

AC7000-A040UX1NA

Features

- Design For Digital TV
- LDMOS Power Amplifier
- Broadband (470 - 860MHz)
- Output RF Power 5 - 10Watts
- Ultra-linear Design
- RS232/RS485 Interface
- OMT Software
- Squelch Function
- Plug and Play



RF Performance

Operating Frequency Range	470-860MHz
Input/Output Impedance	50Ω
Input Signal Range	-10 to 0dBm
P1dB	>50W typic >80W
P_{out} DVB-T	37dBm to 40dBm step 0.1dB
Shoulder(Without Precorrection)	>36dB@5W >34dB@10W
Output Power Stability	±0.2dB from 470MHz to 860MHz
Squelch Switch ON/OFF Threshold	-10dBm<ON<0dBm
Input Return Loss	>18dB
Output Return Loss	>22dB
Monitoring Signal Intensity	Pout(dBm)-34dB/±0.5dB

Electrical Requirements

Power Supply	100-120V AC/200-240V AC Auto-sensing 50/60Hz
Power Consumption	150W @ 10W RF Output

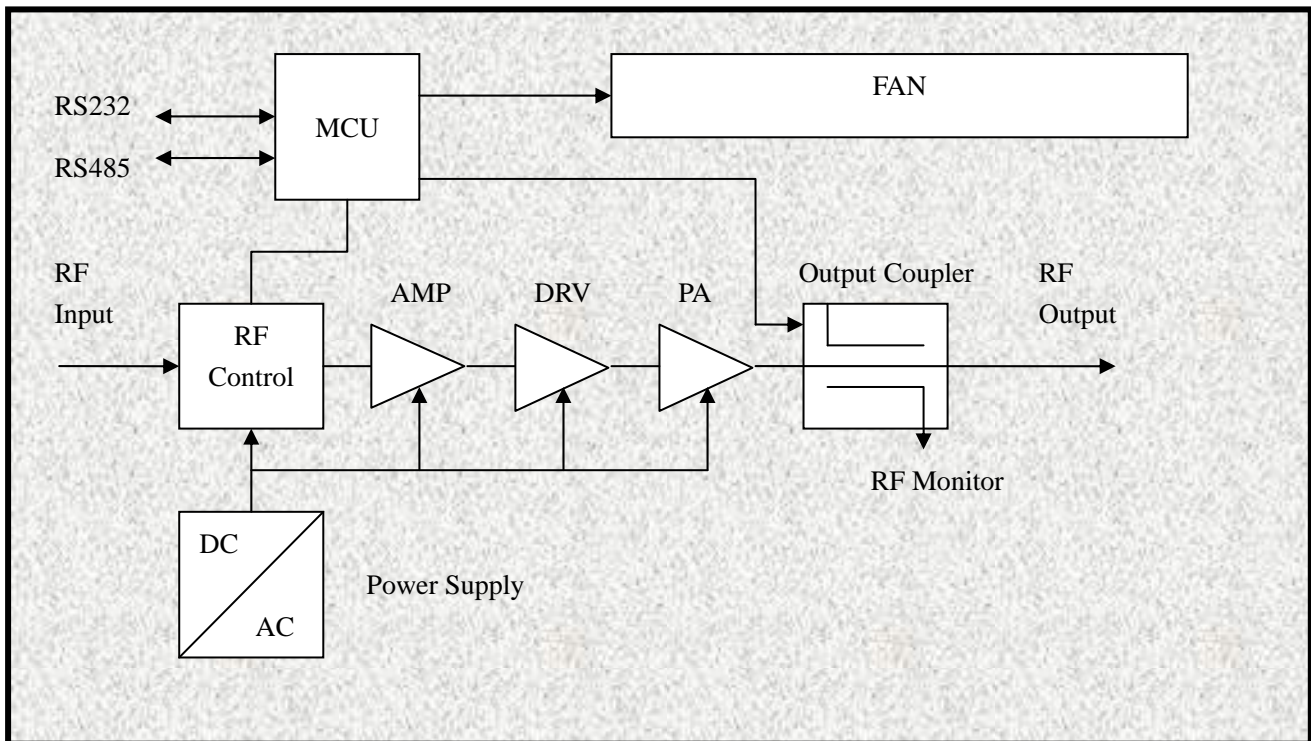
Environmental

Operating Temperature	0 to +45°C
Storage Temperature	-25 to 70°C
Humidity	Up to 90% (Non condensing)
Cooling	Fan Cooling

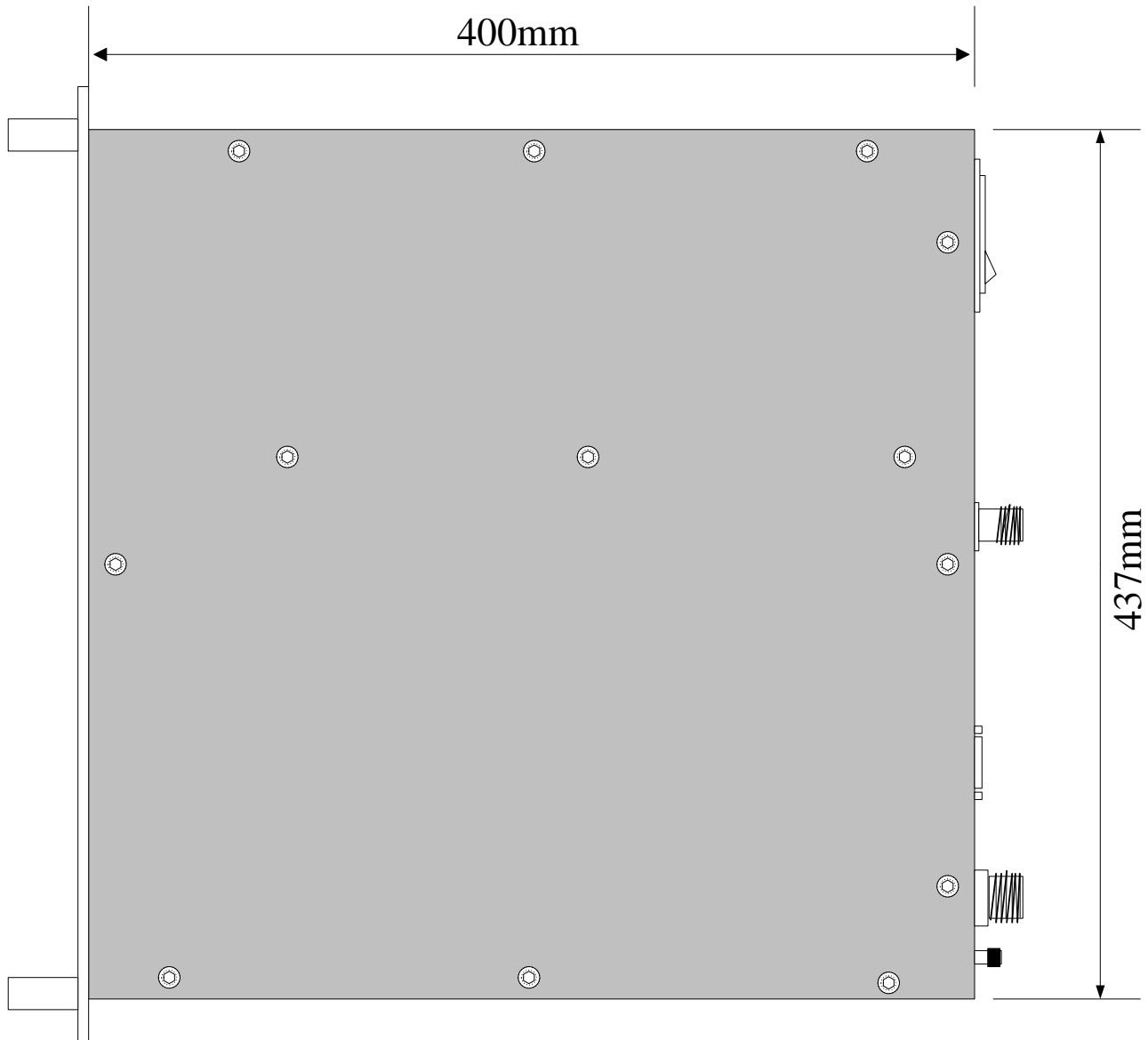
Mechanical data and Interfaces

Dimensions	19" 2HU std 400mm depth
Weight	13Kg
Mean Power	Real panel
RF Input	N connector rear panel
RF Output	N connector rear panel
RF Monitor	SMA connector rear panel
RS232	DB9 connector front and rear panel
RS485	RJ45 (2 parallel) rear panel
USB	Front panel
Local Enable/Disable	Switch front panel Two-pole connector rear panel

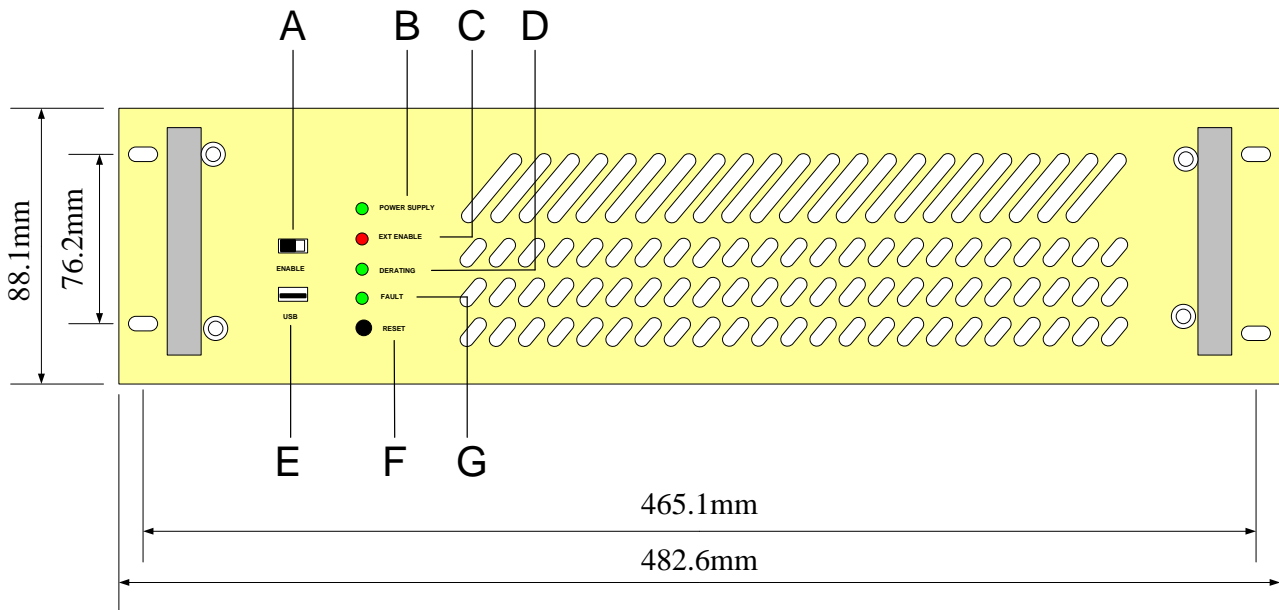
Block Diagram



Top View

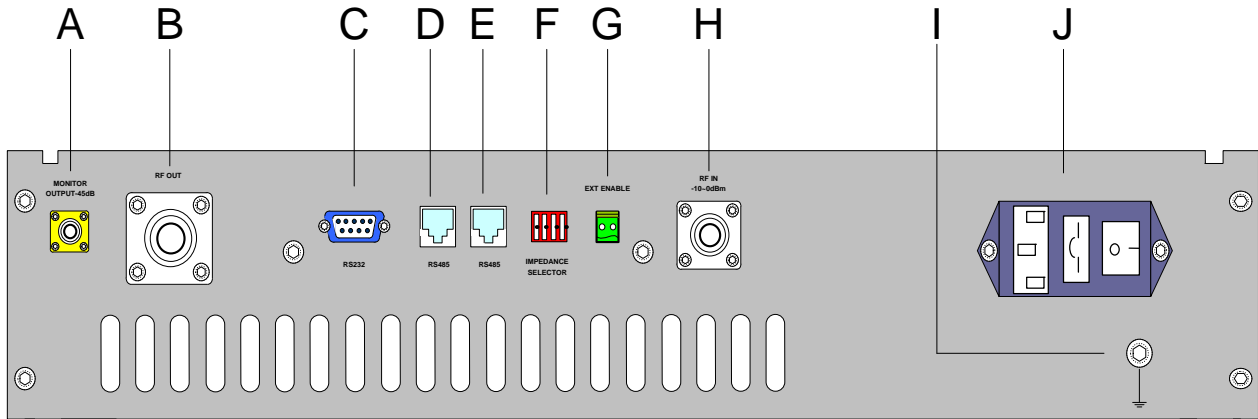


Front Panel



	Interface	Description
A	Enable Switch	Switch at the left side, it means Disable; Switch at the right side, it means Enable. The default status is Disable.
B	LED Power Supply	If LED is green, it means power supply is OK; If LED is off, there is power supply failure.
C	LED Ext Enable	If LED is on, it means Enable; If off, it means disable.
D	LED Derating	Output power is too low, though PA still works
E	USB	Serial interface USB
F	Reset	To reset PA
G	LED Fault	Serious problems with PA

Rear Panel



	Interface	Description									
A	RF Monitor	The calculation is as follows: $P_{out} - 45dB = \text{RF Monitor } P_{out}$									
B	RF Out	RF Output									
C	RS232	Serial interface RS232									
D	RS485	Serial interface RS485									
E	RS485	Serial interface RS485									
F	Impedance selector	This interface is used to select the proper impedance. There are altogether 4 switches each marked with a number. If the switch is put up, it means ON; if down, it means OFF. PA offers 3 options in impedance selection: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>1</td> <td>OFF OFF OFF OFF</td> <td>Default</td> </tr> <tr> <td>2</td> <td>ON OFF ON OFF</td> <td>470 R</td> </tr> <tr> <td>3</td> <td>OFF ON OFF ON</td> <td>120 R</td> </tr> </table>	1	OFF OFF OFF OFF	Default	2	ON OFF ON OFF	470 R	3	OFF ON OFF ON	120 R
1	OFF OFF OFF OFF	Default									
2	ON OFF ON OFF	470 R									
3	OFF ON OFF ON	120 R									
G	EXT Enable	If Enable Switch (in the front panel) is off: EXT Enable does not work; If Enable Switch is on: PA works with EXT Enable connected; PA automatically power off if EXT Enable is disconnected.									
H	RF In	RF input									
I	Ground	Ground connection									
J	AC Input	AC									

