

WAVE10000 - 10kW FM TRANSMITTER

SINGLE/DUAL DRIVER, DUAL AMPLIFIER



Advanced Efficiency Boost

Efficiency up to 73% with adaptive optimization

Prognostic

Analysis for predictive maintenance

Simply

Hot pluggable PSU - Easy to replace fans
Redundant power supply in each amplifier

Digital Processing

Unique performances thanks to DDS digital modulator

Controls

LCD display, Web server and SNMP

Stereo & Soft clipper

Always included

Integrated unique features

Micro SD card slot
FM, Satellite and Terrestrial receiver
Audio processor
Full telemetry with 3G connection

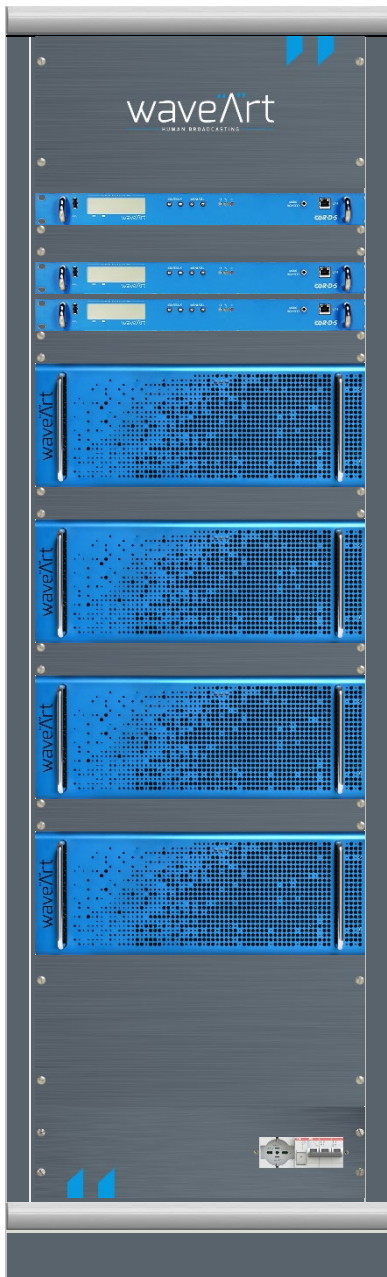
GENERAL SPECIFICATION

Output frequency range	87.5 to 108MHz in 1Hz steps
Output Power	10kW (tol. +0/-0.5dB)
Output connector	FL 1+5/8" EIA
Spurious and harmonic suppression	Compliant with ETSI and FCC specification
Analog input	2x XLR female (Balanced; impedance 600Ω/10KΩ selectable)
MPX/SCA/RDS input	2x BNC female (Unbalanced; impedance 50Ω/10KΩ selectable)
Soft Clipper with band limitation	Included
Power consumption	Typ. 13,9KVA - Max. <14.9KVA
AEB (Advanced Efficiency Boost)	Included
Power supply	400Vac three phase start conn. (with power neutral) or 230Vac three phase delta conn. (without power neutral)
Operative temperature	-5°C to +45°C @MSL
Maximum operative altitude	3000m ASL. For higher altitudes please contact our sales dept.
Maximum operative humidity	95% non-condensing
Housing	Rack Cabinet 19" 25U - dimensions: 570 x 1250 x 1000 mm (W x H x D)
Weight	<220Kg



WAVE20000 - 20kW FM TRANSMITTER

SINGLE/DUAL DRIVER, MULTI AMPLIFIERS



Advanced Efficiency Boost

Efficiency up to 73% with adaptive optimization

Prognostic

Analysis for predictive maintenance

Simply

Hot pluggable PSU - Easy to replace fans
Redundant power supply in each amplifier

Digital Processing

Unique performances thanks to DDS digital modulator

Controls

LCD display, Web server and SNMP

Stereo & Soft clipper

Always included

Integrated unique features

Micro SD card slot
FM, Satellite and Terrestrial receiver
Audio processor
Full telemetry with 3G connection

GENERAL SPECIFICATION

Output frequency range	87.5 to 108MHz in 1Hz steps
Output Power	20kW (tol. +0/-0.5dB)
Output connector	FL 3+1/8" EIA
Spurious and harmonic suppression	Compliant with ETSI and FCC specification
Analog input	2x XLR female (Balanced; impedance 600Ω/10KΩ selectable)
MPX/SCA/RDS input	2x BNC female (Unbalanced; impedance 50Ω/10KΩ selectable)
Soft Clipper with band limitation	Included
Power consumption	Typ. 27,8KVA - Max. <29.9KVA
AEB (Advanced Efficiency Boost)	Included
Power supply	400Vac three phase start conn. (with power neutral) or 230Vac three phase delta conn. (without power neutral)
Operative temperature	-5°C to +45°C @MSL
Maximum operative altitude	3000m ASL. For higher altitudes please contact our sales dept.
Maximum operative humidity	95% non-condensing
Housing	Rack Cabinet 19" 38U - dimensions: 570 x 1900 x 1000 mm (W x H x D)
Weight	<350Kg



SOFTWARE OPTIONS

S-AM-UN	Audio monitor for input or on-air signal + test tone generator	Included in S-FULL-UN
S-SD-UN	Micro SD card slot	
S-AES-UN	Digital AES/EBU & AES192 (MPX over AES) inputs	
S-FMRX-UN	FM receiver input (for regenerative FM repeater/ translator)	
S-SWI-UN	Automatic input switching (n.3 MPX profiles – audio/ RDS)	
S-RDS-UN	Static RDS coder	
S-RDS+-UN	Dynamic RDS	
S-IP-UN	IP input (Icecast2 streaming & AES67)	
S-DMPX-UN	Digital MPX over TS & Digital MPX over IP	Only with H-AP
S-ISO-UN	SFN/ Isofrequency operation	
S-AP-PRO	Professional FM software license	
S-AP-AD	Advanced Dynamics: Auto EQ and dynamic ratios	
S-AP-DEC	Declipper & Natural Dynamics software license	
S-AP-DEL	Delossifier	
S-AP-ARDS	Advanced RDS	

HARDWARE OPTIONS

H-SATDTT	Embedded Satellite and Terrestrial receiver demodulator. DVB-S/S2 (L-band input) and/or DVB-T/T2 and ISDB-T (VHF/UHF band input)
H-3G	2G/3G modem router for remote connection/telemetry and SMS
H-I/O	Analog telemetry interface with n.3 isolated clean contact outputs, n.4 optoisolated inputs, n.4 analog outputs (0 to 5V), mini UPS for remote control, for router and for telemetry interface, RF filter for router
H-AP	Integrated audio processor (with standard software license)
H-SATDTT2	Second Redundant Embedded Satellite and Terrestrial receiver demodulator with seamless switching
H-CAM	CAM Slot (Common Interface Module)
H-ASI	ASI T.S. input (or output) interface
H-REF	10MHz and 1pps inputs
H-GNS	High stability reference oscillator GNSS (GPS + GLONASS) locked, oven clock 10MHz + 1pps outputs
H-AGNS	GPS/GLONASS receiving antenna (gain 26dB typ.) + 15 meters cable

The software-based audio processor can be integrated in any of our WAVE transmitters, from low and medium compact versions to high power line.

“H-AP” Audio Processor offers outstanding audio quality and comes with many unique features.



FM Composite Clipper *

Up to 140% audio level at 100% modulation gives 2-3 dB extra headroom for highs. Improve your audio, being the loudest and cleanest station on the dial!

Stereo & RDS Coder

Built-in stereo and RDS encoder
RT+

Advanced Dynamics & EQ *

Increases the dynamics for music that lacks dynamics. Adjusts the spectrum without compression, making it possible to generate a very consistent sound without sounding compressed

Dehummer

Improves the sound of MPEG2/MP3 style lossy compressed files, removing unwanted constant sounds, such as a 50/60 Hz hum from bad cables

Better FM reception

Improves stereo reception area up to 30Km

Declipper & Natural Dynamics *

Repairs clipped audio, removes distortion
Restores Natural Dynamics

Delossifier *

Improves the sound quality of MPEG2/ MP3 style lossy compressed files

All specifications contained in this document may be changed without prior notice