



## Opera plus Family

A07

3U



The picture is for illustrative purposes

## Familialità | a |

Il trasmettitore OPERA FM 87,5÷108MHz da 2000W utilizza 2 pallet amplificatori da 1500W LDMOS di 6<sup>a</sup> generazione a larga banda con protezione ROS 65:1.

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 (pulizia filtro aria) rende questi trasmettitori ideali per stazioni non sorvegliate.

OPERA 2000W FM 87,5÷108MHz transmitter uses 2x1500W pallet amplifiers with 6<sup>a</sup> generation LDMOS technology, 65:1 VSWR.

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.

### 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

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

1 Alimentatore estraibile a commutazione per la massima affidabilità ed efficienza (3500VA SMPS)

Aria di raffreddamento filtrata e canalizzata

2 ventilatori facilmente sostituibili

Filtro delle armoniche e accoppiatore direzionale incorporati

Rack da 19" da 3 Unità

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

Moduli Plug&Play facilmente sostituibili

### 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

2x1500W ampli. in only one heat-sink for the highest reliability

1x3500VA HOT PLUGGABLE Power Supply with PFC

Sealed duct cooling air with blowers

2 External easy removable blowers

Harmonics filter & directional coupler built-in

3 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 :

- 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



## 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

Specifications are subject to change without notice.

## General specification

Operating voltage	220V ÷ 240V AC
Typical Efficiency	> 71%
Cooling	Forced air
Operating altitude	up to 4000m (13123 ft) over sea level
Typical Consumption	-5° to +45°C
Operational temperature range	-10° to +55°C
Storage temperature range	DIN 7/16
Output RF connector	BNC
Monitor RF connector	Dimensions
	485x133,2x625mm / 19Kg

## 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	< ±300Hz/year - 0.5ppm*
Frequency generation	PLL synthesizer
Modulation type	direct VCO frequency modul. F3
Nominal frequency deviation	±75Khz
Deviation linearity in all freq. range	±5Khz
RF output power	2400 W ± 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

