

## WAVE 3000 – 3kW FM TRANSMITTER COMPACT VERSION



### Easy Care

- Hot pluggable PSU
- Easy to replace fans

### Adaptive Efficiency Boost

- Efficiency over 75% with adaptive optimization

### Integrated unique features

- Micro SD card slot
- FM/DAB/HD Radio Receiver
- Satellite/Terrestrial receiver
- Audio processor
- Full telemetry with 3G/4G router
- RDS coder
- MPX over TS & IP
- AES/EBU, MPX over AES
- AES67, Web Radio receiver

### Digital Processing

- Unique performances thanks to DDS digital modulator

### Controls

- LCD display, Web GUI and SNMP

### Stereo coder & Soft clipper

- Always included

## GENERAL SPECIFICATION

|  |   |
|--|---|
| Output frequency range                 | 87.5 to 108MHz in 1Hz steps   |
| Output Power                           | 3kW (tol. +0/-0.5dB)  |
| Output connector                       | EIA 7/8" flange   |
| 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. 4kVA - Max. <4,5kVA  |
| Number of LDMOS in the amplifier stage | 3   |
| AEB - Adaptive Efficiency Boost        | Included  |
| AC Input voltage and frequency         | 176-264Vac 230Vac, 47 to 63Hz single phase<br>400Vac three phase star conn. (with power neutral) and 230Vac three phase delta conn. (without power neutral) |
| AC/DC Power Supplies                   | N.3 power supplies hot pluggable from the front panel   |
| Operative temperature & fans           | -5°C to +45°C @MSL. N.2 fans on the rear panel  |
| Maximum operative altitude             | 3000m ASL. For higher altitudes please contact our sales dept.  |
| Maximum operative humidity             | 95% non-condensing  |
| Housing                                | Rack drawer 19" 4U, depth 70cm  |
| Weight                                 | <30Kg   |



## SOFTWARE OPTIONS

|                  |  |                                 |
|------------------|--|---------------------------------|
| <b>S-AM-UN</b>   | Audio monitor for input or on-air signal + test tone generator | Included in<br><b>S-FULL-UN</b> |
| <b>S-SD-UN</b>   | Micro SD card slot   |                                 |
| <b>S-AES-UN</b>  | Digital AES/EBU & AES192 (MPX over AES) inputs                 |                                 |
| <b>S-FMRX-UN</b> | FM receiver input (for regenerative FM repeater/ translator)   |                                 |
| <b>S-SWI-UN</b>  | Automatic input switching (n.3 MPX profiles – audio/ RDS)      |                                 |
| <b>S-RDS-UN</b>  | Static RDS coder   |                                 |
| <b>S-IP-UN</b>   | IP input (Icecast2 streaming & AES67)                          |                                 |
| <b>S-DMPX-UN</b> | Digital MPX over TS & Digital MPX over IP in/out               |                                 |
| <b>S-ISO-UN</b>  | SFN/Isosfrequency operation                                    |                                 |

## HARDWARE OPTIONS

|                   |   |
|-------------------|---|
| <b>H-HS</b>       | High Stability ( $\pm 50$ Hz)   |
| <b>H-SAT</b>      | Embedded Satellite receiver demodulator. DVB-S/S2 (L-band input) Low Symbol Rate with loop through  |
| <b>H-SATDTT</b>   | Embedded Satellite and Terrestrial receiver demodulator. DVB-S/S2 (L-band input) and DVB-T/T2 and ISDB-T (VHF/UHF band input)   |
| <b>H-SATDTT2</b>  | Second Redundant Embedded Satellite and/or Terrestrial receiver demodulator with seamless switching   |
| <b>H-3G; H-4G</b> | 2G/3G or 3G/4G modem router for remote connection/telemetry and SMS   |
| <b>H-I/O</b>      | GPIO interface with n.3 isolated clean contact out, n.4 optoisolated in, n.4 analog out (0 to 5V), RF filter for router   |
| <b>H-ASI</b>      | ASI T.S. input (or output) interface  |
| <b>H-REF</b>      | 10MHz and 1pps inputs   |
| <b>H-GNS</b>      | High stability reference oscillator GNSS (GPS + GLONASS) locked, oven clock 10MHz + 1pps outputs  |
| <b>H-AGNS</b>     | GPS/GLONASS receiving antenna (gain 26dB typ.) + 15 meters cable  |
| <b>H-AP-PRO-L</b> | Audio Processor card with professional software license & Advanced Dynamics (Auto EQ & dynamic ratios), bass effects, dual multiband processor (up to 9 bands), AGC, compressor and advanced composite clipper, RDS coder |
| <b>H-AP-PRO</b>   | H-AP-PRO-L + Declipper & Natural Dynamics   |

The software-based audio processor can be integrated in any Wave Transmitter, from low and medium compact versions to high power line. **H-AP-PRO 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*