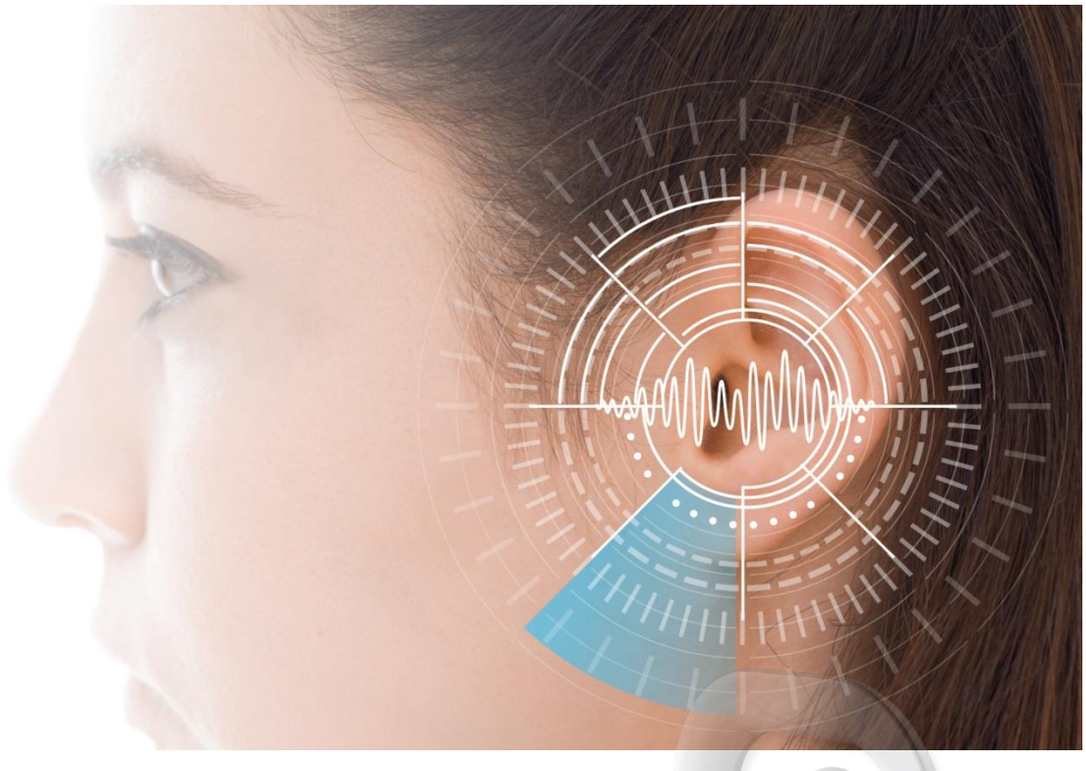
CATALOG

2019 | Assistive Listenning solutions

TECHNOLOGY
FOR ACCESSIBILITY



Loop amplifier
UHF Wireless system
Counter intercom

OPUS Technologies

EDITO

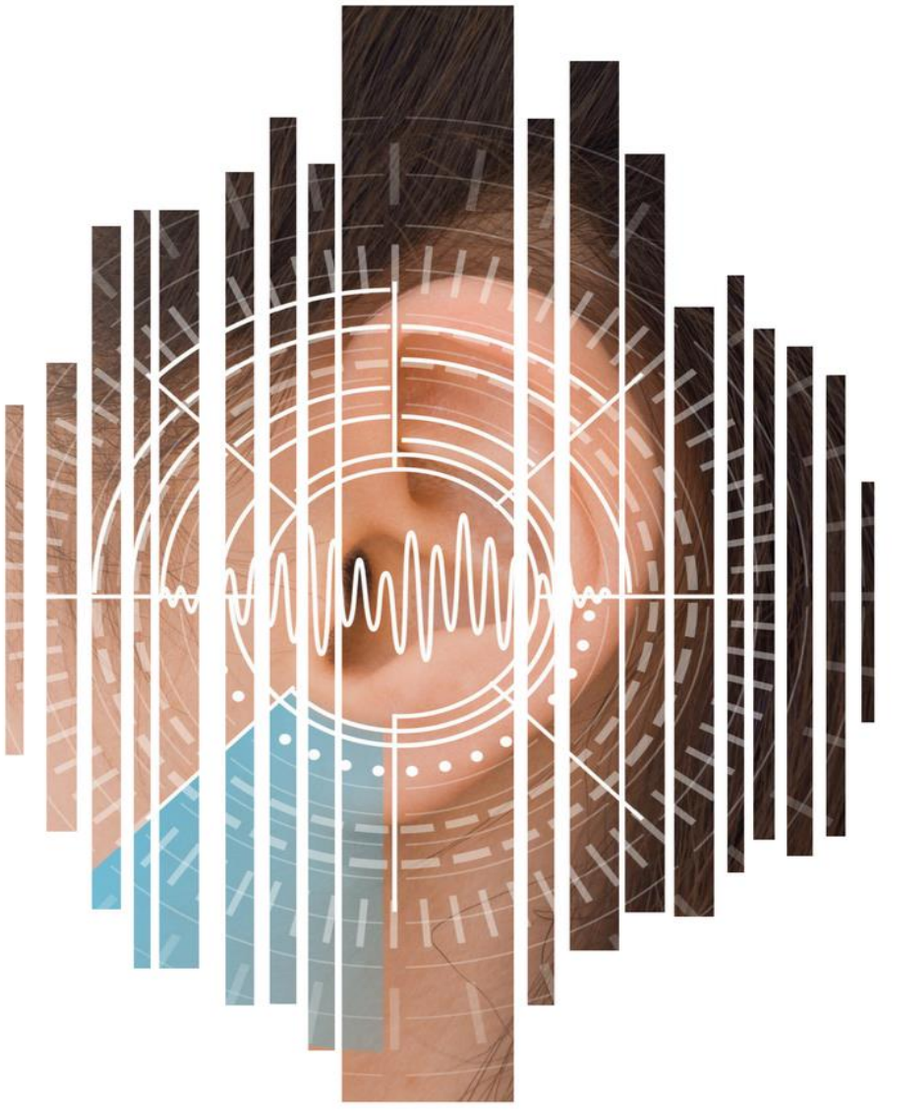
Opus Technologies is a French manufacturer of loop induction products for the hearing impaired. With 10 years of experience in audio technologies such as class D amplification, we work to expand the hearing accessibility with best solutions.

Opus Technologies catalog presents our range of magnetic loop amplifiers and receivers, developed and made in France, as well as a range of UHF wireless systems developed in collaboration with our international partners.

Bring you a reliable and qualitative offer is our priority.

We guarantee you a permanent support and a targeted answer to all your requests.

Opus Technologies team



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OUR COMPANY

Opus Technologies headquarters (development and sales) is located near Bordeaux (France), and the manufacturing at Pessac for low volume and Périgueux for higher series.
To become a leader competitor, we have introduced an ultra compact and efficient class D loop amplifier range, offering very high performance such as efficiency and audio quality.

Our exclusive technology provides hearing-impaired people with improved sound quality in public places such as theatres, conference rooms or reception counters.

We also have completed our offer by developing a range of UHF audio wireless transmission systems intended to provide hearing accessibility to the public concerned in all circumstances.

We believe in innovation and market improvements and we make progress to bring you new solutions every day. Reliability, simplicity and listening quality are our priority.

Our relationships with our customers and the users also our participations in national and international fairs allows us to be close to customer's needs.

YOUR SATISFACTION

Your satisfaction is our priority. We will be always available to advise you and to bring you our expertise.
Our systems are developed with strict and rigorous specifications, and proven technology associated with quality of manufacturing allow us to offer you a 5 year manufacturer warranty.

We follow you in your audio accessibility projects and we offer you the best and most adapted solutions to your needs.
Please, feel free to contact us for any questions regarding our products, their installation our their use.

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(Barcelona)

SLS Sound Light Spain
Oficial Distributor

Cité du Vin - Museum in Bordeaux, France- Equipped with Opus Technologies magnetic loops

REFERENCES

Some of the most prestigious sites where Opus Technologies loop amplifiers have been installed

Cannes Festival Palace

University of Reunion Island

Louvre Museum, Paris

Marrakesh Menara Airport

Paris ORLY Airport

Lascaux IV Gallery, France

It is sometimes difficult to hear clearly in large spaces. Listening to a talk or show in a room can be difficult for everyone. Imagine the difficulty for a hearing-impaired person to enjoy a concert or conference.

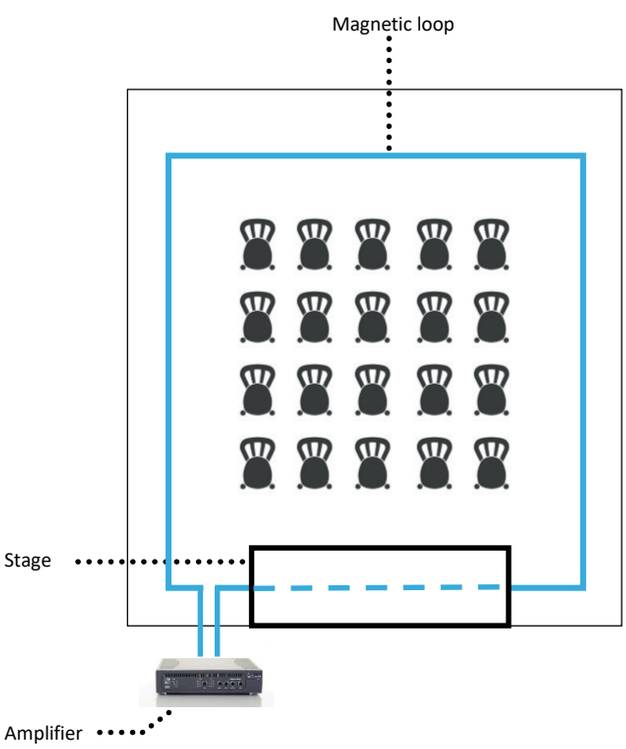
Loop amplifiers are a solution to this problem. Thanks to a magnetic field system that goes from a loop installed in the room to hearing aids placed in position T, the surrounding sounds disappear and the voice of the speaker or the music of the show are directly retransmitted into the ear of spectator.

No need to put yourself in the front row, people with hearing loss can sit where they want and have quality sound simply by adjusting their hearing aid on the T position.

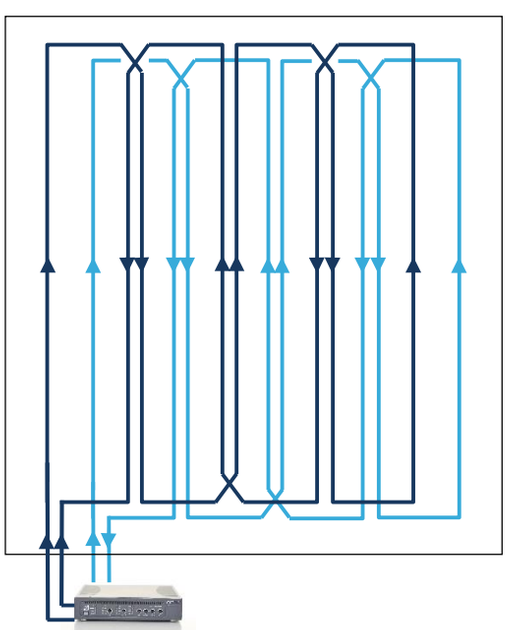
That's why more and more public facilities are now installing magnetic loop amplifiers. Adaptable, this system can be installed in theaters, amphitheaters or cash counters.

Opus Technologies with its ultra compact amplifiers, is already installed in museums such as the Louvre (Paris), Lascaux 4 or the Cité du Vin (Bordeaux), universities (University of Reunion), airports (Orly), theaters (Cannes Festival Hall) or sports stadiums.

Overview of different types of loop installations



Simple Loop Cabling For Conventional Area



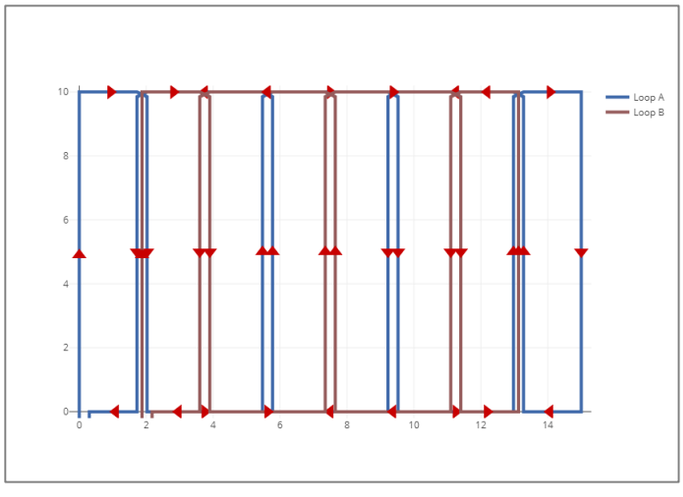
Phased Loop Cabling for High Metal Loop Absorption

OPUS SMARTLOOP

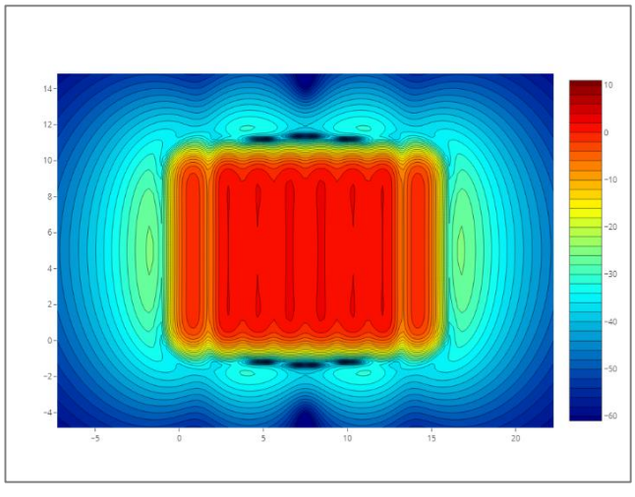
The loop simulation software developed by Opus

Thanks to our research and our knowledge in the field of hearing accessibility, we have developed a computer simulation software to offer you a powerful tool to create models. Smartloop guarantees technical studies that comply with the EN60118-4 standard for complex magnetic loop installations.

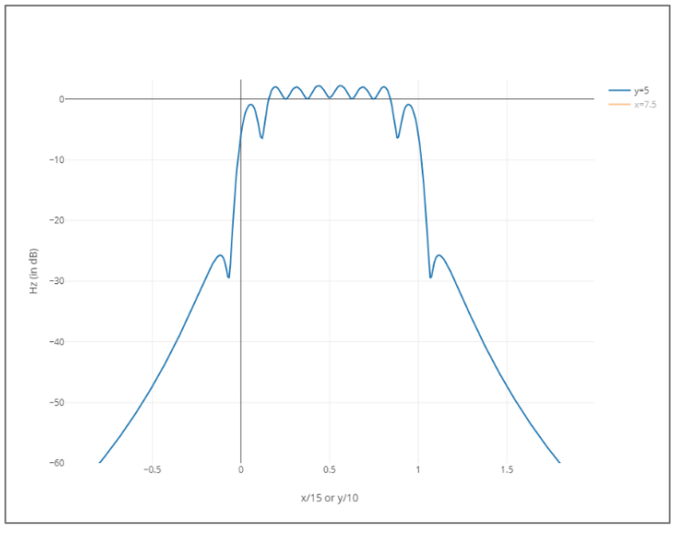
Example of modeling a magnetic loop with a low overflow system :



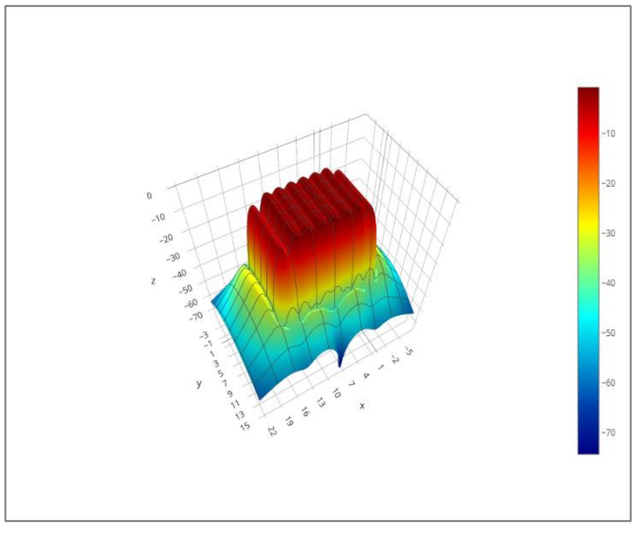
Implantation of a system with low overflow



2D simulation of a low overflow system



Median of a low overflow system



3D simulation of a low overflow system

The software has been designed to facilitate the planning of a loop system, it is dedicated exclusively to distributors, resellers or installers of Opus Technologies products.

To use the Smartloop software, make a request to create an account on our website www.opus-technologies.fr; get closer to your local distributor or contact us at contact@opus-technologies.fr.

SmartLoop

Project Name	Simon Theater	Room Name	Principal	Design by	Stephen Jacob

SAVE PROJECT

Loop Parameters

Loop type: Cancellation Loop

Room X-size: 12

Room Y-size: 15

Room shape: Rectangular

Listening height: 1,2

Loop height: 0

Cancellation position: 11

Number of turns for second loop: 1

Listening Area: Equal to room

Computation Parameters

Method to find the minimum: Auto

Intensity selection: Auto

Required level in dB: -3

Environment: Free space

RECOMPUTE

Results

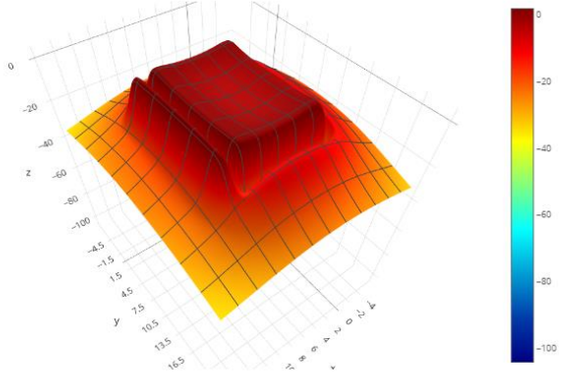
Required intensity to reach -3 dB :**3.96255 A (RMS)**

Point where this value is reached :**(5.5, 7.5)**

Intensity chosen to display the results below :**3.96255**

Technical Data | Layout | 2-D Field | Fields on the middle lines of the listening area | 3-D Field

3-D Field



WHY OPUS TECHNOLOGIES ?

Opus Technologies offers a wide range of ultra compact and efficient loop amplifiers, guaranteeing a targeted, judicious and qualitative response while optimizing budget costs.

We put our expertise and our experience at your service to assist you in your projects.

Concretely, the installation of a magnetic loop require taking into account many factors, such as:

- The magnetic pollution
- The presence of metal reinforcement (ceilings, reinforced concrete, floor, metal beams, etc)
- The room's shape
- If several rooms are equipped next to each other (classrooms, offices, etc)
- The configuration of the place (cinemas, theaters, conference rooms, reception desk, etc)
- The ideal installation height of the loop
- The possibilities of implementation.

It is important to consider all these elements as early as possible in your project, this will allow you to perform your installation in the best conditions

When planning your project, architects, installers, reseller or operators, we invite you to contact us, in order to best meet your specifications and the technical constraints of your facilities.

We support you and provide you with accurate studies for the most complex installations.

There are many situations where loop coverage has to be placed in specific areas (such as courts or boardrooms) or where many rooms are side by side (such as classrooms of schools or universities). Low-emergence systems reduce external radiation.

These installations involve the implantation of two magnetic loops with a phase shift of 90 ° in order to obtain a uniform distribution without shadow zones inside the loop.
The system then allows an optimization of the clean and uniform coverage, a feedback effect greatly reduced due to lower currents, extremely low radiation and reduced sensitivity.

The study of a low-crosstalk system is complex and requires precise technical knowledge. We can provide you with a study for your projects to ensure a compliant and trouble-free installation. We guarantee a fast, efficient and professional service.

Example of an installed loop on a counter :

WHERE TO USE OPUS TECHNOLOGIES SYSTEMS ?

Hearing aids are not always enough to ensure comfortable listening and understanding. In crowded areas such as shops, theaters, conference rooms, environment can be noisy. The hearing impaired perceives an ambient hubbub that does not allow him to follow a conversation or an event in optimal conditions.

LOOP SYSTEM

The magnetic induction loop is a device that can transmit sound directly into the hearing aid (or cochlear implant) which is equipped with a receiver (coil) to retranscribe the signal in the prosthesis without background noise.

This type of equipment ensures listening and intelligibility for people with hearing loss. However, installing a magnetic loop system that has been poorly studied upstream will have an impact on hearing quality for the hearing impaired. This is why we support you, whatever your projects.

UHF WIRELESS SYSTEM

OPUS-technologies offers a new product line of UHF audio wireless transmission systems intended to provide the best hearing accessibility to the public concerned in all circumstances.

The UHF wireless audio system transmits a person's voice to one or more receivers. Our transmitters and receivers can cover up to 16 channels and offer optimal sound quality.

Thanks to our listening accessories and our mic, we guarantee a clear sound, even in a noisy surrounding environment adapted to all situations.

Feel free to come to us to define the most suitable system for your needs.

TRANSPORT

WORK

PUBLIC FACILITIES

CULTURE

EDUCATION

HOME

Loop amplifier	UHF system
Advantages	
No receiver management	Ease of use
Low radiation and possibility of controling	Important coverage
Hearing impaired are independent	Simple settings
Excellent listening quality	Excellent Listening quality
Universal technology (fits with all hearing aids with a T position)	
Possibility of providing headphones for non-fitted persons	Possibility of providing headphones for non-fitted persons
Reduced maintenance after installation	
Disadvantages	
Strict and rigorous installation implementation	Management required for receivers and accessories
Mandatory preliminary study	Significant external radiation
Complex implementation in an existing building	Imposes hearing-impaired persons to report for headphones and accessories
Possibility of magnetic pollution due to metal structures and transformers	

WINDOWS INTERCOM SYSTEM

The OP-6505 wicket intercom system provides a solution for clear communications when the sound of the voice is impaired by the use of glass security screen. This solution is required for ticket outlets, bank or post office counters or any other facility that requires physical separation between interlocutors.

This counter intercom system associated with the DCL20 loop amplifier is a kit called OP-6505B. It makes communication possible for people who are hard of hearing. Hearing aid wearers will be able to hear and communicate easily, even in noisy environments such as station halls or concert hall queues.

Applications
Designed for use in any situation involving personal communication with an interlocutor at a counter, booth or office, such as

- Banks
- Post Offices
- Theaters
- Information Centers
- Airports

Loop Amplifier Systems

Opus Technologies single and double output induction loop amplifier offers a wide range of use for all installations demanding optimal listening quality. Very high efficiency compact amplifier combines quality, reliability and ease of use as well as clear and precise sound.

Opus Technologies present the eLoop, our new development for the loop counter portable.

e-LOOP*

e-Loop	e-Loop comes with a power supply and a set of regulatory stickers
e-Loop+	e-Loop+ comes with a power supply, an OP-M80 gooseneck microphone, a handset for not equipped people and a set of regulatory stickers

Counter loop amplifier systems

Portable counter loop amplifier system

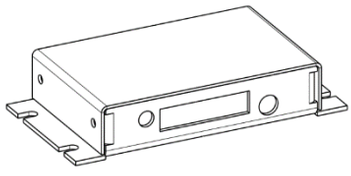
The e-Loop is the latest generation of Opus Technologies counter loop amplifier, compact design and powerful that is perfectly adapted to integrate into modern environments.

The system incorporates a lithium battery.

INPUT	
Audio input	1 microphone
Connector type	Micro Jack 3.5mm
Phantom supply	5V , 1mA
POWER SUPPLY	
Voltage / Current	12 Vdc / 1.5A
Fuse / Connector	Resettable / 2.1mm DC Jack for AC/DC external power supply
Idle consumption	0.7W
Battery type	Lithium Ion
AUDIO CHARACTERISTICS	
Compression ratio / Attack / Release	1 : 1 / 10ms / 500ms
Sensibility (input 1 / 2 / 3)	-13dBu / -35dBu / -14dBu
Bandwidth	100Hz to 9kHz
THD+N	<0.15% @ 1KHz@ 0.1W and <1% @ 1KHz@ 10W
OUTPUT	
Cover area	1,10 m
Protection	Thermal and over load
Audio	Line for headset

* Available in 2019

DCL20



The DLC20 is the ideal equipment for counters or small areas. This audio accessibility kit have been built to be used by people with hearing loss in every public facilities. It has the advantage of being one of the most compact of the market and thus to be integrate in all discretion for an optimal result.

Opus Technologies a créé des kits complets avec le DCL20 en fonction de l'application et de la zone à équiper (voir page suivante).

INPUT	
Audio input	2 (1 microphone or line input and isolated line input)
Connector type	Micro Jack 3.5mm, Phoenix terminal block
Phantom supply	5V , 1mA
POWER SUPPLY	
Voltage / Current	12 Vdc / 1.5A
Fuse / Connector	Resettable / 2.1mm DC Jack for AC/DC external power supply
Idle consumption	0.7W
AUDIO CHARACTERISTICS	
Compression ratio / Attack / Release	1 : 1 / 10ms / 500ms
Sensibility (input 1 / 2 / 3)	-13dBu / -35dBu / -14dBu
Bandwidth	100Hz to 9kHz
THD+N	<0.15% @ 1KHz@ 0.1W and <1% @ 1KHz@ 10W
OUTPUT	
Maximum voltage	6.5Vrms
Loop resistance	0.5 Ω to 3 Ω
Peak Current / RMS Current	4A / 2A at 1KHz
Protection	Thermal and over load

DCL20-K

Kit for counters

The DCL20-K is an induction loop kit that can be used to equip counters or reception desks. The set is designed to offer accessibility to hearing-impaired people equipped with a T-position hearing aid.

DCL20-K1

Kit for counters with headphones

The DCL20-K is an induction loop kit that can be used to equip counters or reception desks. The set provides with OP-M80 microphone is designed to offer accessibility to hearing-impaired people equipped with a T-position hearing aid.

DCL20-E

Kit for counters with headphones

The DCL20-E is an induction loop kit that can be used to equip counters or reception desks. The set is designed to offer accessibility to hearing impaired people equipped with a hearing aid with the T position but also for non-hearing instrument hearing aids through the OP-E earpiece.

DCL20-TV

Kit for TV rooms

The DCL20-TV is an induction loop kit that can equip TV lounges. The set is designed to offer accessibility to hearing-impaired people equipped with a T-position hearing aid.

DCL20-SA

Kit for 50m² rooms

The DCL20-SA is an induction loop kit that can equip small rooms. The set is designed to offer accessibility to hearing-impaired people equipped with a T-position hearing aid.

OP-E

Earphone for DCL20 - Recommended product.
The OP-E is an optional earphone for DCL20-K type proximity amplifiers. It provides hearing accessibility for unattached individuals of a hearing aid.
(DCL20-E Kit).

OP-M

Microphone for loop amplifier.
Miniature surface microphone for DCL20, IL-PL20 or LH with 3.5 jack. Economical solution provided with a self-adhesive mounting base.

OP-M80

Gooseneck microphone.
The OP-M80 is an optional microphone for DCL20-K proximity amplifiers. It provides a clear and audible sound in all circumstances for people wearing hearing aids.

OEM Solutions

Opus Technologies offers a development service for specific needs (medium to large series) and also standard OEM finished products for several market such as intercom ,touch terminal , transportation, etc …

IB Series

Loop driver.

OP-IB1	Driver only
OP-IB1N	Driver with ferrite loop
OP-IB1NB	Driver with loop on ferrite and pictogram on plexiglass

Intercom Series

Loop driver for intercom

OP-IE1	Integrated loop amplifier in built-in door station
OP-IS1	Integrated loop amplifier in protruding door turntable

DLT2

Embedded loop amplifier, with ultra wide input voltage, 12 to 160Vdc ,making it compatible with all battery.*

The DLT2 is a constant current amplifier designed to drive induction loop up to 20W or 4A peak. Thanks to Opus's proprietary control topology, the DLT2 is ideally suited to any system from 0,1Ω to wide induction loop. Furthermore, compact technology amplifier provides simple, cost-effective and reliable solution.
Input is insulated with 3 different divider for various sensitivity from 0 to -25 dbu. The power supply is ultra wide input range with a permanent voltage of 12V-160V DC making them ideal for versatile transportation applications. The DLT2 is designed in conformity with safety standards and withstand 1500VDC isolation between each electrical potential.

*For embedded solutions with more current, please contact us.

LD1.0

The Opus Technologies LD1.0 is the small model of the single output magnetic loop amplifier range. Continuous 5Arms output current capable and all the necessary functionalities (AGC, MLC, etc.) ensure the installation of 250m² room.

The LD1.0 incorporate a high-efficiency class D amplifier that guarantees maximum power for small and medium-sized rooms. The device have 3 inputs : 2 switchable line or microphone and a priority 100V.

The amplifier incorporates a fault synthesis that controls continuously the loop and the amplifier. The information is visible on the front and can be deported thanks to a dry contact.

The LD1.0 proven technology and quality of manufacturing allow us to offer a 5 years warranty.

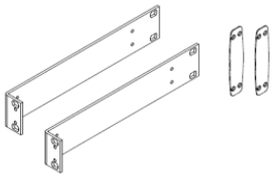
- Class D amplifier
- Ultra compact design
- Total efficiency up to 92%
- Fanless convection
- High output voltage up to 48Vpk
- Automatic gain control
- Metal losses correction
- Wall mounting attachment
- Continuous loop monitoring with NO-NC relay.
- 5 years warranty

Accessories

RC50/100/150

Copper tape with 1 conductor designed for induction loops. 1x1,8 mm²

OP-R



Complete kit for wall mounting or 1 or 2 units of the LD series in a 19 '' rack

OP-FSM-02

Tester and magnetic field meter in accordance with the IEC 60118-4 specification

	LD1.0
Coverage	250 m² (10x25 m²)
INPUT	
Audio input	3 differential inputs : 2x Line/microphone and 1x 100V
Connector Type	Phoenix and/or Combo Neutrik
Phantom supply	12V 2mA
Sensitivity	-50dB micro, +40dB 100V, -10dB ligne
Priority	100V, input 1
POWER SUPPLY	
Type	Integrated
voltage	115/230Vac (automatic) 50/60 Hz
Power	200VA
Idle Consumption	6W
AUDIO CHARACTERISTICS	
THD	<0.5% at 1ohm / 1kHz / full current
Automatic Gain Control	AGC optimized for speech , dynamic > 36 dB
Bandwidth	80Hz to 9.5kHz
OUTPUT	
Loop impedance	0.5 Ω to 3 Ω
Output voltage	34Vrms (48Vpk)
Peak current	8A
RM S current (at 1kHz)	5Arms
Slave output	0° or 90° Phase shift
FUNCTIONS	
LED displays	Power ,Protect , Clip and Correct Loop
Metal loss correction	Adjustable from 0 to 3 dB/octave
Relay	NO / NC fault relay
DIMENSIONS	
HxLxD	42 x 200 x 215 mm
Weight	1.4 kg

LD2.0 & LD3.0

The Opus Technologies LD 2.0 and LD 3.0 are next-generation perimeter magnetic loop amplifiers. Continuous 7/10Arms output current capable and all necessary functionalities (AGC, MLC, etc) ensure rooms installation of 450m²(LD2.0)/1000m²(LD3.0).

The amplifiers incorporate a fault synthesis that controls continuously the loop and the amplifier. The information is displayed on the front panel and can be deported thanks to a dry contact.

The LD2.0 and LD3.0 can also be used in a low diaphonic phased loop system or an ultra high coverage system with a built-in 90 ° or 0 ° phase shift module (2 amplifiers). Solution used for the equipment of large rooms or adjoining rooms (hairpin systems).

The LD2.0/3.0 proven technology and quality of manufacturing allow us to offer a 5 years warranty.

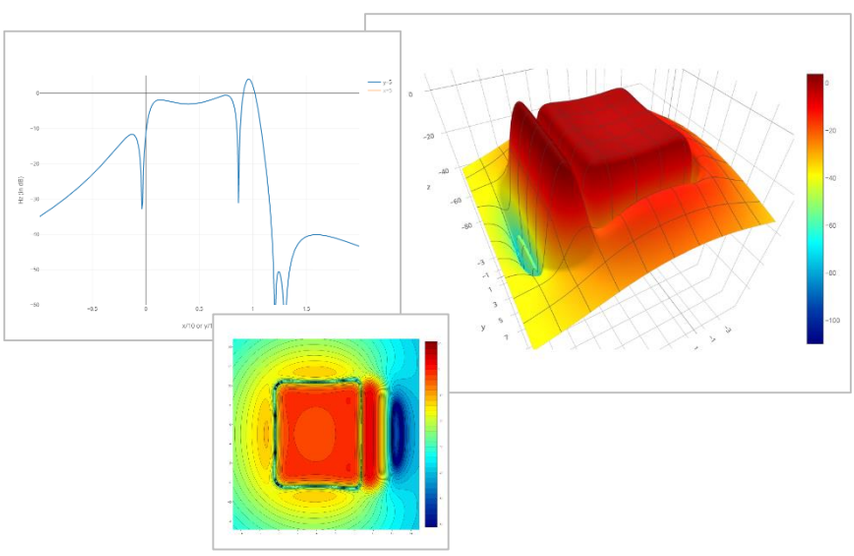
- Class D amplifier
- Ultra compact design
- Total efficiency up to 92%
- Fanless convection
- High output voltage up to 48Vpk
- Automatic gain control
- Metal losses correction
- Wall mounting attachment
- Continuous loop monitoring with NO-NC relay.
- 5 years warranty

Loop Software

Smartloop

The Smartloop software was designed to facilitate the planning of a loop system, it is dedicated to distributors, resellers or installers of Opus Technologies products.

To use the Smartloop software, make a request to create an account on our website www.opus-technologies.fr; get closer to your local distributor or contact us at contact@opus-technologies.fr.



	LD2.0	LD3.0
Coverage	450 m² (15x30 m²)	1000 m² (20x45 m²)
INPUTS		
Audio inputs	3 differential inputs : 2x Line/microphone and 1x 100V	3 differential inputs : 2x Line/microphone and 1x 100V
Connector Type	Phoenix and/or Combo Neutrik	Phoenix and/or Combo Neutrik
Phantom supply	12V 2mA	12V 2mA
Sensitivity	-50dB micro, +40dB 100V, -10dB ligne	-50dB micro, +40dB 100V, -10dB ligne
Slave input	6.35mm Jack plug. . From a 2nd LD2.0	6.35mm Jack plug. From a 2nd LD3.0
Priority	100V, input 1	100V, input 1
POWER SUPPLY		
Type	Integrated	Integrated
Voltage	115/230Vac (automatic) 50/60 Hz	115/230Vac (automatic) 50/60 Hz
Power	250VA	300VA
Idle consumption	6W	6W
AUDIO CHARACTERISTICS		
THD	<0.5% at 1ohm / 1kHz / full current	<0.5% at 1ohm / 1kHz / full current
Automatic Gain Control	AGC optimized for speech Dynamic > 36 dB	AGC optimized for speech Dynamic > 36 dB
Bandwidth	80Hz to 9.5kHz	80Hz to 9.5kHz
OUTPUT		
Loop impedance	0.5 Ω to 3 Ω	0.5 Ω to 3 Ω
Maximum Output Voltage	34Vrms (48Vpk)	34Vrms (48Vpk)
Peak current	11A	15A
RMS current (at 1Khz)	7 Arms	10 Arms
Slave output	0° or 90° Phase shift	0° or 90° Phase shift
FUNCTIONS		
LED displays	Power ,Protect , Clip and Correct Loop	Power ,Protect , Clip and Correct Loop
Metal loss correction	Adjustable gain from 0 to 3dB/octave	Adjustable gain from 0 to 3dB/octave
Status monitoring	NO / NC fault relay	NO / NC fault relay
DIMENSIONS		
HxLxD	42 x 200 x 215 mm	42 x 200 x 215 mm
Weight	1,2 Kg	1,3 Kg

LD1.2

The Opus Technologies LD1.2 is next-generation low-loss magnetic loop amplifiers witch incorporates two independent amplifiers out of phase.

It provide an output current of 2x5Arms as well as a AGC to ensure optimum audio quality. The amplifiers incorporate a fault synthesis that controls continuously the loop and the amplifier. The information is displayed on the front panel and can be deported thanks to a dry contact.

It can equip adjoining rooms (amphitheater, courtroom, etc) with two magnetic loops installed hairpin. This type of installation makes it possible to limit the external radiation of the magnetic field, to guarantee uniformity of coverage and to provide a power which makes it possible to limit the distortions due to the presence of metal.

The LD1.2 proven technology and quality of manufacturing allow us to offer a 5 years warrantv.

- Class D amplifier
- Two out of phase channels
- Ultra compact design
- Total efficiency up to 92%
- Fanless convection
- High output voltage up to 48Vpk
- Automatic gain control
- Metal losses correction
- Wall mounting attachment
- Continuous loop monitoring with NO-NC relay.
- 5 years warranty

Accessories

RC02-50/100

Copper tape with 2 conductors designed for induction loops. 2x1mm²

C10-RC

Terminal block for RC copper foil.
Lot of 10.

OP-FSM-02

Tester and magnetic field meter in accordance with the IEC 60118-4 specification

	LD1.2
Max coverage: single loop	600 m² (15 x 40 m²)
Max coverage: multiloop	300 m² (10x30 m²)
INPUT	
Audio inputs	3 differential inputs : 2x Line/microphone and 1x 100V
Connector Type	Phoenix and/or Combo Neutrik
Phantom supply	12V 2mA
Sensitivity	-50dB micro, +40dB 100V, -10dB ligne
Slave input	6.35mm jack, from LD1.2 output
Priority	100V, input 1
POWER SUPPLY	
Type	Integrated
Voltage	115/230Vac (automatic) 50/60 Hz
Power	400VA
Idle Consumption	9W
AUDIO CHARACTERISTICS	
THD	<0.5% at 1ohm / 1kHz / full current
Automatic Gain Control	AGC optimized for speech ,dynamic > 36 dB
Bandwidth	80Hz to 9.5kHz
Phase change	Included
OUTPUT	
Loop impedance	0.5 Ω to 3 Ω
Output voltage	34Vrms (48Vpk)
Peak current	2x8A
RMS current (at 1Khz)	2x5Arms
FUNCTIONS	
LED displays	Power ,Protect , Clip and Correct Loop
Metal loss correction	Adjustable gain from 0 to 3dB/octave
Status monitoring output	NO / NC fault relay
DIMENSIONS	
HxLxD	42 x 200 x 215 mm
Weight	1,2 Kg

LD2.2 & LD3.2

- Class D amplifier
- Two out of phase channels
- Ultra compact design
- Total efficiency up to 92%
- Fanless convection
- High output voltage up to 48Vpk
- Automatic gain control
- Metal losses correction
- Wall mounting attachment
- Continuous loop monitoring with NO-NC relay.
- 5 years warranty

The Opus Technologies LD2.2 and LD3.2 are next-generation, low-loss magnetic loop amplifiers. This device incorporates two independent amplifiers out of phase.

They provide an output current of 2x7Arms and 2x10Arms, as well as a AGC to ensure optimum audio quality. The amplifiers incorporate a fault synthesis that controls continuously the loop and the amplifier. The information is displayed on the front panel and can be deported thanks to a dry contact.

It can equip adjoining rooms (amphitheater, courtroom, etc) with two magnetic loops installed hairpin. This type of installation makes it possible to limit the external radiation of the magnetic field, to guarantee uniformity of coverage and to provide a power which makes it possible to limit the distortions due to the presence of metal.

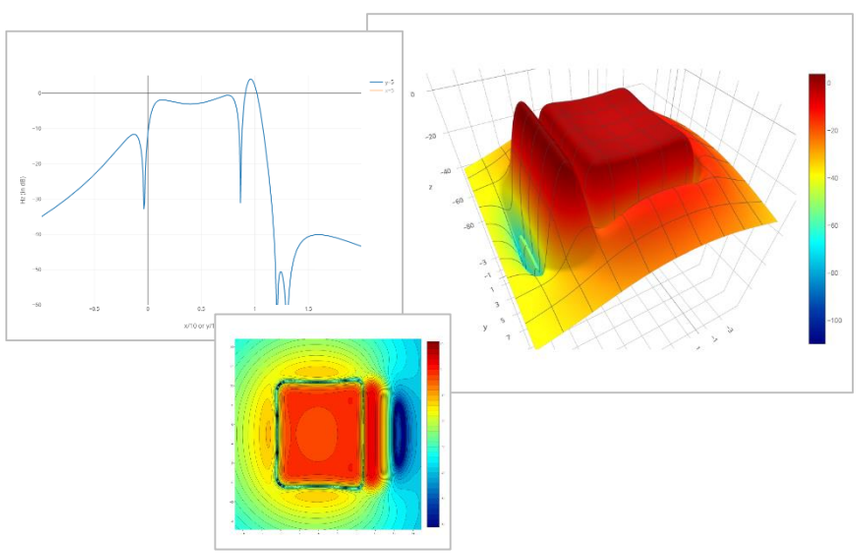
The LD2.2/3.2 proven technology and quality of manufacturing allow us to offer a 5 years warranty.

Loop Software

Smartloop

The Smartloop software was designed to facilitate the planning of a loop system, it is dedicated to distributors, resellers or installers of Opus Technologies products.

To use the Smartloop software, make a request to create an account on our website www.opus-technologies.fr; get closer to your local distributor or contact us at contact@opus-technologies.fr.



	LD2.2	LD3.2
Max coverage: single loop	1200m² (20x60 m²)	2000 m² (25x80 m²)
Max coverage: multiloop	525 m² (15x35 m²)	1000 m² (20x50 m²)
INPUTS		
Audio inputs	3 differential inputs : 2x Line/microphone and 1x 100V	3 differential inputs : 2x Line/microphone and 1x 100V
Connector Type	Phoenix and/or Combo Neutrik	Phoenix and/or Combo Neutrik
Phantom supply	12V 2mA	12V 2mA
Sensitivity	-50dB micro, +40dB 100V, -10dB ligne	-50dB micro, +40dB 100V, -10dB ligne
Slave input	6.35mm jack plug. 2nd LD2.2	6.35mm jack plug. 2nd LD3.2
Priority	100V, input 1	100V, input 1
POWER SUPPLY		
Type	Integrated	Integrated
Voltage	115/230Vac (automatic) 50/60 Hz	115/230Vac (automatic) 50/60 Hz
Power	500VA	600VA
Idle Consumption	9W	9W
AUDIO CHARACTERISTICS		
THD	<0.5% at 1ohm / 1kHz / full current	<0.5% at 1ohm / 1kHz / full current
Automatic Gain Control	AGC optimized for speech Dynamic > 36 dB	AGC optimized for speech Dynamic > 36 dB
Bandwidth	80Hz to 9.5kHz	80Hz to 9.5kHz
Phase change	Included	Included
OUTPUT		
Loop impedance	0.5 Ω to 3 Ω	0.5 Ω to 3 Ω
Output voltage	34Vrms (48Vpk)	34Vrms (48Vpk)
Peak current	2x11A	2x15A
RMS current (at 1Khz)	2x7Arms	2x10Arms
FUNCTIONS		
LED displays	Power ,Protect , Clip and Correct Loop	Power ,Protect , Clip and Correct Loop
Metal loss correction	Adjustable gain from 0 to 3dB/octave	Adjustable gain from 0 to 3dB/octave
Status monitoring	NO / NC fault relay	NO / NC fault relay
DIMENSIONS		
HxLxD	42 x 200 x 215 mm	42 x 200 x 215 mm
Weight	1.2 kg	1.3 kg

OP-FSM

Professional magnetic field meter.
The OP-FSM is an ideal solution for measuring, adjusting and commissioning a magnetic induction loop system according to the specifications of IEC 60118-4. All measurements are taken at 0dB defined as 100mAM-1 RMS using a PPM response rectifier.

OP-778

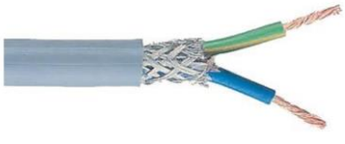
Headset.
Lightweight and foldable headset for OP-FSM.
Adjustable and equipped with earmuffs shape memory, it allows a better listening comfort. It is lightweight and foldable for more mobility and space saving storage.

OP-FSM-02

Set
Kit including an OP-FSM and an OP-778.

OP-LI

Connection cable between loop and amplifier.
This is a twisted connecting cable that connects the amplifier to the loop. When the loop is more than 4 m from the amplifier, a twisted cable is essential.



Product references	Length
OP-LI5	5m
OP-LI10	10m
OP-LI15	15m

OP-CO

Lot of cord.
Lot of connectors consisting of: 1 XLR-XLR cord, 1 XLR-jack 6.35 cord, 1 RCA-RCA cord, 1 RCA-jack 3.5 adapter, 1 6.35-jack 3.5 jack adapter.

OP-SI

Stickers.
Lot of 10 stickers "Space adapted for the hearing impaired“.

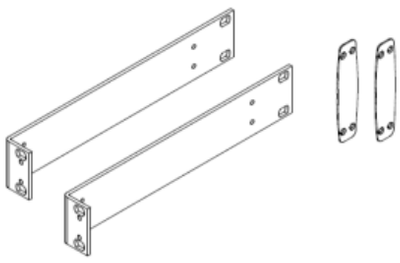
RC

Copper ribbon for loop.
The RC is a copper ribbon of 18mm, 10mm or 2x10mm wide, 0.1mm thick and insulated by a 0.05mm Melinex strip. Approximate resistance of 10mΩ / m. Cables specially designed for induction loops where the loop must go under carpets or in places not suitable for conventional cables.

Product reference	Section in mm2	Length in m	Application
RC50	1.8	50	From 56 to 330m
RC100	1.8	100	From 56 to 330m
RC150	1.8	150	From 56 to 330m
RC01-50	1	50	From 26 to 170m
RC01-100	1	100	From 26 to 170m
RC02-50	2x1	50	From 15 to 85m
RC02-100	2x1	100	From 15 to 85m

OP-R

Mounting set.
Complete kit for wall mounting or 1 or 2 units of the LD series in a 19 '' rack

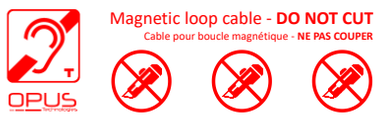


C10-RC

Terminal block for RC copper foil.
Lot of 10.

ADHRC

Tape.
This tape is made from a tough and waterproof PVC film. It can be used either with a manual reel or with an automatic machine.
It covers the copper wire when installing a magnetic loop on the ground, signal it and protect it.



UHF Wireless Systems

Opus 10 is a complete offer of wireless systems for accessibility, guided tours, simultaneous translations or medium distance audio transmission. This range combines quality, reliability and ease of use as well as clear and precise sound.

UHF WIRELESS SYSTEMS

Transmitter

OP-10T

Combined with one or more OP-10R receivers, the OP-1OT transmitter forms a mobile wireless system for speech transmission, for example for guided tours or speeches in multiple languages.

The wireless system transmits in the 790 - 814 MHz UHF bandwidth on 16 fixed channels. The range of transmission depends on the configuration of the places of use and can be up to 60 m.
Supplied with a microphone, it can transmit the voice of a person to one or more receivers type OP-10R.

Its Lithium battery offers an autonomy of 14 hours.

OP-10STX

The OP-10STX transmitter can be used in a multitude of applications. It is an excellent choice for hearing impaired attending to simultaneous interpretations, or for other applications where cables can not be deployed for example.

This transmitter can be connected to an existing sound system to broadcast the desired sound in a venue. The OP-10STX offers great versatility thanks to different connections of separate inputs, line level or microphone, adjustable individually or between them.

The OP-10STX has a monitor output on jack.

	OP-10STX	OP-10T
Radio frequency range	863-865 Mhz divided into 16 chanel	863-865 Mhz divided into 16 chanel
Transmission power	10 mW	10 mW
Audio frequency range	40 – 15 kHz	40 Hz – 18kHz
Inputs CH 1, CH 2: Impedance, Rated input level, Input level max., Connection:	20 kΩ, 100 mV, 1 V, XLR/ 6,3 mm jacks, balanced	
Input CH 3 :Impedance, Input level, Connection:	47kΩ, 250 mV, 6,3 mm jack, unbalanced	
Phantom power H 1:	approx. 46V=env. (to be actived)	
Headphone output **-Connection: -Headphone impedance:**	Pr3,5 mm stereo jack ≥ 16Ω	
Ambient temperature	0 – 40°C	
Power supply	Via power supply unit provided and connected to 230V~/50 Hz	
Dimensions -Weight	212 x 44 x 239 mm (W x H x D), 1.3 kg	54 x 99 x 17 mm, 80 g
Internal microphone of transmitter		Electret microphone (cardioid)
Transmitter		Electret earband microphone (omnidirectional) with cable clip 2 x pop shield, neckband
Operating time of battery		Up to 14 hours (depending on volume)

OP-10R

Since as many OP-10R receivers as desired can operate with a single transmitter, the system is ideal for applications where the signal of a speaker needs to be directed to several people, for example presentations in multiple languages.
The radio channel can be selected from 16 channels in the 863 - 865 MHz UHF range. Depending on the local configuration. Up to 4 OP-10 systems can be operated in parallel without interference.
The portable receiver OP-10R is a receiver with an excellent quality / price ratio, it can receive up to 16 channels broadband.

OP-8TH

The OP-8TH handheld transmitter is a electret microphone used to broadcast a wireless audio signal, it can be used in a multitude of portable applications.

The OP-8TH is great for conference rooms, outdoor events, wireless microphone applications, classrooms, trainings, or for personal use, in any setting where you need to amplify the sound and where you do not have the ability to install an permanent system.

OP-10SRX

The OP-10SRX fixed receiver is a diversity receiver that allows you to recover a source and power a separate area of magnetic induction loop amplifier, recorder, amplifier.
It is compatible with all the series of transmitter of OP10 range.
The portable receiver OP-10SRX is a receiver with an excellent quality / price ratio, it can receive up to 16 channels broadband.
The receiver is compatible with mono or stereo headphones making the possibilities of use wider.

	OP-10R	OP-8TH	OP-10SRX
UHF PLL frequencies	863-865 MHZ	863-865 MHZ	863-865 MHZ
Signal-to-noise ratio		> 105dB	> 105dB
Audio frequency range	40 Hz – 18kHz	40-16,5kHz	40 Hz – 18kHz
Channel	16	16	16
RF output	10mW	10mW	10mW
THD			<0.6% @ 1KHz
Viewing			LED
Controls	On / off, channel selection, volume	Power On/Off, Channel Up/Down, Mute	On / off, channel selection, volume
Output level			-12dB
Output impedance			600Ω
Squelch			Pilot Tone & Noise Mute
Power supply / Battery	Lithium-ion batery 3,7V/1300mAh		12-18 VDC, 600mA
Consumption			350mA
Connection	Jack 3,5		Balanced XLR, unbalanced phone Jack 6.35
Dimensions -Weight	54 x 99 x 17 mm, 80 g		212 x 40 x 125mm, 1,1 kg
Operating time of battery	Up to 14 hours (depending on volume)	2x LR6- About 20 hours	

UHF WIRELESS SYSTEMS

Single portable Kit

ST-DUO2

The ST-DUO2 is a wireless communication system for people with hearing loss. It offers high fidelity listening quality. This audio transmission device provides clear and precise communication in complicated listening environments such as an amphitheaters, meeting rooms or during a family meals for example.
The system is compatible with hearing aids and cochlear implants but also offers a qualitative solution for people who are not paired. The nomad kit can be easily transported.

Combined with one or more OP-10R receivers, the OP-10T transmitter forms a mobile wireless system for speech transmission, perfect for situations like guided tours or speeches in multiple languages.
For wireless transmission, 16 channels in frequency range between 863 - 865 MHz are available, of which 3 can be used simultaneously at most without interfering with each other. The range of transmission depends on the configuration of the places of use and can be up to 60 m.

UHF PLL frequencies	863-865 MHZ
Signal –to-noise ratio	>105dB
THD	<0.6% @ 1 KHz
Audio Input	20KΩ
Nominal input level	-20dBV
Max input level	0dBV
Input/Output connector	Jack 3.5
display	LED
Audio output level	-12dB
Output impedance	600Ω
Squelch	Driven by tone and noise
Power supply	12-18 VDC
Consumption	350mA
Dimension	25 x 26 x 25 cm
Weight	1.3kg
Chanels	16 selectable

OP-10CH2

OP-10CH2 is a charging and storage box for transmitters and receivers OPUS 10 series OP-10T and OP-10R.

OP-10CH18

OP-10CH18 charging box charges Lithium-ion batteries from transmitters and receivers in the OP-10 wireless system. Transmitters and receivers can also being stocked inside.

OP-10CH36

OP-10CH36 charging box charges Lithium-ion batteries from transmitters and receivers in the OP-10 wireless system. Transmitters and receivers can also being stocked inside.

	OP-10CH2	OP-10CH18	OP-10CH36
Number of load compartments	2	18	36
Charging time	8 hours max. approximately (depending on the level of charge of the accumulator)	8 hours max. approximately (depending on the level of charge of the accumulator)	8 hours max. approximately (depending on the level of charge of the accumulator)
Power supply	12V/0.6A by delivered sector block connected to 100—240 V, 50/60 hZ	15V=/3.3 A via the delivered power supply	15V=/6A via the delivered power supply
Dimensions	75 x 41 x 85 mm	361 x 422 x 189 mm	400 x 561 x 230 mm
Weight	185g	3.6 kg	7.3 kg

M-801S

Electret microphone.
Microphone electret headband with jack 3.5 mm jack for OP-10T.

OP-201B/F

Electret microphone.
Microphone electret tie jack 3.5mm jack for OP-10T.

TR-iL

Magnetic necklace.
Magnetic neck collar with 3.5mm jack. Connected to the OP-10R, this neckband offers clear and precise hearing for people with hearing loss

OP-10TG

Single earpiece.
Earpiece for receiver OP-10R.

OP-778

Headset.
Lightweight and foldable helmet for OP-10R receiver.
Adjustable and equipped with earmuffs shape memory, it allows a better listening comfort.

C-900

Antenna coupler.
The signals of four transmitters, for example the OP10-STX can be sent via an antenna.
To be able to enlarge the reception range of a fixed receiver, it is possible to direct the signals of four antennas placed at a corresponding distance.
Power outputs 4 x 12 V DC current, 1 A max. to directly feed the connected transmitters. Antenna connections via BNC females. Cords supplied.

USP-124

Antenna splitter.
The USP-124 is an active antenna splitter for OP-10STX transmitters. It provides a maximum level of 26 dBm on each output port.

OP-900i

Remote antenna with amplification.
OP-900i is designed to compensate for signal loss over long distances of antenna cables.

Windows intercom systems

A complete speech transfer system provides support for clear communications when speech is impaired by the use of glass, a security screen, or other counter security systems.

Bay window intercom

OP-6505

The OP-6505 wicket intercom system provides a solution for clear communications when the sound of the voice is impaired by the use of glass security screen. This solution is required for ticket outlets, bank or post office counters or any other facility that requires physical separation between interlocutors.
This integrated digital intercom is an internal and external set consisting of a communication base with microphone desk and loudspeaker agent side and a speaker and an integrated microphone to fix on a glass or a smooth wall. This system allows to establish a high quality full duplex communication

Wicket intercom composed:
- of a loudspeaker and a built-in microphone in a unit to fix on a glass or a smooth wall
- of a desk microphone with loudspeaker on the agent side.

Power supply voltage	DC 12V≤5W
Operating temperature and humidity	-20°C ~ +60°C, <90%RH (no condensation)
Audio caractéristiques	
Audio coding	PCM/AAC
Bandwidth	8kHz à 32kHz
Dimensions (MM)	
Agent microphone	160x95x46,5 – 0,6kg
Speaker-microphone	102x83x24 – 0,2kg

OP-6505B

The OP-6505 wicket intercom system provides a solution for clear communications when the sound of the voice is impaired by the use of glass security screen. This solution is required for ticket outlets, bank or post office counters or any other facility that requires physical separation between interlocutors.

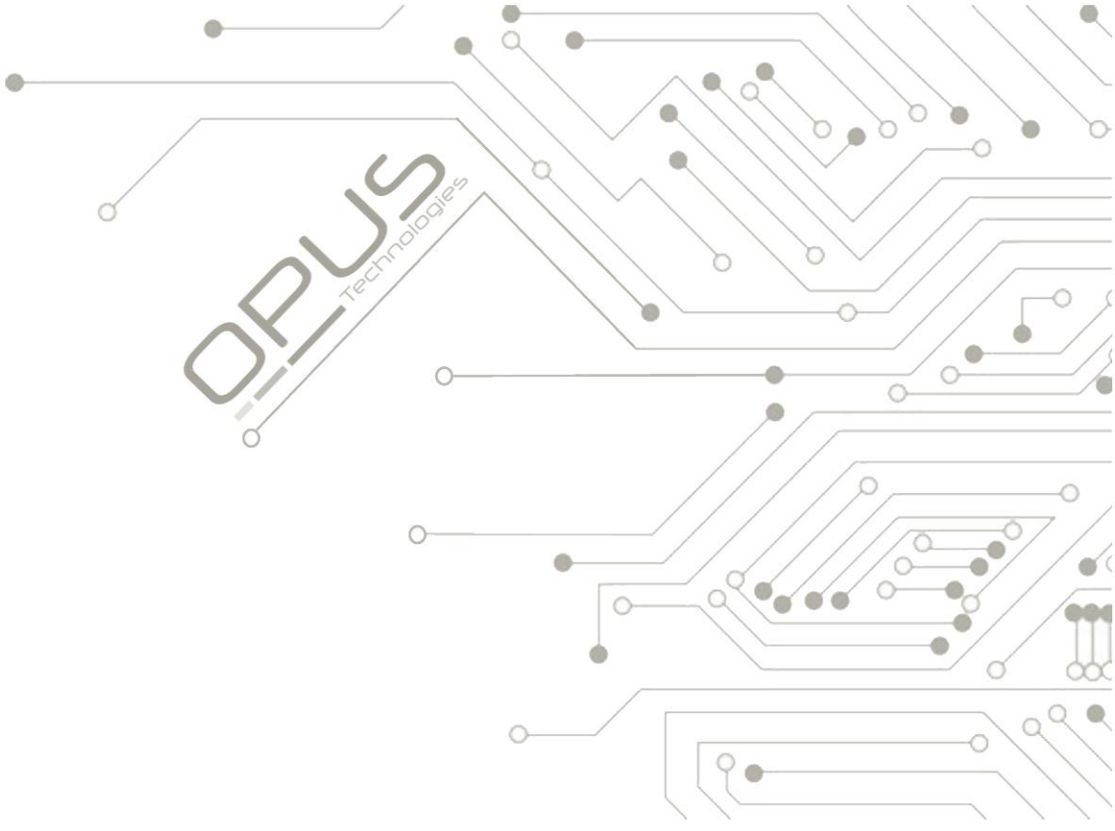
This counter intercom system associated with the DCL20 loop amplifier is a kit called OP-6505B. It makes communication possible for people who are hard of hearing. Hearing aid wearers will be able to hear and communicate easily, even in noisy environments such as station halls or concert hall queues.
OP-6505B wicket intercom composed:
-of a loudspeaker and a built-in microphone in a unit to fix on a glass or a smooth wall
-of a hearing impaired loop and an amplifier (DCL20-65)
- Of a coil of wire for loop
-of a microphone desk with loudspeaker on the agent side.

DCL20-65

Intercom loop amplifier.
Set provides to fit on an existing intercom of any brand or OP-6505. Kit including:

- ampli DCL20
- power 12V 1.5A
- loop and adapter
- Adhesive clips
- regulated sticker

Notes:



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