6000 W
6 kW FM TRANSMITTER

AIR COOLED

HIGH EFFICIENCY

MULTI INPUT

MONITORING

SNMP, WEB BASED GUI, DRY CONTACTS

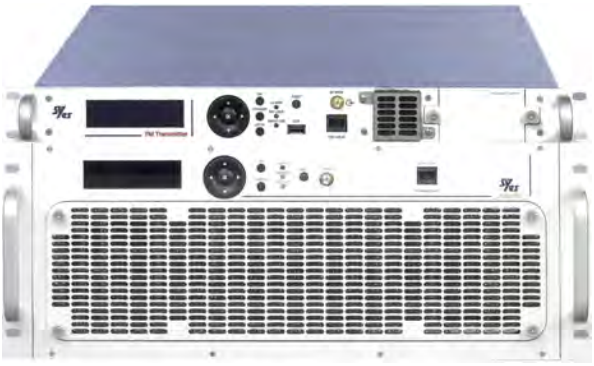
ISO FREQUENCY

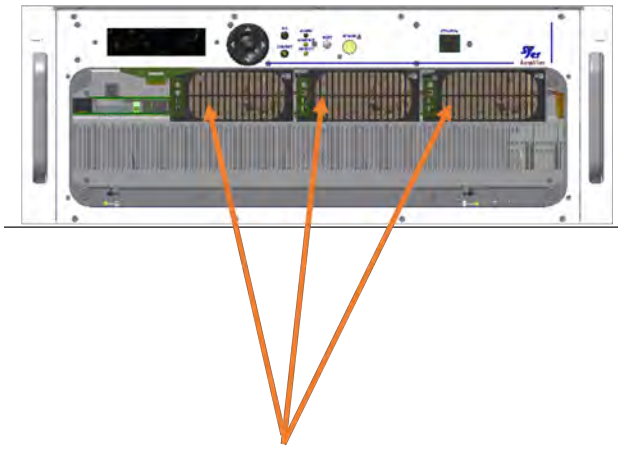
GPS

WIDE BAND

DYNAMIC RDS

HOT PLUG-IN POWER SUPPLY/PSU





2+1 power supply system

Modular FM Line
High Power Air Cooled

Composed of a PCM FM exciter plus single or multiple air or liquid cooled amplifiers, with a central control unit. All amplifiers are intrinsically redundant with multiple R F pallets Final stage (6 Pallets with LDMOS). and nr.3 hot-pluggable power supplies in 2+1 configuration.
The cooling system has been designed with the aim to keep the active components temperature as low as possible extending their life and improving the transmitter overall reliability.

The control unit of each amplifier communicates with the central logical unit which controls the complete system, manageable by the touch screen display or remotely by SNMP or web GUI.

- ☐ Stereo + subcarrier
- ☐ Fully frequency agile without need for any tuning or trimming.
- ☐ Hot plug in PSU
- ☐ Exciter Digital FM
- ☐ DVB-T/T2-S/S2 input with decoding function (optional)
- ☐ GPS receiver with extremely precise OCXO (optional)
- ☐ Built-in Dynamic RDS Encoder
  USB input to fast save/load configurations
- ☐ Built-in GPS for SFN application (optional)
  Remote control via SNMP, TCP/IP.
- ☐ Protections: temperature, current, DC voltage, reflected. with automatic power reduction into higher VSWR 1.5:1
- ☐ High efficiency up to 78% to minimize consumption and OPEX.

FM TRANSMITTER
AIR COOLED

The most fully featured HD Sound FM transmitter ever, digital processing completely based on FPGA technology granting crystal clear and highly stable audio performances. Inputs: L&R, MPX, AES-EBU and MPX over IP audio inputs. On-board Dynamic RDS. 1 pps and 10 MHz. Single Frequency Network: An optional GPS receiver, an extremely precise built-in OCXO, backed by a proprietary SW sharpened by years of on-field tests, allows the realization of FM Single Frequency Networks, where the interference area can be totally managed.

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TECHNICAL FEATURES:

Working bandwidth:	76 ÷ 108 MHz (step 10khz)
Frequency stability:	200Hz 0°C to 50°C < ± 1 Hz when 10 MHz ext. Reference absent (with No modulation). < ± 0,1 Hz in presence of 10 MHz ext. Reference (with No modulation).
Output power:	6000 W adjustable in the range 400W
Output connector:	7/8 EIA or 1-5/8 EIA, 50 Ohm
Spurious Harmonics Attenuation:	≥ 80dB
Frequency Deviation:	ΔF ± 75 KHz ... ± 100 KHz (max.).
MPX Input:	band 40 Hz ... 100 KHz impedance > 2KΩ o 600Ω Input level adjustable from -3.5Vpp up to +3.5Vpp for 100% modulation @ 0,1 dB steps, BNC Unbalanced.
MONO Input: (L input is the default input, it can be set by the web pages on L or R input)	40 Hz ... 15 KHz impedance > 2KΩ o 600Ω pre-emphasis 0/50/75µs, Balanced input adjustable on the L or R input (locally or remotely). Level from -12dBu up to +12dBu @ 0,1 dB steps (Sensitivity tunable by web pages).
AUDIO AUX Input:	from 21 KHz ... up to 100 KHz with adjustable input -12 dB ... 3dB @ 0,1 dB steps for a Δf ± 10 KHz (Sensitivity tunable by web pages).
L and R Inputs:	Built-in stereo encoder. impedance > 2KΩ o 600Ω pre- emphasis 0/50/75 µs (locally or remotely). Input level from -12dBu up to +12dBu @ 0,1 dB steps for Δf ± 75 KHz. Clipper Δf: Clipper profile: OFF – normal – hard -ideal (remotely by the web pages).
Audio/ AUX over IP	GBE input / SFP connector on rear panel
AES3/EBU Input:	Impedance 110 ohm Sensitivity from 0dBFs up to – 24dBFs @ 0.1 dB steps
RDS Input:	Built-in dynamic RDS encoder
MONO/RDS:	Available
RF IN (repeater/transposer)	50 Ohm, connector N Female Type Dynamic range -80÷-20dBm
ASI IN (Decoding)	75 Ohm BNC Female Type
DVB IN (T7T2-S/S2)	50 Ohm F Female Type Dynamic range -80÷-20dBm decoding function supported descrambling function supported (with opt CAM slot)
INPUT FEATURES	
Max. Deviation:	From 50 up to 100 kHz @ 1 KHz steps
Delay time:	Alarm activation in case of modulation signal missing From 10 up to 120 s @ 1 s steps
Threshold:	Alarm activation in case of modulation signal missing From – 20 up to -50 dBr @ 1 dB steps
Modulation signal missing alarm:	On all input signal
Static Delay:	Between input and output signals From 0 to 900 µs @ 0.1 µs steps

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STEREO OUTPUT SPECIFICATIONS with L/R and MPX INPUT	
Amplitude/ frequency Response:	<< 0.1 dB (20 Hz – 100 KHz)
Distortion THD:	(Measured with Δf ± 75 kHz) 0.03% @ 30Hz to 15 kHz
AM Noise: (MPX Input)	≤ - 60dB ref. amplitude modulation 100% of the carrier
Synchronous AM: (MPX Input)	With f = 400 Hz and Δf ± 75 KHz ≤ - 50 dB ref. amplitude modulation 100% of the carrier.
S/N FM:	> 80 dB (f=400 Hz with Δf ± 75 kHz)
Linear Crosstalk: (L/R Input)	< - 72 dB (40 Hz - 15 kHz) (Measured with Δf ± 75 kHz)
SYNCHRONIZATION	
Sync receiver/Connector/Impedance	Internal / connector type "N" / 50 Ohm
Standard	GNSS Receiver (Optional)
Ext ref Input	1x 10 MHz (connector BNC 75 ohm) 1PPS (connector BNC 75 Ohm)
CONTROL AND MONITORING	
Local	Graphic display with push buttons
Remote	SNMP V2C / web pages/ RS232/ TLS-TLC GSM/UMTS/GPRS as option
GENERAL SPECIFICATIONS	
Mechanical dimensions	W x H x D: (19")483mm x 1RU+4RU x 600 mm
Weight	50kg
Power Supply	180÷264 Vac Two phases or 208/400Vac Three phases 47÷63 Hz
Efficiency	Up to 80%
ENVIRONMENTAL CONDITIONS	
Max Altitude	4.800 m a.s.l. (higher altitudes kit on request)
Working temperature range	-10÷50°C
Max relative humidity	95% @ 35°C non condensing

Features and specifications subject to change without notice

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