



Innovation at the service
of accessibility



EDITO

Opus Technologies is a French manufacturer of hearing loop and assistive listening technologies for hard of hearing people.

With 10 years of experience developing technologies such as class D amplification systems, we are thrived by offering the best hearing accessibility solutions to those suffering hearing loss.

Lead by a team of passionate professionals of accessibility products, offering you the most reliable and qualitative products is our priority.

Opus Technologies catalog presents our range of audio frequency induction loop amplifiers, developed and manufactured in France, as well as a range of window intercom and UHF wireless systems, developed in collaboration with our international partners.

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

Opus Technologies team



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OUR COMPANY

After 10 years Manufacturing and distributing its products in two separate locations, the fast growing international development of OPUS, made it crucial to move to a new premise, at the right dimensions of our ambitions.

Located near Bordeaux (France) this new facility, dedicated to the development (R&D), production, logistics and sales of our products, will be 100% devoted to the satisfaction of our customers.

To become a leading manufacturer of induction loop amplifiers, we have introduced to the market, the most compact and efficient class D loop amplifier range on the market, offering uncomparable performance, efficiency and audio quality.

Our inclusive technology provides hearing impaired people, pristine audio quality in public places such as Theaters, conference rooms, reception desks and many more.

In order to provide hearing accessibility in all circumstances, we have completed our offer by developing a range of UHF audio wireless transmission systems.

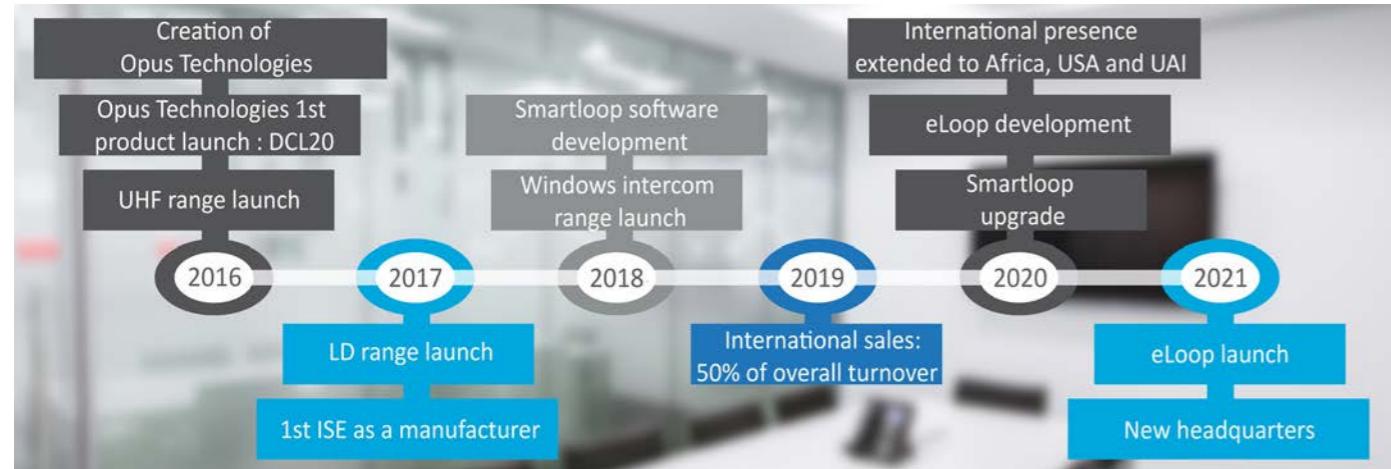
With the COVID 19 epidemic, one-to-one communications has never been that complicated, especially for hard of hearing people. In this context, we have developed a full range of window intercom systems, suitable for hard of hearing people, that quickly became a reference on the market.

We believe in innovation and hardwork to provide, each year, new solutions to our customers. Reliability, simplicity and listening quality are our leitmotiv.

YOUR SATISFACTION... ...OUR PRIORITY



Our hearing assistive systems are developed with strict specifications complying with the international standards. Designed to follow CB Scheme and UL compliance, the quality of our proven technology is the result of a rigorous manufacturing quality control leading to a 0.005% return rate. This process allows us to offer all our customers a 5-year warranty on our products.



Here at Opus we do not offer products but solutions. If loop technology is easy to understand, setting up a loop installation require to take in account a lot of constraints. We make sure to train all of our staff, distributors and resellers in order to ensure they deliver all the potential of our products. We not only provide you all the tools to design installations complying with the IEC-60118-4, but we also train you to monitor your system to guarantee it will offer your hard of hearing customers, a unique audio experience.



WHY OPUS TECHNOLOGIES ?

EXPERTISE

Opus Technologies loop amplifier range, was born from the alliance of a distributor specialised in accessibility products, a high skilled engineer team and an ISO 9001 certified manufacturing partner. Thanks to this combination of expertise, we offer performant high quality products meeting the true needs of hard of hearing people. Deeply involved in the AFPAPH, Opus has contributed to the redaction of today's international loop standards.

Because we understand the daily struggle implied by hearing loss, we make sure that all the systems we deliver will bring an outstanding and unique audio experience to those who couldn't enjoy it anymore. Educating our distributor network on hearing loss concerns, providing free technical studies and commissioning efficient systems, is what drives us daily.

This devotion to the enhancement of hard of hearing people day to day life, led us to the development of systems delivering an incomparable audio quality, limitating distortion and cancelling latency. Thanks to our Smartloop software, developed inside the INRIA (institute de recherche...), we design loop systems complying with IEC 60118-4 standards, offering the best audio reproduction essential to enjoy one to one communication, education or music listening in the best conditions.

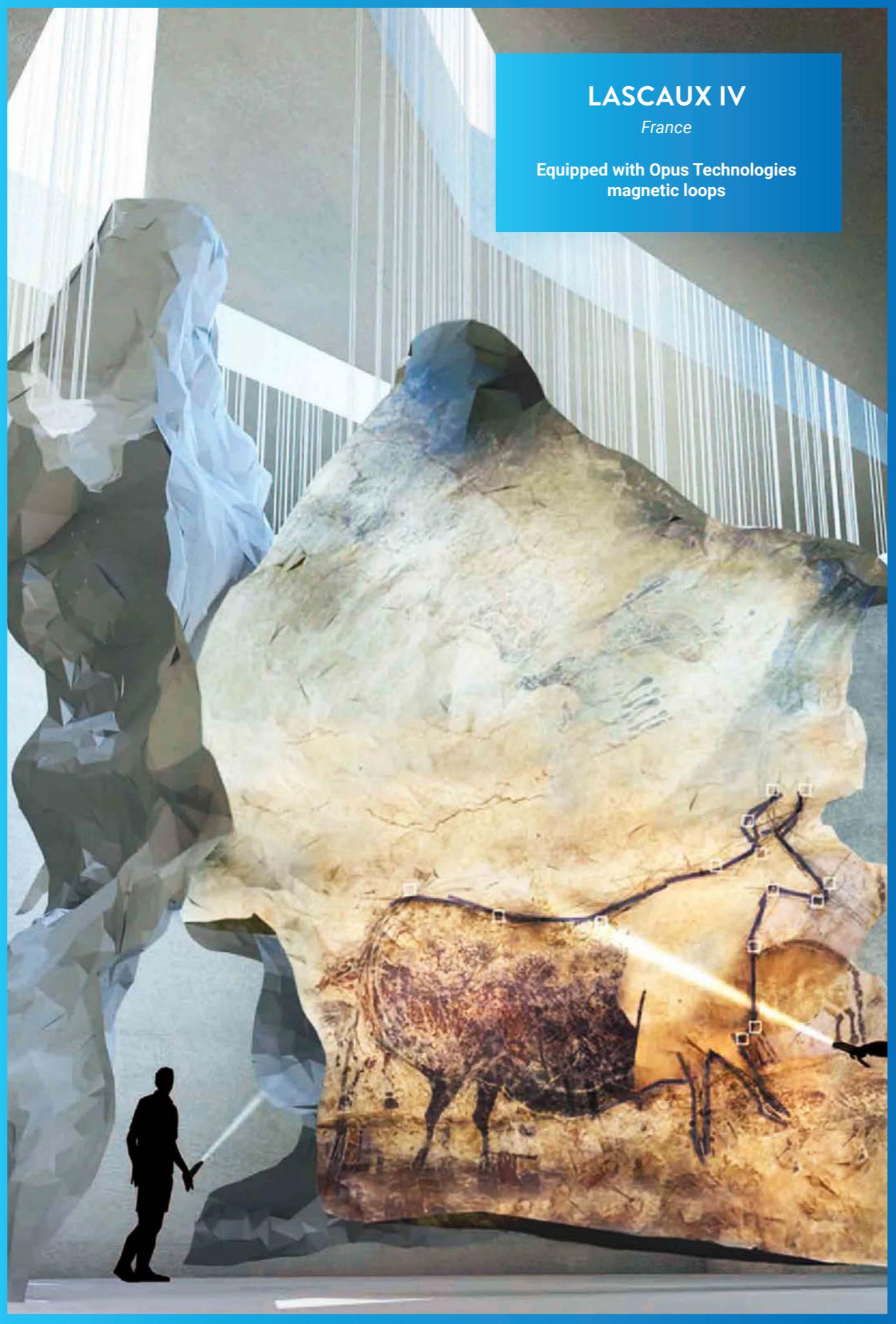
Whatever the complexity of your project, we'll gather all our combined experience to answer your needs. And because we know investing is always a bet, Opus Technologies range comes with a 5-year warranty.



PRODUCT QUALITY

For 15 years, our R&D team has developed a unique expertise in the development of class D amplifiers. It is this combination of know-how and innovation, that allows us to offer one of the most compact, reliable and efficient amplifier on the market, embedding technologies such as :

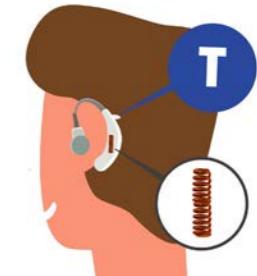
- AC/DC power supply unit (PSU) : innovative high resonant switching stage for high efficiency and a wide dynamic allowing sudden high audio output.
- AC/DC power supply unit (PSU) : automatic voltage selector for worldwide line.
- Class D amplifier : closed loop control to work on any type of complex load, like a loop which is in short circuit at low frequency and open circuit at high frequency.
- Class D amplifier : proprietary spread spectrum modulation for a higher efficiency and lower noise emission (EMI).
- Class D amplifier : constant current on all the bandwidth and all the impedance, working on short circuit like current generator.
- Class D amplifier : high output voltage, up to 96Vpk to deliver current under high output impedance without limiting and distorting. This allows us to work on installations implying long length cable.
- Reliability : majority of surface mounted components (SMD) and no wire design (only one PCB) guaranteeing quality welding and maintenance-free electronic card.
- Made in France : electronics are manufactured, assembled and tested in our premises in the south-west of France.



WHAT IS A LOOP AMPLIFIER?

466 million people in the world suffer from hearing loss. Most of them are equipped with hearing aid which increase the volume of nearby sounds. Unfortunately, these devices also amplify background noises which makes it difficult for its user to distinguish the right information.

The solution is the hearing loop. The audio signal is converted by an Opus Technologies amplifier into electric pulses then transmitted into a copper cable laid down around the listening area. It generates a magnetic field transmitting the audio input directly into the user's hearing aid.



The hearing device needs to be activated in T mode to capture this magnetic signal thanks to a built-in copper telecoil (or T-coil). The signal is then translated into audio and a pure clear sound is transmitted into the users hear. Hearing loops can be used in many facilities either for one-to-one communication, at a reception desk for example or in larger areas such as a conference room.

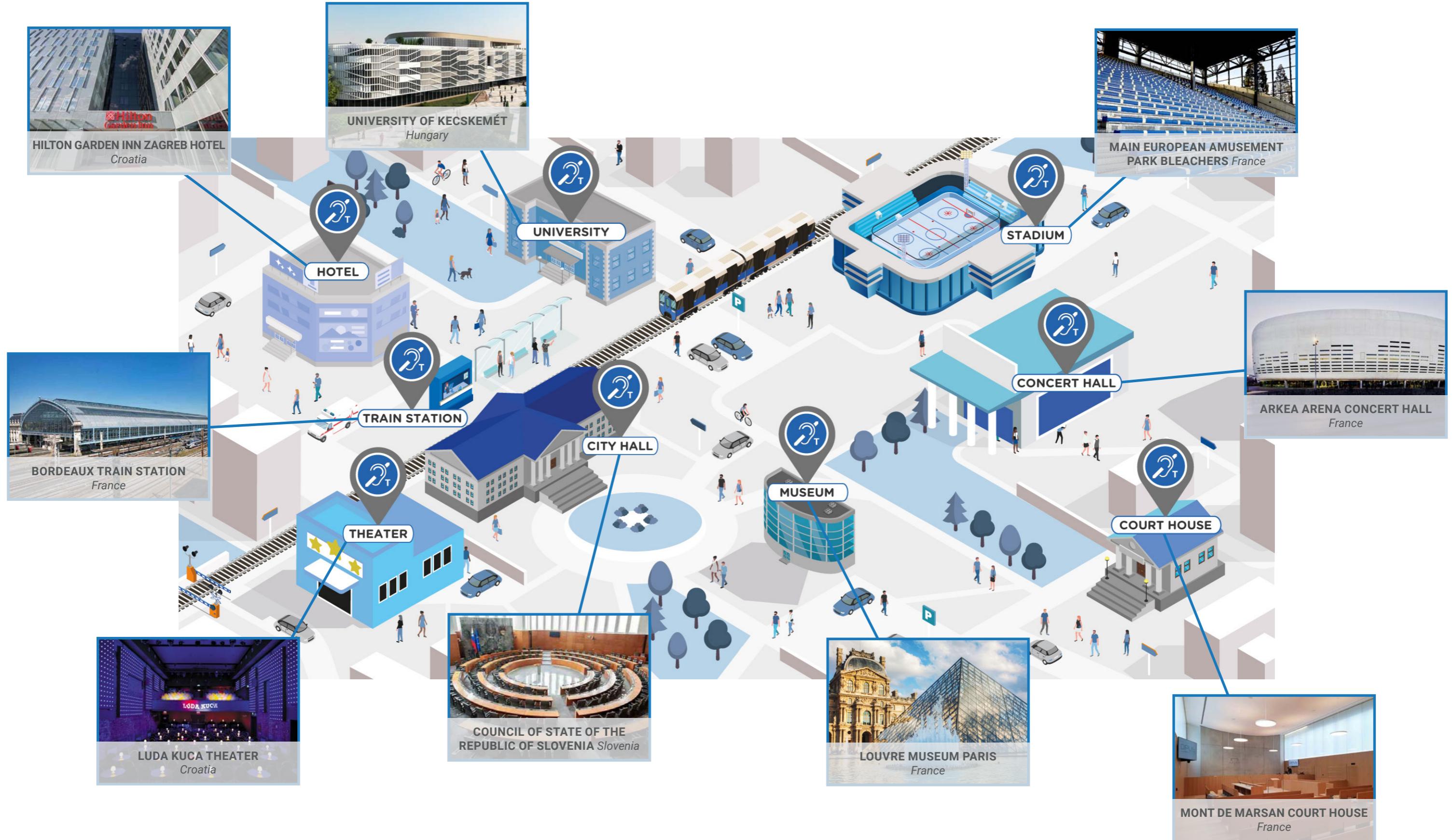
Everywhere audio is essential, you can install a hearing loop system and make your facility more inclusive. Loop systems can be found in theaters, stadium, museum, supermarket, university, courtroom and many more.

You will find for example Opus loop drivers in Louvre museum, Orly airport or Cannes Festival Palace.

[Visit our website for more references.](#)



TURN YOUR FACILITY INTO ACCESSIBLE FOR HARD OF HEARING PEOPLE



LEGISLATION

If well installed, hearing loop systems can improve significantly hearing aid user's everyday life. In order to ensure they will access efficient assistive listening technologies; a lot of countries have developed specific legislation and adopted the international standard framing the minimum performance of the system. The international Electrotechnical Commission (IEC) has set up a standard to be respected: IEC 60118-4.

Hearing loss is an invisible disability yet touching 460 million people around the world. Opus Technologies stands next to you to help you turning your facility into accessible for hard of hearing people and therefore, fighting against discriminations.

The Convention on the Rights of Persons with Disability (CRPD), signed by 182 countries and regional integration organizations, is an international agreement protecting and promoting human rights of disabled people around the world.

It adopts a broad categorization of persons with disabilities and reaffirms that all persons with all types of disabilities must enjoy all human rights and fundamental freedoms. It clarifies and qualifies how all categories of rights apply to persons with disabilities and identifies areas where adaptations have to be made for persons with disabilities to effectively exercise their rights and areas where their rights have been violated, and where protection of rights must be reinforced.

Visit our website to find out more about your local legislation on www.opus-technologies.fr.

PERFORMANCE STANDARDS

International legislations are reinforced by the IEC 60118-4 international standard. This norm indicates the criteria to perform and meet when installing a magnetic loop system. It guarantees an audio quality allowing hard of hearing people to enjoy a unique audio experience.

It defines 4 main parameters to be taken in account:

- An homogeneous magnetic field, to guarantee a steady audio coverage.
- A suitable magnetic field strength, for a suitable audio level.
- Signal to noise Ratio, to guarantee intelligibility in noisy environment.
- A flat frequency response, to prevent variation of audio level.



SIGNAGE



Induction loop systems allows hard of hearing people to enjoy an incomparable audio experience in many facilities. However, a loop system, even if it has been perfectly installed, will be ineffective if the hearing aid user is not aware such system is installed.

Hearing loops are mostly composed of an amplifier stored in a technical room and a copper wire installed under the floor or on a false ceiling. The system is therefore invisible and if not signaled, hearing impaired won't know they'll need to switch their hearing aid to the T position.

The international standard for the signage is a barred hear with a capital T next to it.

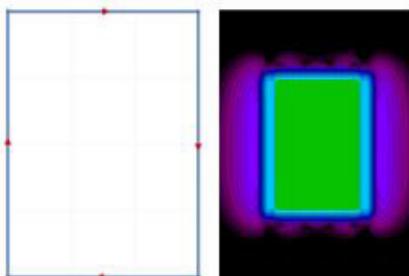
HOW TO DESIGN A LOOP SYSTEM ?

If loop systems operation mode, seems pretty easy to understand, choosing and installing and efficient and functioning system is a different story.

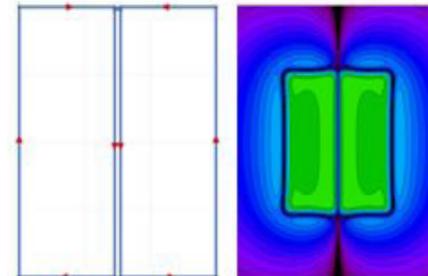
A lot of constraints must be taken in account prior the installation of a loop system. The presence of metal structure absorbing the magnetic field strength, the containment of its overspill to the strict dimension of the room, the listening height, are some of the numerous constraints you should take in account while designing a loop system.

With 10 years of experience, and thousands of loop systems installed worldwide, Opus Technologies has gathered a thorough experience in the matter of.

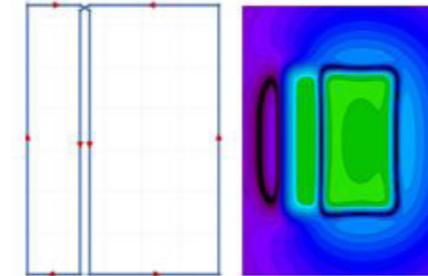
Before installing a loop system, make sure your installer asks you these important questions and provide you a complete study made with our Smartloop software.



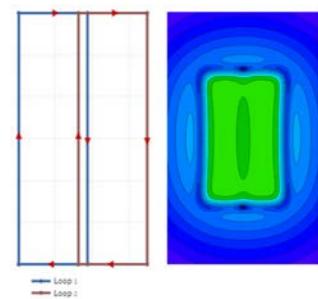
PERIMETER LOOP



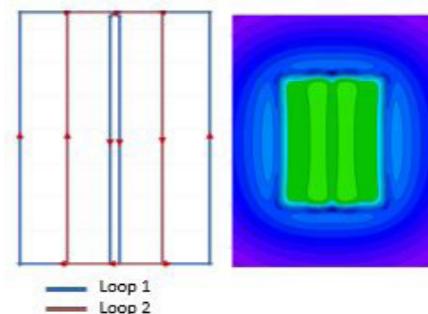
SINGLE ARRAY



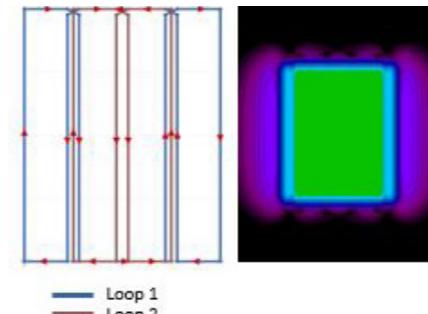
CANCELLATION LOOP



DOUBLE ARRAY



LOW LOSS ARRAY



ULTRA LOW LOSS ARRAY

TWO-LOOP SYSTEMS

OPUS SMARTLOOP...

...THANKS TO OUR SMARTLOOP SOFTWARE, DESIGN ALL TYPES OF LOOP DESIGN.

Opus Technologies' Smartloop software is a combination of years of experience in the installation of loop design and the technological know-how of our software engineer. This powerful tool, allows our customers, finding the right layout and amplifier taking in account all the constraints of their loop project.

Thanks to its user-friendly interface, loop design and specification process has never been that easy! Smartloop aims to guarantee your customer a loop installation guideline allowing your system to comply with the IEC 60118-4 norm but above all, an efficiently working loop system.

OVERVIEW OF SMARTLOOP FEATURES



SIMULATION OF YOUR CABLE IMPLEMENTATION



CHECK IF YOUR COVERAGE IS HOMOGENEOUS WITH THE 2D SIMULATION



GET A 3D SIMULATION OF YOUR AUDIO RECEPTION

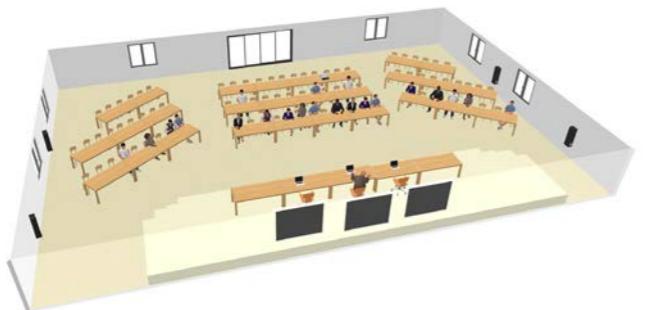
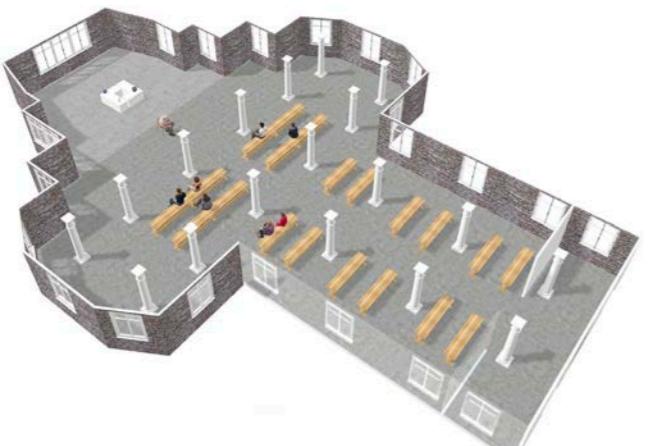


CHECK IF YOUR SIGNAL REMAINS STEADY INSIDE THE COVERED ROOM

Smartloop is a designing tool, easy to handle, complete, allowing Opus distributor and installers to demonstrate their ability to offer a performant installation based on accurate and detailed technical studies.

To use 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.

OUR SOLUTIONS



LOOP AMPLIFIER SYSTEMS

Providing clear intelligible audio signal for hearing impaired people, loop amplifiers can be installed for both one to one communications or large audio broadcasting. Requiring no more than a hearing aid with a T position or a loop receiver to capture the signal, it is a universal and inclusive solution.

WINDOW INTERCOMS

Window intercom allows clear conversations when communications are altered by barriers such as mask, double glazing, security screen, or other counter security systems. It makes conversation easier for people struggling to understand clearly a conversation especially in a noisy environment. The intercoms fit in many types of environments such as banks, train stations, ticket offices, money exchange...

UHF

UHF systems are a great alternative assistive listening solution, when your project constraints prevent hearing loops to be installed. To be used either in wide environments or for tour guidance for example. It transmits the sound directly into listening options like headphones or inductive neck loops.

ONE PROJECT, SEVERAL SOLUTIONS

When you start a loop project, it is crucial to ask your customer several key questions that would determine the kind of system you should recommend. The two main constraints influencing your choice are the magnetic overspill and the impact of metal structures on the magnetic strength.

In some cases, you would have to choose between loop system, HF systems or even both.

For example, it is impossible to install loop systems, one on top of each other, on more than 2 floors, if you want to make sure hearing aid users won't capture the signal from a loop not meant for them.

Let's review the pros and cons of each system.

PROS

Loop amplifier	UHF system
No receiver management	Ease to use
Low radiation and possibility to contain it	Wide coverage options
Hearing impaired are independent	Simple settings
Excellent listening quality	Excellent listening quality
Universal and inclusive technology (fits with all hearing aids with a T-position, not stigmatizing)	No magnetic overspill concerns
Possibility of providing headphones for non-fitted people	Possibility of providing headphones for non-fitted people

CONS

Loop amplifier	UHF system
Strict and rigorous installation regulations	Management required for receivers' accessories
Mandatory preliminary study	Significant external radiation (hard to guarantee confidentiality)
Complex implementation in an existing building	Imposes hearing-impaired people to report for headphones and accessories
Too much metal can make impossible to design a system complying with the norm	Stigmatizing because extra devices are required to capture the signal
Can be impacted by magnetic pollution due to metal structures and transformers	Limited number users at the same time

UNIQUE SELLING PROPOSITION (USP)

To provide a genuine benefit to its users, a functional hearing loop system complying with the IEC 60118-4 norm, there are 5 essential components to be respected. Capturing a qualitative audio source, an adapted amplifier and cable to transmit to create the right magnetic field, an adequate signage to advise on the presence of hearing loop and a field strength measurer to control and monitor the good functioning of your loop system. Let's review Opus products added value to fulfill all of these requirements.

LOOP AMPLIFIERS SYSTEMS

Made in France	Product reliability RMA : less than 0,50%	Class D technology	High output voltage (48 VpK) / 92 % efficiency	Active product development

WINDOWS INTERCOM

Full duplex	With or without induction loop	Digital Signal Processing (DSP)	Compact & Design	Easy to clean

UHF

Wide coverage	Worth for the money	Long last autonomy

LOOP AMPLIFIER SYSTEMS

Opus Technologies loop amplifier systems, are among the most compact and efficient on the market. Our drivers would be easily fitted in your facility, providing discreetly audio accessibility for hearing aid users. Covering a wide range of size coverage, from a small meeting room up to congress center or sports arena, the performance of our amplifiers is at the service of hearing aid user audio experience. Discover now our solutions.



LOOP AMPLIFIER SYSTEMS - PROXIMITY AMPLIFIERS

eLoop



eLoop

e-Loop comes with a power supply, an embedded microphone and a set of regulatory stickers.

eLoop+

eLoop+ comes with a power supply, an OP-M80 gooseneck microphone, an OP-E3 handset for non fitted people and a set of regulatory stickers.

PORTABLE COUNTER LOOP AMPLIFIER SYSTEMS

eLoop is the latest generation of Opus Technologies counter loop amplifier. Traditionally utilitarian, grey products that can act as an obvious signpost towards a customer's disability, eLoop brings a new design perspective with a portable counter hearing loop that is positively stylish.

To be integrated into a variety of environments such as receptions, banks, post offices, information centers, airports. This system guarantees clear communication for hard of hearing people equipped with a hearing aid. e-Loop features an embedded microphone capsule, an amplifier, a loop and a rechargeable ion lithium battery.

AUDIO INPUT

Integrated microphone	Capsule microphone
Microphone plug	1x 3.5 mm Micro Jack
Phantom power supply	5 V, 1 mA

AUDIO OUTPUT

Headphone plug	1x 3.5 mm Micro Jack
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POWER SUPPLY

Voltage / Current	5 Vdc / 1.5 A
Connector	Micro USB
Battery	Lithium Ion 3,7 V 4000 mAh
Autonomy	10 hours
Charge time	4 hours

TECHNICAL SPECIFICATIONS

Current	3,5 A rms
Protections	Thermal resistance Overload
Coverage	1,10 m

PRODUCT SPECIFICATIONS

Dimensions	250 x 185 x 80 mm
Net weight	366 g
Packaging	Cardboard
Shipment dimensions	400 x 250 x 100 mm
Shipment weight	1 kg

LOOP AMPLIFIER SYSTEMS - PROXIMITY AMPLIFIERS

SMALL AREA

DCL20



DCL20 is the ideal equipment for long term permanent solutions, to be installed on counters and small areas. This discrete driver, intend to provide audio accessibility for people suffering hearing loss, in every public facility.

Opus Technologies has developed a complete range of DCL20 kits according to the application and the area to be equipped.

INPUT

Audio input	2 inputs (1 microphone or line input and isolated line input)
Connector type	3.5mm Micro Jack, Phoenix terminal block
Phantom supply	4,5 V, 1 mA

POWER SUPPLY

Characteristics	12 V DC / 1.5A
Type	Separated power block
Voltage	230 V 50/60 Hz
Power	20 W max
Fuse	Thermal

AUDIO PROCESSOR

Compression	Variable from 1:1 to 20:1
Etching	10 mS
Lowering	Automatic 500 mS or 1500 mS
Bandwidth	80 Hz to 8 kHz at -3 dB
Dynamic	>60 dB
THD	THD+N<0,5% at 1 kHz

OUTPUT

Type	Current
Loop impedance	0.5 Ω to 3 Ω
Peak Current	4A
RMS current	2 A at 1 kHz
Protection	Thermal, short circuit and start

DIMENSIONS & WEIGHT

L x H x P	100 x 50 x 20
Packaging	227 x 196 x 54
Weight (DCL20)	0,083 kg

LOOP AMPLIFIER SYSTEMS - PROXIMITY AMPLIFIERS

DCL20-K KIT FOR COUNTERS



The DCL20-K is an induction loop kit intended to equip counters or reception desks. The set is designed to offer accessibility to hearing-impaired people equipped with a T-position. Audio source is taken from an OP-M surface mounted microphone.

DCL20-K1 KIT FOR COUNTERS WITH HEADPHONES



The DCL20-K1 is an induction loop kit intended to equip counters or reception desks. The set is designed to offer accessibility to hearing-impaired people equipped with the T position. Audio source is taken from an OP-M80 gooseneck microphone.

DCL20-K2 KIT FOR COUNTERS WITH HEADPHONES



The DCL20-K2 is an induction loop kit intended to equip counters or reception desks. The set is designed to offer accessibility to people suffering hearing loss. Audio source is taken from an OP-M80 gooseneck microphone and transmitted by induction or through an OP-E3 handset.

DCL20-E3 KIT FOR COUNTERS WITH HEADPHONES



The DCL20-E3 is an induction loop kit intended to equip counters or reception desks. The set is designed to offer accessibility to people suffering hearing loss. Audio source is taken from an OP-M surface microphone and transmitted by induction or through an OP-E3 handset.

DCL20-TV KIT FOR TV ROOMS



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

DCL20-SA KIT FOR 50M² ROOMS



The DCL20-SA is an induction loop kit intended to equip small rooms up to 50m². The set is designed to offer accessibility fit hearing-impaired people equipped with a T-position.

DCL20-WALL KIT FOR COUNTERS



The DCL20-WALL is a rigid PVC panel with an integrated loop. This device, once installed and connected to a DCL20 loop amplifier, transmit wirelessly the audio signal directly into the user's hearing aid. Ideal for counters with metal structure. Provided with an OP-M surface microphone to capture the audio signal.

DCL20-PLUG KIT FOR COUNTERS



DCL20-PLUG is the combination between a DCL20-WALL and a PVC easel. It is an alternative option when screwing the PMMA plate is not possible or when it needs to be installed on top of a desk.

LOOP AMPLIFIER SYSTEMS - ACCESSORIES

OP-Toslink ADAPTER



5V dc digital optical coaxial analog audio signal adapter.

OP-WALL2 RIGID PVC BOARD LOOP FOR COUNTER



Induction loop integrated into an «area adapted for hearing-impaired» pictogram, to fix on a wall or on its OP-CW2 easel (OP-PLUG). Dimensions: 170x170x12mm. Delivered with its fixations screws and double-sided tape.

OP-E3 EARPHONE FOR ELOOP AND DCL20



The OP-E3 is an optional earphone for DCL20-K type proximity amplifiers and for the eLoop. It provides hearing accessibility for hearing impaired non-equipped with hearing aids. (DCL20-E3 Kit or eLoop+).

OP-M MINIATURE MICROPHONE FOR LOOP AMPLIFIER



Surface mount microphone for DCL20, with 3.5mm jack plug. Economical solution supplied with a self-adhesive mounting base.

OP-M02 MINIATURE SURFACE-MOUNT MICROPHONE



Detachable miniature surface microphone with accessories to glue it or clip it.

OP-M80 GOOSENECK MICROPHONE



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

LP-R RECEIVER



Stethoset receiver for induction loop.

IR-1CH02 CHARGING STATION



Charging station for 1 receptor LP-R or IR-202R.

IR-5CH02 CHARGING STATION



Charging station for 5 receptor LP-R or IR-202R.

OP-LI CONNEXION CABLE



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

PRODUCT REFERENCES LENGTH

OP-LI5	5m
OP-LI10	10m
OP-LI15	15m

LOOP AMPLIFIER SYSTEMS - ROOM AMPLIFIERS

LD1.0 / LD2.0 / LD3.0



Features:

- DSP: Automatic gain control and high frequency compensation for metal loss
- Class D amplifier output delivering up to 34 Vrms
- Fanless
- Ultra high efficiency: 92%
- Continuous self testing
- Integrated power supply
- Integrated protection against short circuit
- Fit in 1/2 U rack

Opus Technologies LD1.0/ LD2.0 / LD3.0 are a new generation of class D loop amplifier with single output, designed for medium to large sized facilities and venues. They provide respectively a continuous 5Arms/7Arms / 10Arms output current as well as all the essential functionalities (AGC, MLC, etc.) to ensure installations up to 250m²/450m²/1000m².

Interconnected together thanks to an integrated phased shifter as well as master/slave, input/output, the LDX.0 amplifiers can be used for low spill phased systems or large coverage. These devices have 3 inputs: 2 switchable lines or microphones and a 100V priority input. The amplifiers incorporate a fault synthesis controlling continuously both loop and amplifier. The information is visible on the front panel and reported thanks to a dry contact.

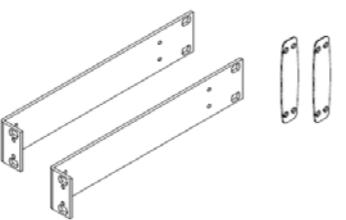
The LDX.0 proven technology and quality of manufacturing allows us to offer a 5-year warranty.

OP-V PROTECTION FOR LD SERIES



Plexiglas protection to lock settings on an LD serie amplifier. Delivered with 4 screws.

OP-R MOUNTING KIT



Mounting kit for wall or rack, 1U 19" for 1 or 2 LD series amplifier.

LOOP AMPLIFIER SYSTEMS - ROOM AMPLIFIERS

	LD1.0	LD2.0	LD3.0
Coverage	250m ² (10*25m ²)	450m ² (10*30m ²)	1000m ² (20*45m ²)
Operating temperature	0 to +45°C	0 to +45°C	0 to +45°C
Storage temperature	-30 to +70°C	-30 to +70°C	-30 to +70°C
INPUT			
Audio inputs	3 inputs: x2 line/micro-phone, x1 100V	3 inputs: x2 line/micro-phone, x1 100V	3 inputs: x2 line/micro-phone, x1 100V
Connector type	Phoenix and/or Combo Neutrik	Phoenix and/or Combo Neutrik	Phoenix and/or Combo Neutrik
Phantom supply	12V 2mA	12V 2mA	12V 2mA
Sensitivity	-50dB microphone, +40dB 100V, -10dB line	-50dB microphone, +40dB 100V, -10dB line	-50dB microphone, +40dB 100V, -10dB line
Priority	100V input, INPUT 1	100V input, INPUT 1	100V input, INPUT 1
POWER SUPPLY			
Type	Integrated	Integrated	Integrated
Voltage	115/230V (automatic) 50/60 Hz	115/230V (automatic) 50/60 Hz	115/230V (automatic) 50/60 Hz
Nominal power consumption at 1 Ohm	25 W	50 W	90 W
Maximum input power	<250VA	<300VA	<350VA
Consumption at rest on connected loop	9W at 230V AC, 1 loop of 1 Ohm connected, at ambient temperature after 30 minutes of stabilization		
AUDIO CHARACTERISTICS			
THD	<0,5% @1ohm / 1KHz / nominal current	<0,5% @1ohm / 1KHz / nominal current	<0,5% @1ohm / 1KHz / nominal current
Automatic Gain Control	AGC optimized for speech Dynamic > 36dB	AGC optimized for speech Dynamic > 36dB	AGC optimized for speech Dynamic > 36dB
Bandwidth	80Hz à 9,5kHz	80Hz à 9,5kHz	80Hz à 9,5kHz
OUTPUT			
Loop impedance	0,5Ω à 3Ω	0,5Ω à 3Ω	0,5Ω à 3Ω
Output voltage	34V rms (48V pK)	34V rms (48V pK)	34V rms (48V pK)
Peak current	8A pK	11A pK	15A pK
RM S current (at 1kHz)	5A rms	7A rms	10A rms
Slave output	0° or 90° phase shift	0° or 90° phase shift	0° or 90° phase shift
ADDITIONAL FUNCTIONS			
LED displays	« Power », « Protect », « Clip », « Loop »	« Power », « Protect », « Clip », « Loop »	« Power », « Protect », « Clip », « Loop »
Metal loss correction	0 to 3 dB per octave	0 to 3 dB per octave	0 to 3 dB per octave
Relay	NO/NC fault relay 0,5A/125Vac, 1A/24VDC	NO/NC fault relay 0,5A/125Vac, 1A/24VDC	NO/NC fault relay 0,5A/125Vac, 1A/24VDC
DIMENSIONS			
H x L x D	42 x 200 x 215 mm	42 x 200 x 215 mm	42 x 200 x 215 mm
Weight	1,48 kg	1,48 kg	1,48 kg

LOOP AMPLIFIER SYSTEMS - ROOM AMPLIFIERS

LD1.2 / LD2.2 / LD3.2



Features:

- DSP: Automatic gain control and high frequency compensation for metal loss
- Class D amplifier output delivering up to 34 Vrms
- Fanless
- Ultra high efficiency: 92%
- Continuous self testing
- Integrated power supply
- Integrated protection against short circuit
- Fit in 1/2 U rack

Opus Technologies LD1.2/ LD2.2 / LD3.2 are a new generation of class D loop amplifier with double output, designed for medium to large sized facilities and venues.

They provide respectively a continuous 5Arms/7Arms / 10Arms output current as well as all the essential functionalities (AGC, MLC, etc.) to ensure installations up to 250m²/450m²/1000m².

Interconnected together thanks to an integrated phased shifter as well as master/slave, input/output, the LDX.2 amplifiers can cover extra-large areas such as stadium, congress center or warehouse. These devices have 3 inputs: 2 switchable lines or microphones and a 100V priority input. The amplifiers incorporate a fault synthesis controlling continuously both loop and amplifier. The information is visible on the front panel and reported thanks to a dry contact.

LD1.2/ LD2.2 / LD3.2 proven technology and quality of manufacturing allows us to offer a 5-year warranty.

LOOP AMPLIFIER SYSTEMS - ROOM AMPLIFIERS

	LD1.2	LD2.2	LD3.2
Max coverage: single loop	600m ² (15x40m ²)	1200m ² (20x60m ²)	2000m ² (25*80m ²)
Max coverage: multiloop	300m ² (10x30m ²)	525m ² (15x35m ²)	800m ² (20x50m ²)
Operating temperature	0 to +45°C	0 to +45°C	0 to +45°C
Storage temperature	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
INPUT			
Audio inputs	3 inputs: x2 line/micro-phone, x1 100V	3 inputs: x2 line/micro-phone, x1 100V	3 inputs: x2 line/micro-phone, x1 100V
Connector type	Phoenix and/or Combo Neutrik	Phoenix and/or Combo Neutrik	Phoenix and/or Combo Neutrik
Phantom supply	12V 2mA	12V 2mA	12V 2mA
Sensitivity	-50dB microphone, +40dB 100V, -10dB line	-50dB microphone, +40dB 100V, -10dB line	-50dB microphone, +40dB 100V, -10dB line
Slave entry	Jack 6.35mm	Jack 6.35mm	Jack 6.35mm
Priority	100V input, INPUT 1	100V input, INPUT 1	100V input, INPUT 1
POWER SUPPLY			
Type	Integrated	Integrated	Integrated
Voltage	115/230V (automatic) 50/60 Hz	115/230V (automatic) 50/60 Hz	115/230V (automatic) 50/60 Hz
Nominal power consumption at 1 Ohm	50 W	100 W	180 W
Maximum input power	<500VA	<600VA	<700VA
Consumption at rest on connected loop	14W at 230V AC, 2 loops of 1 Ohm connected, at ambient temperature after 30 minutes of stabilization		
AUDIO CHARACTERISTICS			
THD	<0,5% @1ohm / 1KHz / nominal current	<0,5% @1ohm / 1KHz / nominal current	<0,5% @1ohm / 1KHz / nominal current
Metal loss correction	0 to 3dB per octave	0 to 3dB per octave	0 to 3dB per octave
Automatic Gain Control	AGC optimized for speech Dynamic > 36dB	AGC optimized for speech Dynamic > 36dB	AGC optimized for speech Dynamic > 36dB
Bandwidth	80Hz to 9,5kHz	80Hz to 9,5kHz	80Hz to 9,5kHz
Phase shift	Included	Included	Included
OUTPUT			
Loop impedance	0,5Ω à 3Ω	0,5Ω à 3Ω	0,5Ω à 3Ω
Output voltage	34V rms (48V pK)	34V rms (48V pK)	34V rms (48V pK)
Peak current	2 x 8A pK	2 x 11A pK	2 x 15A pK
RMS current (at 1kHz)	2 x 5A rms	2 x 7A rms	2 x 10A rms
ADDITIONAL FUNCTIONS			
LED displays	« Power », « Protect 1 », « Protect 2 », « Loop »	« Power », « Protect 1 », « Protect 2 », « Loop »	« Power », « Protect 1 », « Protect 2 », « Loop »
Verification (synthesis fault)	Open loop Thermal protection	Open loop Thermal protection	Open loop Thermal protection
Relay	NO/NC fault relay 0,5A/125Vac, 1A/24VDC	NO/NC fault relay 0,5A/125Vac, 1A/24VDC	NO/NC fault relay 0,5A/125Vac, 1A/24VDC
DIMENSIONS			
H x L x D	42 x 200 x 215 mm	42 x 200 x 215 mm	42 x 200 x 215 mm
Weight	1,56 kg	1,56 kg	1,56 kg

LOOP AMPLIFIER SYSTEMS - MOBILE AMPLIFIERS

LDP1.0 / LDP2.0 / LDP3.0



The LDP1.0, is a complete pack including an induction loop amplifier LD1.0, a 100-meter loop cable spool, a loop receiver OP-FSM-02 with headset, a transportation case with wheels, a connection panel and a pack of audio link cables.

The LD1.0 supplied in this package is a class D loop amplifier, with a 92% efficiency. It guarantees an optimum power for medium and large rooms up to 250 m².

This device is composed of 2 inputs (combo and terminal block), switchable into a line or microphone and a priority 100V input.

The LD1.0 provides an output current of 5 Arms as well as a compressor and an AGC, ensuring an optimum audio quality. This portable solution has been designed to be temporarily installed for meetings, conferences or events.

The LD1.0 have been developed with strict and rigorous specifications allowing us to offer a 5 years warranty.

Available in 7Arms version (LDP2.0) and 10 Arms version (LDP3.0)



LDP1.0M / LDP2.0M / LDP3.0M

For all the temporary events implying the utilisation of a microphone as an audio source. The LDP1/2/3.0M comes with a wireless OP-8TH microphone and OP-778 headset, supplied in the kit.

LOOP AMPLIFIER SYSTEMS - 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 turnable



DLT2

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

Service broadcasts or emergency announcements are part of travel journey. These informations are essentials and to make sure all your passengers will receive it, hearing loops is an essential solution!

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 dividers 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 it ideal for versatile transportation applications. The DLT2 is designed in conformity with safety standards and withstands 1500VDC isolation between each electrical potential.

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



LOOP AMPLIFIER SYSTEMS - RECEIVER & MEASURER

OP-FSM
PROFESSIONAL MAGNETIC
FIELD MEASURER



Field Strength Measurer to measure loop system performance and guarantee commissioning complying with the IEC 60118-4 norm. It comes with three calibrated modes for back ground noise, field strength and Frequency Response.

OP-FSM02
SET



Field Strength measurer with OP-778 headset.

OP-778
HEADPHONE



Headphone to be combined with an OP-FSM to listen to the signal in the loop while commissioning a loop system.

RC
FLAT COPPER TAPE

Suitable for all loop projects requiring an installation under flooring (wooden made floor, carpet, linoleum...)



Product reference	Picture	Section (in mm)	Length (in mm)	Application
RC-50		1.8	50	From 56 up to 330m
RC-100		1.8	100	From 56 to 330m
RC-150		1.8	150	From 56 up to 330m
RC01-50		1	50	From 26 up to 170m
RC01-100		1	100	From 26 up to 170m
RC02-50		2 x 1	50	From 15 up to 85m
RC02-100		2 x 1	100	From 15 up to 85m

LOOP AMPLIFIER SYSTEMS - CABLING & ACCESSORIES

LC
CONNECTING CABLE



The LC (Loop Cable) is a multi-section cable for induction loop installations. Suitable to be installed either on the floor, in the walls or ceiling. This multi-section solution will give you the choice from 0.50mm² up to 2.50 mm² cable section. Adapted for both small or long length cable installations, you'll make sure to always reach the impedance needed.

Product reference	Coil length
LC-50	50 meters
LC-100	100 meters
LC-150	150 meters



LC-MET

The LC is also custom reel available. Minimum length : 200 meters.

C10-RC
TERMINAL BLOCK



Terminal block for RC copper foil. Set of 10 units.

ADH-RC
TAPE



This tape is made from a tough and waterproof PVC film. It covers the copper wire when installing a magnetic loop on the ground and signal signal it and protect it from being cut by a « DO NOT CUT » warning.

WINDOW INTERCOMS

Discover Opus Technologies' window intercom range. Our window intercom allows clear conversations when communications are altered by barriers such as mask, double glazing, security screen, or other counter security systems. It makes conversation easier for people struggling to understand clearly a conversation especially in a noisy environment. The intercoms fit in many types of environments such as banks, train stations, ticket offices, money exchange...

A loop solution is available for every Opus Technologies intercom system, facilitating communications for hearing device wearers.



OP-65 SERIES**OP-6505**

OP-6505 speech transfer system provides support for clear communications when speech intelligibility is compromised by barriers such as masks, security screen, or double glazing. With its tactile pad, integrated DSP, and full duplex system communication interface it is the perfect solution for banks, ticket office, amusement parks, transportation and many more.

OP-6505B

OP-6505B speech transfer system provides clear one to one full duplex communications. It amplifies speech for both staff and customer and cancel background by transmitting a clear audio signal, by induction, into the hearing aid user.

OP-6507

OP-6507 speech transfer system provides support for clear communications when speech intelligibility is compromised by barriers such as masks, security screen, or double glazing. With its touch pad, integrated DSP, and full duplex system communication interface it is the perfect solution for banks, ticket office, amusement parks, transportation and many more...

OP-6507B

Paired with a DCL20-65 loop amplifier, the OP-6507B makes reception desks more accessible for hearing-impaired people. Hearing aid users, will be able to hear and communicate easily, even in noisy environments.

OP-6505 /B & OP-6507 /B

Power supply & Voltage	DC 12V ≤5W
Working temperature & Humidity	-20°C ~ 50°C, <90%RH (no condensation)

AUDIO CHARACTERISTICS

Audio latency	None
Audio coding	PCM / AAC
S/N (Signal to noise ratio)	≥90dB
Frequency response	20Hz~16kHz
Audio sampling	16kHz~32kHz

DIMENSIONS (mm) & WEIGHT

Receptionist microphone	160 x 95 x 46,5 - 0,6 kg
Speaker microphone	102 x 83 x 24 - 0,2 kg

OP-6502IP

OP-6502IP-B speech transfer system provides support for clear communications when speech intelligibility is compromised by barriers such as masks, security screen, or double glazing. With its tactile pad, integrated DSP, and full duplex system communication interface it is the perfect solution for banks, ticket office, amusement parks, transportation and many more. Its IP network features offers many options such as sample recording, communication with other counter intercoms or even wall mounted intercom terminal for a multizone intercommunication.

OP-6502IP-B

Paired with a DCL20-65 loop amplifier, the OP-6502IP-B makes reception desks more accessible for hearing-impaired people. Hearing aid users, will be able to hear and communicate easily, even in noisy environments.

OP-6502IP /B

Power supply & Voltage	DC 12V ≤5W
Working temperature & Humidity	-20°C ~ 50°C, <90%RH (no condensation)
AUDIO CHARACTERISTICS	
Audio latency	None
Audio coding	PCM / AAC
S/N (Signal to noise ratio)	≥90dB
Frequency response	20Hz~16kHz
Audio sampling	16kHz~32kHz
DIMENSIONS (mm) & WEIGHT	
Receptionist microphone	160 x 95 x 46,5 - 0,6 kg
Speaker microphone	102 x 83 x 24 - 0,2 kg
NETWORK	
Network protocole	TCP/, ARP, IGMP/PIP, UDP, IGMP, ICMP CODE AUDIO PCM/AAC

DCL20-65**KIT FOR INTERCOM**

The DCL20-65 is an audio accessibility kit for counters and reception desks. Combined with an intercom from Opus OP-65 range (05/07/02IP), it guarantees clear and intelligible communications for the hard of hearing people. This product is intended for any establishment receiving public. Compact and discrete it is easy to integrate while guaranteeing optimal performance. The DCL20-65 kit is a durable solution for the accessibility of reception desks and counters.

OP-65 SERIES - ACCESSORIES

OP-A65



Wall-mounted call IP terminal intercom to be connected to an OP-65 counter intercom.

OP-B65



Wall-mounted call IP terminal intercom, to be connected with 2 calling zone equipped with an OP-65 counter intercom..

OP-C65



Compact IP terminal intercom.

OP-CU65



IP central unit to control an OP-A/B/C65 IP terminal intercom.

	OP-A65	OP-B65	OP-C65	OP-CU65
Power consumption	-	-	-	DC 12V ≤23W
Audio sampling & Bit rate	-	-	-	8kHz~44.1kHz – 16bit
Network protocol	-	-	-	TCP, ARP, IGMP, UDP, ICMP
Working temperature & RH	-20°C ~ +70°C, <90%RH (pas de condensation)	-20°C ~ +70°C, <90%RH (pas de condensation)	-20°C ~ +70°C, <90%RH (pas de condensation)	-10°C ~ +70°C, <90%RH (pas de condensation)
Dimensions (mm) & Weight	115x166x32 0,8kg	115x166x32 0,8kg	67x155x30 0,3kg	210x155x45 0,5kg

APPLICATIONS

Headquarter



Central command computer

Public reception 1



OP-6502IP OP-6502IP

IP - Network

Public reception 2



OP-6502IP

Logistics



OP-CU65



OP-A65
OP-B65



OP-C65

UHF SYSTEMS

UHF systems are a great alternative to assistive listening solution, when your project constraints prevent hearing loops to be installed. Opus Technologies UHF OP-10 range is intended to be used either in wide environments or for tour guidance. It transmits the sound directly into listening options like headphones or inductive neck loops.



UHF SYSTEMS - TRANSMITTERS

OP-10STX

FIXED TRANSMITTER

The OP-10STX rackable transmitter is intended to be used to transmit audio modulation from a sound system, PA system or microphone to one or more OP-10R or OP-10SRX receivers.



OP-10T

MOBILE TRANSMITTER

The OP-10T pocket-size transmitter, supplied with an M-801S microphone, is used to transmit a speaker's voice to one or more OP-10R receivers.



OP-8TH

HANDHELD TRANSMITTER

Combined with an OP-10 T transmitter, the OP-8TH is an electret microphone allowing to transmit a speaker's voice to one or several OP-10R receivers.

OP-10STX

OP-10T

	OP-10STX	OP-10T
Radio frequency range	863-865 MHz divided into 16 channels	863-865 MHz divided into 16 channels
Transmission power	10mW	10 mW
Audio frequency range	40-15 kHz	40 Hz - 18kHz
CH1, CH2 inputs : impedance, rated input level, input level max, connection	20 kΩ, 100 mV, 1 V, XLR/ 6,3 mm jacks, balanced	
CH3 input : impedance, input level, connection	47kΩ, 250 mV, 6,3 mm jack, unbalanced	
H1 phantom power	approx. 46V=env. (to be actived)	
Headphone output	Pr3,5 mm stereo jack	
Connection and impedance	≥ 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 17mm, 80g
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)

UHF SYSTEMS - RECEIVERS

OP-10SRX

FIXED RECEIVER

The OP-10SRX fixed diversity receiver allows you to pick up an audio source transmitted by an Opus OP-10 transmitter and transmit it in a dedicated reception zone.



OP-10R

FIXED RECEIVER

The OP-10R is a pocket-size receiver with an excellent value for money ratio. It can receive up to 16 broadband channels. Its Lithium battery provides 14 hours of battery life.

OP-10SRX

OP-10R

UHF PLL frequencies	863-865 MHz	863-865 MHz
Signal-to-noise ratio	>105 dB	
Audio frequency range	40 Hz - 18 kHz	40 Hz - 18 kHz
Channel	16	16
RF output	10 mW	10 mW
THD	<0,6% @ 1KHz	
Viewing	LED	
Controls	On / Off, channel selection, volume	On / Off, channel selection, volume
Output level	-12 dB	
Output impedance	600 Ω	
Squelch	Pilot Tone & Noise Mute	
Power supply / Battery	12-18 VDC, 600 mA	Lithium-ion battery 3,7V / 1300 mAh
Consumption	350 mA	
Connection	Balanced XLR, unbalanced phone Jack 6.35	Jack 3.5
Dimensions & Weight	212 x 40 x 125 mm, 1,1 kg	54 x 99 x17 mm, 80 g
Operating time of battery		Up to 14 hours (depending on volume)

UHF SYSTEMS - CHARGE & STORAGE

OP-CH2
CHARGING STATION



Charging station with 2 slots for the OPUS 10 series transmitter and receiver.

OP-CH18
CHARGING AND STORAGE CASE



Charging and storage case for 18 receivers and transmitters of the OPUS 10 series.

OP-CH36
CHARGING AND STORAGE CASE



Charging and storage case for 36 receivers and transmitters of the OPUS 10 series.

OP-CAS
STORAGE CASE

This range of waterproof cases offers storage for OP-10CH2 chargers, OP-10R receivers and accessories from the Opus 10 range.

4 references are available:

OP-CAS: 18' / OP-CAS1: 10.5' / OP-CAS4: 20'



OP-CAS12
STORAGE CASE

OP-CAS12: 18' with resistant cut foam and multi-socket to connect up to 6 OP-10CH2 chargers.
OP-CAS12 includes an OP-CAS case, an OP-M12 foam and an OP-10MULTI multi-socket.



OP-10MULTI
MULTI-SOCKET



Multi-socket AC jack connector for powering up to 5 OP-CH2 with a unique supply.

OP-SBAG
WATERPROOF BAG



Soft bag. 200x180x100mm.

UHF SYSTEMS - LISTENING ACCESSORIES & MICROPHONE

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.

CE-1
HEADPHONE



Entry level headphone.
Exists in pack of 100 units.
Ref: CE-1 Pack

OP-778
HEADSET



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

OP-778PROT
DISPOSABLE PROTECTIVE PAD



Disposable protective pad for OP-778 helmet. Pack of 100 units.

EAR-PACK
DISPOSABLE EARPHONE



Pack of 100 disposable earphones.

M-801S
ELECTRET MICROPHONE



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

W-68T
ELECTRET MICROPHONE



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

UHF SYSTEMS - INSTALLATION ACCESSORIES

OP-R90
RACKING SYSTEM



OP10STX and OP10SRX racking system.

C-900
ANTENNA COUPLER



Antenna coupler 4 → 1. The signals of four OP-10STX transmitters can be combined to be sent via one antenna. Antenna connections via BNC female. Connection cables included.

USP-124
ANTENNA SPLITTER



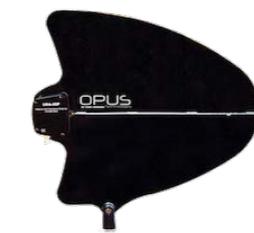
Antenna distributor 1 → 4. The USP-124 is an active antenna splitter for the OP-10STX transmitter. It provides a maximum level of 26 dBm on each output port.

OP-900i
REMOTE ANTENNA WITH
AMPLIFICATION



Antenna and remote booster with wall mount kit. OP-900i It is designed to compensate for signal loss over long antenna cable distances.

OP-49P
DIRECTIONAL PASSIVE
ANTENNA



The OP-49 antenna can be used as a transmitting antenna for a wireless audio transmission system such as the OP-10STX or as a receiving antenna for the OP-10SRX receivers.

ANT-49P
OMNIDIRECTIONAL PASSIVE
ANTENNA



Passive UHF wideband omnidirectional antenna

RG58 Cable
COAXIAL CABLE



RG58C/U, 50 Ω coaxial cable, Polyvinyl Chloride PVC, Black, 10 meters.

OP-49FX
FASTENING SYSTEM



Fastening system with flexible hose.

UHF SYSTEMS - WIRELESS MICROPHONE

OP-10M
WIRELESS HAND-HELD
MICROPHONE SYSTEM



Opus 10 series wireless hand-held electret microphone system, including an OP-10T portable transmitter, an M-801S electret microphone , an OP-10CH2 charger and an OP-10SRX fixed receiver.

OP-10EA
WIRELESS MICROPHONE
SYSTEM



Wireless microphone system, including an OP-10T portable transmitter, an M-801S electret microphone , an OP-10CH2 charger and an OP-10SRX fixed receiver.

OP-10LAP
CLIP-ON WIRELESS
MICROPHONE SYSTEM



Clip-on, wireless microphone system, including an OP-10T portable transmitter, a clip-on W-68T microphone, an OP-10CH2 charger and an OP-10SRR fixed receiver.

UHF SYSTEMS - COMPLETE COMMUNICATION SYSTEM

ST-DUO2
COMPLETE KIT



Complete kit including an OP-CAS1 rigid waterproof case, 1x OP10R, 1x OP10T, x1 OP-10CH2 charging station, x1 tie clip micro, 1x headset, 1x neckloop, TV cords and accessories.

ST-DUO2SB
COMPLETE KIT



Complete kit including a soft bag, 1x OP10R, 1x OP10T, x1 charging stand OP-10CH2, x1 tie clip micro, 1x headset, 1x neckloop, TV cords and accessories.

UHF SYSTEMS - COMPLETE MOBILE EMITTER KIT

OP-K3M
MOBILE EMITTER KIT



Mobile transmitter complete kit including a transportation suitcase, 3x OP10R, 1x OP10T, 2x OP-10CH2, 1x tie microphone, 3x headsets, 3x magnetic necklaces.

OP-K5M
MOBILE EMITTER KIT



Mobile transmitter complete kit including a transportation suitcase, 5x OP10R, 1x OP10T, 3x OP-10CH2, 1x tie microphone, 5x headsets, 5x magnetic necklaces.

OP-K17M
MOBILE EMITTER KIT



Mobile transmitter complete kit including a transportation suitcase, 17x OP10R, 1x OP10T, 1x OP-10CH18, 17x headsets, 17x magnetic necklaces.

UHF SYSTEMS - COMPLETE FIXED EMITTER KIT

OP-K4F
FIXED EMITTER KIT



Fixed transmitter kit including 4x OP10R, 1x OP10STX, 2x OP-10CH2, 4x headphones, 4x neckloop.

OP-K6F
FIXED EMITTER KIT



Fixed transmitter kit including 6x OP10R, 1x OP10STX, 3x OP-10CH2, 6x headphones, 6x neckloop.

OP-K8F
FIXED EMITTER KIT



Fixed transmitter kit including 8x OP10R, 1x OP10STX, 4x OP-10CH2, 8x headphones, 8x neckloop.

OP-K10F
FIXED EMITTER KIT



Fixed transmitter kit including 10x OP10R, 1x OP10STX, 5x OP-10CH2, 10x headphones, 10x neckloop.

OP-K18F
FIXED EMITTER KIT



Fixed transmitter kit including 18x OP10R, 1x OP10STX, 1x OP-10CH18, 18x headphones, 18x neckloop.

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