Radio Broadcasting Equipment

Analog (FM) and Digital (DAB, DAB+)

Radio Broadcasting Equipment

Analog (FM) and Digital (DAB, DAB+)

47+ years of experience

+180 Countries served

80.000+ Transmitters installed

50.000+ Worldwide projects

Millions people connected

Our difference

No matter how similar they are, each client is unique, as are each of their projects. That’s why we offer tailor-made solutions, to aim for complete customer satisfaction.

One size doesn’t fit all

Radio products and solutions

DB is today a leading company in the production of **digital and analog radio broadcasting equipment** thanks to its deep experience in designing and manufacturing products with the aim of offering customers the best possible quality. DB can offer its know-how, specialization and skills in several high demanding sectors to create tailor-made solutions in terms of equipment and services. Like the Science & Engineering Department of DB that **design and produces RF amplifiers, RF generators and other microwave equipment suitable for research institutes, particle physics, nuclear engineering, medical therapy and many other sophisticated and niche sectors** that are very important for improving the quality of life.

Very high efficiency, great robustness, low maintenance costs, compact design and complete and intuitive web control are just some of the main features of DB radio broadcasting equipment. We produce both compact and modular analog (FM) and digital (DAB / DAB+) transmitters, as well as amplifiers, STL and antennas. **DB can also deliver complete turnkey radio studios to offer customers a 360° consultancy and service**.

Product Range

Analog transmitters (FM)

● *Compact Transmitters*

MOZART SERIES	**NEXT**	AIR COOLING SYSTEM	from 30W to 7kW
	DDS NEXT (Direct Digital Technology)	AIR COOLING SYSTEM	from 30W to 7kW

● *Modular Transmitters*

PFG SERIES	**NEXT**	AIR COOLING SYSTEM	from 30W to 60kW
		VERTICAL AIR COOLING SYSTEM	from 2.5kW to 60kW
		LIQUID COOLING SYSTEM	from 2.5kW to 60kW
	DDS NEXT (Direct Digital Technology)	AIR COOLING SYSTEM	from 100W to 60kW
		VERTICAL AIR COOLING SYSTEM	from 5kW to 60kW
		LIQUID COOLING SYSTEM	from 10kW to 60kW

Digital transmitters (DAB/DAB+)

● *Compact Transmitters*

SFT DAB/C		AIR COOLING SYSTEM	from 1mWrms to 600Wrms
	XE (eXtreme Efficiency)	AIR COOLING SYSTEM	from 300Wrms to 600Wrms

● *Modular Transmitters*

SFT DAB/M		AIR COOLING SYSTEM	from 300Wrms to 10kWrms
		LIQUID COOLING SYSTEM	from 2.4kWrms to 15kWrms
	XE (eXtreme Efficiency)	AIR COOLING SYSTEM	from 300Wrms to 10kWrms
		LIQUID COOLING SYSTEM	from 2.4kWrms to 15kWrms

DB Design

DB has always been committed to offering products that are not only technologically advanced but also highly functional to facilitate any user operation and above all to reduce maintenance and logistics costs. Thanks to the continuous work of perfecting the design of its products, today DB can boast models of transmitters and amplifiers that are extremely compact, light weight and with simple and intuitive functions but combined with the highest reliability and ruggedness.

Smart Design
Thanks to its research and development center, DB is constantly working to improve the design of its products so that the interaction between user and devices is always easier, more intuitive and maintenance faster and cheaper. The clever placement with direct access of the fans in the back and outside of the transmitters and amplifiers and that of the power supply units with easy access are the result. Such as the combination of latest generation RF combiner technology with ultracompact unbalancing dummy loads and a smart intercommunication interface between RF modules, drivers, and Logical Control System.

Compact Design
The compact design of the transmitter allows the latter to be used in environments with limited space and grants an easier and economical logistics management.

High Scalability
The special design of the transmitters and amplifiers allows multiple configurations with high scalability which guarantees maximum flexibility and simplicity in the management of spare parts.

International Standards
Meets or exceeds all safety standards and international electrical specifications, making DB products suitable for any market and condition.

Color Display
LCD display for easy navigation, viewing and setting management.

Control Panel
Front panel with simple and intuitive controls. Buttons for direct activation of main parameters and indicator lights showing their status and signaling any malfunctions.

DB Technology

DB firmly believes that innovation is a powerful tool for a better future and for this reason, since 1975, it has always been committed to investing in its Research & Development Department to design equipment with ever better quality and efficiency. Our technicians always take the utmost care in the small details to offer customers a product that is not only efficient but also easy to interact with. The result of all this can be seen from the fact that DB has sold and installed more than 80.000 transmitters in 180 countries around the world, becoming a leading company in the market.

GRF
(only FM)

GreenRF technology is the evolution of the COLD-FET technology adopted by DB for its transmitters. With the use of special high performance LDMOS transistors, this technology brings innumerable advantages, among which a high AC overall efficiency (> 70%), high reliability and safety, less heating and AC power consumption, which lead to maximum energy saving and a very longer transmission life.

MSE
(only FM)

MSE (Magnetic Sound Enhancer) is the DB technology which consists of a magnetic barrier that protects the VCO (Voltage Controlled Oscillator), the heart of the FM modulator, significantly increasing the sound quality.

ACS

Automatic Current Sharing technology consists of an automatic current balancing system and a perfect load distribution, that creates optimal power operating conditions leading to maximum redundancy. As a result, the output power loss in the event of a power supply failure is extremely low.

APS

Anticorrosive Protection System is a special treatment applied to the surface of the aluminum body of the transmitters and to some of its components, preventing corrosion due to humidity or sudden changes in temperature and increasing reliability and longevity.

HSS

With the Hot Swap System present in the transmitters it is possible to carry out maintenance on the power supplies with the equipment on and on-air in less than 2 minutes as well as for the amplifiers in modular transmitters. Even the cooling fans can be removed, cleaned or replaced in just 2 minutes thanks to their placement outside the unit.

RCS

Responsive Cooling System is an optimized and highly efficient cooling system. Thanks to the ability to react to changes in temperature of the transmitter or the environment, the system guarantees correct operation and optimal performance even in extreme climatic conditions or in the presence of high temperatures. The cooling system keeps the internal critical components always in perfect operating conditions.

AIR
COOLING

The DB air cooling system not only prevents the device from overheating but extends the life of the transistors by far. In the transmitters and amplifiers the fans are mounted externally to allow easy and quick cleaning, or possible replacement, without opening or removing any module and without interrupting the operation of the transmitter.

LIQUID
COOLING

An oversized heat exchanger, single or double (optional), suitable for outdoor or indoor installation, and equipped with single or double pumping system (optional) for maximum redundancy, is the main component of DB's powerful liquid cooling system. Thanks to the special design of the liquid cooled heat sinks inside the amplifier and the low pressure liquid distribution, this system ensures high reliability, cooling efficiency and ease of installation.

WEB
INTERFACE

Extremely detailed and intuitive web interface with all main parameters fully controllable and adjustable. Ability to remotely check the status of the transmitter and set malfunction alerts via e-mail and/or SNMP Trap for prompt intervention. Firmware that can also be updated remotely and an easy back-up system for personal data and configuration.

N+1

The N+1 control logic units reduce the need for multiple backup transmitters by ensuring automatic switching in the event of a failure and automatic loading of the faulty transmitter configuration onto the spare one for a system always at full power.

XET
(only DAB)

XET ™ (eXtreme Efficiency Technology): using the latest generation LDMOS devices, more robust and efficient than in the past, and with a special low-loss design of the matching and combination system, together with very high efficiency power supplies (over 96% efficiency), this technology allows surprising transmission performance and several advantages. The XET technology, applied to the amplifier section of the digital DAB transmitters, guarantees an RF efficiency higher than 50% and an overall efficiency up to 42% without decreasing the performance in terms of M.E.R.(Modulation Error Rate) and shoulder.

SWDT
(only DAB)

SWDT® (Software Defined Transmitters) technology implement different modulation patterns, either digital or analog (DAB, DAB+, T-DMB, etc.) in the same hardware. It allows an easy selection of the operating modes remotely, via SNMP commands, via TCP/IP or even via a dedicated command inserted into the transport stream.

UAS
(only DAB)

The Universal Adaptiveness System is the result of years of research and represents the state of the art of DTV and DAB transmitters technology worldwide. This system guarantees an incredible hardware configuration capability, using a very simple and intuitive software that is accessible both locally and remotely. It is perfect for international broadcasters to increase the manageability of investments by reducing the types of transmitters and for national broadcasters thanks to its versatility in operating modes and configuration. The UAS can allow the user to set up the machine as a transmitter, heterodyne transposer, regenerative transmitter and gap filler, all in one hardware configuration.

Uninterrupted radio signal with Mozart Next FM transmitters, also in extreme operating conditions.

Mozart Next Series

The Mozart Next series is the new generation of FM transmitters that stands out for a high level of quality, reliability and efficiency thanks to the presence of cutting-edge technologies that ensure superior performance; all in a compact and intelligent design that allows a simpler and more intuitive interaction by the user and makes maintenance much easier and more economical.

Cutting-edge technology in an innovative design

*Product range: from 30W to 7kW**

Scan me for 3D view

Mozart NEXT 1000

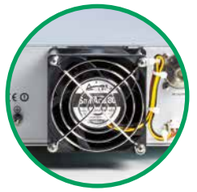
Mozart NEXT 7000

**From 30W to 500W the power supply unit is not extractable from the front panel*

Efficiency Enhancement

Mozart design is optimized to get minimum RF losses and excellent performances of the active elements in order to increase the AC overall efficiency up to more than 70%.

Latest generation LD-MOS devices increase DC to RF efficiency up to 85%, with a drastic reduction of energy consumption.



Hot-plug fans: 2 minutes maintenance time, no need to open or switch off the unit.

All the main working parameters are shown by leds to indicate the transmitter status at the first glance.

MAIN FEATURES:

High efficiency: with DB's GreenRF technology and special top performance LDMOS transistors of latest generation, the Mozart Next transmitters are absolutely efficient (AC overall efficiency >70%), reliable and safe, and because of less heating and AC power consumption, they have a much longer life.

Uninterrupted service: Thanks to the DB's Automatic Current Sharing Technology (on models of at least 2000W) which consists of an automatic current balancing system and a perfect load distribution, Mozart Next transmitters run always under optimal power operating conditions, leading to maximum redundancy and reducing power loss under failure conditions.

Top sound quality: Thanks to DB's Magnetic Sound Enhancer Technology, protecting the heart of the FM modulator, and thanks to the high performance built-in digital stereo coder (which provides separation typical >65dB and signal/noise ratio >80dB) the highest audio quality is assured.

Efficient cooling system: DB's Responsive Cooling System has the ability to react to changes in temperature of the transmitter or the environment and for this reason the system guarantees correct operation and optimal performance even in extreme climatic conditions or in the presence of high temperatures. The cooling system keeps the heat sink temperature at optimum levels. DB's Air Cooling System not only prevents the device from overheating but extends the life of the transistors by far.

Quick and economical maintenance: Thanks to the clever placement with direct access of the fans at the back and outside of the transmitters and thanks to the ease of access and removal of the power supply units at the front of the transmitters, with the Mozart Next transmitters you save time and money in maintenance. Moreover, thanks to DB's Hot Swap System, you can replace fans and power supply units with the equipment running and on air.

Easy interaction: thanks to the display and the front panel with simple and intuitive controls, buttons for direct activation of main parameters and indicator lights showing their status and signalling any malfunctions, interacting with the Mozart Next transmitters is extremely easy.

Remotely controllable: with DB's Web and SNMP Interface, extremely detailed and intuitive and with all main parameters fully controllable and adjustable, you can remotely check the status of the transmitter and set malfunction alerts via e-mail for prompt intervention. The firmware can also be updated remotely, and the personal data settings can be easily backed-up.

Smart design: Mozart Next transmitters are very compact and lightweight, so they can be installed in places with reduced space and managing them logistically is absolutely not a problem. In addition, each transmitter has the Anticorrosive Protection System, which is a special treatment applied to the surface of the aluminium body of the transmitters and to some of its components, preventing corrosion due to humidity or sudden changes in temperature and increasing reliability and longevity. The Mozart Next transmitters meets or exceeds all safety standards and international electrical specifications.

Power Scheduler: Mozart Next transmitters include in its remote control interface a power scheduler for weekly adjustements of power output strongly optimizing energy consumption.

GRF

MSE

ACS

APS

HSS

RCS

AIR COOLING

WEB INTERFACE

N+1

Mozart DDS Next Series

The Mozart DDS Next FM Transmitter/Exciter Series is the latest audio excellence in the FM Broadcasting industry thanks to latest generation Direct Digital Synthesis Technology which assure superior audio quality and pureness. The design is optimized to get minimum RF losses and excellent performances of the active elements in order to increase AC overall efficiency up to more than 70%.

The best possible audio quality and frequency stability thanks to the Direct Digital Synthesis technology

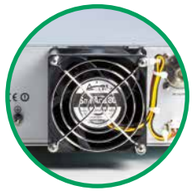
*Product range: from 30W to 7kW**

**From 30W to 500W the power supply unit is not extractable from the front panel*

Efficiency Enhancement

Mozart design is optimized to get minimum RF losses and excellent performances of the active elements in order to increase the AC overall efficiency up to more than 70%.

Latest generation LD-MOS devices increase DC to RF efficiency up to 85%, with a drastic reduction of energy consumption.



Hot-plug fans: 2 minutes maintenance time, no need to open or switch off the unit.

MAIN FEATURES:

DDS Technology: the Direct Digital Synthesis Technology grants superior audio quality, sound purity and the highest frequency stability.

Suitable for SFN (Single Frequency Network) application: with internal modulation phase adjustment to optimize SFN network setting.

Dynamic RDS Encoder (optional): The Mozart DDS Next transmitters have a built-in dyanmic RDS encoder that supports PI, PS, TA, TP, MS, PTY, PTYN, TA custom, up to 25 AF, DI, Dynamic PS scrolling. Synchronized with UECP serial protocol.

High efficiency: with DB's GreenRF technology and special top performance LDMOS transistors of latest generation, the Mozart DDS Next transmitters are absolutely efficient (AC overall efficiency >70%), reliable and safe, and because of less heating and AC power consumption, they have a much longer life.

Uninterrupted service: thanks to the DB's Automatic Current Sharing Technology (on models of at least 2000W) which consists of an automatic current balancing system and a perfect load distribution, Mozart DDS Next transmitters run always under optimal power operating conditions, leading to maximum redundancy and reducing power loss under failure conditions..

Quick and economical maintenance: Thanks to the clever placement with direct access of the fans at the back and outside of the transmitters and thanks to the ease of access and removal of the power supply units at the front of the transmitters, with the Mozart Next transmitters you save time and money in maintenance. Moreover, thanks to DB's Hot Swap System, you can replace fans and power supply units with the equipment running and on air.

Smart design: Mozart DDS Next transmitters are very compact and lightweight, so they can be installed in places with reduced space and managing them logistically is absolutely not a problem. In addition, each transmitter has the Anticorrosive Protection System, which is a special treatment applied to the surface of the aluminium body of the transmitters and to some of its components, preventing corrosion due to humidity or sudden changes in temperature and increasing reliability and longevity. The Mozart DDS Next transmitters meets or exceeds all safety standards and international electrical specifications.

Remotely controllable: with DB's Web and SNMP Interface, extremely detailed and intuitive and with all main parameters fully controllable and adjustable, you can remotely check the status of the transmitter and set malfunction alert messages. The firmware can also be updated remotely, and the personal data settings can be easily backed-up.

Efficient cooling system: DB's Responsive Cooling System has the ability to react to changes in temperature of the transmitter or the environment and for this reason the system guarantees correct operation and optimal performance even in extreme climatic conditions or in the presence of high temperatures. The cooling system keeps the heat sink temperature at optimum levels. DB's Air Cooling System not only prevents the device from overheating but extends the life of the transistors by far.

Easy interaction: thanks to the display and the front panel with simple and intuitive controls, buttons for direct activation of main parameters and indicator lights showing their status and signalling any malfunctions, interacting with the Mozart DDS Next transmitters is extremely easy.

Power Scheduler: Mozart Next transmitters include in its remote control interface a power scheduler for weekly adjustements of power output strongly optimizing energy consumption.

GRF
ACS
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AIR COOLING
WEB INTERFACE
N+1


CLU-3 - Control Logic Unit
Mercury 300 - 500 W FM Transmitter
ESCAPE
DIGITAL BROADCAST

PFG Next Series

The PFG NEXT series of modular FM transmitters are the best combination of efficiency, versatility and simplicity thanks to the state-of-the-art technology present and their innovative design. Thanks to the various available configurations, these transmitters can give the best solution matching network requirements and granting also maximum robustness and highest efficiency operation at the very competitive price. With the introduction of an intelligent Automatic Current Sharing Technology, the PFG NEXT transmitter can work in the worst fault conditions whilst maintaining the highest output power everseen. Moreover thanks to the Hot Swappable Technology maintenance cost and time are drastically reduced.

Efficiency, versatility and simplicity at the highest levels

Scan me for 3D view
PFG NEXT 10000

Product range: from 100W to 60kW

Each PFG NEXT includes:

- Mozart NEXT exciters, the latest audio excellence of FM Transmitters (see pages 10-11 for benefits and features).
- KFG Amplifiers
- Control logic unit, built-in or stand alone
- Air cooling system or, as optional, Liquid Cooling System

MAIN FEATURES:

High efficiency

With DB's GreenRF technology and special top performance LDMOS transistors of latest generation, the PFG Next transmitters are absolutely efficient (AC overall efficiency >70%), reliable and safe, and because of less heating and AC power consumption, they have a much longer life. In addition, thanks to the DB's Automatic Current Sharing Technology which consists of an automatic current balancing system and a perfect load distribution, Mozart PFG Next transmitters run always under optimal power operating conditions, leading to maximum redundancy with minimum power loss in case of failure.

Quick and economical maintenance

Thanks to the clever placement with direct access of the fans at the back and outside of the exciters and amplifiers and thanks to the ease of access and removal of the power supply units at their front, with the PFG Next transmitters you save time and money in maintenance. Moreover, thanks to DB's Hot Swap System, you can replace fans and power supply units with the machine running and on air.

Easy interaction

Thanks to the display in the front panel of the exciters, amplifiers and control units, with simple and intuitive controls, buttons for direct activation of main parameters and indicator lights showing their status and signalling any malfunctions, interacting with the PFG Next transmitters is extremely easy.

Remotely controllable

With DB's Web and SNMP Interface, extremely detailed and intuitive and with all main parameters fully controllable and adjustable, you can remotely check the status of the transmitter and set malfunction alerts via e-mail for prompt intervention.

Smart design

PFG Next transmitters are compact and lightweight, so they can be installed in places with reduced space and managing them logistically is absolutely not a problem. The N+1 logic control units reduce the need for multiple backup transmitters by ensuring automatic switching in the event of a failure and automatic loading of the faulty transmitter configuration onto the spare one for a system always at full power. In addition, each exciter and amplifier have the Anticorrosive Protection System, which is a special treatment applied to the surface of the aluminium body of the transmitters and to some of its components, preventing corrosion due to humidity or sudden changes in temperature and increasing reliability and longevity.

Liquid Cooling System

It is optional and available on transmitters of at least 10kW, consists of an oversized heat exchanger, single or double (optional), suitable for outdoor or indoor installation, and equipped with single or double pumping system (optional) for maximum redundancy, is the main component of DB's powerful liquid cooling system. Thanks to the special design of the liquid cooled heat sinks inside the amplifier and the low pressure liquid distribution, this system ensures high reliability, cooling efficiency and ease of installation. Compared to the air cooling system, the liquid cooling system brings several advantages, such as:

- Correct operation even in extreme climatic conditions
- Significant reduction in the amount of air conditioning required
- Correct operation in dusty environments, with high humidity or salinity
- Very low acoustic noise
- Low thermal dispersion in the environment
- Longer life of transistors and active components thanks to their continuous operation at lower temperatures.

GRF
MSE
ACS
APS
HSS
RCS
WEB INTERFACE
N+1

FM Modular Amplifiers: KFG Series

The above PFG Next Series transmitters are available also as amplifiers, without the internal exciters, with the name of KFG Series

KFG Series is the DB family of FM amplifiers designed to operate in the whole 87.5 – 108 MHz frequency range.

The characteristics, features and benefits are the same of PFG Next Series detailed above, just excluding the ones connected to the internal exciters. Same benefits in term of **highest AC efficiency, Low maintenance costs, Strong reduction of air conditioning, Remote Control, Uninterrupted service.**

Same features in term of **Hot-Plug Solution, High efficiency air cooling system, High Efficiency Liquid Cooling System, Extended equipment life.**

PFG-V Next Series

PFG-V Next Series is the DB family of Modular Vertical Air Cooling FM transmitters designed to operate in the whole 87.5 – 108 MHz frequency range.

The PFG-V NEXT SERIES has all benefits and features of the PFG NEXT SERIES.

Product range: from 5kW to 60kW

KFG-V Series
FM Modular Vertical Air cooled Amplifiers

The above PFG-V Series transmitters are available also as amplifiers, without the internal exciters, with the name of KFG-V Series

KFG-V Series is the DB family of Modular Vertical Air Cooled FM amplifiers designed to operate in the whole 87.5 – 108 MHz frequency range.

The characteristics, features and benefits are the same of PFG-V Series detailed above, just excluding the ones connected to the internal exciters. Same benefits in term of **highest AC efficiency, Low maintenance costs, Strong reduction of air conditioning, Remote Control, Uninterrupted service**.

Same features in term of **Hot-Plug Solution, High efficiency air cooling system, Extended equipment life**.

We design and supply turnkey
radio and DAB solutions

PFG DDS Next Series

The PFG DDS NEXT series of modular FM transmitters is the latest audio excellence in the FM Broadcasting industry thanks to latest generation Direct Digital Synthesis Technology which assures superior audio quality and pureness. The design is optimized to get minimum RF losses and excellent performances ot the active elements in order to increase AC efficiency up to more than 70%. Furthermore, maintenance costs and times are reduced to a minimum.

Efficiency, versatility and simplicity at the highest levels

*Product range: from 100W to 60kW**

Each PFG DDS NEXT includes:

- Mozart DDS NEXT exciters: with Direct Digital Synthesis Technology granting superior audio quality, sound purity and the highest frequency stability (see pages 12-13 for benefits and features).
- KFG Amplifiers
- Control logic unit, built-in or stand alone
- Air cooling system or, as optional, Liquid Cooling System

*From 100W to 500W the power unit are not extractable

Efficiency Enhancement

The combination of Mozart DDS Next exciter and KFG amplifiers with all their benefits.

Latest generation LD-MOS devices increase DC to RF efficiency up to 85%, with a drastic reduction of energy consumption.

Multiple configurations with high scalability.

LCD display for easy navigation, viewing and setting management.

MAIN FEATURES:

High efficiency

With DB's GreenRF technology and special top performance LDMOS transistors of latest generation, the PFG DDS Next transmitters are absolutely efficient (AC overall efficiency >70%), reliable and safe, and because of less heating and AC power consumption, they have a much longer life. In addition, thanks to the DB's Automatic Current Sharing Technology which consists of an automatic current balancing system and a perfect load distribution, PFG DDS Next transmitters run always under optimal power operating conditions, leading to maximum redundancy.

Quick and economical maintenance

Thanks to the clever placement with direct access of the fans at the back and outside of the exciters and amplifiers and thanks to the ease of access and removal of the of the power supply units at their front, with the PFG DDS Next transmitters you save time and money in maintenance. Moreover, thanks to DB's Hot Swap System, you can replace fans and power supply units with the equipment running and on air.

Easy interaction

Thanks to the display and the front panel of the exciters, amplifiers and control units, with simple and intuitive controls, buttons for direct activation of main parameters and indicator lights showing their status and signalling any malfunctions, interacting with the PFG DDS Next transmitters is extremely easy.

Remotely controllable

With DB's Web and SNMP Interface, extremely detailed and intuitive and with all main parameters fully controllable and adjustable, you can remotely check the status of the transmitter and set malfunction alerts via e-mail for prompt intervention.

Power Scheduler

Mozart Next transmitters include in its remote control interface a power scheduler for weekly adjustements of power output strongly optimizing energy consumption.

Smart design

PFG Next transmitters are compact and lightweight, so they can be installed in places with reduced space and managing them logistically is absolutely not a problem. The N+1 logic control units reduce the need for multiple backup transmitters by ensuring automatic switching in the event of a failure and automatic loading of the faulty transmitter configuration onto the spare one for a system always at full power. In addition, each exciter and amplifier has the Anticorrosive Protection System, which is a special treatment applied to the surface of the aluminium body of the transmitters and to some of its components, preventing corrosion due to humidity or sudden changes in temperature and increasing reliability and longevity.

Liquid Cooling System

It is optional and available on transmitters of at least 10kW, consists of an oversized heat exchanger, single or double (optional), suitable for outdoor or indoor installation, and equipped with single or double pumping system (optional) for maximum redundancy, is the main component of DB's powerful liquid cooling system. Thanks to the special design of the liquid cooled heat sinks inside the amplifier and the low pressure liquid distribution, this system ensures high reliability, cooling efficiency and ease of installation. Compared to the air cooling system, the liquid cooling system brings several advantages, such as:

- Correct operation even in extreme climatic conditions
- Significant reduction in the amount of air conditioning required
- Correct operation in dusty environments, with high humidity or salinity
- Very low acoustic noise
- Low thermal dispersion in the environment
- Longer life of transistors and active components thanks to their continuous operation at lower temperatures.

GRF
ACS
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RCS
AIR COOLING
LIQUID COOLING
WEB INTERFACE
N+1

CONNECTING EMOTIONS WORLDWIDE

DTS/DRS Series
STL Radio Link Transmitters/Receivers

The most efficient modular FM Transmitters

The DTS and DRS Series are the state of the art DB solution for Studio to Transmitter links for audio broadcasting networks, matching the networking needs of all international broadcasters. These products are designed to be frequency agile and reach top quality audio modulation performances with a very intuitive and complete front panel LCD display control system. Their excellent characteristics make the DTS/DRS Series one of the highest quality STL on the market.

MAIN BENEFITS

Synthesized Agility. From 210 to 970 MHz - /3B, /4B, /GHz models- and from 1.35 to 2.5 GHz - /2G models: the transmitted and received frequencies can be easily set by the front panel LCD display.

Compact, simple, stable thanks to the small size of the units; the smart internal design that simplifies the maintenance; high frequency precision and stability thanks to the temperature compensated crystal.

Excellent stereo separation. The built-in group delay and amplitude precorrector guarantee a very low linear distortion and a great stereo separation in the whole audio band.

Low noise. The excellent signal to noise ratio - mono or stereo- assures the perfect use of this STL in multi-hops networks without decreasing the audio quality.

High receiving sensitivity thanks to the use of ultra low noise receiving input amplifiers, selective filters and a powerful demodulation circuit. This system allows reaching longer link distances even in high noise RF environments, reducing the investments on antenna.

Great RF immunity allows operating in the most hostile RF environments.

High adjacent channel rejection, obtained thanks to the excellent mechanical shielding and the RF selective filtering.

Complete diagnostic and measure of all the main parameters are available through LCD front panel. Full remote control available through WEB server as optional.

KE/KV Series
STL Radio Link Transmitters/Receivers

Audio quality always at its best!

The KE and KV analog STL Series are the best audio quality links for contribution and/or distribution broadcasting networks.

MAIN BENEFITS

Synthesized: Synthesized from 48 to 1020 MHz (/1B, /FM, /3B, /4B, /5B, /GHz models). The transmitted and received frequency can be easily set by internal dip – switches

Excellent stereo separation: A built-in group delay and amplitude pre-corrector guarantees a very low phase distortion and a great stereo separation in the whole audio band.

Suitable for digital audio: The subsonic over-modulation and the low frequency phase distortion are controlled by a feedback circuit in order to exalt the audio quality of the latest digital studio equipment.

High adjacent channel rejection: Obtained thanks to the excellent mechanical shielding and the precision of RF channel filtering.

Low thd distortion: The THD value with stereo or mono demodulated signals is negligible.

Low noise: The excellent signal to noise ratio either in mono or in stereo allows the use of this STLs in multi hops networks without decreasing the audio quality.

High sensitivity: It allows to reduce the STL's antennas investment.

Great RF immunity: Allows to operate in most hostile RF environments

High frequency stability: High frequency stability with the internal temperature compensated crystal reference.

Full metering: Complete diagnostic and measurement front panel displays are available.

Meets or exceeds: Meets or exceeds all FCC and CCIR requirements.

STL antennas for FM links

We provide a wide variety of STL antennas suitable for all requirements for FM broadcasting contribution and distribution links. Logarithmic antennas from 45 MHz to 2.5 GHz (LOG Series): very light and cost saving solution, perfect for short distances link's hops (less than 15 km). Parabolic dishes antennas from 0.8 GHz up to 24 GHz (PAR Series): high gain directive antennas with precision pointing system suitable for medium and long distances link's hops (over 10km).

FM Broadcasting Antenna Systems

We provide a wide variety of FM broadcasting Antenna Systems suitable for all FM broadcasting network applications. We use a powerful solid CAD model system design software with international orographic maps converted from satellite surveys to optimize the antenna system based on the FM Network specification. Antenna systems can be Omnidirectional or Directive, depending on the requested coverage area.

Available DB FM Antennas are:

- *P1 Series*
  FM dipole antenna, available in aluminium or stainless steel, suitable for omnidirectional coverage antenna systems in vertical polarization.
- *PX3 Series*
  Yagi FM stainless steel antenna, suitable for directional patterns in vertical polarization.
- *OCS Series*
  FM circular polarization stainless steel antenna, suitable for omnidirectional coverage in circular polarization, perfect to cover high density populated towns thanks to its double polarization.
- *APFM Series*
  FM double dipole panel antenna, suitable for directional patterns in vertical or horizontal polarization, with high gain and very high performances.

P1 SERIES

Wide band FM dipole antennas available in aluminum alodine (P1) or stainless steel (PX1) version. It is designed to work in the whole FM broadcast band (87.5 – 108 MHz).

The radiation pattern is omnidirectional with vertical polarization and it is suitable for city or flat areas.

By stacking more antennas it is possible to increase the gain of the system and power handling capacity accordingly to the user's requirements. Custom patterns, electrical beamtilt and null fill design are available on request.

All metal parts are electrically grounded ot prevent possible problems related to lightning. The input connector is protected against rain and icing by a special housing.

PX3 SERIES

Wide band Yagi FM antennas in stainless steel with PTFE insulator. It is designed to work in the whole FM broadcast band (87.5 – 108 MHz).

Thanks to the directional radiation (with 5.2 dB gain) and the vertical polarization, it is suitable for customized pattern. By stacking more antennas, in fact, it is possible to meet customer's requests about specific areas to cover or to increase the gain of the system and power handling capacity. Custom patterns, electrical beamtilt and null fill design are available on request.

All metal parts are electrically grounded ot prevent possible problems related to lightning. The input connector is protected against rain and icing by a special housing.

OCS SERIES

Wide band FM antennas in stainless steel with PTFE insulator. It is designed to work in the whole FM broadcast band (87.5 – 108 MHz).

Circular polarization pattern, it is suitable for omnidirectional coverage in high density populated towns where multiple reflections can be present thanks to its double polarization. Custom patterns, electrical beamtilt and null fill design are available on request.

This model of antenna is demountable in order to reduce the shipment costs and stocking volumes.

All metal parts are electrically grounded ot prevent possible problems related to lightning. The input connector is protected against rain and icing by a special housing.

APFM SERIES

Wide band double dipole FM antenna panels in stainless steel with PTFE insulator. It is designed to work in the whole FM broadcast band (87.5 – 108 MHz).

Thanks to the directional radiation (with 7.5 dB gain) and the vertical polarization, it is suitable for customized pattern. By stacking more antennas, in fact, it is possible to meet customer's requests about specific areas to cover or to increase the gain of the system and power handling capacity. Custom patterns, electrical beamtilt and null fill design are available on request.

The reflector is splitted in two parts to reduce the shipment costs and stocking volumes.

All metal parts are electrically grounded ot prevent possible problems related to lightning. The input connector is protected against rain and icing by a special housing.

Digital Radio and DAB: Multiple configuration flexible hardware and software

SFT DAB Series - compact & modular digital radio transmitter - also available with extreme efficiency (XE)

Thanks to the improved digital adaptive precorrection and configuation flexibility, the high efficiency of the new SFK amplifiers, the Hot Swap System technology, the compactness and smart system design, the SFT/XE DAB are state of the art transmitters. They support standards DAB, DAB+ and T-DMB and are compatible with major headend brands.

Reaching the highest technology level in both digital signal processing and RF domain

Product range: Compact from 1mWrms to 600Wrms
Modular from 300Wrms to 15kWrms

DAB DigitalAudioBroadcasting

DAB+ Digital Audio Broadcasting

DTMB

** optional*

Scan me for 3D view
SFT DAB 050/C

Efficiency Enhancement

The combination of ARK-X exciter and SFK amplifiers with all their benefits.

Hot-pluggable power supply units easily accessible from the front panel of amplifiers.

Multiple configurations with high scalability.

Hot-pluggable fans for quick and easy maintenance.

MAIN FEATURES:

Software and Hardware Versatility

The software and hardware in the SFT DAB systems are totally versatile as they can be set with different standards and configurations. Thanks to the SWDT® (Software Defined Transmitters) technology the modulation patterns can be set either digital or analog (DVB, ATSC, ISDB-T, DTMB, DAB, DAB+, T-DMB, ATV, etc.) in the same hardware. It allows an easy selection of the operating modes remotely, via SNMP commands, via TCP/IP or even via a dedicated command inserted into the transport stream. In addition, thanks to the UAS (Universal Adaptiveness System) the machine can be set as a transmitter, heterodyne transposer, regenerative transmitter and gap filler, all in one hardware component.

Efficiency to the extreme

Each SFT DAB transmitter is available with XET technology (eXtreme Efficiency Technology). Using the latest generation of LDMOS devices, more robust and efficient than in the past, and with a special low-loss design of the matching and combination system, together with very high efficiency power supplies (over 96% efficiency), this technology allows surprising transmission performance and several advantages: greater efficiency, compact dimensions and reduction of cooling systems are just some of the improvements obtained. The XET technology, applied to the amplifier section of the TV and DAB transmitters, guarantees an RF efficiency higher than 50% and an overall efficiency up to 42% without decreasing the performance in terms of M.E.R. (Modulation Error Rate) and shoulder.

Quick and economical maintenance

Thanks to the clever placement with direct access of the fans at the back and outside of the transmitters and thanks to the ease of access and removal of the of the hot pluggable power units at the front of the transmitters and amplifiers, with the SFT DAB transmitters you save time and money in maintenance.

Smart design

SFT DAB transmitters are compact and lightweight, so they can be installed in places with reduced space and managing them logistically is absolutely not a problem. The N+1 logic control units reduce the need for multiple backup transmitters by ensuring automatic switching in the event of a failure and automatic loading of the faulty transmitter configuration onto the spare one for a system always at full power. In addition, each exciter and amplifier have the Anticorrosive Protection System, which is a special treatment applied to the surface of the aluminium body of the transmitters and to some of its components, preventing corrosion due to humidity or sudden changes in temperature and increasing reliability and longevity.

Remotely controllable

Wwith DB's Web Interface, extremely detailed and intuitive and with all main parameters fully controllable and adjustable, you can remotely check the status of the transmitter and set malfunction alerts for prompt intervention. The firmware can also be updated remotely, and the personal data settings can be easily backed-up.

UAS

SWDT

APS

HSS

RCS

AIR COOLING

LIQUID COOLING

WEB INTERFACE

N+1

DB DAB antenna

We provide a wide variety of aluminum and stainless steel antennas suitable for DAB broadcasting contribution and distribution networks; we can also deliver many antenna systems. We use a powerful solid CAD model system design software with international orographic maps converted from satellite surveys to optimize the antenna system based on the network specification. Antenna systems can be Omnidirectional or Directive, depending on the requested coverage area.

Available DB DAB Antennas are:

- *P1/DAB Series*

  FM dipole antenna for DAB band in aluminium alodine, suitable for omnidirectional coverage antenna systems in vertical polarization.

- *PX3/DAB Series*

  Yagi stainless steel antenna for DAB band, suitable for directional patterns in vertical polarization.

- *LOG/DAB Series*

  DAB logaritmic antenna in stainless steel with 8 elements, suitable for directional coverage in vertical or horizontal polarization, completely demountable.

- *APFM/DAB Series*

  DAB double dipole panel antenna in aluminium alodine, suitable for directional patterns in vertical or horizontal polarization, with high gain and very high performances.

P1/DAB SERIES

Wide band DAB dipole antennas in aluminum alodine. It is designed to work in one of the two sub-bands of DAB broadcast band (174 - 225 MHz or 200 – 240 MHz). The correct frequency must be specified at the moment of the order.

The radiation pattern is omnidirectional with vertical polarization.

By stacking more antennas it is possible to increase the gain of the system and power handling capacity accordingly to the user's requirements. Custom patterns, electrical beamtilt and null fill design are available on request.

All metal parts are electrically grounded ot prevent possible problems related to lightning. The input connector is protected against rain and icing by a special housing.

PX3/DAB SERIES

Wide band Yagi DAB antennas in stainless steel with PTFE insulator. It is designed to work in the whole DAB broadcast band (174 - 225 MHz).

Thanks to the directional radiation (with 5.2 dB gain) and the vertical polarization, it is suitable for customized pattern. By stacking more antennas, in fact, it is possible to meet customer's requests about specific areas to cover or to increase the gain of the system and power handling capacity. Custom patterns, electrical beamtilt and null fill design are available on request.

All metal parts are electrically grounded ot prevent possible problems related to lightning. The input connector is protected against rain and icing by a special housing.

LOG/DAB SERIES

Wide band DAB antennas in stainless steel with PTFE insulator. It is designed to work in the whole DAB broadcast band (170 - 240 MHz).

This model of antenna is demountable in order to reduce the shipment costs and stocking volumes.

All metal parts are electrically grounded ot prevent possible problems related to lightning.

AFPM/DAB SERIES

Wide band double dipole DAB antenna panels in stainless steel with PTFE insulator. It is designed to work in the whole DAB broadcast band (170 - 225 MHz).

Thanks to the directional radiation (with 7.5 dB gain) and the vertical polarization, it is suitable for customized pattern. By stacking more antennas, in fact, it is possible to meet customer's requests about specific areas to cover or to increase the gain of the system and power handling capacity. Custom patterns, electrical beamtilt and null fill design are available on request.

Radio Broadcasting Equipment

Every project and every customer is unique,
that’s why one size doesn’t fit all, and that’s why we strive
to offer unique solutions for unique projects.

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