

 **Trasmettitore FM 3500W Integrato**
 **3500W FM Integrated Transmitter**



Opera plus Family **A07E3500X**

EcoLine

Fully digital controlled ✓

High efficiency - Low consumption ✓

Reliable and Money Saving ✓

Hot Pluggable Power Supplies ✓

100% Remotable ✓

7U



The picture is for illustrative purposes

Il trasmettitore OPERA plus FM 87,5+108MHz da 3500W utilizza 3 pallet da 1500W LDMOS di 6^a generazione a larga banda con protezione ROS 65:1 e 3 Alimentatori estraibili da pannello frontale.

L'ingegnerizzazione adottata garantisce un elevato risparmio in termini di consumo energetico (tra i più bassi della categoria) e di trasporto grazie alle ridotte dimensioni ed al peso contenuto. L'installazione è facile e veloce. La semplicità d'utilizzo unita ad una manutenzione veramente molto ridotta rende questi trasmettitori ideali per stazioni non sorvegliate.

Caratteristiche:

Amplificatori RF larga banda con tecnologia LD-Mos

AAQ Advanced Audio Quality, per la migliore qualità audio

Elenco eventi consultabile da display o interfaccia WEB

Modulatore con sintetizzatore di frequenza digitale.

Automatic Audio change-over / L+R, MPX or Mixed

Protezione contro aumento del ROS di antenna con riduzione automatica della potenza di uscita (fold-back)

Protezione di temperatura con riduzione di potenza (fold-back)

Display LCD per controllo dei principali parametri

3 ampl. 1500W per la massima affidabilità su unico radiatore

3 Alimentatori (2250VA SMPS) estraibili a commutazione per la massima affidabilità ed efficienza

Aria di raffreddamento canalizzata

2 ventilatori facilmente sostituibili

Filtro delle armoniche e accoppiatore direzionale incorporati

Rack da 19" da 7 Unità

Telemetria GSM, TCP/IP, SNMP & SMTP - Presa

Moduli Plug&Play facilmente sostituibili

OPERA plus 3500W FM 87,5+108MHz transmitter uses 3x1500W pallet with 6^a generation LDMOS technology, 65:1 VSWR and 3x2250W Hot Pluggable Power Supplies.

The technical solutions adopted by our engineers are focused to assure energy saving (among the lowest) and high reliability. Settings, protections, telemetry are totally microprocessor controlled. The installation and the maintenance of the equipment are respectively very fast and easy. These fully protected transmitters are indicated for use in unmanned stations.

Features:

Wideband circuits amplifiers with LD-Mos technology

AAQ: Advanced Audio Quality

Storage of events

Built-in Fully digital controlled Modulator.

Automatic Audio change-over / L+R, MPX or Mixed

Automatic fold-back ROS & Temperature protection

Ambient & RF Module temperature measurement

4 lines LCD alphanumeric display

3x1500W ampli. in only one heat-sink for the highest reliability

3x2250 VA HOT PLUGGABLE Power Supply with PFC

Sealed duct cooling air with blowers

2 External easy removable blowers

Harmonics filter & directional coupler built-in

7 unit 19" standard rack

GSM Telemetry, TCP/IP Webserver, SNMP & SMTP server.
Front panel Headphone jack for audio monitor

Plug&Play Modules - easily replaceable

Metals treated with galvanic process



Options built-in:

- Digital Stereo Encoder Module
- RDS encoder
- AES-EBU digital audio input / Audio from IP
- Input & Output special dry contacts
- Bidirectional remote control by GSM/SMS
- Remote control by TCP-IP/WebServer/SNMP-SMTP
- Remote control by RS-232



Power Amplifier Section

Specifications are subject to change without notice.

General specification

Operating voltage	400VAC \pm 15% 3phas 230VAC \pm 10% Monopha > 71%
Typical Efficiency	Forced air
Operating altitude	up to 4000m (13123 ft) over sl
Typical Consumption	< 4860W
Operational temperature range	-5° to 50°C
Storage temperature range	-20° to 60°C
Output RF connector	EIA 7/8"
Monitor RF connector	BNC
Dimensions	485x310,8x625mm / 60Kg

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Radio frequency

Frequency range	87.5 to 108MHz
Frequency setting	in 10KHz or 100 KHz steps
Setting mode	By keys on the front panel/Remote
Frequency stability	< \pm 300Hz/year - 0.5ppm*
Frequency generation	PLL synthesizer
Modulation type	direct VCO frequency modul. F3
Nominal frequency deviation	\pm 75KHz
Deviation linearity in all freq. range	\pm 5KHz
RF output power	3500 W \pm 0.3dB - Adjustable
Internal Driver power	max 10W
Harmonics emission	<-70dBc*

Modulation capability

MONO (left and right)
 L-R & AES-EBU
 SCA + RDS
 Composite
 IP Audio

MPX characteristics

Signal input	MPX
Composite Input impedance	10Kohm unbalanced
Input connector	BNC
Input level	Adjustable 0/+6/Variable
Audio freq. response (30Hz to 60KHz)	< 0,5 dB
Modulation distortion	<0.1%
Signal to noise ratio	>75dB

Stereo characteristics

Signal inputs	Left or Right - AES-EBU
Input impedance	600ohm (bal.) or 10k ohm
Input connectors	Canon XLR
Unbalanced rejection	>40dB
Input level	Adjustable (Front/Remote)
Pre- emphasis	75 or 50uS
Audio frequency response (30Hz to 15KHz)	<0.25dB
Audio frequency response (19KHz to 100KHz)	>50dB
Cross-talk between left and right channel	>50dB
Distortion at frequency deviation of 75KHz	<0.1%
Signal to noise referred at deviation of 75KHz	>75dB
Suppression of 38KHz	>50dB

*In accordance with standards: EN60215:1989/A1:1992/A2:1994; EN301 489-1 V 1.9.2; EN301 489-11 V 1.3.1; EN302 018-2 RED V2.1.1