



DAB/DAB+/T-DMB TRANSMITTER- ADRIA

OVERVIEW

ECRESO provides a full range of transmitters dedicated to the distribution of DAB, DAB+ and T-DMB digital broadcasting. Combining the highly efficient Goliath DMB Amplifier with the fully-featured Helios DMB Modulator, we can offer systems from 300 W to 2.4 kW for VHF (Band III). The result is an exceptional stable and reliable DMB transmitter system with several options for redundancy, control, monitoring and cooling. All our DMB transmitters comply with the DAB standard as required by ETSI TS 102 428 and ETSI ETS 300 799 for ET1, including video content.

SYSTEM ARCHITECTURE

FEATURES

- Digital pre-correction, very low phase noise
- Two ETI NI/NA inputs (switch-over without interruption) with autodetect of signal type
- Optional dual power supplies + UPS
- Full control and monitoring via touch screen and remote control interface
- Air or water cooling: for both cooling systems, we can provide a customized solution

BENEFITS

- Integrated monitoring functions within modulator
- Integrated remote control functions within modulator
- Inherent Redundancy
- Support for IP and SNMP standards offering excellent network functionality
- Integration with Audemat's Broadcast Manager server to optimize your monitoring strategy

APPLICATIONS

- Used by broadcasters to transmit or retransmit DAB, DAB+ or T-DMB on SFN or MFN networks

Helios DMB Modulator



With redundant power supplies, embedded UPS (optional), external GPS (optional) and digital pre-correction, the Helios DMB modulator is also the control unit of the transmitter, collecting all the data from the amplifier and GPS module.

Goliath DMB Amplifier



300 W Air/Water cooled: 3U rackable Amplifier used for all air or water cooled systems from 300 W to 2.4 kW.

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Helios DMB Modulator

Parameter	Typical value
VHF	174-240 MHz (Band III)
Input format	NI (G703), NA5376 (G704) or NA5592 (G704)
Max static delay	1 s
Offset delay	1 s
Main signal output level	0 dBm +/-2dB
Monitoring signal	-20dB +/-2dB (Relative to main output)
Output level stability	+/-0.1dB / 10° c
Return loss	>15 dB
I/Q amplitude unbalanced	< 0.05%

I/Q quadrature error	< 0.05
Clock and synchronization	
10 MHz reference output	0 dBm ± 3 dB
External 10 MHz reference input:	
Impedance Level	50Ω From -5 to +10 dBm
External 1 pps reference input :	
Level	TTL level - 5kΩ
Min pulse width	1 μs

Technical Specifications

Hardware description

VHF nominal output power	300 W, 600 W, 1.2 kW, 2.4 kW
Frequency range	174 - 240 MHz Band III
Output impedance	50Ω
Output connector	7/16, 7/8 EIA
Efficiency	Typical : 30%
Frequency stability	1x 10 ⁻⁰⁷ / an
Spurious rejection	> 75dB
Liquid cooled	Redundant hydraulic rack
Operating altitude	< 2900 m (9512 feet)
Humidity	< 90%
Electrical power	Single phase : 204 - 264VAC / 47 - 53 Hz
	Three phase : 320 - 450VAC / 47 - 53 Hz

Type of power line	Single phase : 3 cables (Ph, neutral, ground)
	Three phases : 5 cables (Ph1, Ph2, Ph3, neutral, ground)
Cos φ	> 0,90
Temperature range	5°C - 45°C (Normal operation) 0°C - 50°C (Maximum)
Air cooled	Each chassis has redundant fans
Size	Air cooled transmitters : 42U 19" 2100 (H) x 600 (l) x 1000 (L) mm
Weight	Helios : ± 14kg Goliath : ± 20kg

Ref: DAB/DAB+/T-DMB Transmitter - Datasheet 08/2011
Technical specifications are subject to change without prior notice



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