



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

UWB Doherty

Top class efficiency figures, > 37%:

- 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

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