

# TX-KSS PLUG-IN

MID/HIGH POWER HOT PLUG

from 3000W to 60.000W

**Developed for the most demanding FM Radio Networks, this line of products has been conceived for all stations that needs to ensure broadcast continuity and simplify any maintenance operation. All hot pluggable transmitters exceed ETSI/CCIR/FCC standards on RF harmonics and spurious, performing high efficiency and ensuring the clients in investing in product with a high life span.**

MODELS

TX03KSS

TX04KSS

TX05KSS

TX06KSS

TX08KSS

TX10KSS

TX12.5KSS

TX20KSS

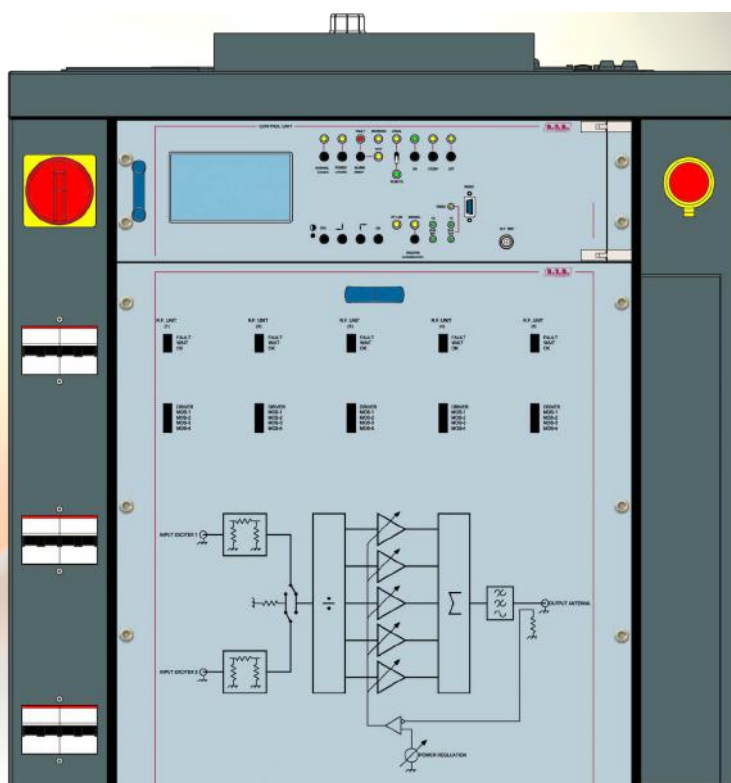
TX25KSS

TX32KSS

TX40KSS

TX50KSS

TX60KSS



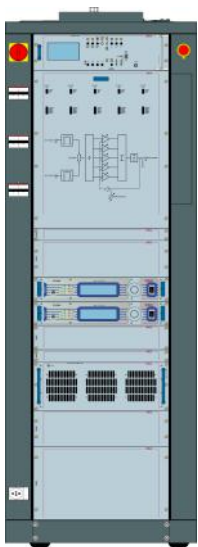
- **The most reliable FM broadcasting solution on the market designed for 24/7 non-stop operation.**
- **Capable of Analog and Digital transmission depending on the configuration.**
- **Reduced failure rate thanks to hot plug-in connectors replacing most of the classical wiring.**
- **Over-dimensioned amplifiers modules.**
- **In case of fail, the total power output will not go below -3dB.**
- **Independent and hot-swap amplifier's modules.**
- **Intelligent stand alone hot-swap fan arrays.**
- **Overall efficiency up to 76% depending on the configuration.**
- **N+1 Configuration available for 24/7 business continuity.**
- **Built-in exciter's automatic or manual changeover.**
- **Simplified maintenance: common spare parts on the entire series from 3.000W to 60.000W.**
- **Tunable over the entire FM band 87.5 - 108 MHz, without tuning. Other bands on request.**
- **Remote controls: WEB, SNMP2, GSM, Serial and Complete FM monitoring (option).**
- **Exceeds ETSI/CCIR/FCC requirements regarding RF harmonics and RF spurious.**
- **Single phase or three phase power configuration.**

#### Exciters:

- **TEX, PTX Series depending on client's requirements and budget. Single and**
- **Dual Drive with automatic or manual changeover.**
- **Programmable Timing & Priority of all audio inputs depending on configuration.**
- **Fold-back control for effective "VSRW" protection.**
- **Including IAMLC: Intelligent Automatic Modulation Level Control.**
- **Low distortion and intermodulation values.**

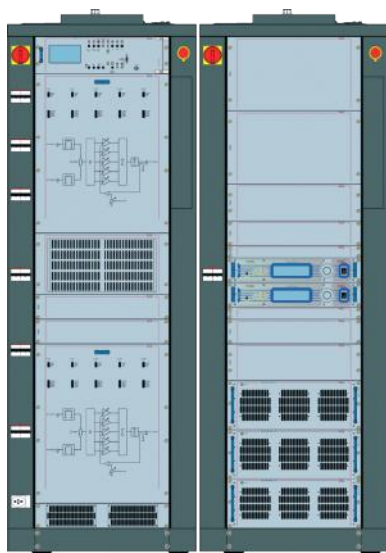
#### Amplifiers:

- **Hot Plug-in modules available in 2.300W or 2.500W depending on system's configuration.**
- **Independent power supply per each amplifier's module.**
- **Independent fan array per each amplifier's module.**
- **Automatic Power Control.**
- **Advanced protections against high VSWR, overdrive, overcurrent and overtemperature.**
- **Ease of maintenance.**



**TX10KSS/60D41**

Plug-in transmitter, 10kW  
(composed of PJ10KPS-CA  
+ 2x PTX30DDS).



**TX20KSS/61D412**

Plug-in transmitter, 20kW  
(composed of PJ20KPS-CA  
+ 2x PTX30DDS).



**TX60KSS**

Plug-in transmitter, 60kW  
(composed of PJ60KPS-CA  
+ 2x PTX30DDS).



## TX10KSS/60D41

Parameters	U.M.	Value	Notes
<b>GENERAL</b>			
RF Output Power	kW	10,5	
Frequency Range	MHz	87,5 – 108	
Frequency Stability	ppm	> 1	
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		1-5/8" 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)	
<b>MONO OPERATION</b>			
S/N ratio	dB	Typically > 83	
Total Harmonic Distortion + Noise	%	Typically <0,03	
Inter Modulation Distortion SMPTE	%	Typically <0,02	
Frequency Response	dB	Typically ±0,2	
Audio Input Impedance		600 Ω or 10 kΩ	
<b>MPX OPERATION</b>			
Composite S/N ratio	dB	Typically > 80	
Total Harmonic Distortion + Noise	%	Typically <0,05	
Inter Modulation Distortion	%	Typically <0,05	
Frequency Response	dB	Typically ±0,2	
Audio Input Impedance		10 kΩ	
<b>STEREO OPERATION</b>			
Stereo FM S/N Ratio	dB	Typically > 83	
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)	dB	Typically ±0,2	
Linear Cross Talk	dB	Typically > 50	
Non-Linear Cross Talk	dB	Typically > 50	
Stereo Separation (Sine Wave)	dB	Typically > 70	
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.



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## TX60KSS

Parameters	U.M.	Value	Notes
<b>GENERALS</b>			
RF Output Power	kW	65	
Frequency Range	MHz	87,5 – 108	
Frequency Stability	ppm	± 1	
Driver power for rated output	W	100	
Nominal Frequency Deviation		±75 KHz (peak)	
Maximum Frequency Deviation		±150 KHz (peak)	
Class of Emission		180KF8E Direct to Channel	
Modulation Mode		Mono, Stereo, Multiplex	
Stereo transmissions		Ace to ITU-R / Ree 450 (Pilot tone)	
RF Output Impedance	Ω	50	
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	dB	Typically >70	
Synchronous AM S/N Ratio	dB	Typically > 55	
Harmonics suppression and Spurious	dB	Typically <-85	
Overall efficiency	%	Typically > 72-74	
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)	
<b>POWER REQUIREMENTS</b>			
AC supply voltage		400V ±10% AC Three-Phase 3F-N 230V ±10% AC Three-Phase 3F-N	
Active power consumption		From 29,1 kW to 28,3 kW From 58,3 kW to 56,7 kW From 90 kW to 92 kW	
AC power input	%	Typically > 72-74	
Power factor	dB	> 0,95	
Connector		Terminal Block Standard	
<b>MECHANICAL DIMENSIONS</b>			
Physical dimensions mm (WxHxD)		3425 x 1910 x 1150	
Cooling		Forced, with internal fan	
Acoustic Noise	dba	<75	
Weight	Kg	About 1150	
<b>MONO OPERATION</b>			
S/N ratio	dB	Typically > 83	
Total Harmonic Distortion + Noise	%	Typically <0,03	
Inter Modulation Distortion SMPTE	%	Typically <0,02	
Frequency Response	dB	Typically ±0,2	
Audio Input Impedance		600 Ω or 10 kΩ	
<b>MPX OPERATION</b>			
Composite S/N ratio	dB	Typically > 80	
Total Harmonic Distortion + Noise	%	Typically <0,05	
Inter Modulation Distortion	%	Typically <0,05	
Frequency Response	dB	Typically ±0,2	
Audio Input Impedance	kΩ	10	
<b>STEREO OPERATION</b>			
Stereo FM S/N Ratio	dB	Typically > 83	
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)	dB	Typically ±0,2	
Linear Cross Talk	dB	Typically > 50	
Non-linear Cross Talk	dB	Typically > 50	
Stereo Separation (Sine Wave)	dB	Typically > 70	
Audio Input Impedance		600 Ω or 10 kΩ	
Digital Input Impedance	Ω	110	

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ORDERING INFORMATION	Description
<b>TX03KSS</b>	Plug-in transmitter, 3kW (composed of PJ3KPS-CA + 2x PTX30DDS).
<b>TX04KSS/60D44</b>	Plug-in transmitter, 4kW (composed of PJ4KPS-CA + 2x PTX30DDS).
<b>TX05KSS</b>	Plug-in transmitter, 5kW (composed of PJ5KPS-CA + 2x PTX30DDS).
<b>TX06KSS/60D42</b>	Plug-in transmitter, 6kW (composed of PJ6KPS-CA + 2x PTX30DDS).
<b>TX08KSS/60D43</b>	Plug-in transmitter, 8kW (composed of PJ8KPS-CA + 2x PTX30DDS).
<b>TX10KSS/60D41</b>	Plug-in transmitter, 10kW (composed of PJ10KPS-CA + 2x PTX30DDS).
<b>TX12.5KSS/60D41</b>	Plug-in transmitter, 12.5kW (composed of PJ12.5KPS-CA + 2x PTX30DDS).
<b>TX20KSS/61D412</b>	Plug-in transmitter, 20kW (composed of 2x PJ10KPS-CA + 2x PTX100DDS).
<b>TX25KSS/60D451</b>	Plug-in transmitter, 25kW (composed of PJ20KPS-CA + 2x PTX30DDS).
<b>TX32KSS/60D472</b>	Plug-in transmitter, 32kW (composed of 2x PJ16KPS-CA + 2x PTX30DDS).
<b>TX40KSS/61D414</b>	Plug-in transmitter, 40kW (composed of 4x PJ10KPS-CA + 2x PTX30DDS).
<b>TX50KSS</b>	Plug-in transmitter, 50kW (composed of 5x PJ10KPS-CA + 2x PTX30DDS).
<b>TX60KSS</b>	Plug-in transmitter, 60kW (composed of 6x PJ10KPS-CA + 2x PTX30DDS).
<b>TX03KSS</b>	Plug-in transmitter, 3kW (composed of PJ3KPS-CA + PTX30DDS).
<b>TX04KSS/60S44</b>	Plug-in transmitter, 4kW (composed of PJ4KPS-CA + PTX30DDS).
<b>TX05KSS</b>	Plug-in transmitter, 5kW (composed of PJ5KPS-CA + PTX30DDS).
<b>TX06KSS/60S42</b>	Plug-in transmitter, 6kW (composed of PJ6KPS-CA + PTX30DDS).
<b>TX08KSS/60S43</b>	Plug-in transmitter, 8kW (composed of PJ8KPS-CA + PTX30DDS).
<b>TX10KSS/60S41</b>	Plug-in transmitter, 10kW (composed of PJ10KPS-CA + PTX30DDS).
<b>TX12.5KSS/60S41</b>	Plug-in transmitter, 12.5kW (composed of PJ12.5KPS-CA + PTX30DDS).
<b>TX20KSS/61S412</b>	Plug-in transmitter, 20kW (composed of 2x PJ10KPS-CA + PTX100DDS).
<b>TX25KSS/60S451</b>	Plug-in transmitter, 25kW (composed of PJ20KPS-CA + PTX30DDS).
<b>TX32KSS/60S472</b>	Plug-in transmitter, 32kW (composed of 2x PJ16KPS-CA + PTX30DDS).
<b>TX40KSS/61S414</b>	Plug-in transmitter, 40kW (composed of 4x PJ10KPS-CA + PTX30DDS).
<b>TX50KSS</b>	Plug-in transmitter, 50kW (composed of 5x PJ10KPS-CA + PTX30DDS).
<b>TX60KSS</b>	Plug-in transmitter, 60kW (composed of 6x PJ10KPS-CA + PTX30DDS).

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