



High performance air-cooled **ATSC 3.0** transmitters for DTT networks

MOST ADVANCED ATSC 3.0 TECHNOLOGY

ATSC 1.0 TO ATSC 3.0 DUALCAST MODULATION

HIGH RELIABILITY

HIGH QUALITY RF SIGNAL PERFORMANCES

HIGH EFFICIENCY BASED ON ASYMMETRIC WIDE BAND DOHERTY AMPLIFIERS

 **UWB Doherty**



TRedess solutions for ATSC 3.0 adopters combine the top class RF performance of TRedess ATSC 3.0 Exciter together with the best in class efficiency of TRedess Asymmetrical Wideband Doherty amplifiers, with total transmitter system efficiency above 40% (same amplifier HW for the entire TV range up to 700MHz) and leading to very compact air cooled solutions up to 5KW in a single rack.

All this allows the TV BROADCASTERS to count with very important **cost reductions in space and energy consumption** as well as to count with a **very powerful and cost-effective tool** for migrating their sites to the **Next Gen TV technology**.

TREDESS ATSC 3.0 TRANSMITTERS | Technical specifications

Output power (Before filter) COFDM modulations	600 W	1200 W	1800 W	2400 W	3000 W	3600 W	4800 W
Output power (Before filter) ATSC 1.0	750 W	1500 W	2500 W	3000 W	3750 W	4500 W	6000 W
N° of Amplifiers	1	2	3	4	5	6	8
Final amplifier type	UWB Symmetrical Doherty / UWB Asymmetrical Doherty						
Typical Efficiency	36% in COFDM modulation / 40% in COFDM modulation						
Frequency range	BIII (174-254 MHz) or UHF (470-790 MHz) / UHF (470-700 MHz)						
Standards	ATSC 1.0: A/53, A/54, A64; ATSC 3.0: TG3/S32, Physical Layer, STL						
Inputs	ASI Stream Interface (ATSC 1.0) / 2x ASI input BNC connector - 75 Ω / 1x ASI output BNC connector - 75 Ω 188/204 Bytes - 80 Mbps Max. Packet /burst mode. Gigabit Streaming input (ATSC 3.0) / 4 x 1000 base-T RJ45 ports / Protocols UDP, IP, IGMP (V2 & V3) / STL interface Built-in ALP Encapsulation.						
MER	> 34 dB						
IMD (Shoulder)	> 38 dB						
Digital Adaptive Precorrection	Digital adaptive, linear and non-linear Crest Factor Reduction (PAPR) and Protection clipping						
RF output connector	DIN 7/16	EIA 7/8" (Others under request)	EIA 1 5/8" (Others under request)				
Clock and Synchronization	10 MHz & 1 PPS input/output Onboard GPS						
Control and Monitoring	Ethernet control Port / web GUI and SNMP / Log file LCD Front Panel Display, 2x Gpin & 4 GPOut ports for external switch and PA control Monitoring of MER, left & right shoulders, forwarded & reflected powers						
Operating temperature range	0°C to 45°C						
Relative humidity (max.)	95%, non condensing						
Altitude of operation	≤ 2000 m above sea level (> 2000m on request)						
Cooling	Force air						



Over **20.000 transmitters & gap-fillers** worldwide, in more than **50 countries**

Spain · France · Hungary · Poland · Italy · Portugal · Sweden · Norway
Malta · Faeroe · Ireland · Georgia · Peru · Chile · Brasil · Vietnam
Hong Kong · Thailand · Morocco · Mali · South Africa · Greece
Croatia · USA ...



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