



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

## UWB Doherty

### Top class efficiency figures:

- Leading Ultra Wide-Band Doherty implementation.
- Single HW for all the Band III.
- Efficiency optimization algorithm.

### State-of-the-art DAB+ modulator:

- Outstanding DAP performance.
- 2x EDI inputs with configurable jitter tolerance.
- Seamless switching between all ETI & EDI inputs.

### 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.

# 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, performance and easy 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	150 W	300 W	600 W	1200 W	1800 W	2400 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			
N° of amplifiers	Standalone transmitter		1	2	3	4
Final amplifier type	LDMOS Class AB		Ultra-Wide-Band Symmetrical Doherty			
Frequency range	174-240 MHz		174-240 MHz			
Standards	T-DAB/DAB+/DMB according to ETSI EN 300 401					
Interfaces	1x ETI input (NI,G703) or (NA,704), BNC (F) 75 Ohms, according to ETSI EN 300 799 1x ETI output, BNC (F) 75 Ohms, for monitoring purposes 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					
MER	> 32 dB					
Shoulder distance	> 35 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 < ±1x10exp-9 (0°C to 60°C) Holdover: <0.8µs after 4 hours; <12 µs 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	0°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 **18.000 transmitters & gap-fillers** worldwide, in more than **40 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...

**TRedess**  
www.tredess.com