

AlfaThai-FM1200B

(Full power 24/7 operate output 1250watt- FM Amplifier)

- Low input drive 0-10watt version
- Utilize 2 x700w PA (1400watt rf output)
- Wilkinson splitter/combiner for input/output amplifier
- Compact unit 2U and 6U Rack Mount
- Complete system 15U rack (optional)
- LDMOS Technology power design
- 2kW FM Band Harmonic filter
- Digital Power Meter
- Electronics Alarms and fault monitoring
- DIN Type remote control
- External MPX capable for RDS
- Switchable/Manual settings
- RF power control
- VSWR and overdrive protection.
- CCIR/FCC/UL test standards.



AlfaThai FM10E FM Exciter



AlfaThai FM1200B FM Amplifier

The AlfaThai FM1200B is utilize FM broadband 2x700 watt rf amplifier module specification. Design for FM broadcast radio station education and commercial applicable that is ideally suited for medium power radio stations or upgrade from low power to public radio broadcast station. The FM amplifier provides rf output power adjustable from 0-1400 watts with rf power amplifier over-driven and antenna fault monitor protection to prevent your FM power amplifier any fault during operation. Ensure your system provide full power all time 24/7 operation purpose and more reliable as any environment... The system is design for broadband high rf gain and low power consumption while provides your rf power output adjustable from front panel zero to max output power.

The AlfaThai FM1200B provides digital meter display on the front panel can indicate rf output power and swr is standard model while the power amplifier dc voltage, dc current, internal temperature, incoming rf driver power and swr, aux voltage status all an optional, please added your requirement as place order. The amplifier has LED indicator to all fault alarm status monitor

The Rear panel contains UHF type SO-239 accept your rf power from the exciter while N-Type is deploy for output to the antenna. The amplifier has utilize smart directional couple to detect your vswr from the antenna, the result provides faster response to prevent your rf power amplifier from flash lightning, any accident from antenna connector, transmission line fault, intermittence connection between cable and antenna element, no-antenna connection and more... the system will be force shunt down rf power amplifier to prevent any high cost impact to your broadcast station while your audio program still broadcast without any interruption until the problem has solve and all alarm status is correct by depressing the front panel reset switches.

The amplifier provides full rf output power with excellent harmonics and spurious better than -60dBc full FM band specification. Ensure your FM radio broadcast station met high standard, low power consumption and more reliable 24/7 operation cost. All AlfaThai rf power amplifier utilize LDMOS technology to provides high rf gain with low power consumption through 9 section low pass filter and smart directional couple to prevent your final amplifier from any rf output accident from rise temperature and the antenna fault or high vswr condition.

The power to the amplifier is turned back into the safety zone should a fault occur, keeping you on air rather than shutting down completely and taking you off air. Internal harmonic filtering keeps your RF signal clean and compliant to FCC/DTR and CCIR standards. The transmitter contains fully approved efficient switched mode power supply modules with a universal input voltage range from 115-260 Volts AC selectable by switches, Ensuring compatibility of any mains system WORLD-WIDE.

The AlfaThai fm and tv transmitter is an attractive all in one broadcast solution for small scale stations. Because the exciter, amplifier, power supply, stereo encoder and limiter are all in one case the price is less than half that of other comparable systems. Designed for the small scale broadcaster and at a small scale price.

Alfa Multimedia Limited Partnership. www.alfathai.com

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General Specifications

RF POWER AMPLIFIER MODULE	
RF from Exciter Drive	0-10watt
RF Power from RF power	0-1250watt Typical operation (0-1400Watt max)
Electronics device	RF Power LDMOS technology with Low Pass Filter and smart VSWR monitor
Connector	UHF-Type 50 Ohm SO-239 for input while N-Type for RF antenna connector
2 nd Harmonics	Better than -60 dBc FCC and CCIR Standard
Spurious	Better than -80 dBc FCC and CCIR Standard
VSWR protection	Automatic Fold back above 1.5:1 force off-air and manual release by reset switch
Input Impedance	50 Ohm
Output Impedance	50 Ohm
Frequency Band	Broadband FM 87.5 - 108 MHz
Input Connector	UHF SO-239 or N Type
Output Connector	N Type or 7/16
Remote Control Interface	DIN or DB9 Type
Operating Temp	- 10 to +50 Degree C
Relative Air Humidity	90% @ 25 Degree C no condensation
Force Over temperature	40.4 Degree C force off-air
Max Altitude	2000 m a. s. l
Max power consumption	220V ac. @ 11.4A max. 1000watt rf output
Max power consumption	220V ac. @ 14.8A max. 1200watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 52.8A max. 1000watt rf output
DC Power Supply	Switches mode 48 Volt +/- 5% @ 66.48A max. 1200watt rf output
ELECTRONICS PROTECTION SECTION	
RF Output Protection	Antenna: Open, Short, Cut, Intermittance, high VSWR, Over spec drive.
RF Input Protection	Over drive, surge from exciter
Electrical Protection	Over Voltage, Over Current, Over Temperature
Mechanical Protection	Solid state relay and drive relay for PA power supply
RF Detection	Smart RF Direct coupling technology with impedance monitoring
Control system	Measuring detector On and Off latch output state
RF Protection	9 Section Low Pass Filter
EMI/RFI Protection	AC line Filter and Ground terminal
OTHER	
Front Panel Control System	2-8 Buttons for protection and meter, digital meter, On/Off-Air switches
Cooling	4 Depression DC Fan with fuse protection
External Control/Monitor	9 Way DIN or D-Type (option)
Metering	Digital Meter for RF power/SWR monitor
Front Panel standard indicator	Power On, Antenna Fault, rf amplifier vcc power, On-Air, Over drive
Real Panel Control System	AC input, Power On-Off, Reset Breaker (option), ac/dc Fuse break
Real Panel Connector	7/16 and UHF-SO239 or N Type, Ground Connector, DB25 type for remote

FM 1200Watt Exciter and Amplifier Specification

Final Lab Test to Comply all country Regulation Requirement	Final test and comply to all your regulation requirement, QC by our Lab test equipment consists of: Tektronix 492 (100KHz-330GHz) Spectrum Analyzer, HP8590A + HP8443A + HP85029A + HP54503A +HP435B Broadcast Test Set and Analyzer, Racal 1992 10Hz – 1.2GHz frequency counter, Rohde & Schwarz Broadcast Audio Generator 1Hz-600KHz etc!!!!
Manufacture Certificate	We offering QC test data enclosed our product for all regulation reference.
Size	Standard 19 Inc Rack, 15U type (complete system Exciter, power amp, powersupply)
Weight (approx)	upon model
AC Voltage Input	110 or 260 VAC switchable
Power Connector	IEC, FUSED and Switchable
Switched Mode Supplies Approvals	UL/TUV/CE
Warrantee Period	24 Month after payment
Warrantee voided	No authorize is opened equipment cover or repairs or modification.
Warrantee condition	Normal Operated only, Two times System Alignment at our facility, For on-site services: First installation is free and next times will be transport charge only, Due to switching power is used internal equipment, User must be provide electrical stabilizer and good electrical ground with lightning protection for normal operated.
Repair Fee	All warrantee No services fee of charge, On-Site service transportation charge, for A damage of RF parts and power supply is spare parts charge plus 30% off. Other parts are free of charge.
After warrantee voided	All services offer year to year maintenance contract.
General services fee	All parts for repair is 20% off, Our facility Service charge 50USD flat rate/times



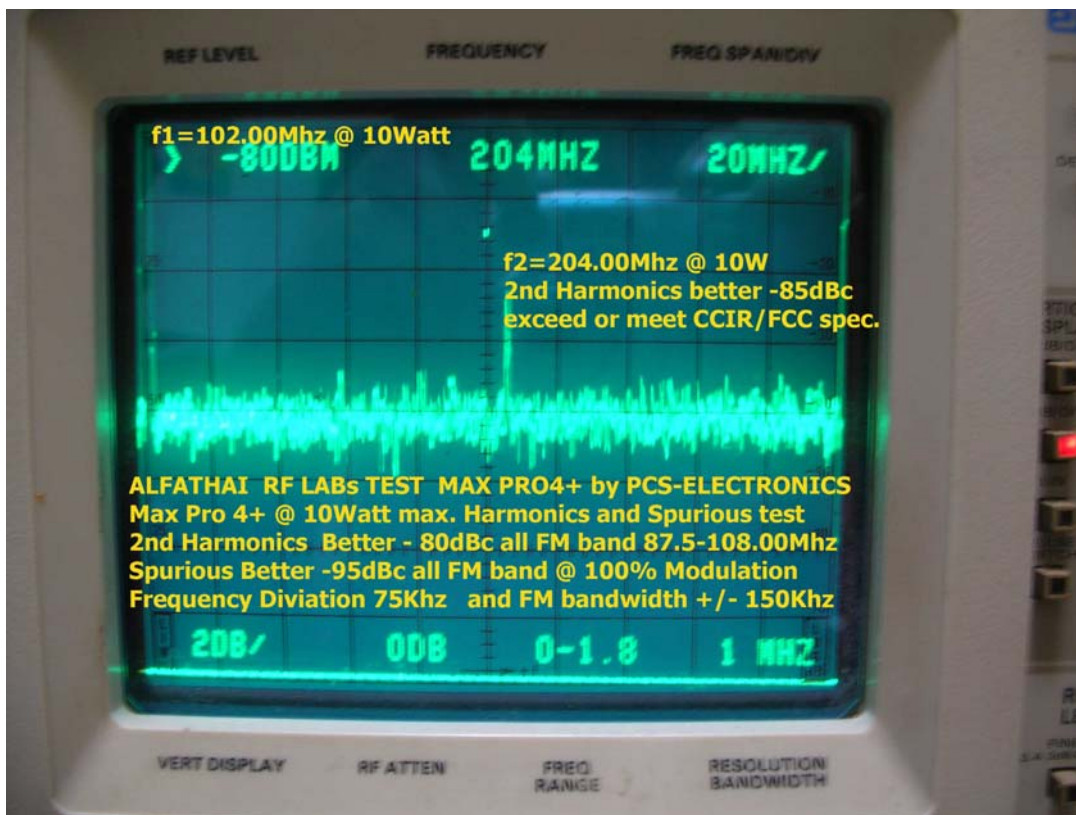
2nd Harmonics Test @ 1500Watt better -60dBc

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FM Exciter 10Watt Harmonics/Spurious Test



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15-27U RACK MOUNT EQUIPMENT LEVEL



Compressor/Equalizer



Exciter 10Watt



700Watt RF Power Amplifier **A**



Power Meter/Combiner/Splitter



700Watt RF Power Amplifier **B**



Power Supply

**ALL ABOVE IS SAMPLE FOR COMPLETE 15-32U
RACK MOUNT AND MAY BE CHAGE WITHOUT
NOTE**

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ALFATHAI 1500W TRANSMITTER PLAN



Antenna 3.2dBi Gain



Compressor/Limiter



Exciter



On-Air Power Amplifier A



Stand-By Power Amplifier B



Power Supply



AC Line Stabilizer

THE CONFIGURATION SYSTEM MAY BE CHANGE WITHOUT NOTE UPON YOUR BUDGETS

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