



**Mono/MPX/Stereo FM Exciter 87.5 - 108 MHz range**

AMPLIFIERS  
TRANSMITTERS  
ANTENNAS  
ACCESSORIES



# TOUCH 30S

EXCITERS

## TOUCH 30S Features

1. State of the art sound quality.
2. Meets or exceeds all FCC and CCIR requirements.
3. Microprocessor controlled, via RS232 external PC - programmable.
4. Low cost with high performance.
5. Left and Right (Balanced and unbalanced), RDS/SCA, AUX and MPX inputs.
6. Easy to handle: comprehensive monitoring of all relevant parameters and setting value.
7. Modular construction, easy to customize and fast to test. Smartly designed to minimize spare parts.
8. All solid state using RF power mosfet in output module, LDMOS in driver stage.
9. Automatic Power Control (APC) maintains required RF power at 45°C and at 1.3:1 VSWR. Higher value of VSWR causes the power reduction.
10. Built-in stereo coder with high performance.

## TOUCH 30S Caratteristiche

1. Qualità audio allo stato dell'arte.
2. Specifiche conformi alle normative FCC e CCIR.
3. Controllato da un microprocessore, programmabile da PC via porta RS232.
4. Basso costo ed alte prestazioni.
5. Ingressi sinistro e destro (Bilanciati o sbilanciati), RDS/SCA, AUX e MPX.
6. Facile da utilizzare: ampio monitoraggio di tutti i parametri più importanti e settaggio dei valori.
7. Costruzione modulare, facilmente personalizzabile e veloce da collaudare. Opportunamente progettato per minimizzare le parti di ricambio.
8. Utilizzo di solo amplificatori a stato solido nel modulo RF d'uscita, LDMOS nello stadio driver.
9. Il Controllo Automatico della Potenza (APC) conserva la potenza RF impostata anche con 45°C e con 1.3:1 di ROS. Un alto valore di ROS causa la riduzione della potenza.
10. Stereo coder incorporato di elevate prestazioni..

# TECHNICAL SPECIFICATIONS TOUCH 30S

## Generals

- Panel size: 485 mm x 88 mm (1 HE)
- Overall depth: 365 mm
- Weight: About 5 Kg
- Ambient temperature range:  $-5^{\circ}\text{C} \div 45^{\circ}\text{C}$
- Rated output power: 0-30 W continuously variable
- RF output connector: "N" type
- RF output impedance: 50 Ohm
- Frequency range: 87.5 MHz  $\square$  108 MHz
- Frequency programmability: Direct from software
- Frequency stability:  $\pm 2.5\text{ppm}$  from  $-10^{\circ}\text{C}$  to  $50^{\circ}\text{C}$
- Modulation type: F3E / F8E direct FM at the carrier frequency
- Spurious & harmonic suppression: Meets or exceeds all FCC e CCIR requirements (typical -75 dB)
- Modulation capability: Meets or exceeds all FCC and CCIR ( $\pm 150$  kHz capability)
- Asynchronous AM S/N ratio: -69 dB or less referred to 100% AM, without de-emphasis
- Synchronous AM S/N ratio:  $\cong -55$  dB or less referred to 100% AM, modulation at FM 75 kHz at 500Hz, without de-emphasis
- Transient intermodulation distortion:  $< 0.1\%$  (typical 0.05%)
- A.C. power requirement:  $\cong 110/223$  V single phase AC (+10 / -15%), 50-60 Hz  $\pm 5\%$
- Power Consumption:  $\cong 120$  VA C.A.

## Inputs

- Left-Right inputs: XLR female type balanced or unbalanced
- Left-Right inputs impedance: 10 kOhm or 600 Ohm
- Left-Right inputs level:  $-3.75$  dBm  $\div$   $+12$  dBm, adjustable in 0.25dB steps
- MPX input: BNC type unbalanced
- Input impedance: about 5 kOhm
- Input level:  $+6$  dBm
- Pre-emphasis: Selectable: 0, 50  $\mu\text{s}$  (CCIR), 75  $\mu\text{s}$  (FCC)
- SCA/RDS inputs: 1 connectors BNC type unbalanced
- SCA inputs impedance: 10 kOhm
- SCA inputs levels:  $-20$  dBm
- Amplitude/frequency response SCA:  $\pm 0.15$  dB, da 40 KHz a 100 KHz

## Outputs

- RF Monitor: BNC connector type, approx. -44 dB referred to the RF output, 50 Ohm of impedance
- Pilot output: 1 connectors BNC type unbalanced
- Pilot output impedance:  $> 5$  kOhm
- Pilot output level: 1 Vpp
- Pilot tone: 19 kHz square wave

## Monoaural Operation

- S/N FM ratio:  $> 80$  dB referred to  $\pm 75$  KHz measured on the range 30 Hz  $\div$  20 kHz with 50  $\mu\text{s}$  of de-emphasis, detector RMS
- Audio frequency response:  $\pm 0.5$  dB, 20Hz  $\div$  15KHz
- Total Harmonic Distortion:  $< 0.05\%$

## Composite Operation

- Composite amplitude response:  $\pm 0.15$  dB, 30 Hz  $\div$  100 KHz

## Stereo Operation

- Stereo FM S/N:  $> 80$  dB referred to  $\pm 75$  KHz measured in the range 30 Hz  $\div$  20 KHz with 50  $\mu\text{s}$  of de-emphasis, detector RMS
- Audio amplitude response:  $\pm 0.1$  dB, 20 Hz  $\div$  15 KHz
- Total harmonic distortion:  $\leq 0.1\%$ , 30 Hz to 15 kHz
- Intermodulation distortion:  $\leq 0.1\%$ , measured with 60 Hz and 7 KHz tones, 4:1 ratio
- Stereo separation:  $> 50$  dB (typical 60 dB), 30 Hz  $\div$  15 KHz

## Remote connection

- Alarm & MEM connector: DB9 female
- RS232 interface: DB9 female I/O RS232 on front panel
- RS485 interface: RJ45 Plug-in connector RS485 on rear panel



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These specifications are therefore subject to change without notice. Per esigenze tecnico-costruttive ci riserviamo il diritto di apportare varianti ai prodotti, senza preavviso.