

**FOURTH
SERIES**



High-efficiency air-cooled VHF Band III DAB+ Transmitters



UWB Doherty

Top class efficiency figures:

- Leading Ultra Wide-Band Doherty Technology.
- Single HW for all the Band III.
- Efficiency optimization algorithm.
- **Average efficiency 50% (up to 53%) !!!**

State-of-the-art DAB+ modulator:

- Outstanding DAP performance.
- 2x EDI inputs with configurable jitter tolerance.
- Seamless switching between all ETI & EDI inputs.
- Built-in satellite receiver (option)

Optimized redundancy options:

- Dual Drive, 1+1, N+1 distributed architecture.
- Redundant, hot-swap PSUs.
- Robustness and minimal need of spare parts.

Smart operation and maintenance:

- Easy to use web GUI.
- Quality measurements & Spectrum view.
- Advanced Monitoring Tool.

TRedess

DAB+ Broadcasting is easier with TRedess

Fourth Series DAB+ transmitters are fully designed, developed and manufactured by TRedess in Spain. Focused in optimizing compactness, energy consumption using latest **broadband Doherty Technology**, with easy and smart operation, we assure **cost-efficiency** throughout the equipment lifetime, minimizing OPEX.

Our full control of the **manufacturing** and **quality control** processes make us a **reliable** equipment supplier, **flexible** to adapt to our customers and providing a high-quality **support**, based on a deep product knowledge and wide **experience** in the Broadcasting market.

TRedess T-DAB/DAB+/DMB AIR-COOLED TRANSMITTERS | Fourth Series | Technical specifications

Output power (Before filter) COFDM modulations	50/140 W	400 W	600 W	1200 W	1800 W	2400 W	3600 W	4800 W
Architecture	Monoblock		DAB+ Modulator (1HU) and Nx 600W Amplifiers (3HU)					
System configurations	Single Drive, 1+1, N+1		Single Drive, Dual Drive, 1+1, N+1					
Nº of amplifiers	Standalone transmitter		1 x 600	2 x 600	3 x 600	4 x 600	6 x 600	8 x 600
Final amplifier type	AB Class	Ultra-Wide-Band Doherty						
Frequency range	174-240 MHz							
Standards	T-DAB/DAB+/DMB according to ETSI EN 300 401							
Interfaces	1x ETI input (2 x ETI as option) (NI,G703) or (NA,704), BNC (F) 75 Ohms, according to ETSI EN 300 799 2x EDI 100/1000 Base-T RJ-45 (UDP/FEC, IGMP V2 & V3, configurable jitter tolerance) according to ETSI 102 693 Programmable seamless switching between all inputs Built-in satellite receiver with CAM (option)							
MER	> 32 dB							
Precorrection	Digital adaptative, linear and non-linear							
RF output connector	N Female	DIN 7/16 Female			EIA 7/8"		EIA 1 5/8"	
Clock and synchronization	10 MHz & 1 PPS input/output							
GPS/GNSS (Option)	SMA female 50 Ω Connector Stability $\pm 1 \times 10^{-9}$ (0°C to 60°C) Holdover: <math>< 0.8 \mu\text{s}</math> after 4 hours; <math>< 12 \mu\text{s}</math> after 24 hours							
Local and Remote Control	Front LCD display with keyboard and LED indications · Micro-SD card slot · Log file, System report I/O contacts (2xGP In, 4x GP Out ports) Ethernet control ports: Web GUI and SNMP							
Monitoring	Measures of MER, Shoulders, Output spectrum view, Forward and Reflected power Advanced Monitoring Tool (software option)							
Operating temperature range	-5°C to 45°C							
Relative humidity (max.)	95%, non condensing							
Altitude of operation	≤ 2500 m above sea level (>2500 m upon request)							
Cooling	Forced air							
Supply Voltage	110/230 VAC (single phase) - 47 to 63 Hz				110/230 VAC (single phase) - 47 to 63 Hz 208/400 V (three phase 4 wires) - 47 to 63 Hz			
Safety	EN 60950-1:2006+A1:2010+A11:2009 +A12:2011 · EN 60215:1989+A1:92+A2:94							
EMC	ETSI EN 301 489-1 V1.9.2 (2011-09) · ETSI EN 301 489-14 V1.2.1 (2003-05) · EN 61000-4-5, heavy Industry level							
Spectrum efficiency	ETSI EN 302 296-2 V1.2.1 (2011-05)							



Over **28.000** transmitters & gap-fillers worldwide, in more than **60** countries

Spain / France / Sweden / Norway / Italy / Croatia / Greece / Hungary
Poland / Estonia / Georgia / Faeroe / Peru / Chile / Brazil / Vietnam
Hong-Kong / Singapore / Thailand / Morocco / Mali / South Africa...

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www.tredess.com