

Brief Specifications

Transmission Mode	Solid State VHF Digital Audio 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 VHF 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					
Output Power Reduction	0 to -10dB					
Type of Modulation	DAB & DAB+					
External Inputs	1PPS and 10MHz Reference Frequency Input					
Crest Factor	13 dB Maximum					
MER	Better than 32 dB(typically 34dB)					
Shoulder and harmonics Level	Better than -37 dBc(typically -40 dBc) before transmitter mask filter					
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	FAMP-DAB Tx10	F FAMP-DAB Tx25	FAMP-DAB Tx50	FAMP-DAB Tx100	FAMP-DAB Tx200	FAMP-DAB Tx400
Digital Output Power	15 W	30 W	60 W	120 W	220 W	420 W
Number of Axial Cooling Fans	1					
Frequency Range	VHF Band III, 174 ~ 240 MHz (5A to 13F Channel)					
Channel Bandwidth	1.536 MHz					
Inputs	2 ETI Inputs, 2 EDI Gigabyte IP Inputs and a Satellite Input					
RF Output	N			7/16 DIN		
Efficiency	6%	10%	12.5%	19%	22%	23%
Power Consumption	250VA	300VA	500VA	650 VA	1KVA	2KVA
Dimensions(H x W x D)	2HUx19"x50cm			3HUx19"x50cm		

FARA AFRAND CO.

Address : No. 11, 8th Alley, Shahid Sabounchi Ave,
Shahid Beheshti St. Tehran, 15337, Iran

 (+98) 21 8874 3574-6

 (+98) 21 8874 3577

 info@fara-afbrand.com

 www.fara-afbrand.com



Air Cooled VHF DAB Transmitter

FAMP-DAB Tx Family

High Quality, Compact Footprint, All in One Transmitter

Key facts:

- Delivers up to 400W 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 amplifiers have been blended with built-in high efficiency power supplies
- Utilizes the latest generation of 50V RF LDMOS technology
- Incorporates best in class DAB/DAB+ Exciter providing excellent on-air Audio quality with real time Adaptive Pre Correction
- Fully broadband 174 to 240 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.

FAMP-DAB Tx Family

FAMP-DAB Tx family is designed to meet low and medium power requirements of the market in DAB/DAB+ Transmitters. Innovate and compact design of FAMP-DAB Tx family, offers a small footprint and ultra-high quality, such that all in one DAB/DAB+ transmitter up to 400W is available within a 19 inch-3HU transmitter box. Thanks to latest 50 V LDMOS technology, FAMP-DAB Tx family prepares a robust, rugged and reliable solution for medium power Digital Audio Broadcasting transmitters with dramatically reduced size and cost of ownership and maintenance of the transmitter.

Solid State Power Amplifier

FAMP-DAB Tx family provides high quality 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 high linearity 50 V RF LDMOS usage, up to 400W DAB/DAB+ RF power could be achieved in a maximally 2/3HU- 19 inch transmitter box. Innovate and compact design of FAMP-DAB Tx family, makes it to an ideal choice for small space designs.

FADG4C Exciter

FAMP-DAB Tx family has been powered by the best in class FADG4C Exciter with excellent quality on-air performance. FADG4C supports all DAB/DAB+ broadcasting standards with superior quality Linear and Nonlinear Adaptive Pre Correction core with both standard ETI and EDI inputs and a Satellite input dedicated to receive DVB-S/S2 BIS signal and to demodulate an ETI signal source.

Agile System Management Unit

FAMP-DAB Tx 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 System Management Unit. 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.

FAMP-DAB Tx Family Block Diagram

