTION



Use media converters at MCS IP ETHERNET SWITCH AND WIFI TX-RX for OFC.

For Loop wiring of OFC dual mode MEDIA CONVERTERS are to be used at WIFI TX-RX END

SMART IP PA TELEPHONE can be easily installed at any location under wifi range or used in existing wifi network.

The WIRELESS IP PA TELEPHONE can be installed on moveable wagon loader machines.

SMART MASTER CONTROL STATION (MCS - IP 24 LINE): -

The Master Control Station is 100% non-blocking VOIP system. The system is designed for MAXIMUM 24 PHONES.

- IP - CONTROLLER
- ETHERNET SWITCH

The basic features of the Smart IP Base Communication System (MCS –IP) are as follows:

- Single zone and all zone page control.
- Two-way call to all IP TELEPHONES. (ALL ZONE PAGE CALL)
- Two-way call to individual zone. (ZONE PAGE CALL)
- Two way call to individual station.
- Making zone call and all call by dialing access code.
- Volume controls and amplifiers in each field location.
- No high power amplifier required.
- Above 1sq mm, 2 cores, ATC, PVC insulated cable for loudspeaker horn from IP Telephone (WMHS – IP) to speakers.
- IP PA Telephones (WMHS –IP) operate on 220 V AC / 110 V AC
- System based on distributed amplifier design.
- Easy expansion requiring no hardware change.
- Single location multi zoning possible
- Mobile APP for ANDROID PHONE for making page calls within the network

WORKING:-

- SMART IP PA TELEPHONES (MODEL WMHS IP) are connected to the WIFI TX-RX through WIFI signals and WIFI TX-RX are connected through CAT 5 or OFC to switch of the MCS IP.
- SMART LOUD SPEAKERS HORNS (MODEL LSOD) are connected to IP PA TELEPHONE SETS.
- On dialing individual extension number of any IP PA TELEPHONE (WMHS IP) the required person may be paged, on pickup the communication is in private mode.
- This system is based on distributed amplifier based principle thus cabling is very limited.
- The system uses WIFI SIGNAL OR ETHERNET CABLE (CAT 5 CABLE) from WIFI TX RX OR ETHERNET SWITCH to each IP PA TELEPHONE UNIT (WMHS- IP). The power can be taken individually from any nearest location. The loudspeakers are placed close to the field telephones (max 3 meter).
- Existing OFC can be used between MCS IP and WIFI TX-RX for Long distance.
- With the Mobile APP the ANDROID phones can make calls to the IP PA PHONE NETWORK.
- The system being easy to install, expand, maintain and is widely being used by Indian industries for their communication needs.

ADVANTAGES: -

- Talkback, one-way or combination systems are easy to configure.
- Individual volume controls built-in to each IP pa TELEPPHONES for volume adjustment after system is installed.
- Unlimited speaker expansion using external additional amplifier and cu wire.
- Many localities require conduit for "high voltage" (Class 1) conductors, this is rarely a necessity with a distributed amplifier system. Being single PCB design it is easy to maintain.
- Paging from any location in the Network by using the Mobile APP
- The system can use existing OFC cables and WIFI network as the bandwidth requirement for voice data is very low.

VOIP FEATURES:-

The VOIP is a full feature voice over IP device that offers a high-level of integration including a10M/100Mbps network port, market-leading sound quality, rich functionalities, and a compact and lightweight design. The VoIP network signaling protocol supported is SIP. The VOIP is fully compatible with SIP industry standard and can interoperate with many other SIP compliant devices and software on the market.

VOIP Protocols

- Supports voice code - G.711 (A-Law & μ -Law),G.719 (pass through),G.722,G.722.1 licensed from Polycom®,G.722.1 Annex C licensed from Polycom®,G.726
- Protocols - SIP (Session Initiation Protocol), MGCP (Media Gateway Control Protocol), Jingle/XMPP, H.323, GR-303.

SMART IP-PA TELEPHONE MODEL WMHS IP

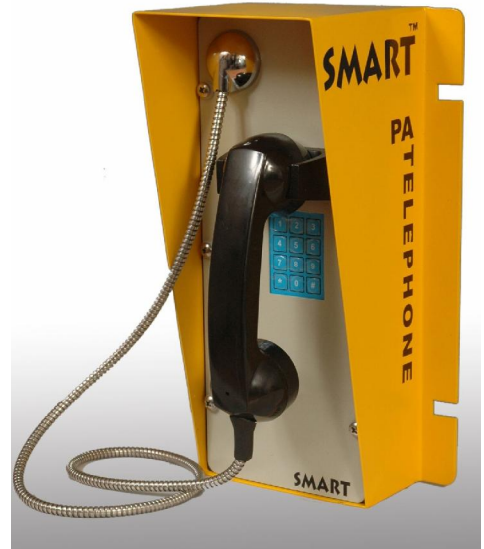
SMART IP PA TELEPHONE (MODE –WMHS IP) is a multiple role; multiple location operating IP telephone unit by construction with built in public address system, works as a normal telephone as well as a page phone unit, when connected to **WIRELESS TX-RX** it is a wireless PA telephone **FIRST IN INDIAN COMMUNICATION INDUSTRY.**

This phone has a built in amplifier, which is connected to external loudspeaker horn and works on either 220 volts AC or 110 Volts AC. One has to just lift the telephone handset of any extension, dial the extension number of IP PA Telephone and after the call matures automatically, make necessary announcement. The communication between the calling party and the called party is in private mode, when the called party lifts the handset.

SMART IP PA TELEPHONE (MODE -WMHS IP) disconnects automatically on calling party disconnecting the call.

The system uses existing OFC network of the plant thus reducing the cable laying and cable maintenance cost.

The IP PA TELEPHONES are connected to central server (MCS-IP) can be patched with existing EPABX or Plant communication system



OPERATIONS: -

1. TO MAKE A CALL: -

- Lift the handset, hear the dial tone.
- Dial desired extension number & communicate.
- Replace handset to disconnect active call.

2. INCOMING CALL: -

- From any phone dial the extension number of SMART PA TELEPHONE. It will connect automatically and acknowledge with a BEEP TONE.
- Announce after the hearing the BEEP TONE.
- Communication will be in PRIVATE MODE when called party lifts the receiver.
- Replacing the receiver on cradle will reset the SMART PA TELEPHONE.

VERSATILE APPLICATIONS: -

- * Cement Plants. * Mines. * Petrochemical Refineries. * Chemical Plants. * Construction Sites.
- * Steel Plants. * Spinning Yarns * Fertilizer Plants. * Sugar Mills. * Power Generation Facilities * Pulp & Paper Mills *
- * Food Processing Plant * Warehouses * Recreation Facilities *Hydroelectric Facilities * Drilling Rigs * Ammonia Storage Area
- * Process industries* ANY LARGE AND MEDIUM SCALE INDUSTRIAL UNITS.

ACCESSORIES AND OPTIONS: -

- External Loudspeaker Horn.
- Color selection (subject to minimum quantities).

SMART CHOICE: -

- Simple Installation.
- Simple Operation.
- One-piece waterproof non-tactile keypad.
- Magnetic reed hook-switch reduces moving parts subject to wear.
- 16-gauge rugged steel powder coated construction.
- Heavy industrial ABS handset & SS cord.
- Noise-canceling type microphone.
- Auto disconnect to free line for next call.
- A service temperature range from 0 to +60 °C.
- Encapsulated circuit boards impervious to water and condensation.
- CAT5 Cable input.
- Easy troubleshooting ensuring minimum downtime.

SPECIFICATIONS: -

Electrical Requirement :-

Power Source:	220 V AC / 110 V AC (SWITCH ABLE).
Connector	RJ-45 CAT-5 / WIFI connection provides Ethernet communications / wireless communication
Protocol	Standard Internet Protocol (IP) is used for voice ion control and communications
Power consumption:	< 35 Watts.
Stand by consumption:	< 5 Watts.
Amplifier:	30 Watts (RMS).
Horn Speaker:	60 watts, 8 ohms.
Handset:	Standard hand set, four feet stainless steel Armour tube.

Mechanical Specifications:-

Dimensions:	360 X 160 X 180 (in mm).
Weight:	5 Kgs.
Construction:	16 SWG Powder Coated Steel Body.
Cradle:	Al-Alloy with Magnetic reed switch.
Hand set construction:	High impact ABS.
Standard mounting:	Vertical wall / panel.
Microphone:	Noise canceling dynamic.

Environmental:-

Moisture Resistance:	0 to 95% humidity with PCB conformal coated.
Temperature Range:	0 to +60C.
Dust resistance:	Fully weather proof enclosure.

CONFIRMING TO IP 65-DEGREE PROTECTION.

INDUSTRIAL COMMUNICATIONS SIMPLIFIED .

cables & wireless co.

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“(Specifications and description subjected to change without prior notice)”