EDB 1.0 ICEFET SOLID STATE DAB TRANSMITTER







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Looking mainly at the broadcasters needs and to the equipment design with the last generation components, ELENOS is in the position to propose a wide range of compact dimensions FM and DAB equipment, with extremely low running costs and competitive prices.

The new DAB TX line from 250W to 1.5KW BIII is an example.

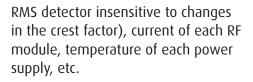
The amplifiers take place in a 4 unit mainframe, fully solid state with LDMOS RF dispositive of the 6th generation that permits to reduce significantly the running costs in terms of power consumption and improve the MTBF. In fact the efficiency of the full equipment has a typical value of 30%.

The amplifiers uses parallel RF pallets and switching power supplies in order to grant the redundancy.

The power of the amplifier module is referred with a shoulder of ≤-30dbc without pre-correction and ≤-35dBc with pre-correction (before the band pass filter) that exceed the ETSI requirement.

Highlights

- Amplifier: 4 rack units and only 43kg, useful with any commercial modulator
- Transmitter: 20 rack units or 32 rack units
- Open-loop gain compensation to avoid variation of performance in case of fault of a device
- Protection against overdriver or excessive VSWR extremely fast (<1uSec)
- Measurement of over 100 parameters: forward power / reflected power (through directional coupler, with



- Driver with high power that allows to obtain optimal levels of precorrection
- Switching power supplies in "current sharing" with PFC, which drastically reduce the current harmonics emitted to the mains
- Protection against overvoltage peaks through the MOV devices
- Linearity, differential gain and phase in accordance with the ETSI specification
- Compatible with telemetry and SMS via mobile phone
- Alphanumeric display, incremental encoder and leds
- Stainless steel structure, processing and protection against moisture and corrosion





EDB 1.0 DAB AMPLIFIER

COMPOSITION	
	8 MOSFET (NXP BLF574)
	3 SWITCHING POWER SÚPPLY 3KW
	6 FAN SPEED CONTROL
	LCD DISPLAY
	RF OUTPUT CONNECTOR : 7/16 F, 7/8 EIA Flange (optional)
GENERAL DATA	
Frequency range	170 ÷ 240MHz
RF Output impedance	50 0hm
Gain	until 63dB
Output power	up to 1000W rms DAB signal
Shoulder without pre-correlation (typical)	< -30dB
Shoulder with pre-correlation (typical)	< -35dB
MER with pre-correlation (typical)	< -33dB
Power supply	230, 400 mono-three phase 50/60Hz VAC
Power consumption	2.65KVA (@ 800W), 3.4KVA (@1000W)
Efficiency (tipical)	30%

EDB 1.0 DAB TRANSMITTER (250W, 500W, 800W)

MPOSITION	
	1xEDB1.0 DAB AMPLIFIER
	1xDAB MODULATOR
	RACK 20U
	GSM or SNMP WEB BROWSER (optional)
NERAL DATA	
Frequency range	170 ÷ 240MHz
RF Output impedance	50 Ohm
Gain	until 63dB
Output power	up to 1000W rms DAB signal
Shoulder without pre-correlation (typical)	< -30dB
Shoulder with pre-correlation (typical)	< -35dB
MER with pre-correlation (typical)	< -33dB
Power supply	230, 400 mono-three phase 50/60Hz VAC
Power consumption (typical)	2.65KVA
Efficiency (tipical)	30%
Harmonic Spurious Output	in accordance whit ETSI standard
Modulation Input	2xETI(NI) ETI(NA) (750hm)
DAB Modes	I, II, III, IV
Frequency Stability	Internal reference 0.3ppm or in accordance with external refer
	ence accuracy
Frequency Response	<1dB
Delay Compensation	up to 2,4s , step 1µs
Environmental Temperature Range	-5C ; +45 °C
Storage Temperature	-20 ; +70 °C
Relative Humidity	95% no cond.
Installation Height	< 3000m
Dimensions	20U (H), 85 cm (D), 56.5 cm (W)
Weight	100 kg
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DR 1 O DAR TRANSMITTED (1500W)

MPOSITION		
	2xEDB1.0 DAB AMPLIFIER	
	1xDAB MODULATOR	
	RACK 32U	
	GSM or SNMP WEB BROWSER (optional)	
NERAL DATA		
Frequency range	170 ÷ 240MHz	
RF Output impedance	50 Ohm	
Gain	until 63dB	
Output power	1500W rms DAB signal	
Shoulder without pre-correlation (typical)	< -30dB	
Shoulder with pre-correlation (typical)	< -35dB	
MER with pre-correlation (typical)	< -33dB	
Power supply	230, 400 mono-three phase 50/60Hz VAC	
Power consumption (typical)	5.2KVA	
Efficiency (tipical)	28%	
Harmonic Spurious Output	in accordance whit ETSI standard	
Modulation Input	2xETI(NI) ETI(NA) (750hm)	
DAB Modes	I, II, III, IV	
Frequency Stability	Internal reference 0.3ppm or in accordance with external refer-	
	ence accuracy	
Frequency Response	<1dB	
Delay Compensation	up to 2,4s , step 1µs	
Environmental Temperature Range	-5C ; +45 °C	
Storage Temperature	-20 ; +70 °C	
Relative Humidity	95% no cond.	
Installation Height	< 3000m	
Dimensions	32U (H), 85 cm (D), 56.5 cm (W)	
Weight	180 kg	

All pictures are Elenos's property and they are only indicative. The technical data can be subject to change without notice.