

# 30000 W SLIM4-06/FM



FM TRANSMITTER  
AIR COOLED

-   
**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**



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.

## 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 RF pallets and nr.3 hot-pluggable power supplies in 2+1 configuration.

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.

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.

- 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)
- Built-in Dynamic RDS Encoder
- USB input to fast save/load configurations
- Built-in GPS for SFN application (optional)
- Remote control via SNMP, friendly web browser GUI, no need of plug-in or apps, dry contacts
- High efficiency up to 78% to minimize consumption and OPEX.

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## TECHNICAL FEATURES:

<b>Working bandwidth:</b>	87,5 ÷ 108 MHz (66÷73 MHz available)
<b>Frequency stability:</b>	< ± 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
<b>Output power:</b>	30000 W adjustable in the range 400W to 6000W
<b>Output connector:</b>	3 1/8 EIA, 50 Ohm
<b>Harmonics Attenuation:</b>	≥80dB
<b>Frequency Deviation:</b>	$\Delta F \pm 75$ KHz ... $\pm 100$ KHz (max.).
<b>MPX Input:</b>	band 40 Hz ... 100 KHz impedance > 2K $\Omega$ o 600 $\Omega$ Input level adjustable from -12dBu up to +12dBu @ 0,1 dB steps (Sensitivity tunable by web pages)
<b>MONO Input:</b> (L input is the default input, it can be set by the web pages on L or R input)	40 Hz ... 15 KHz impedance > 2K $\Omega$ o 600 $\Omega$ pre-emphasis 0/50/75 $\mu$ 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).
<b>AUDIO AUX Input:</b>	from 21 KHz ... up to 100 KHz with adjustable input -12 dB ... 3dB @ 0,1 dB steps for a $\Delta f \pm 10$ KHz (Sensitivity tunable by web pages).
<b>L and R Inputs:</b>	Built-in stereo encoder. impedance > 2K $\Omega$ o 600 $\Omega$ pre- emphasis 0/50/75 $\mu$ s (locally or remotely). Input level from -12dBu up to +12dBu @ 0,1 dB steps for $\Delta f \pm 75$ KHz. Clipper $\Delta f$ : Clipper profile: OFF – normal – hard -ideal (remotely by the web pages).
<b>Audio/ AUX over IP</b>	GBE input / SFP connector on rear panel
<b>AES3/EBU Input:</b>	Impedance 110 ohm Sensitivity from 0dBFs up to – 24dBFs @ 0.1 dB steps
<b>RDS Input:</b>	Built-in dynamic RDS encoder
<b>MONO/RDS:</b>	Available
<b>RF IN (repeater/transposer)</b>	50 Ohm, connector N Female Type Dynamic range -80÷-20dBm
<b>ASI IN (Decoding)</b>	75 Ohm BNC Female Type
<b>DVB IN (T7T2-S/S2)</b>	50 Ohm F Female Type Dynamic range -80÷-20dBm decoding function supported descrambling function supported (with opt CAM slot)

## INPUT FEATURES

<b>Max. Deviation:</b>	From 50 up to 100 kHz @ 1 KHz steps
<b>Delay time:</b>	Alarm activation in case of modulation signal missing From 10 up to 120 s @ 1 s steps
<b>Threshold:</b>	Alarm activation in case of modulation signal missing From – 20 up to -50 dB $\alpha$ @ 1 dB steps
<b>Modulation signal missing alarm:</b>	On all input signal
<b>Static Delay:</b>	Between input and output signals From 0 to 900 $\mu$ s @ 0.1 $\mu$ s steps

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STEREO OUTPUT SPECIFICATIONS with L/R and MPX INPUT	
Amplitude/frequency:	<< 0.1 dB (40 Hz – 100 KHz)
	(Measured with $\Delta f \pm 75$ 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 $\Delta f \pm 75$ KHz $\leq -50$ dB ref. amplitude modulation 100% of the carrier.
S/N:	Stereo/mono $> 80$ dB ( $f=400$ Hz with $\Delta f \pm 75$ kHz)
Linear Crosstalk: (L/R Input)	$< -72$ dB (40 Hz - 15 kHz ) (Measured with $\Delta f \pm 75$ 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	(19") Rack 44Unit 800mm
Weight	440 kg
Power Supply	Three phase 400Vac $\pm 15\%$
Efficiency	Up to 78%
ENVIRONMENTAL CONDITIONS	
Max Altitude	4000 m a.s.l.
Working temperature range	$-10 \div 50^{\circ}\text{C}$
Max relative humidity	95% @ $35^{\circ}\text{C}$ non condensing

Features and specifications subject to change without notice

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