FALCON 5000

PRODUCT

The new exciters, Falcon series, are realized with technology ICEFET, that allows drastic decrease of the temperature to a sensitive reduction of the consumptions and this family is a system of total quality thanks to a diagnostic remote, fast and capillary assistance, low consumptions, duration in the time and it is easy to use.
Ultra-compact and ultra-light (only 35 kg). Aluminium chassis, in 4 rack unit only.
Pressure encoder provides great accessibility for user/device interaction, resulting in extreme of use. Configuration software offers a simple, intuitive interface.
The ALC (Automatic Level Control) and Foldback protection ensures enhanced business continuity under any operating conditions.

COMPONENTS

All components of the series shared the same characteristics to the RF module, power supply, logics of control, systems of protection, derating, facility of installation and simplicity of setup.

ADVANTAGES

The advantages of the module systems are as follows:
- All technological improvement on the basic product is directly transferred on the apparatuses of the series.
- Automatic diffusion of the knowledge and maintenance
- Interchangeability and independence of the each module base
- Common parts of exchange on the whole series

POWER

The system of the power supply switching by PFC, high effi ciency, logic proportional protection without interruption of the operation, predisposition for telemetry.
The new line of FM transmitters launched by Quark, "Simply Fet", are characterized of an important effi ciency refi nement; in fact, with regard to RFpart, it passes 84% and the entire performance of the transmitter is 79%.
These products also involves a low environmental impact and it is aimed at high energy saving.

OPTIONALS

ASE/EBU: digital audio input (XLR)
TCP/IP: remote control
Addictional air filter on the front
Addictional SCA imput

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TECHNICAL FEATURES

Frequency range	87.5 - 108 MHz
Low-pass filter	Band 87.5 MHz - 108 MHz
Corrosion	All the mechanical parts are in aluminium
Measure point	Monitor RF
Visualized parameters	More than 50 visualized parameters on display LCD
Setting parameters operation	From the frontal panel through encoders and LCD
CPU	yes
Redundant power supply	yes
Redundant fans	yes
Transistors	ICEFET
Type of transistors	MRF1K50HR5

GENERALS

Rated output power		5000 W
Modulation type		Direct carrier frequency
Operational Mode		Mono, Stereo, Multiplex
Environmental working conditions		-10 °C to +50 °C / 95% relative Humidity non condensing
Frequency programmability		From software, with 10 kHz / 100 kHz steps
Frequency stability	WT from -10 °C to 50 °C	+/- 1 ppm
Modulation capability		150 kHz Stereo, 180 kHz Mono / MPX
Pre-emphasis mode		0 µS, 50 µS (CCIR), 75 µS (FCC)

POWER REQUIREMENTS

AC Power Input	AC Supply Voltage	MULTITENSION
	Active Power Consumption	6350 W
	Overall Efficiency	Typical 70%
	Connector	Cable

MECHANICAL DIMENSIONS

Phisical Dimensions	L x H x M	440 mm x 130 mm x 520 mm
Weight		About 35Kg

AUDIO INPUTS

Left / Mono & Right	10 kOhm or 600 Ohm (XLR F) Level: -3.5 to 13 dBu (optional -13 to +13 dBu)
MPX	10 kOhm or 50 Ohm (BNC) Level: -3.5 to 13 dBu (optional -13 to +13 dBu) @75 kHz FM
SCA / RDS	10 kOhm (2x BNC) Level: -8 to +13 dBu @ 75 kHz FM
AES / EBU (OPTIONAL)	110 Ohm (XLR F)

OUTPUTS

RF output	50 Ohm (7 / 8" EIA flange type)
RF Monitor	50 Ohm (BNC) approx. -60 dBc
Pilot output	>5 kOhm (BNC) approx. 1Vpp

MAIN PROTECTION

Bipolar termal switch with internal light

COOLING SYSTEM

Different temperature of the air in entrance / gone out	15 °C
Type of cooling	Forced air

ENVIRONMENTAL CONDITIONS

Temperature (working)	- 20° + 45 °C
Temperature (not working)	- 20° + 70 °C
Umidity (working)	95% a 40 °C
Umidity (not working)	90% a 65 °C
Altitude (working)	> 3.000 meters

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