

# Digital Audio Broadcasting transmitters

## TYPES

Air cooled

Liquid cooled

The TEX family of transmitters now enables a new dimension offering solution for digital audio broadcasting standards DAB, DAB+ and T-DMB.



The Elti® TERX family for digital audio broadcasting is robust, fail-safe, with high efficiency, designed for digital radio networks, featuring intelligent redundancy concepts, fully configurable for your indoor/outdoor applications.

## The advantage

- Fully compliant with DAB/DAB+/T-DMB standards (EN 300401 / ETS 300 799)
- Efficient ETI input management for redundancy
- MFN and SFN operation
- Very high modulation performance (signal stability, shoulder level, low phase noise)
- Linear and Non-linear digital pre-correction

## Exciter

The exciter is housed in compact 19" 1U rack mount with the AB class amplifier that provides up to 50 W VHF output power. Unit is supporting MFN and SFN operation, featuring an integrated GPS/GLONASS receiver.

## Power amplifier

External amplifiers are available in 300W and 600 W (air and liquid cooling) for VHF band. All amplifiers are designed for broadband and employ the latest 50-volt LDMOS technology to guarantee linearity, compact design and high efficiency for minimizing operational costs. Self-protection circuits assure continuous operation and uninterrupted service in sight of minimizing operational costs.

- Designed for digital and analogue applications
- High efficiency, low power consumption design
- Redundant power supplies
- Excellent ruggedness and broadband performance
- Hot swappable, easy maintainable
- Robust mechanical structure
- Settings and measurements can be made through the EDM web interface

## Specifications

Standard DAB/DAB+/T-DMB	
Frequency range	VHF Band III (174 MHz to 240 MHz)
Coding	COFDM
DAB Modules	I, II, III, IV
Bandwidth	1,536 MHz

General data	
Spectrum polarity	Inverted and non-inverted
Digital pre-correction/auto adaptive pre-correction	Included/Optional
SFN support	Included
INPUTS	
Inputs	2 x ETI-NI/ETI/NA, compliant with G703/G704 standards; 75 $\Omega$ seamless automatic switching
Integrated GPS	Optional
RF OUTPUT SPECIFICATION	
Output frequency range	VHF band III (174 MHz to 240 MHz)
RF output power (W rms)	max 9,6 kW VHF
Return loss	>18 dB
Power stability	$\pm$ 0,1 dB
OPERATING CONDITIONS	
Nominal temperature range	In accordance with ETS 300 019-1-3 (class 3.2) -5°C to 50°C
Nominal temperature range with liquid cooling	-40°C to +50°C
Relative air humidity	In accordance with ETS 300 019-1-3 (class 3.2) 95% 30°C, no condensation (8% - 100% for transportation and storage)
Relative air humidity with liquid cooling	95% 30°C not condensing
Max altitude	2.800 m (higher on request)
MAINS CONNECTION	
Single phase supply	110/230V $\pm$ 15%, 47 to 63 Hz (for devices up to 1000 W rms)
Triple phase supply	3/N/PE ~ 400/230V $\pm$ 15%, 47 to 63 Hz (for devices from 1,2 kW up to 9,6 kW rms)
PFC	>0,95 (typically 0,98)
CONTROL AND MONITORING INTERFACES	
Local control and monitoring	Local operation using LCD display or integrated LCD and keyboard
Remote control	Over Ethernet (Web browser), SNMP, IEC 864-1 (optional)
Supported protocols	TCP/IP, HTTP, SNMP

DAB Transmitter type	Output power before output filter DAB	No of external amplifiers	Output connector	Size/No. Of racks	Cooling
TERX AC3050	60 W	standalone	N, 50 $\Omega$	19" x 1U x 400mm	air
TERX AS3101(d)    TERX AD3101(d)	300 W	1	N, 50 $\Omega$	19"x1Ux400mm + 19"x3Ux600mm	air
TERX AS3201(d)    TERX AD3201(d)	600 W	1	EIA 7/8", 50 $\Omega$	1 rack	air liquid
TERX LS3201(d)    TERX LD3201(d)					
TERX AS3202(d)    TERX AD3202(d)	1,2 kW	2	EIA 7/8", 50 $\Omega$	1 rack	air liquid
TERX LS3202(d)    TERX LD3202(d)					
TERX AS3203(d)    TERX AD3203(d)	1,8 kW	3	EIA 1 5/8", 50 $\Omega$	1 rack	air liquid
TERX LS3203(d)    TERX LD3203(d)					
TERX AS3204(d)    TERX AD3204(d)	2,4 kW	4	EIA 1 5/8", 50 $\Omega$	1 rack   2 racks	air liquid
TERX LS3204(d)    TERX LD3204(d)					
TERX AS3206(d)    TERX AD3206(d)	3,6 kW	6	EIA 1 5/8", 50 $\Omega$	1 rack   2 racks	air liquid
TERX LS3206(d)    TERX LD3206(d)					
TERX AS3208(d)    TERX AD3208(d)	4,8 kW	8	EIA 1 5/8", 50 $\Omega$	1 rack   2 racks	air liquid
TERX LS3208(d)    TERX LD3208(d)					
TERX AS3212(d)    TERX AD3212(d)	7,2 kW	12	EIA 3 1/8", 50 $\Omega$	2 racks   3 racks	air liquid
TERX LS3212(d)    TERX LD3212(d)					
TERX AS3216(d)    TERX AD3216(d)	9,6 kW	16	EIA 3 1/8", 50 $\Omega$	2 racks   3 racks	air liquid
TERX LS3216(d)    TERX LD3216(d)					