

# new **TEX500 LCD**

Preliminary Version



## **TEX500 LCD** *FEATURES*

- Digital user interface to diagnose and control all the parameters displayed (frequency, output power, measurement, etc...).
- Adjustable power output from 0 to 500 W. On-air under any VSWR conditions thanks to Foldback control.
- Low cost with high performance
- Available with 2 SCA/RDS input connectors.
- Built-in stereo coder with high performance.
- Only 3HE.

### **Optionally TEX500 LCD comprises:**

- Fully integrated telemetry and SMS alarms with built-in GSM modem and battery for the battery charger

*Stronger and Smaller: just 3HE!!!*

*New TEX500 LCD exciter*



# Technical Specifications

Preliminary Version



<b>Mechanical</b>	
Panel Dimension	483 mm x 132.5 mm (3 HE)
Depth	520 mm
Weight	≈24 kg
Operating Temperature	-10 °C + 50 °C



<b>General</b>	
Output Power	0 to 500 W, adjustable
RF output connector	N-Type Female Connector, 50Ohm
RF output impedance	50 Ohm
Frequency range	87.5 MHz ÷ 108 MHz, step 10kHz (it is possible to specify different steps at the moment of the order)
Frequency setting	Direct software programming
Frequency stability	±1ppm from -10°C to 50°C
Modulation type	Direct carrier modulation
Spurious and Harmonics suppression	Respects relevant FCC and CCIR standards (typical -75 dB)
Modulation capability	Respects relevant FCC and CCIR standards (typical 240kHz MPX/Mono, 210 KHz Stereo)
Asynchronous residual AM	< -65 dB wrt. 100% peak AM, without deemph.
Synchronous residual AM	< -55 dB wrt. 100% peak AM, with 75 kHz deviation @ 400Hz, without deemphasys
C.A. power supply	≈ 90 V ÷ 250 V, full-range Power Factor > 0,97 (with PFC)
Consumption at 500W RF	≈ 0,85 kVA



<b>Inputs</b>	
Left-Mono /MPX Input	Type: XLR female balanced or unbalanced
Right /Mono Input	Type: XLR female balanced or unbalanced
MPX/SCA/RDS input	Type: BNC, unbalanced
Input impedance	600 or 10 k Ohm, XLR L/R/Mono 50 or 10 k Ohm, BNC MPX selectable via Dip-Switch
Input level	-20 dBm ÷ +13 dBm, continuously adjustable via trimmer
Preemphasys	Selectable: 0 50 us (CCIR) 75 us (FCC)
SCA1 & SCA2 input	2 BNC unbalanced connectors
SCA1 & SCA2 input impedance	10 kOhm
SCA1 & SCA2 input level	-20 dBm ÷ +13 dBm for 2.0 kHz continuously adj. via trimmer

<b>Mono operation</b>	
S/N FM Mono	> 80dB wrt. 75 kHz, measured in the band 20 Hz ÷ 20 kHz, 50 us deemph., RMS detect
Amplitude frequency response	± 0.5 dB, 20Hz ÷ 15KHz
Total harmonic distortion (THD)	< 0.05%

<b>Composite operation</b>	
Composite S/N	> 80dB wrt. 75 kHz, measured in the band 20 Hz ÷ 20 kHz, 50 us deemph., RMS detect
MPX amplitude frequency response	± 0.05 dB, 20 Hz ÷ 53 KHz
MPX Total harmonic distortion (THD)	± 0.2 dB, 53 KHz ÷ 100 KHz
Stereo separation	< 0.05 %
Stereo separation	> 55 dB (typ. 60dB, with external stereo coder)

<b>Stereo operation (only TEX500/s LCD)</b>	
S/N FM Stereo	> 72 dB wrt. 75 kHz, measured on decoded channels, in the band 20 Hz ÷ 20 KHz, 50 us deemph., RMS detector
Audio amplitude frequency response	± 0.5 dB, 20 Hz ÷ 15 KHz (with preemphasis)
Total harmonic distortion (THD)	≤ 0.05 %
Stereo separation	> 50 dB (55 dB typical)

<b>Connections</b>	
Interlock connector	BNC, inhibits the RF power output when shorted to ground
Serial interface	DB9 female RS232 DB15 female, give indications on the state of the device
RF Test	BNC connector, -60 dB wrt. the RF output, 50 Ohm
19 kHz pilot tone output	1 Vpp, minimum load 4.7 kOhm

These photos shown the TEX500 with the telemetry option.

These specifications can be subject to change without notice