

solid state transmitter

> *Modular series*

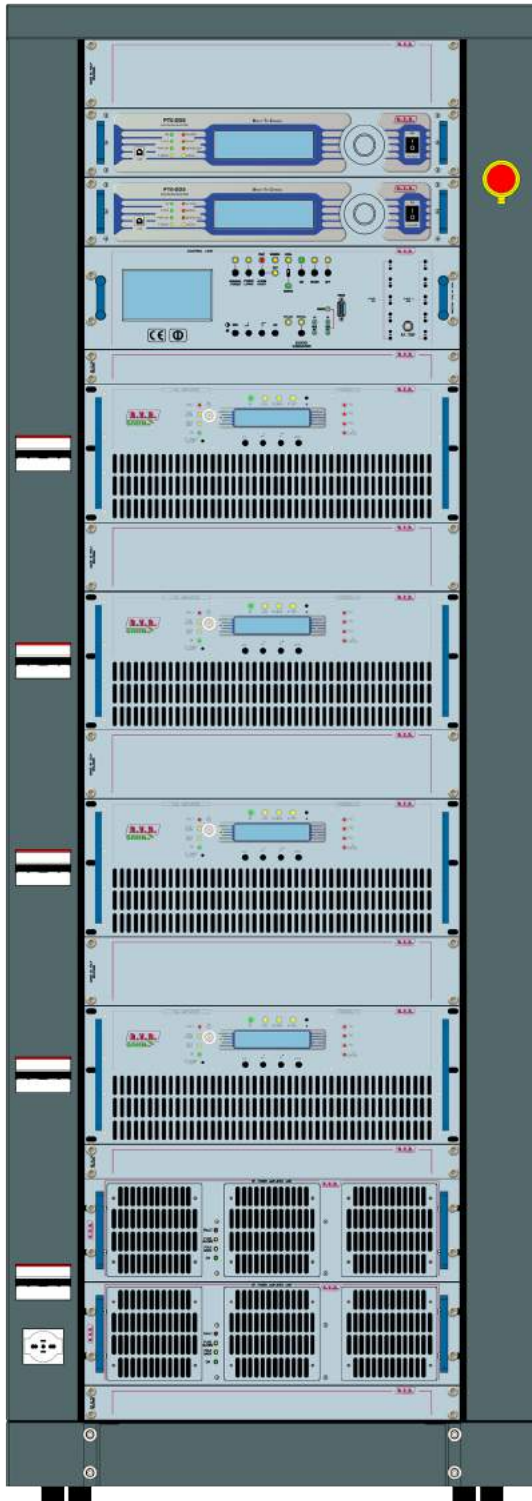


TX20K MODULAR

4X PJ5000U-K



REDUNDANCY



TX20KSS/60D244J front view

Features

- > **HARDWARE FEATURES:** thanks to the modularity of the system make these transmitters ideal for mid-high power applications. Modular concept makes for redundant "N+1" configurations to customer specifications suited for all applications.
- > **POWER & QUALITY:** With the creation of the new family of RVR's high power modular amplifiers based on the **U-K series**, is possible to realize compact equipments up to **20kW**, extremely redundant, sturdy and flexible. Design solutions ensure the utmost RF efficiency and output power stability with automatic gain control. In addition, by integrating LDMOS technology, is guaranteed an high efficiency
- > **RELIABILITY & REDUNDANCY (business continuity):** elevated number of self-sufficient modules and independent between they, that guarantee the continuity of service with a minimum reduction of the output power. In case of faulty of one or more power supplies, the amplifier continue to work with reduced power.
- > **USER-FRIENDLY FEATURES:** user-friendly software and a simple, intuitive HM interface let you easily set up and control all machine operating parameters.
- > **EASE OF MAINTENANCE:** **accessibility** and ease of maintenance are ensured by advanced modular engineering concepts incorporated in the transmitter and by its **lightweight** components.
- > **REMOTE CONTROL:** the device comes with a powerful and complete telemetry system, available optionally.

Caratteristiche

- > **HARDWARE FEATURES:** La modularità del sistema, rendono ottimale l'utilizzo di questi trasmettitori in applicazioni di medio-alta potenza. Grazie alla modularità del sistema è possibile realizzare composizioni ridondanti "N+1" su **specifiche richieste del cliente** e per ogni tipologia di applicazione.
- > **POWER & QUALITY:** Con la nuova famiglia di trasmettitori modulari basata sugli amplificatori modulari di alta potenza della **serie U-K** è possibile realizzare apparati di potenza variabile dai fino a **20 kW**, estremamente ridondanti ed affidabili. Inoltre integrando tecnologia LDMOS si garantiscono rendimenti elevati.
- > **RELIABILITY & REDUNDANCY (business continuity):** l'elevato numero dei moduli di potenza autosufficienti e indipendenti tra loro garantisce la massima continuità di servizio. Infatti se uno o più moduli di potenza dovessero guastarsi, l'amplificatore riduce la propria potenza ma continua a trasmettere.
- > **USER-FRIENDLY FEATURES:** un software con interfaccia semplice ed intuitiva permette di configurare e controllare in maniera elementare tutti i parametri di esercizio della macchina.
- > **EASE OF MAINTENANCE:** l'accessibilità e semplicità di manutenzione è garantita da una avanzata ingegnerizzazione modulare del trasmettitore e dal **peso contenuto** degli apparati di cui è composto.
- > **REMOTE CONTROL:** opzionalmente, un potente e completo sistema di telemetria correda l'apparato.

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Technical specifications

Parameter	Value
TX20KSS/60D244J	
GENERALS	
RF Output Power	20 kW
Frequency Range	87.5 – 108 MHz
Frequency Stability	> 1 ppm
Frequency programmability	By software, with 1, 10, 100 , 1000 kHz steps
Nominal Frequency Deviation	±75 KHz (peak)
Maximum Frequency Deviation	±150 KHz (peak)
Class of Emission	180KF8E Direct to Channel
Modulation Mode	Mono, Stereo, Multiplex, SCA, RDS, Aux
Stereo transmissions	Acc. to ITU-R / Rec. 450 (Pilot tone)
RF Output Impedance	50 Ω, Unbalanced
RF Output Connector	3-1/8" EIA Flange
VSWR	1.4:1 with automatic fold-back at higher VSWR
Pre-emphasis Mode	0/50 (CCIR) μs, 75 (FCC) μs
Asynchronous AM S/N Ratio	Typically >70dB
Synchronous AM S/N Ratio	Typically > 55dB
Harmonics suppression and Spurious	Typically < 85dB
Overall efficiency	Typically > 70%
RF Harmonics	Exceeds ETSI/CCIR/FCC requirements
RF Spurious	Exceeds ETSI/CCIR/FCC requirements
Analogue Input level {±75 KHz (peak) deviation }	-12.5 dBu - +12.5 dBu (adjustable)
Digital Input level {±75 KHz (peak) deviation }	-20.0 dBFS – 0 dBFS (adjustable)
MONO OPERATION	
S/N ratio	Typically > 83dB
Total Harmonic Distortion + Noise	Typically < 0.03%
Inter Modulation Distortion SMPTE	Typically < 0.02%
Frequency Response	Typically ±0.2dB
Audio Input Impedance	600 Ω or 10 kΩ
MPX OPERATION	
Composite S/N ratio	Typically > 80dB
Total Harmonic Distortion + Noise	Typically < 0.05%
Inter Modulation Distortion	Typically < 0.05%
Frequency Response	Typically ±0.2dB
Audio Input Impedance	10 kΩ
STEREO OPERATION	
Stereo FM S/N Ratio	Typically > 83dB
Total Harmonic Distortion + Noise (L or R)	Typically < 0.02%
Inter Modulation Distortion SMPTE (L or R)	Typically < 0.02%
Frequency response (L or R)	Typically ±0.2dB
Linear Cross Talk	Typically > 50dB
Non-linear Cross Talk	Typically > 50dB
Stereo Separation (Sine Wave)	Typically > 70dB
Audio Input Impedance	600 Ω or 10 kΩ
Digital Input Impedance	110 Ω

All pictures are RVR's property and they are only indicative and not binding. The pictures can be modified without notice. These are general specifications. They show typical values and are subject to change without notice.

CE 99/5/CE Revision: 03/17

Ordering Information

Code -Codice	Description - Descrizione
Options for TX20K MODULAR – Opzioni per TX20K MODULAR	
TX20KSS/60D244J	FM modular transmitter, 20kW (composed of HC-CCU + 4x PJ5000U-K/LD + 2x PTX30DDS). <i>Trasmettitore modulare FM, 20kW (composto da HC-CCU + 4x PJ5000U-K/LD + 2x PTX30DDS).</i>
TX20KSS/41D244J	FM modular transmitter, 20kW (composed of HC-CCU + 4x PJ5000U-K/LD + 2x PTX30LCDDSP). <i>Trasmettitore modulare FM, 20kW (composto da HC-CCU + 4x PJ5000U-K/LD + 2x PTX30LCDDSP).</i>
TX20KSS/20D244J	FM modular transmitter, 20kW (composed of HC-CCU + 4x PJ5000U-K/LD + 2x PTX30LCD). <i>Trasmettitore modulare FM, 20kW (composto da HC-CCU + 4x PJ5000U-K/LD + 2x PTX30LCD).</i>
TX20KSS/60S244J	FM modular transmitter, 20kW (composed of HC-CCU + 4x PJ5000U-K/LD + PTX30DDS). <i>Trasmettitore modulare FM, 20kW (composto da HC-CCU + 4x PJ5000U-K/LD + PTX30DDS).</i>
TX20KSS/41S244J	FM modular transmitter, 20kW (composed of HC-CCU + 4x PJ5000U-K/LD + PTX30LCDDSP). <i>Trasmettitore modulare FM, 20kW (composto da HC-CCU + 4x PJ5000U-K/LD + PTX30LCDDSP).</i>
TX20KSS/20S244J	FM modular transmitter, 20kW (composed of HC-CCU + 4x PJ5000U-K/LD + PTX30LCD). <i>Trasmettitore modulare FM, 20kW (composto da HC-CCU + 4x PJ5000U-K/LD + PTX30LCD).</i>