

Public Address Systems



# UDE, the best audio solution for your business

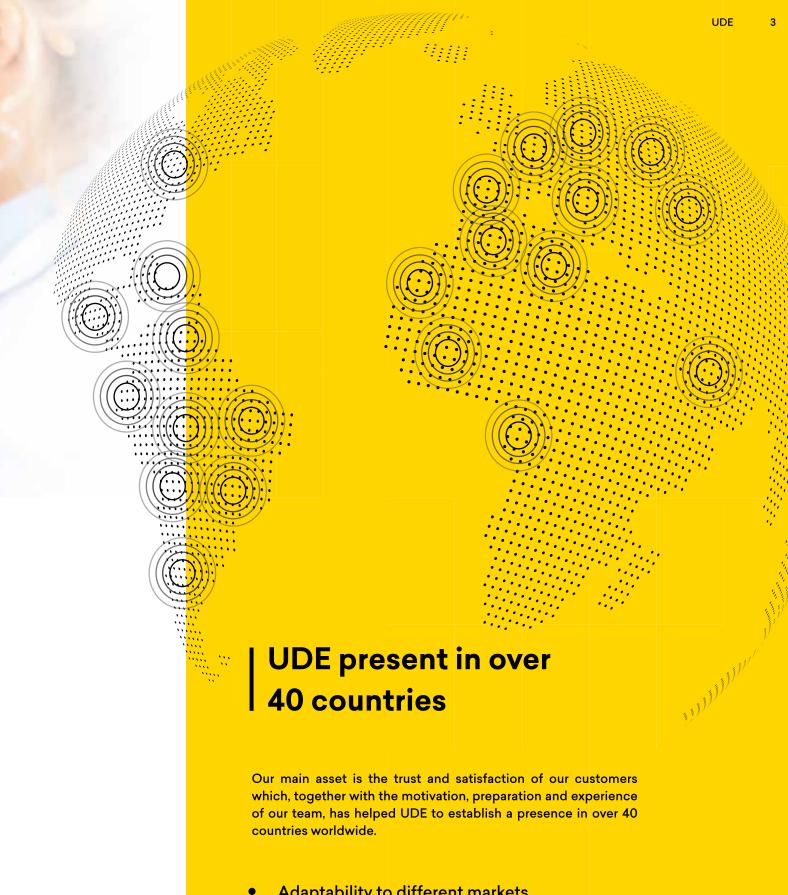
More than 30 years of dedication and constant evolution has made us a national and international leader in the design, manufacture and marketing of public address systems

#### Values:

- We offer quality, reliable and robust products and easy to use.
- We enhance the personal relationship of trust and respect with our clients.
- Teamwork: we promote the personal and professional growth of all the members of our team through methods that boost their training.
- We are environmentally friendly.
- Our commitment with guarantee services and after-sale services of our products.

**Mission:** To advise and provide support to our clients with the purpose of reinforcing the B2B cooperation and to ensure that our partners feel part of UDE team.

**Vision:** Our commitment to the future is based on the constant evolution of the R&D department to adapt and improve our range of products to the needs of today's market and our customers. We thank all the companies and customers whose trust has allowed us to fulfil our objectives and envision a future with excellent prospects.



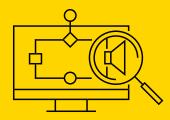
- Adaptability to different markets.
- Extensive network of partners and distributors.
- Pre-sales and after-sales services
- Specific training for our customers
- ... and we continue to grow.

## **Project Management:**

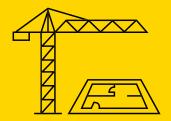
#### Property



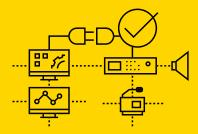
#### Architect/Consultant



#### Contractor



#### System Integrator



# After-sales service and guarantee



# Our service philosophy

Continuously committed to adding value to our business and supported by our know-how in designing sound systems, UDE also offers its consulting services to customers that require it.

In this way we are involved in every stage of the construction process of any project. From the design of the project with the ownership, advice to consultants, support for installation and commissioning with contractors through to the after-sales services and guarantee of our equipment.

We are passionate about advising our customers in audio solutions from the design of the project through to its commissioning

Thanks to the diversity of our product range in the audio field, we can offer our customers solutions for the following applications:

- · Public Address Systems
- · Voice evacuation
- · Audiovisual
- · Intercommunication

We implement these applications in diverse industries such as:



**Education** 



**Hotels** 



Places of worship



Oil & Gas



Hospitals



**Transport** 



**Sports centres** 



Malls











# **Systems**

IP-based Public Address System

Voice Alarm System - EN 54

**DSP Active Line Array Speakers** 

Conference System

Nurse call system

Windows intercom system

Digital intercom system

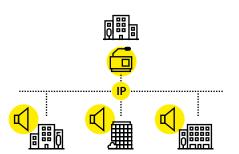
Explosion-proof intercom system

Background music system

Portable sound units







The modular IP-based public address system allows the distribution of audio signals using the existing data network infrastructure.

The system is configured and monitored in a decentralised way from any point in the network, facilitating its installation and subsequent maintenance. Ideal for applications such as train stations, schools, government offices, etc.

#### Main features:

Decentralisation

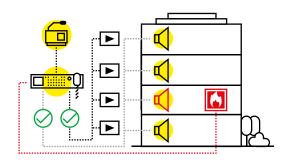
Compatibility

Integration with SIP telephone switchboards

IPU - 100	IP Audio Encoder / Decoder	
IPU - 100P	Paging desk with zone selection and touchscreen	
IPU - 360	SIP management and monitoring server	
IPU - 1025	IP Audio decoder with internal amplifier (25 W)	







UDEVAC is an integrated Public Address and Voice Alarm system, designed and manufactured following the guidelines of the EN 54-16 standard.

The UDEVAC system offers all the essential features of a public address and voice alarm system, including system supervision, switching of backup amplifiers, loudspeaker lines supervision, management of paging and evacuation messages and a complete control of incidents through visual indicators.

#### Main features:

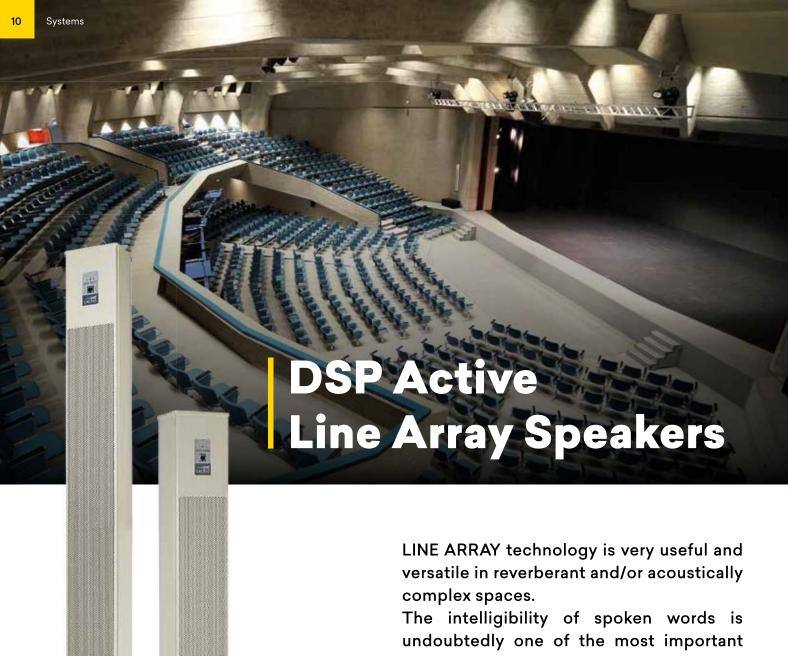
Compliance with the EN 54-16 standard

Supervision of 6 amplifiers and 6 redundant loudspeaker lines (A+B) per main station

Integration with fire alarm system

Scalable to up to 300 zones

PZ-112	Paging desk with supervision
SLA-112	Main Station and supervision unit



points when adapting a sound system to the acoustic requirements of any room.

The ACD-3008 / ACD-3012 column loudspeakers have an internal DSP that allows vertical beam control, with the goal of providing a uniform sound field and suppressing the side lobes in the covered area. These column loudspeakers are the perfect solution for applications such as auditoriums, places of worship, multi-purpose halls; among others.

#### Main features:

Real-time adjustment of all configurable parameters (EQ, volume, bass, treble, beam steering, input sensitivity, etc.)

High level of intelligibility

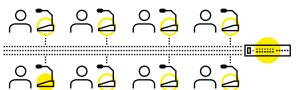
Adaptability to any installation: L100V and 0 dB

#### Referenced equipment:

ACD-3008 DSP Active line array Speaker. 240W ACD-3012 DSP Active line array Speaker. 360W Configuration module WCD-3000







The purpose of the conference system is to enable communication in debating environments such as meeting rooms, courts, congresses, seminars, etc.

The SC conference system consists of table stand or built-in desk microphones and a control and power supply unit, which includes a feedback suppressor module. The desk microphones are managed, amplified and powered by the SC-400 unit which supports up to 60 desks connected on 3 different lines (and up to 120 using additional equipment).

#### Main features:

Integration with: the room's PA system, equalizer, recorder, pre-amplifier, etc.

Easy programming of the operating mode.

Allows up to 6 simultaneous participants.

SC-401	Chairman microphone
SC-402	Delegate microphone
SC-400	Control unit





In order to ensure effective and secure communication between patient and nurse, the UDECOM system has all the necessary functionalities to be the most suitable and competitive solution for intercommunication in healthcare areas.

Our range of intercommunication systems includes the SRD and UDECOM nurse call systems which cover management, communication and call service needs in hospital, clinical and geriatric environments.

In addition, the use of a server enables the monitoring of activities carried out in each room, and the generation of a database of both medical staff and patients.

#### Main features:

Full-duplex audio communication and presence management

Connection of up to 900 interconnected rooms

IP connectivity with server.

Integration with telephone switchboard

UC-102	Nurse station
UC-104	Room controller
UC-140	Independent bathroom controller
UW-18	Wireless telephone interface
UC-1001	Data management server

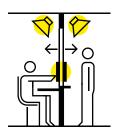




The IV-5/M system can be used in different applications such as box offices, car parks, information stands, access controls, rail or bus stations, etc.

The main objective is to allow intercommunication in places where the glass of the windows hinders the two-way communication between the person on the inside and the person on the outside. These systems therefore enable acoustic enhancement in intercommunication.





#### Main features:

"Hands-free" system

Easy use and installation

Notch filters for adjusting to the acoustics of the box office

Integration with magnetic loops

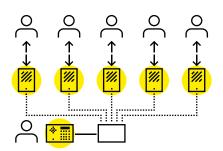
PV-5	Inside microphone
IV-5	Outside microphone
WV-6	Main unit
AP-700	Inside/outside loudspeaker. 3W



INTERCOM-200 allows digital intercommunication for applications such as schools, offices and facilities with evacuation requirements for disabled people.

The system manages up to 300 intercommunication points and allows communications to be transferred to both other main stations in the system and the telephone switchboard. Its modular concept makes it easy to expand its capacity adapting the equipment to the needs in each case.





#### Main features:

Full-duplex audio communication

Transfer of calls to other main stations and the telephone switchboard

Configuration software

Integration with PA system

IR-404	Intercom unit
ID-200	Main station
IW-18	Wireless telephone interface

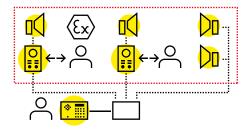


Public address and intercom system for industrial facilities in areas with risk of explosion.



Oil plants, gas plants, silos, petrochemical companies, etc. have areas with a high risk of explosion, so it is essential to use ATEX certified equipment.

The INTERCOM 500 system is a point-to-multipoint communication system consisting of ATEX certified horn speakers and intercom units with IP 65 degree of protection.



#### Main features:

ATEX certification

IP 65 degree of protection

Intercom and public address system

IR-62/2	ATEX intercom Unit
SA-30	Driver unit for horn loudspeaker. 30 W. ATEX





# A compact easy-to-use audio solution designed for the residential sector.

The AV-220 is the ideal background music system solution for low-power applications such as homes, offices, hotels, restaurants, shops, etc. It is a compact system which offers the appropriate power and features for these types of applications. Its easy use and installation makes it a retail solution that can be used and enjoyed by any type of consumer.

#### Main features:

Powered stereo system. 10W + 10W.

Multiple audio inputs: Bluetooth, USB, SD, Radio and line inputs

Functional design

Built-in and surface mount

## Referenced equipment:

AV-220

Amplified background music system.



# In UDE we have a range of portable PA systems for low, medium and high power.

They are stand-alone systems which meet all the necessary requirements to be used in applications such as conferences, sports events, dance classes, gymnasiums, etc. In short, applications in which failing to have a fixed and local sound system can be resolved easily and practically with the use of this portable equipment. In addition, being easy to use makes it an audio solution for any type of consumer.

#### Main features:

Internal amplifier: 10 W-180 W

Rechargeable battery

Include wireless microphones, music source and audio inputs

WA-700	Low-power portable sound unit. 10W.	
UD-360	Medium-power portable sound unit. 50W.	
UD-800	High-power portable sound unit. 100W.	
UD-980	High-power portable sound unit. 180 W.	
SINCRO-100	Portable sound unit for synchronised swimming.	



# **Equipment**

Microphones and paging desks

Music sources

Pre-recorded message player

Mixers

Signal processing

Audio matrix and zone modules

Mixing amplifiers

Power amplifiers

Loudspeakers

Volume controllers

# Microphones and paging desks

Our range has a wide variety of microphones and paging desks designed for both PA and audiovisual applications.



# **Music Sources**

The RM-101 allows music playback using different media, such as CD, USB or SD card. The equipment also includes an FM tuner for radio.

**RM-101** 

CD player and MP3 files

USB and SD

FM tuner



# Pre-recorded message player

We have different solutions for broadcasting pre-recorded messages which enable, among other things, integration with third-party systems and the automatic playback of messages based on a calendar. We offer two types of equipment to adapt better to project needs.

**GD-36** 

Internal calendar for automatic message playback

EVAC compatibility - 24 VDC input and message monitoring

Integration with fire alarm system

Connection to IP network



**GD-1000** 

Up to 1440 events per day through internal calendar

Front push buttons to play messages

Software management with MasterSwitch



# **Mixers**

For both audiovisual applications as well as medium and high power public address systems, our range of mixers has the necessary features to mix any audio input signal in the system and to modify its parameters.

#### PX-99

8 MIC/AUX inputs / 2 outputs

Individual adjustment of volume, bass and treble

Compatible with WXD-19 feedback suppressor

Enables the configuration of presets through SF-99 software.



#### **PXD-59**

5 MIC/AUX inputs

Individual adjustment of volume, bass and treble

Compatible with WXD-19 feedback suppressor

Assigning priorities via remote controls



# Signal Processing

Within the audio chain, equipment is optionally used which processes the audio signal or adds new features or improves existing ones.

#### IT-15

**Telephone interface:** allows the public address system to be integrated with a telephone switchboard to make announcements from a particular extension.



#### **GR-20**

**Signal distributor:** device used for press passes that makes it possible to take a sound signal and distribute it to 20 independent outputs.



# **Audio matrix and zone modules**

One of the most common requirements for public address systems is the routing of signals or selecting zones to be able to make announcements to specific zones of the installation. Depending on scale of the project we offer different alternatives:

#### MICRO-400

#### 5 IN / 4 OUT Self-amplified audio matrix

120W Internal amplifier per channel

Includes MP3 Player and Tuner

Connection of up to 4 paging desks (PZ-400)

Priority telephone input



#### **MICRO-800**

#### 8 IN / 8 OUT Audio Matrix

Scalable to 32 zones

Connection of up to 2 paging desks (MX-801)

Connection with remote panels for source selection and volume control (MX-888)

Includes EVAC functionalities (Integration with fire alarm system, 24 VDC input, siren playback, etc.)



#### MICRO-600

#### Zone module system

Management of up to 6 announcement and music zones

Override function for volume controllers

Connection of up to 6 paging desks (PZ-600)

Integration with fire alarm system



#### **MICRO-1000**

#### Zone module system

Management of up to 10 announcement and music zones

Scalable to 300 zones

Connection of up to 16 paging desks (PZ-1000A)

Integration with fire alarm system



# **Mixing Amplifiers**

The **mixing amplifiers** provide a compact solution for low and medium power installations. We have 2 series:

#### X5 series

Power from 40 W to 240 W

Robust and economical solution



#### **XD9 series**

Power from 120 W to 240 W

Class D amplifiers

Allows insertion of function modules (Feedback suppressor, priority inputs, modulation detection, volume controllers, etc.)



# **Power Amplifiers**

The **power amplifiers** are designed for medium and high power applications to offer greater flexibility and adaptability.

#### **EP** series

Power from 60 W to 1000 W

Output channels: 1 or 4

Robust and economical solution



#### **EPD** series

Power from 240 W to 1000 W

Output channels: 1, 2 or 4

Class D amplifiers

L100V without transformer – 1U Rack

EVAC compatibility - 24 VDC input



# Loudspeakers

We have a complete range of loudspeakers to cover different applications as well as different power requirements. Within each category we offer different models to adapt as best as possible to the demands of each project.

## **Technical Features:**

Low and high impedance

High power range: 5 W - 80 W

#### Categories:

Ceiling speakers

Wall mount speakers

Column speakers

Horn speakers

Sound projectors and spheres

Garden speakers

Explosion-proof loudspeakers - ATEX





# **Volume controllers**

The main function of the volume controllers is to decrease the signal of one or a set of speakers without interfering with the rest of the system. We have volume controllers for low and high impedance and for different power requirements.

Low impedance: 5 W

High impedance: 5 W or 60 W

They include override function

























































Thanks to all the Companies and Organisations that have entrusted UDE with bringing sound to the world. UDE



Oman College of Management and Technology, Oman



Higher Institute of Technology, Saudi Arabia



Sanctuary of the Divine Mercy of Our Lord, **Ecuador** 



Malaga Cathedral, **Spain** 



Campus UPC - Besos, Spain



Chimbote Cathedral, Peru



US Embassy Sofia, Bulgaria



Campus ADNOC, UAE



Bahrain Financial Harbour, Bahrain



### UNION DESARROLLOS ELECTRONICOS



#### **Benefits**

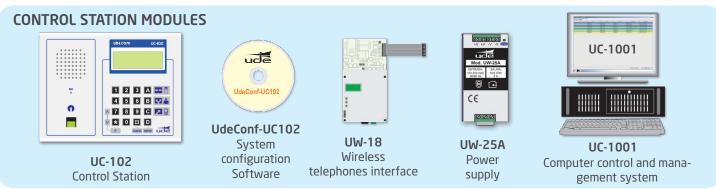
- Healthcare communication in hospitals and old people's homes with almost 900 rooms and 14 control stations.
- Assistance of alarms generated manually or automatically by each room or by any control station. Using the wireless telephone interface (UW-18), the assistance of alarms can be managed from a wireless pone (mobility control).
- Call identification (room and bed of origin, alarm type...) and its assistance.
- Illuminated signal in the room or bathroom where the alarm is activated and from a specific type: presence, normal, urgency and emergency.
- Bidirectional voice communication between resident and control station.
- Physical presence signal from staff in a bedroom. The staff (doctors, nurses, assistants, etc) physical presence in a bedroom is activated by introducing presence codes according to the type of staff.
- Physical presence signals will appear on:
  - The room substation.
  - The corridor using the pilot light on the bedroom's door.
  - The control station.

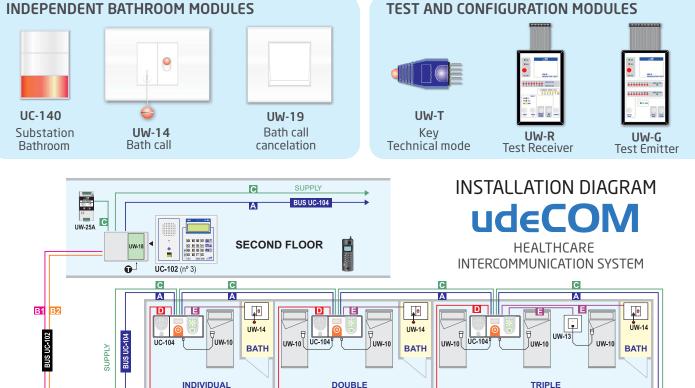
Modular system of intercommunication and signs for hospital environments, clinics and geriatrics.

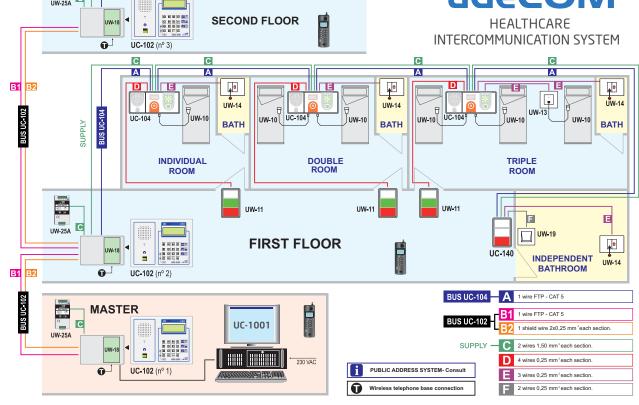
The multiple functions, the simplicity of use and installation make UDECOM the most suitable and competitive solution among healthcare fields.















## UNION DESARROLLOS ELECTRONICOS



# **IV-5/M**

# Duplex Intercom System for windows

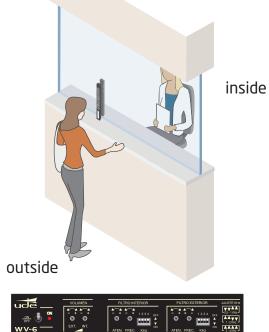
# **Applications**

- Payment lockers
- Parkings
- Railway stations
- Bus stations
- Maritime stations
- Information offices
- Access Control



PV-5

# Hands free





**WV-6** 

Simultaneous, automatic and duplex intercom system (hands free), with built-in antilarsen device. It is specially useful in spoken communication where glazing separates people communication from one side to another.

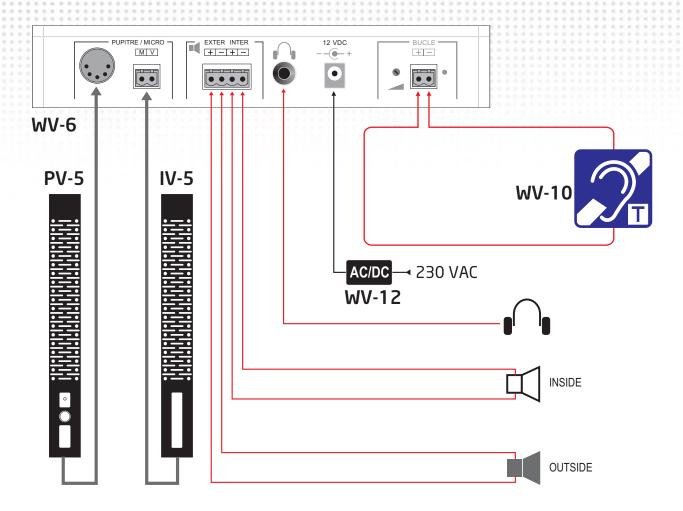
# **IV-5/M Composition:**

- 1 Inside microphone PV-5
- 1 Outside microphone IV-5
- 1 Main station WV-6
- 1 Supply 12 VDC **WV-12**

## **Optional:**

- Inside loudspeaker (recommended AP-700).
- Outside loudspeaker (recommended AP-700).
- Phones.
- Magnetic loop to help hearing disabled person (WV-10).







## UNION DESARROLLOS ELECTRONICOS





# **SC** Conference system

# **Applications**

- Lectures
- Administrations
- Town halls
- Companies
- Congress
- Meetings

- Debates
- Seminars
- Hotels
- Assembly halls
- Associations
- Communities





President paging desk Includes:

- -Priority push button CANCEL
- -Speech push button ON/OFF -Loudspeaker
- -Microphone with light ring
- President paging desk Includes:
- -Loudspeaker

-Speech push button ON/OFF

-Microphone with light ring



President paging desk Includes:

- -Priority push button CANCEL -Speech push button ON/OFF
- -Loudspeaker
- -Microphone with light ring



President paging desk Includes:

- -Speech push button ON/OFF
- -Loudspeaker
- -Microphone with light ring

## **Basic Operation**

By using the SC-400 control unit, the system can operate in two different ways:

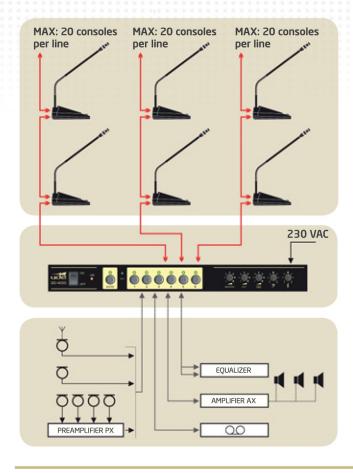


Provides management, amplification and power to the whole system.

Automatic mode: Only one delegate at a time.

Disconnection will be automatically done once another delegate intervenes in the meeting or debate.

Simultaneous mode: Limited number of delegates. Each delegate is responsible of taking or leaving his/her turn by using the push button "ON/OFF". The limited number of simultaneous delegates can change between 1 or 6 delegates according to the number chosen in the control unit.



The conference system is composed by built-in or table stand paging desks. Each console includes a microphone with a green ring light, a push button ON/OFF and a loudspeaker. Besides, the presidential paging desks has an additional push button which function consists on cancelling all present consoles. This way, the presidential paging desk has the highest priority assigned.

Paging desks are managed, amplified and powered by a control unit that supports a number of 60 paging desks in 3 different lines (extendable to a number of 120 using additional equipment).

Among other possibilities, the system allows also:

- The connection of one or more outer microphones (wireless, etc) for other type of interventions.
- Recording and playing the events that are carried
- The connection to a Public Address system, etc.



# UNION DESARROLLOS ELECTRONICOS



Intercommunication and PA system for facilities in hazardous areas.



# **Approval**

II 2 GD Ex d IIB T3 Gb Ex t IIIC T85 °C Db -20 °C ≤ Ta ≤ +55 °C

# **Applications**

- Petrochemistry.
- Plants for gas load, unload and storage.
- Gas pipelines.
- Silos.
- Oil ship.
- Oil plants.



#### IR-62/1

Includes:

- -Push button for call / General notice
- -30 W. Loudspeaker. L100V
- -Electret microphone -Protection degree: IP-65

#### IR-62/2

Includes:

- Push button for central call
- Push button for volume reduction
- 30W. Loudspeaker. L100V
- Electret microphone
- Protection degree: IP-65

#### IR-62/3

- Includes
- Push button for general call
- Push button for central call
- Push button for volume reduction
- 30W. Loudspeaker. L100V
- Electret microphone
- Protection degree: IP-65

#### IR-62/P

Includes:

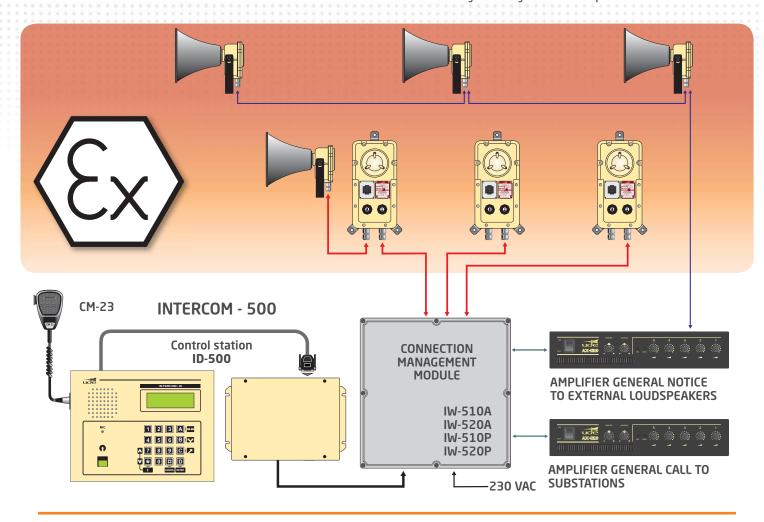
- Push button for central call
- Push button for volume reduction
- 30W. Loudspeaker.16 ohms
- Electret microphone
- Protection degree: IP-65
- **SA-30**
- Power (L100V): 30,15,7'5,3 W
- Direct impedance: 16 ohms

DRIVER UNIT FOR HORN LOUDSPEAKER Certification: LOM 10ATEX2050

- Frequency range: 150-10000Hz
- SPL (1KHz/1m): 107 dB (1W). Application:
- BP-30/SA-30. BG-50/SA-30
- SA-30/S. As standard EN 60849
- Protection degree: IP-65

Application used for industrial and marine environments with potential danger of explosion. These can be used in atmospheres with types of gas A and B, with an ignition temperature higher than 200 °C (T3), which means they can be used in a high number of security facilities.

The superficial temperature tag "T85°C" refers to the use in environments with combustible powder in absence of gas. LOM 10ATEX2049 and LOM 10ATEX2050 certifications are valid for every country in the European Union.





For more information visit our website:



◆ ACD-3012

**DSP Active Line Array Speaker** 

Especially designed for use in reverberant spaces or with acoustic complexity

- · Sport facilities
- · Train stations
- · Airports
- · Large Areas
- Religious centers



ACD-3008





HIGH LEVEL OF INTELLIGIBILITY

ADAPTABLE TO ALL KIND OF INSTALLATIONS



- · Adjustable sound beam.
- · Uniform coverage within the listening area.
- · Line level (O dB) input/output. (XLR).
- · Input from loudspeakers line (Terminals):

  High impedance: L100V / L70V.

  Low impedance: 4 8 ohms.
- · Sensitivity adjustment: 0 dB / -3 dB / -6 dB.
- · VOX Mode.
- · 15 band graphic equalizer with a gain adjustment of +/- 10 dB.
- · Speech Filter.
- · Use for indoor and outdoor applications.

The ACD-3008 / ACD-3012 has been designed and manufactured as a LINE ARRAY of speakers with high intelligibility performance.

The new DSP algorithms developed and implemented in the column's firmware enables a more efficient and precise control of the vertical sound beam with the main aim of obtaining a uniform sound field on the covered area as well as avoiding any reverberant effects that certain spaces may cause due to its acoustic complexity.

From the energy point of view, these line array speakers have been optimized with different modes of consumption (ON, MUTE, ECO) depending on the signal level's detection obtained by using the VOX feature.

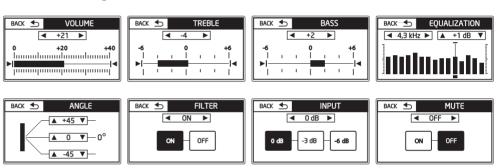
The construction of the line array speakers, completely made of aluminum, enhance their life-span within environments with a high level of humidity.



#### WCD-3000 Interface



The WCD-3000 interface allows a simple and user-friendly adjustment of all the internal parameters of the ACD-3008 / ACD-3012 line array speakers. Besides this adjustment can be done from the listening area (up to 100 meters distance away from the speaker) which allows a more accurate configuration.



FEATURES	ACD-3008	ACD-3012
Speakers	8 x 4"	12 x 4"
Type of speaker	Kapton Cone (specially for ou	tdoor and humid environments)
Type of amplifier	PWM	(class D)
Rated power	240 W.	360 W.
Frequency response	80 Hz - 20.000 Hz	
SPL Level (at 30m)	90 dB SPL	91 dB SPL
Range	>30 meters	>40 meters
orizontal dispersion	140°	
ound beam angle adjustment	+/- 45 positions (45°)	
ignal input/output	Balanced A	/ Unbalanced
100V input	Bal	anced
ensitivity	0 dB / -3	3 dB / -6 dB
Communication protocol with WCD-3000	RS-485 (	9600 Baud)
laximum Consumption (ON mode)	400 W.	650 W.
onsumption (ECO mode)	5 W.	
onsumption (MUTE mode)	30 W.	
Power supply	230 VAC. / 50-60 Hz.	
Colour	lvory - Ral1015	
Wall mounting	By using 2 squads (provided with the product)	
Weight	19 Kg. 27 Kg.	



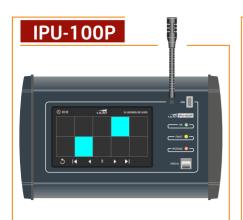


The IP-based Public Address system manufactured by UNIÓN DESARROLLOS ELECTRÓNICOS enables the setting up of conventional and security public address systems. The connectivity between IP devices is ensured by the SIP standard compliance of own development.

### **Applications:**

- Schools/Universities.
- Sport Centers.
- Industrial areas.
- Commercial and Retail.
- Airports.

# IP-based Public Address System



#### Paging desk.

The IPU-100P is responsible of the management of different paging zones individually or by group of zones. The paging desk provides a GUI color touch screen for operation.

## **IPU-100**



#### IP Encoder/Decoder Audio Manager.

The IPU-100 provides different options within the same device: encoder, decoder and audio manager. With the IPU-100, the user may:

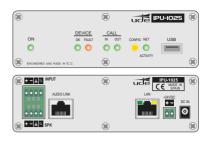
- Connect to conventional amplifiers using an audio output.
- Connect to an IP-based paging desk (IPU-100P).
- Connect to a music source by using the LINE input.
- Connect to a microphone with/without PHANTOM supply by using the MIC input.

The internal webserver of the device enables the user to:

- Monitor the status of the device.
- Configure all features both network and audio related.

This device supports POE.

## IPU-1025



#### IP Audio Decoder with 25W.

The IPU-1025 provides different options within the same device: mixer amplifier, decoder and audio manager. With the IPU-1025, the user may:

- Connect to low impedance speakers.
- Connect to a music source by using the LINE input.
- Connect to a microphone with/without PHANTOM supply by using the MIC input.
- The internal webserver of the device enables the user to:
- Monitor the status of the device.
- Configure all features both network and audio related.



## **IPU-360**

#### IP Audio Server.

The IPU-360 SIP centralizes and coordinates all communication between the IP devices ensuring maximum functionality for all of them. Through its internal webserver, the user may:

- Monitor the status of the server.
- Manage and register IPU-100 and IPU-1025 devices.
- Configure its network features.
- Configure the users features (Ex: password control).
- Create Music On Hold groups.

## **IPW-25**



#### Power supply source

The IPW-25 provides power supply to all IP devices except the audio server (IPU-360)

#### **Accessories**

#### IPW-10

Wall bracket for IPU-100 / IPU-1025.

#### IPW-13

Rack mounting support (1U). Capacity: 3 modules IPU-100 / IPU-1025.

