

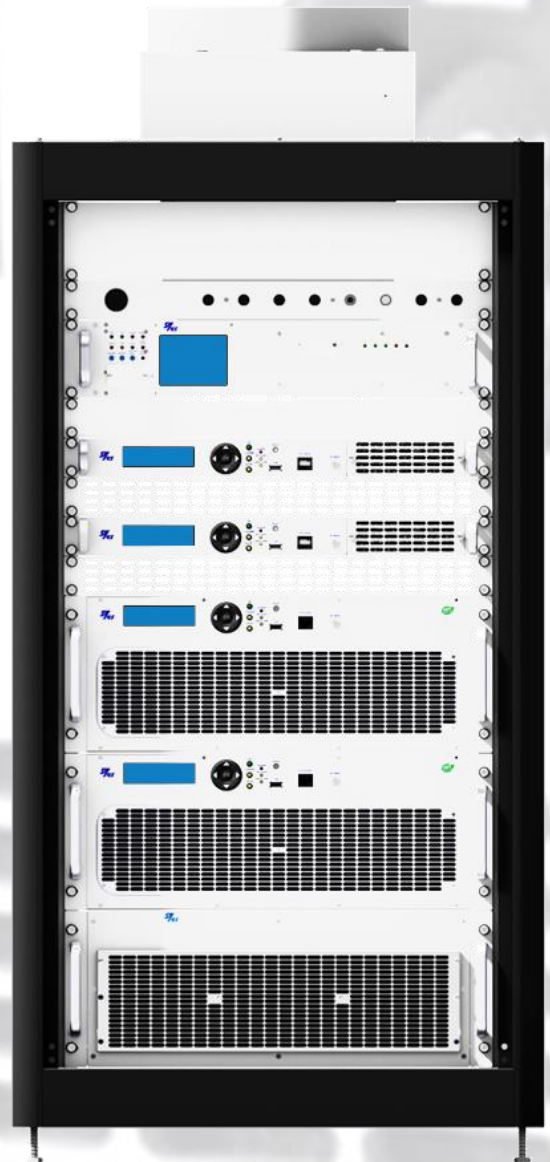


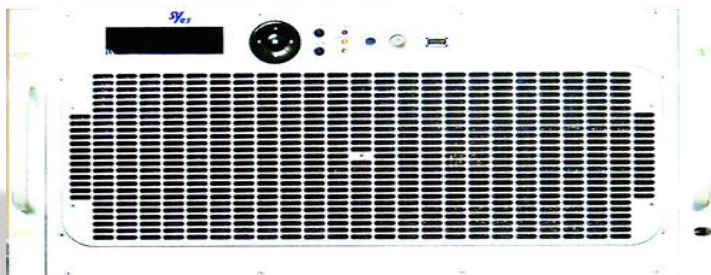
FM TRANSMITTER

Model: SyES SLIM4-02-FM-PCM

Key Facts

- Works all the FM band without retuning
- Single and dual driver configuration
- Modular and compact design in 20U rack cabinet
- FPGA processor based technology
- Intrinsically redundant for high reliability:
 - 2 independent amplifier modules
- Hot pluggable power supply
- State of the art design with digital modulator
- Overall efficiency more than 70%.
- Supports analogue, digital, MPX, AES EBU inputs
- Supports IP input
- RDS coding embedded with dynamic RDS coder
- Ultra High signal to noise ratio
- Excellent low distortion
- User friendly GUI
- Remote control via serial port, SNMP, web pages, GSM/UMTS/GPRS, TLS-TLC





Amplifier front view with grid



Amplifier front view without grid:
on evidence 2+1 redundant power supply

TECHNICAL FEATURES

Working bandwidth:	87,5 ÷ 108 MHz
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 10 MHz external reference the modulator automatically swap to the internal one
Output power:	10kW adjustable
Output connector	1 5/8" EIA, 50 Ohm
Harmonics Attenuation:	≥ 80dB
Frequency Deviation:	$\Delta F \pm 75 \text{ KHz} \dots \pm 100 \text{ KHz (max.)}$
Pilot tone	19kHz
MPX Input:	band 40 Hz ... 100 KHz impedance > 2K Ω o 600 Ω Input level adjustable from -12dBu up to +12dBu @ 0,1dB steps (Sensitivity tunable by web pages)
MONO Input: <i>(L input is the default input, it can be set by the web pages on L or R input)</i>	15 Hz ... 15 KHz impedance > 2K Ω or 600 Ω pre-emphasis 0/50/75 μ s, 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 $\Delta f \pm 10 \text{ KHz}$ (Sensitivity tunable by web pages).
L and R Inputs:	Built-in stereo encoder. impedance > 2K Ω o 600 Ω pre- emphasis 0/50/75 μ s (locally or remotely). Input level from -12dBu up to +12dBu @ 0,1 dB steps for $\Delta f \pm 75 \text{ KHz}$. 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
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 -50dBr @ 1 dB steps
Modulation signal missing alarm:	On all input signal
Static Delay:	Between input and output signals From 0 to 900 μ s @ 0.1 μ s steps

STEREO OUTPUT SPECIFICATIONS with L/R and MPX INPUT

Amplitude/frequency:	< \pm 0.1 dB (40 Hz - 100 KHz) (Measured with Δ f \pm 75 kHz)
Total Harmonic Distortion +Noise:	0.03 % @ 400Hz
AM Noise: (MPX Input)	\leq - 60 dB ref. amplitude modulation 100% of the carrier.
Synchronous AM: (MPX Input)	With f = 400 Hz and Δ f \pm 75 KHz \leq - 50 dB ref. amplitude modulation 100% of the carrier.
S/N:	stereo/mono > 80dB (f=400 Hz with Δ f \pm 75 kHz)
Linear Crosstalk: (L/R Input)	< - 72 dB (40 Hz - 15 kHz) (Measured with Δ f \pm 75 kHz)

SYNCHRONIZATION

Sync receiver / connector /impedance	Internal / connector type "N" / 50 Ohm
Standard	GPS/Glonass
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" 20U rack cabinet without air extractor 600 mm x 889 mm (20 RU) x 1000mm (each other on request)
Weight	270 kg
Power supply	208Vac +/-10% Three phases or 400 Vac +/-10% Three phases with neutral, 47÷66 Hz
Power consumption at max output power	14000W (power factor >0.95)
Environmental conditions	4000 m a.s.l.
Max altitude	-10-50°C
Working temperature range	95% @ 35°C non condensing
Max relative humidity	



SY.E.S. S.r.l. Via Zanella, 21- 20851 Lissone (MB) Italy - Tel.+39.039.9897.1 - info@sy.es.eu