Brief Specifications

Transmission Mode	*Solid State Analog FM Radio Broadcasting*						
Cooling System	*Air cooled with appropriate built-in axial fans*						
Operation Temperature Range	*0°C to 45°C*						
Storage Temperature Range	*-20°C to 55°c*						
Relative Humidity	*Up to 95% Non-Condensing*						
Altitude	*Up to 2000m A.M.S.L.(up to 3000m on request)*						
Electrical AC Supply	*Single phase 220Vac±15%, 50Hz ±2% with more than 90% power factor*						
Automatic Power Control	*The automatic power control circuitry provides the output power regulation with a stability of ±2% over the time and whole FM frequency range and protects the system against open or short circuit, capable of withstanding a VSWR up to 1.5:1 at nominal power without power reduction, 1.5:1 up to 2.5:1 with appropriate power reduction and Automatic RF shutdown with five recycling times above 2.5:1*						
Type of Modulation	*Mono, Stereo + RDS*						
Frequency Drift	*< 200Hz / 3 Months*						
RF Harmonic and Spurious Suppression	*>80 dBc (Exceeds EBU/CCIR/FCC Requirement)*						
Asynchronous AM SNR	*>60dB*						
Synchronous AM SNR	*>55dB*						
Emission	*F8E Mono and F3E Stereo complies with ITU-R BS.450-3*						
Frequency Deviation	*±40KHz to ±150KHz, User adjustable*						
Pre emphasis	*Flat,50μs and 75μs Selectable*						
Local Control and Operation Interface	*Status LEDs, Buttons and 5 inch Graphical Display Unit*						
Remote Control and Operation Interface	*Web GUI over RJ-45 Ethernet Port, GSM modem and antenna(on request)*						
Available Customized Models	*FAMPAC FMTx30*	*AMPAC FMTx100*	*AMPAC FMTx200*	*AMPAC FMTx500*	*AMPAC FMTx1k*	*AMPAC FMTx2k*	*AMPAC FMTx3k*
Digital Output Power	*35 W*	*120 W*	*250 W*	*550 W*	*900 W*	*1800 W*	*3100 W*
Number of Axial Cooling Fans	*1*						*2*
Frequency Range	*87.5 to 108MHz with Synthesized 10 kHz Steps*						
Channel Bandwidth	*200 kHz*						
Inputs	*Analog Audio L & R, Digital AES/EBU, MPX,RDS,SCA*						
RF Output	*N*			*7/16 DIN*			
Efficiency	*50%*	*65%*	*70%*	*72%*	*75%*	*80%*	*80%*
Power Consumption	*100VA*	*250VA*	*500VA*	*1KVA*	*1.5KVA*	*2KVA*	*3.5KVA*
Dimensions(H x W x D)							

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fara afrand

Air Cooled FM Transmitter

FAMPACFMTx Family

High Efficiency, High Power Density, Compact Footprint

FARA AFRAND CO.

Key facts:

- Features energy efficiency up to 75%
- Delivers up to 3 kW output power per case
- Reduces installation costs thanks to compact footprint and all in one implementation
- Provides easy installation, service and low maintenance costs thanks to modular system design
- N+1 redundant system configuration is available
- Sourced from innovate medium power and high power amplifiers have been blended with built-in high efficiency power supplies
- Utilizes the Extremely Rugged 50 V LDMOS technology
- Incorporates best in class FM Exciter providing excellent on-air sound quality with built-in Stereo and RDS Encoder
- Fully broadband 87.5 to 108 MHz without any requirement to trimming or part replacement thanks to innovate System Management Unit
- Provides full task system control and monitoring with user friendly GUIs (locally or remotely via a computer from anywhere in the world) thanks to its task oriented System Management Unit
- Proudly offers extreme robustness and low service costs due to innovate all in one system design

Company at a glance

Fara-Afrand was founded in 1999 as an independent, privately owned company. Fara-Afrand puts science to work by manufacturing robust, reliable and innovate solutions for on-air broadcasting systems. Concentrating more than 18 years on broadcasting transmitters, makes Fara-Afrand to a reliable supplier, offers a wide variety range of innovative products and services for markets including broadcasting systems, communication systems, telecom, ISM and electronic solutions. Up to day more than 2K transmitter blocks of the company has been launched at many broadcasting stations, playing Digital and Analog Radios and Televisions in whole broadcasting frequencies from few MHz up to 1GHz with a few watts of power up to ten kilowatts.

FAMPACFMTx Family

FAMPACFMTx is designed to meet low and medium power requirements of the market in Radio FM transmitters. Innovate and compact design of FAMPACFMTx, offers a small footprint and high power density with excellent energy efficiency, such that all in one Rdio FM transmitter up to 3000W is available within a 19 inch-4HU transmitter box. Thanks to Extremely Rugged 50 V LDMOS technology, FAMPACFMTx family prepares a robust, rugged and reliable solution for medium power FM transmitters with dramatically reduced size and cost of ownership and maintenance of the transmitter.

Solid State Power Amplifier

FAMPACFMTx family provides high quality, high efficiency, high power density and reliability, due to its innovate power amplifier. Based on the transmitter output power, different architectures of solid state power amplifiers, has been housed inside the transmitter box with appropriate built-in high efficiency power supplies and cooling fans. Thanks to its compact design and last generation Extremely Rugged 50 V RF LDMOS usage, up to 3000W RF power could be achieved in a maximally 4HU-19 inch transmitter box. Innovate and compact design of FAMPACFMTx family, makes it to an ideal choice for small space designs.

FAFME001 Exciter

FAMPACFMTx family has been powered by the best in class FAFME001 Exciter with excellent quality on-air performance. FAFME001 supports RDS and accepts both Analog and Digital Audio inputs. High quality RDS and Stereo Encoder has been realized inside the FAFME001.

Agile System Management Unit

FAMPACFMTx family uses an agile System Management Unit. Well done user friendly menus and GUIs make its control or monitoring very easy and powerful. Stand-Alone realization of the transmitter blocks such as power amplifier, exciter, cooling fans and etc., makes the System Management Unit very agile and powerful such that each transmitter block executes the System Control Unit instructions, without any overhead have been applied to it. Each transmitter block transmits its real time status to the System Management Unit and receives and executes its task and part oriented instructions via robust protocols like CAN. System Management Unit prepares full task control and monitoring of the transmitter and all of its blocks with all of their detailed parameters, via a 5 inch graphical display and associated keypad combined with user friendly menus and GUIs for local operation. In the remote mode, prepared system Ethernet port is playing the role to establish a bridge connection to the transmitter via a computer from anywhere in the world. Also a GSM modem and antenna could be configured inside the System Management Unit to establish a connection over the GSM network, for full task control and monitoring of the transmitter.

FAMPACFMTx Family E