FOX 10000

REDUNDANCY

PRODUCT

Fox 10000 is 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.
Adjustable power output from 0 to 100%
Universal multi-voltage power supply (monophase 230 Vac +/- 15%, triphase 230 Vac +/- 15%, triphase 410 Vac +/- 15%.
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 efficiency, 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 efficiency refi nement; in fact, with regard to RFpart, it passes 83% and the entire performance of the transmitter is 76%.
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
Dual drive exciter

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- 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
- Transmitters of high efficiency and completly redundant
- ICEFET Technology with low comsuption
- Program reading easy to use and set
- INPUT Audio digital AES/EBU (optional)
- Modules amplifiers of 1200W power each with technology ICEFET with fet MRF1K50
- Each transmitter has inside low pass filter to guarantee the second harmonic level less than -82dBc
- N. 03 redudance power supplies, indipendent and parallel connectors. If one power supply is broken the transmitter can work with the other two power supplies (reducing automatically the output power)
- Each power supply has inside an EMI filter for main line and it has a surge protection with a varistor and gas discarge.
- Moreovor each power supply has an high temperature protection and high current protection
- Each transmitter has an automatic control voltage (30-48Vdc) in base of the output power in order to have a best efficiency
- Each transmitter has the possibility to have a dual drive exciter
- Over driver, environment temperature alarm, head sink temperature alarm, direct power alarm, and report of alarm in real time with display of hour and date of alarm on each transmitter Vdc of each module and AC current
- Telemetry system which gives the possibility to check the digital remote control from distance with direct contact following the exigencies of the customer by GSM moden IP. Back panel SUBD 25 pin female connector with analog signal and alarm contact (optional)
- Possibility to program differents powers in different hours following the exigency of the customer
- In case of high temperature or differents alarms the system reduce the power automatically to save the transmitter.
- Automatic fan speed control on the strength of temperature of each RFpower module to guarantee a best consumption and reducing the fans noise
- For installation in the mountain where the elevation is more than 3500 meters, there is the possibility to put double fans in configuration PUSH-PULL for a best air ventilation
- Possibility to install additional air filter on the front

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	MRF6VP5600
Efficiency	78% tip.
CONNECTORS	
Output RF connectors	1 + 5 / 8 " optionals 3 + 1 / 8"
Audio monitor	BNC female
Audio input chanel L/R	XLR female
Input connector MPX	BNC female
Connector SCA	BNC female
GENERALS	
RF Output Power	10 kW
Frequency Stability	> 1 ppm
Frequency programmability	By software, with 10, 100 kHz steps
Nominal Frequency Deviation	+/- 75 KHz (peak)
Maximum Frequency Deviation	+/- 150 KHz (peak)
Class of Emission	180KF8E Direct to Channel
Modulation Mode	Mono, Stereo, Multiplex, SCA, RDS, Aux
Stereo transmissions	Acc. to ITU-R / Rec. 450 (Pilot tone)
RF Output Impedance	50 Ω, Unbalanced
VSWR	1.4:1 with automatic fold-back at higher VSWR
Pre-emphasis Mode	0 / 50 (CCIR) µs, 75 (FCC) µs
Asynchronous AM S/N Ratio	Typically > 70 dB
Synchronous AM S/N Ratio	Typically > 55 dB
Harmonics suppression and Spurious	Typically < 85 dB
Overall efficiency	Typically > 70 %
RF Harmonics	Exceeds ETSI/CCIR requirements
RF Spurious	Exceeds ETSI/CCIR requirements
Analogue Input level {+/-75 kHz (peak) deviation}	-3.5 +12.5 dBu (adjustable) OPTIONAL: -13 + 13 dBu
Digital Input level {+/-75 kHz (peak) deviation}	-20.0 dBFS - 0 d BFS (adjustable)
MONO OPERATION	
S/N ratio	Typically > 83 dB
Total Harmonic Distortion + Noise	Typically < 0.03 %
Inter Modulation Distortion SMPTE	Typically < 0.02 %
Frequency Response	Typically +/- 0.2 dB
Audio Input Impedance	600 Ω or 10 kΩ
MPX OPERATION	
Composite S/N ratio	Typically > 80 dB
Total Harmonic Distortion + Noise	Typically < 0.05 %
Inter Modulation Distortion	Typically < 0.05 %
Frequency Response	Typically +/-0.2 dB
Audio Input Impedance	10 kΩ
STEREO OPERATION	
Stereo FM S/N Ratio	Typically > 83 dB
Total Harmonic Distortion + Noise (L or R)	Typically < 0.02 %
Inter Modulation Distortion SMPTE (L or R)	Typically < 0.02 %
Frequency response (L or R)	Typically ±0.2 dB
Linear Cross Talk	Typically > 50 dB
Non - linear Cross Talk	Typically > 50 dB
Stereo Separation (Sine Wave)	Typically > 70 dB
Audio Input Impedance	600 Ω or 10 kΩ
Digital Input Impedance	110 Ω
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