CTE Compact FM Transmitters-Amplifiers

The new **HTS** are Compact FM Transmitters-Amplifiers **H**igh Efficiency **T**ouch **S**creen based on the last generation of RF Devices that greatly increases the total equipment efficiency and reliability reducing dimension and weight. The power supply modules are hot plug-in for un easy and fast service. The touch screen display grant an easy and fast access to all the setting and parameters.

The Main Features are :

- Highest efficiency (>85% RF section)
- Nominal RF power 1000W
- Redundant Power Supply
- Very low signal noise typ. -82 dB
- High stereo performance typ. 60 dB
- Extremely low distortion 0,01%
- 6th ld-mos generation vswr 65:1
- Large LCD color display with touch panel
- Ac mains 90-260 vac extend range with pfc
- Web server and Mobile Interface
- Parallel interface with 6 Frequency/Power preset value

OPTIONS

- AES/EBU
- RDS /RBDS coder
- SNMP remote control
- OIRT and JPN version
- Audio OverIP
- DSP FM Modulator

Model	Description
TX1-HTS	1KW Stereo, MPX FM Transmitter, Touch Screen, WEB Remote Control
VL1-HTS	1KW FM Amplifier, Touch Screen, WEB Remote Control

Technical Data

ITEM	TX1-HTS | VL1-HTS
R.F. Output Power	1000 W
Power Detector	adjustable from 20÷90% of the power
Protection against load mismatch	65/1
Output Connector, Impedance	7/16 flange , 50 Ohm
Dimensions HxWxD mm	W x 570 mm. D x 450 mm. H x 132 mm
Rack	2U
Weight	22 Kg
Power Supply	90-265 Vac ± 15%, single phase 50Hz
Power Factor	0,98
Operation Temperature	0-45°C
Number of fans	3 fans (variable speed) for RF modules 1 fan for each power supply
Noise	<55dB(A)
Power consuption	1400VA @ 1000W (AC Apparent)
Total Efficiency	>75%
RF Efficency	>85%
Remote Control	WEB, SNMP, Parallel AI/O, Parallel Frequency Set, RS 232 – PC connection
Compliances	CE 99/05 R&TTE requirements

FREQUENCY	
Operating frequency range	FM 87.5 to 108 MHz
Setting	10kHz steps
Generation	PLL; Direct to Channel (DPS)
Output frequency stability	± 1ppm from -5° +45°
Reference (internal)	VCTCXO 10 MHz
Reference (external)	10MHz and 1pps ,(DSP only)
Nominal deviation	± 75 KHz, (capability 150Khz)
Harmonics suppression	< - 85 dBc
Spurious Emission	< - 80 dBc
S/N RATIO (weighted)	> 80 dB (>84dB DSP)
THD	<0,10%
VSWR	1,5:1 with auto foldback
RF Monitor	BNC connector R.F. – 70 dBc

Mono MXP Operation	
Mono/MPX Impedance	600 Ohm or 10 KOhm XLR female Connector
Mono Level	-6 dBm + 12 dBm
MPX Level	- 6 dBm +12 dBm
Audio Filter Response	> 45 dB (19 KHz to 100 KHz)
THD	< 0,01% @400Hz
RDS and SCA Impedance	10 KOhm unbal., BNC
Audio Presence Detector adjustable time from front panel	

Stereo Operation	
Left, and Right Impedance	600 Ohm bal. or 10 KOhm balanced XLR female
Left, Right Level	– 6 to + 12
Stereo separation	> 50 dB
THD on Encoded channels	< 0,01 %@400Hz
Suppression of 38 KHz	> 50 dB
Spurious outside band	According to ETSI specification
Pilot Frequency	19 KHz ± 1 Hz
Audio Presence Detector adjustable time from front panel	

Digital Input	
AES/EBU	XLR female connector, optical TOS Link
Level	-20 to 0 dBfs

Design Data	
Type	Solid state. DSP
Pre –emphasis	Flat or 75 or 50 µs
Audio frequency response	± 0,2 dB (from 40 Hz to 15 KHz) (stereo); ± 0,4 dB (from 40 Hz to 100 KHz) (MPX)
Separation	> 55 dB
Modulation Type	Meets CE 99/05 + R&TTE

Standard Compliance	
Radio spectrum	ETS 302-018
EMC	ETS 301-489
Safety	EN 60950 - EN 60215

Temperature	
Operating range	0° to 45°C
Storage range	- 10° to 55°C
Maximum relative Humidity	90% non condensing
Max Operating Altitude	2500 mt. a.s.l.

RDS Coder	
Type	Static and dynamic

CTE Digital Broadcast

CTE Digital Broadcast S.r.l.

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