

TX-HE Series

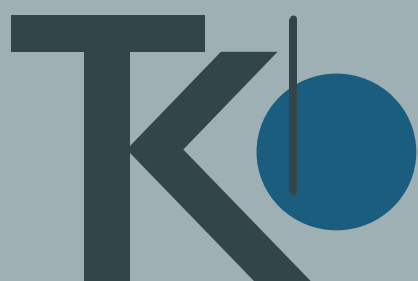
TX-HE Series

“HIGH EFFICIENCY”

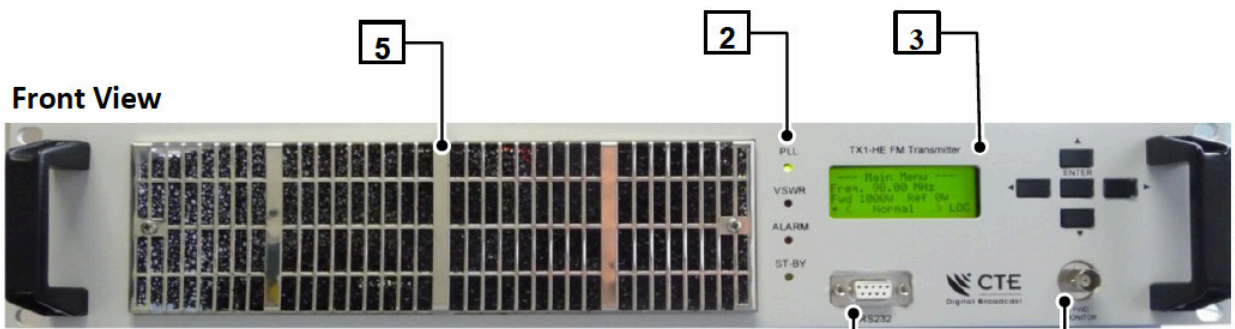
Analogue FM Stereo Modulator

Output Power Ranges

30W, 50W, 100W ,150W, 300W, 600W, 1200W



Broadcast

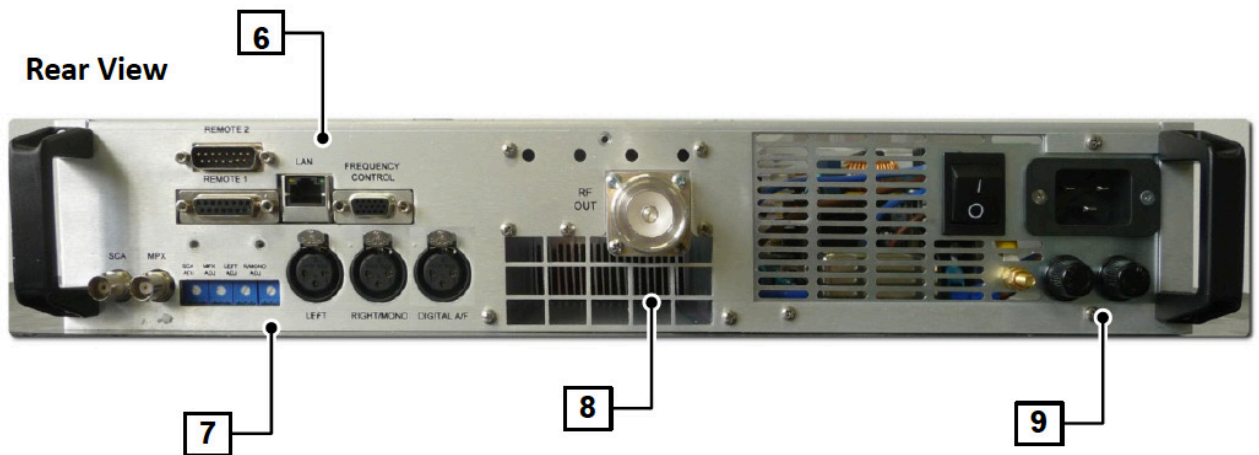


Front

- 1. RS232: PC CONNECTION
- 2. STATUS LEDs: PLL, VSWR, ALARM, STAND-BY
- 3. CONTROL PANEL
- 4. FWD MONITOR
- 5. FRONT VENTILATION AIR GRID

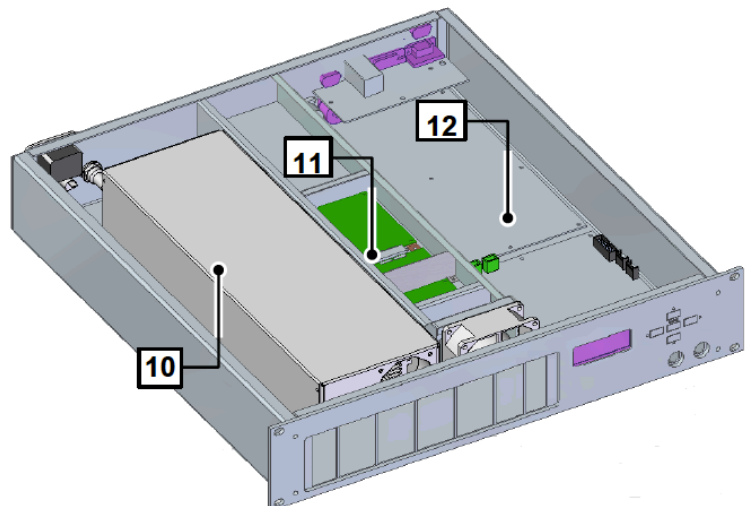
Rear


- 6. REMOTE CONTROL: WEB/SNMP, PARALLEL AI/O
- 7. AUDIO INPUT: L&R, MPX, Mono, AES/EBU
- 8. OUTPUT CONNECTOR: 7/16 FEMALE
- 9. INPUT a.c. : FUSE, GND



Internal View

- 10. POWER SUPPLY
- 11. RF POWER MODULE
- 12. MOTHER BOARD





The new TX1-HE and TX05-HE are a new CTE FM Transmitters based on the last generation of RF Devices that greatly increases the total equipment efficiency, reducing dimension and weight, granting very high reliability and stability performances.

The new line apply the same controls, user interface and FM modulator platform used on the actual CTE Transmitter series. Full compatibility is guaranteed between actual and new lines.

| ITEM | TX05-HE | TX1-HE |
|----------------------------------|---------------------------------------------------------------------------|---------------|
| R.F. Output Power | adj 10-500 W | adj.10-1000 W |
| Protection against load mismatch | 65/1 | |
| Output Connector, Impedance | 7/16 female, 50Ohm | |
| Dimensions HxWxD mm | 88x484x478 | |
| Rack | 2U | |
| Weight | 11 Kg | |
| Power Supply | 230 Vac \pm 15%, single phase | |
| Power Factor | 0,99 | |
| Operation Temperature | 0-45°C | |
| Number of fans | 1 fan (variable speed) for RF module 1 fan for power supply | |
| Noise | 50-55dB(A) | |
| Total Efficiency | >70% | |
| RF Efficiency | >80% | |
| Remote Control | WEB, SNMP, Parallel A/I/O, Parallel Frequency Set, RS 232 – PC connection | |
| Compliances | CE 99/05 R&TTE requirements | |
| | | |
| | | |
| Technical Data | | |
| FREQUENCY | | |
| Operating frequency range | FM 87.5 to 108 MHz | |
| Setting | 10 KHz steps | |
| Generation | PLL synthesizer | |
| Control | Microprocessor | |
| Output frequency stability | \pm 300 Hz / 3months | |
| Reference | TCXO 12,8 MHz | |
| Nominal deviation | \pm 75 KHz | |
| Stability of Frequency Deviation | \pm 2,5 % over 6 months | |
| Harmonics suppression | < - 75 dBc | |
| Spurious Emission | < - 80 dBc | |
| Off Lock Attenuation | > 60 dBc | |
| S/N RATIO (weighted) | > 83 dB (ref. to \pm 75 KHz) | |
| THD | 0,1% | |
| VSWR | Less then 1,5:1 | |
| RF Monitor | BNC connector R.F. – 70 dBc | |
| Mono MXP Operation | | |
| Mono/MPX Impedance | 600 Ohm or 10 Kohm XLR female Connector | |
| Mono Level | From - 6 to + 12 dBm | |
| MPX Level | - 6 dBm +12 dBm | |
| Audio Filter Response | > 30 dB (19 KHz to 100 KHz) | |
| THD | < 0,1% From 40 Hz to 15 KHz | |
| Suppression of 19 KHz | > 46 dB | |
| RDS and SCA Impedance | 10 KOhm unbal., BNC | |
| Stereo Operation | | |
| Left, and Right Impedance | 600 Ohm bal. or 10 KOhm balanced XLR female | |
| Left, Right Level | From – 6 to + 12 dBm | |
| Stereo separation | > 50 dB | |

| | |
|---------------------------|------------------------------------------------------------------------------------------|
| THD on Encoded channels | < 0,03 % 0,4 Hz to 15 KHz |
| Suppression of 38 KHz | > 50 dB |
| Spurious outside band | According to ETSI 300-384 |
| Sub Carrier Generation | Internal Cristal |
| Pilot Frequency | 19 KHz \pm 1 Hz |
| Digital Input | |
| AES/EBU | XLR female connector |
| Design Data | |
| Type | Solid state direct FM frequency |
| Pre –emphasis | Flat or 75 or 50 μ s |
| Audio frequency response | \pm 0,2 dB (from 40 Hz to 15 KHz) (stereo); \pm 0,3 dB (from 40 Hz to 100 KHz) (MPX) |
| Unbalance rejection | > 40 dB |
| Modulation Type | Direct VCO F.cy modulation F3E/F8E Capability: Meets CE 99/05 + R&TTE |
| Standard Compliance | |
| Radio spectrum | ETSI 300-384; ETS 302-018 |
| EMC | ETSI 447; 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. |
| MODEL | DESCRIPTION |
| TX1-HE A | 1KW Stereo, Mono, MPX FM Transmitter, WEB, SNMP |
| TX1-HE A+B | 1KW Stereo, Mono, MPX FM Transmitter, WEB, SNMP, AES/EBU, |
| TX1-HE A+B+C | 1KW Stereo, Mono, MPX FM Transmitter, WEB, SNMP, AES/EBU, N+1 |
| | |
| | |
| A | Remote control (TCP/IP; SNMP; RS232) |
| B | Built in Digital AES/EBU Decoder |
| C | DB25 parallel port expansion for 1+1, N+1 system, ext C.U. |
| TX-GSM | Modem TX GSM-TC35, Antenna, Power Supply, 2 mt. cable DB9 |
| RX GSM | Modem PC GSM-TC35, Antenna, Power Supply, 2 mt. cable DB9 |
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