



DIGITAL BROADCAST

FM

Mozart DDS NEXT



Mozart DDS NEXT Series

Compact FM Transmitters with Direct Digital Synthesis technology

Mozart DDS NEXT Series: Compact FM Transmitters with Direct Digital Synthesis technology

The best possible audio quality and the highly improved frequency stability in FM Broadcasting thanks to DDS Technology

Mozart DDS NEXT FM Transmitter / Exciter is the evolution of the Mozart line with the application of the Direct Digital Synthesis technology to grant the highest audio quality and the best optimization for SFN integration.



Main Features

Automatic audio switch: easy setting of priority audio source to grant the automatic switch to audio input backup.

Powerful modulation limiter, keeping the maximum frequency deviation within international standards requirements, to avoid over modulations and adjacent channels interferences (the limiter can be soft or hard, threshold are easily adjustable via web GUI interface).

Ideal for N+1 configuration use: the presence of multiple memory profiles allows the customer to store the main configuration parameters, with easy user recall. This is ideal in case of N+1 systems for a quick recovery of the failed transmitter configuration to setup the reserve.

Storing configuration: actual configuration can be downloaded, stored and uploaded in another unit for easy recovery.

Firmware upgradeable remotely (by Web Gui).

Log file with every TX alarm event tracked. The Log file can be saved in the PC in common text format.

Switch-mode power supply, highly efficient and widely over-rated power supply modules ensuring low heating, low AC power consumption and superior reliability. The PFC circuitry meets all international requirements for mains network disturbances.

High efficiency air cooling system, with heat-sink temperature rising only max 10°C above ambient temperature. This guarantees perfect functioning even in sites with extreme climate conditions and high temperatures.

VSWR Protection: 1.5:1 VSWR protection with proportional foldback to allow the transmitter to work always in safe mode and never stop.

Efficiency Enhancement

Mozart design was optimized to get minimum RF losses of the passive elements and excellent performances of the active elements in order to increase the AC 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.

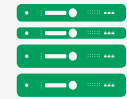


Hot-plug fans: less than 5 minutes maintenance time, no need to open, reduce power or switch the unit off.

Mozart DDS NEXT FM Transmitters



Over 70% RF Efficiency



High Scalability



Remote Control

RF FEATURES

Frequency range	87.5 to 108 MHz in 10 kHz steps
RF Output impedance	50 Ω
Type of modulation	F3E / F8E direct FM at the carrier frequency
Modulation mode	Mono, Stereo, Multiplex, SCA, AUX, AES/EBU (input selected by front panel)
Frequency deviation	± 75 kHz = 100 %, ± 150 kHz capability
Frequency generation	NCO (Direct Digital Synthesis)
Frequency stability	± 1 ppm/year
RF harmonics	Exceeds CCIR/FCC requirements
RF spurious	Exceeds CCIR/FCC requirements
Pre-emphasis	Flat/50/75 μ s selectable
Stereo operation	CCIR 450/S2 "pilot tone system"

STEREO OPERATION

Audio Response	(30Hz ÷ 15kHz) < 0.3dB
Modulation distortion	< 0.3% @ 75kHz deviation
SNR	> 80 dB @ 75kHz deviation
Common mode rejection	> 60 dB
Crosstalk	> 70 dB (30Hz ÷ 15kHz)

MONO OPERATION

Audio Response	(30Hz ÷ 15kHz) <0.3dB
Modulation distortion	< 0.3% @ 75kHz deviation
SNR	> 85 dB @ 75kHz deviation

MPX OPERATION

Audio response	30Hz – 65 kHz	<0.1 dB
	65 kHz - 95kHz	<0.5 dB
Modulation distortion	< 0.3%	
SNR	> 80 dB	

AUDIO INPUTS

Function	Input level / Adjustment range	Impedance	Type	Conn.
L	-6 ÷ +6 dBu	20 k Ω 600 Ω	Unbal. Bal.	XLR
R	-6 ÷ +6 dBu	20 k Ω 600 Ω	Unbal. Bal.	XLR
Composite MPX	-6 ÷ +12 dBu	20 k Ω	Unbal.	BNC
AES/EBU	-24 ÷ 0 dBFS	110 Ω	Unbal.	mini XLR

ENVIRONMENT

Storage temperature	-5 °C TO + 50 °C
Operating temperature	-5°C to +45°C Derate 3°C per 500 m above 2000mt asl
Relative non-condensing humidity	Up to 95%

SIZE & ELECTRICS

Power supply	230V single phase AC (+/- 15 %) 50-60Hz/ ± 5%
Cooling	Forced air, with external fan
Service	24/24h

MODEL	OUTPUT POWER	OUTPUT CONNECTORS	DIMENSIONS
MOZART DDS NEXT 30	30 W	N	1U
MOZART DDS NEXT 50	50 W	N	1U
MOZART DDS NEXT 100	100 W	N	2U
MOZART DDS NEXT 300	300 W	N	2U
MOZART DDS NEXT 500	500 W	N	2U
MOZART DDS NEXT 1000	1000 W	DIN 7/16	3U

All specifications are subject to change without notice.



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DB Elettronica Telecomunicazioni S.p.A.

Headquarter

Riviera Maestri del Lavoro 20/1 - 35127 Padova - Italy

Ph +39 049 8700588 - Fax +39 049 8700747

Email: info@dbbroadcast.com

www.dbbroadcast.com

