

20000 W 20 kW FM TRANSMITTER LQ



**FM TRANSMITTER
LIQUID COOLED**

 
LIQUID COOLED HIGH EFFICIENCY

 
MULTI INPUT MONITORING
SNMP, WEB BASED GUI,
DRY CONTACTS

 
HOT SWAPPABLE AMPLIFIER WIDE BAND

 
ISO FREQUENCY DYNAMIC RDS

 
GPS HOT PLUG-IN POWER
SUPPLY/PSU

Modular FM Line - High Power Air and Liquid 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.

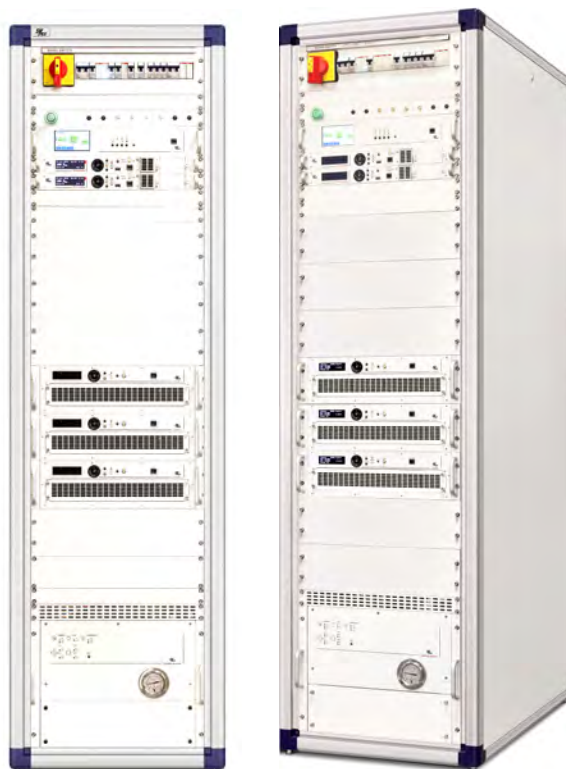
The cooling system has been designed with the aim to keep the active components temperature as low as possible extending their life and improving the transmitter overall reliability.

The liquid cooled system features fast-lock/unlock pumps hot-swappable in seconds.

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.

- ☐ DSP/DDS based modulator
- ☐ Fully frequency agile without need for any tuning or trimming.
- ☐ Hot plug in PSU
- ☐ FM Repeater and Transposer (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.
- ☐ 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.



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.

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TECHNICAL FEATURES:

Working bandwidth:	76 ÷ 108 MHz
Frequency stability:	± 1 ppm
Output power:	20000 W
Output connector	1 5/8" EIA, 50 Ohm (other available)
Harmonics Attenuation:	≥ 80 dB
Frequency Deviation:	$\Delta F \pm 75$ KHz ... ± 100 KHz
MPX Input:	Band 40 Hz ... 100 KHz impedance > 2K Ω or 600 Ω Input level adjustable from -6dBu up to +6dBu
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 > 2K Ω or 600 Ω Pre-emphasis 0/50/75 μ s Level from -6dBu ... up to +6dBu
AUDIO AUX Input:	from 21 KHz ... up to 100 KHz Input level adjustable from -6dBu up to +6dBu
L and R Inputs:	Stereocoder Option. Impedance > 2K Ω o 600 Ω pre- emphasis 0/50/75 μ s Input level adjustable from -12dBu up to +12dBu Clipper Δf : ON/OFF "
AES/EBU Input:	Impedance 110 ohm Sensitivity from 0dBFs up to - 24dBFs
RDS Input:	Optional dynamic RDS encoder
STEREO OUTPUT SPECIFICATIONS with L/R and MPX INPUT	
Amplitude/frequency:	< ± 0.15 dB (30 Hz – 15 KHz)
Total Harmonic Distortion +Noise:	0.03% @ 400Hz
AM Noise: (MPX Input)	≤ - 60dB ref. amplitude modulation 100% of the carrier
Synchronous AM: (MPX Input)	With f = 400 Hz and $\Delta f \pm 75$ KHz ≤ - 50 dB ref. amplitude modulation 100% of the carrier.
S/M:	Stereo/mono > 80 dB (f=400 Hz with $\Delta f \pm 75$ kHz)
Linear Crosstalk: (L/R Input)	< - 60 dB (40 Hz - 15 kHz) (Measured with $\Delta f \pm 75$ kHz)"
CONTROL AND MONITORING	
Local	Graphic display with push buttons
Remote	SNMP V2C / web pages/ TLS-TLC GSM/UMTS/GPRS as option
GENERAL SPECIFICATIONS	
Mechanical dimensions	W x H x D: 600mm x 2400 x1100 44 (RU)
Weight	505 kg
Power Supply	Three phases 400 Vac ± 15%
Efficiency	Up to 78%
Environmental conditions	
Max altitude	4000 m a.s.l.
Working temperature range	-5 ÷ 45°C
Max relative humidity	95% @ 35°C non condensing

Features and specifications subject to change without notice

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