3000 W
PCM/FM 4U 3000W

COMPACT AIR COOLED

HIGH EFFICIENCY

HOT PLUG-IN POWER SUPPLY/PSU

MULTI INPUT

MONITORING
SNMP, WEB BASED GUI, DRY CONTACTS

ISO FREQUENCY

DYNAMIC RDS

WIDE BAND

GPS

- ☐ DSP/DDS based modulator
- ☐ Fully frequency agile without need for any tuning or trimming.
- ☐ Hot plug in PSU
- ☐ FM Repeater and Transposer (optional)
- ☐ DVB-T/T2-S/S2 input with decoding function (optional)
- ☐ GPS receiver with extremely precise OCXO (optional)
- ☐ Internal Audio processor: up to 5 band fully-featured FM audio processor (optional)
- ☐ Built-in Dynamic RDS Encoder
- ☐ USB input to fast save/load configurations Built-in GPS for SFN application.
- ☐ Remote control via SNMP, friendly web browser GUI, no need of plug-in or apps, dry contacts
- ☐ High efficiency up to 76% to minimize consumption and OPEX.
- ☐ Dual Digital MPX 192

Syes FM compact transmitter line from 1 W up to 5.5 kW with an efficiency up to 76%

Power supplies can be replaced from the front panel (from 1kW Upwards); fans and relevant filters also can be replaced in “hot” by the rear panel. The exciter acts as control unit thus collecting and making available all the transmitter parameters both locally on an OLed display as well as remotely on an extremely friendly GUI.

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. External 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.

FM
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TECHNICAL FEATURES:

Working bandwidth:	87,5 ÷ 108 MHz (66÷73 MHz available)
Frequency stability:	< ± 1 Hz when 10 MHz ext. Reference absent (with No modulation). < ± 0,1 Hz in presence of 10 MHz ext. Reference (with No modulation). In absence of the 10MHz external reference the modulator automatically swap to the internal one
Output power:	3000 W adjustable
Output connector:	7/8" EIA, 50 Ohm
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 -12dBu up to +12dBu @ 0,1 dB steps (Sensitivity tunable by web pages)
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, 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).
MPX over IP (optical or electrical)	GBE input / SFP connector on rear panel
AES3/EBU Input:	AES 192 (AES EBU3) Input Impedance 110 ohm Sensitivity from 0dBFs up to – 24dBFs @ 0.1 dB steps
RDS:	Built-in dynamic RDS encoder
RDS Input:	External encoder Input or UECP Input (RS232)
RF IN (repeater/transposer) (Option)	50 Ohm, connector N Female Type Dynamic range -80÷-20dBm
ASI IN (Decoding) (Option)	75 Ohm BNC Female Type
DVB IN (T7T2-S/S2) (Option)	50 Ohm F Female Type Dynamic range -80÷-20dBm decoding function supported descrambling function supported
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:	<< 0.1 dB (40 Hz – 100 KHz)
Total Harmonic Distortion +Noise:	(Measured with Δf ± 75 kHz) 0.03% @ 400Hz
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:	Stereo/mono > 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: 483 mm x 178 mm (4RU) x 600 mm
Weight	38 kg
Power Supply	180÷264 Vac Single phase or 208/400Vac Three phases 47÷63 Hz
Efficiency	Up to 78%
ENVIRONMENTAL CONDITIONS	
Max Altitude	4.600 m a.s.l. (higher altitudes kit on request)
Working temperature range	-10÷50°C
Max relative humidity	95% @ 35°C non condensing

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