



VA500-R

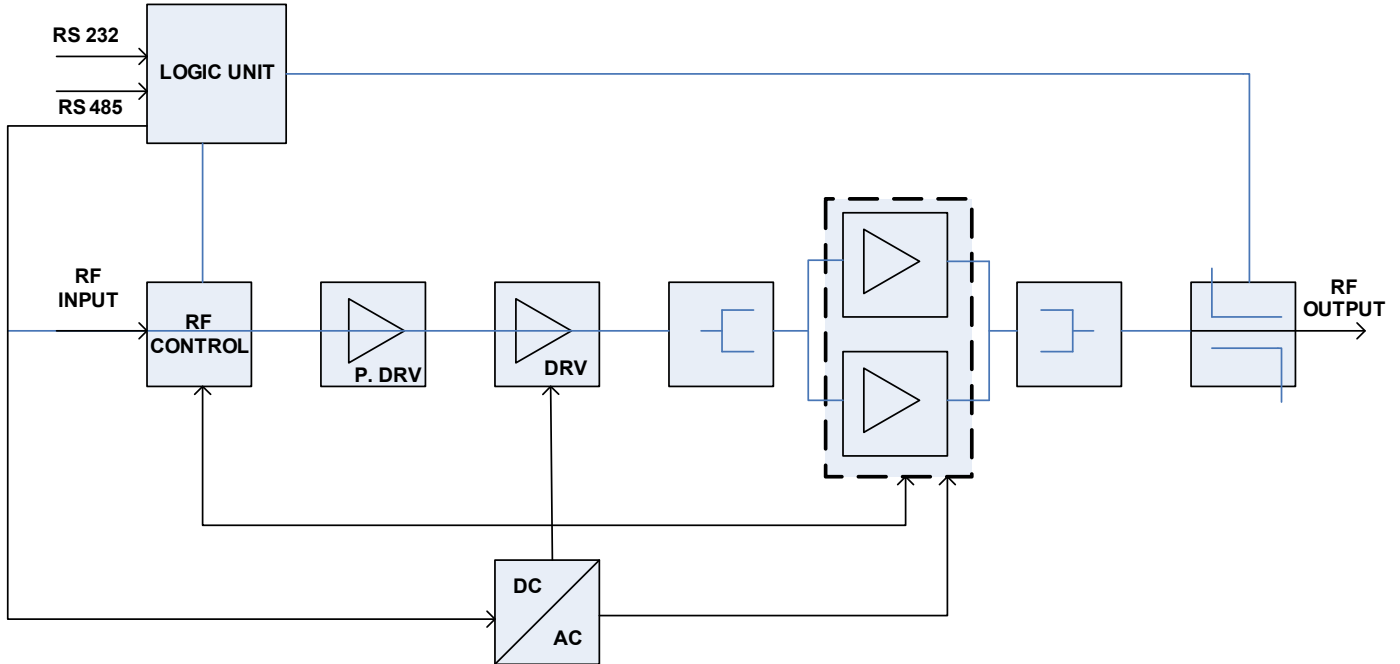
250Wrms DAB/500W P-Sync VHF TV Amplifier

VA500-R amplifier embodies LD-MOS and TETRAFET technologies and is designed for both digital and analog applications. The unit is the state of the art in terms of easy assembly, reliability and performances. The complete unit can assure the compliance to all relevant international standards.

- 500Wps Out
- 250Wrms Out DAB
- BroadBand (170-230 MHz)
- Designed for OEM SKD sales
- Internal cabling free
- Easy maintenance without special tools
- RS232-RS485 interface
- Control software included
- Extremely strong mechanical structure



BLOCK DIAGRAM





VA500-R

ELECTRICAL DATA

Voltage Supply	220Vac +15% -20% nominal 100-240Vac 50-60Hz for Pout up to 250Wrms 176-240Vac 50-60Hz for Pout over 250Wrms
Power Consumption	1300W @500W Ps Black Field @200MHz (typ.) 1000W @250Wrms DAB@ 200MHz (typ.)
Current Consumption	7.5 A max @ 220 V PF > 0.97 analog application
Operating Temperature	0 to +45 °C
Humidity	Up to 90% (non condensing)
Gain Stability	10 to 45 deg. +/-0.5dB[1]
Gain	56dB ±2dB nominal
Power Out (@1dB compression)	Min. 700W (Typ. 800W)
Input Return Loss	Min. -16dB (Typ. -20dB)
Output Return Loss	Min. -18dB (Typ. -22dB)
Load Mismatch (CW 500W F ₀ 230MHz VSWR=2:1) all phase angle	No degradation
P_{out} Common Ampl.	500W Ps IMD < -45dB Red Field Sound 1 -13dB; Sound 2 -20dB (without pre correction)
P_{out} Separate Ampl.	700W sink compression < 1dB
P_{out} DAB	250Wrms shoulder < -28dBc (without pre correction)
P_{out} DVB-T	150W DVB-T shoulder < -30dBc (without pre correction)
P_{out} PEP	800W IMD < -27 dBc

MECHANICAL DATA AND INTERFACES

Dimensions	19" 3HU std 600mm depth[1]
Weight	21 Kg.
RF in	N connector rear panel
RF out	7/16" connector rear panel
RF mon	SMA connector rear panel
RS232	D 9 poles front and rear panel
RS485	D 9 poles rear panel
Local Enable	Switch front panel Two-pole connector rear panel

REMOTE CONTROL

Enable	RF Enable ON/Stand By
GAIN (option)	Gain setting

¹ WARM UP:

To achieve the stability vs temperature correct value when the equipment is cold, please wait 30 minutes at least after switching on.

² See pag. 4



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READABLE DATA BY REMOTE COMPUTER OR CONTROL LOGIC UNIT (THROUGH RS232/RS485)

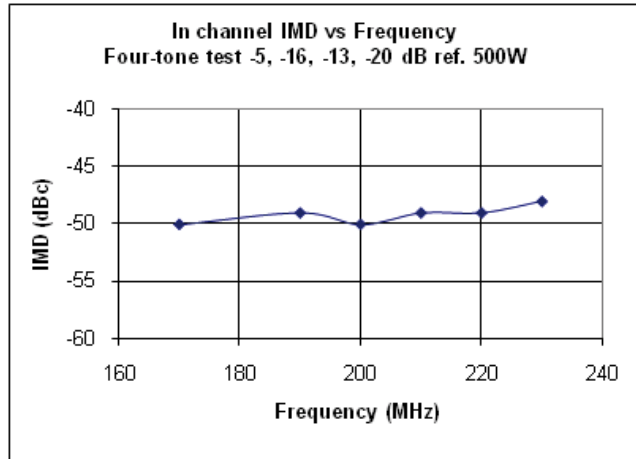
STATUS/ALARMS	NOTES
Enable	ON/STAND BY
RF Faults	ACTIVE if Gain < 6dB referred to nominal
PS Faults	ACTIVE if PS voltage absent
°C max	ACTIVE when RF Thermal Protection is ON
Pin max	ACTIVE when RF Overdrive Protection is ON
VSWR max	ACTIVE if VSWR max Protection is ON
I max	ACTIVE when Current is too high
MEASUREMENTS	
RF in	Input Power in mW (PS for analog, RMS for DAB)
RF out	Output Power in W (PS for analog, RMS for DAB)
RF DRV	RF Driver Output in W (PS for analog, RMS for DAB)
RF Heatsink Temperature	Temperature in °C
IDC Driver	Value in A
IDC Final Stage 1	Value in A
IDC Final Stage 2	Value in A
VDC	PS Output Voltage

SELF PROTECTIONS

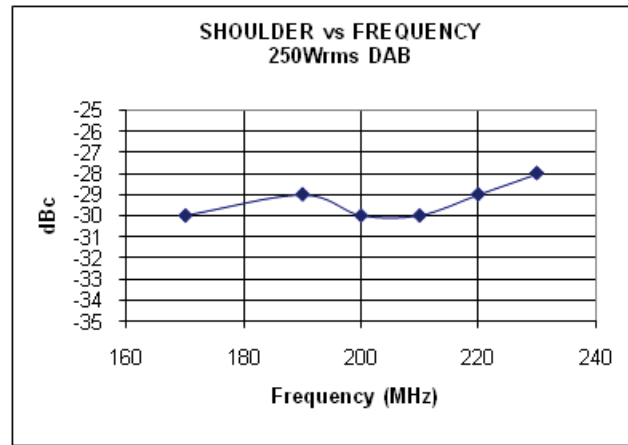
RF Thermal Protection	
Overdrive	Pin max must be set on the working channel with the used DAB or Analog signal
VSWR max	VSWR max must be set on the working channel with the used DAB or Analog signal
I max	



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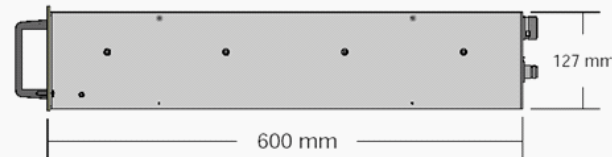


Without pre correction

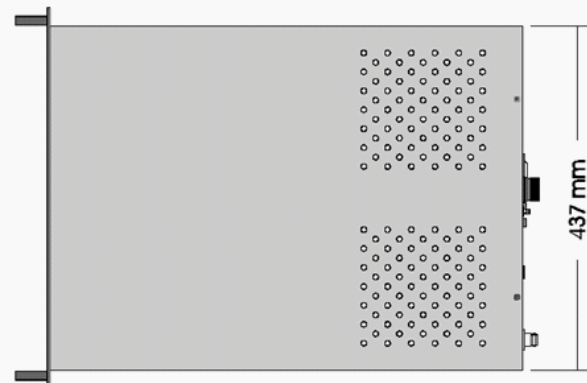


Without pre correction

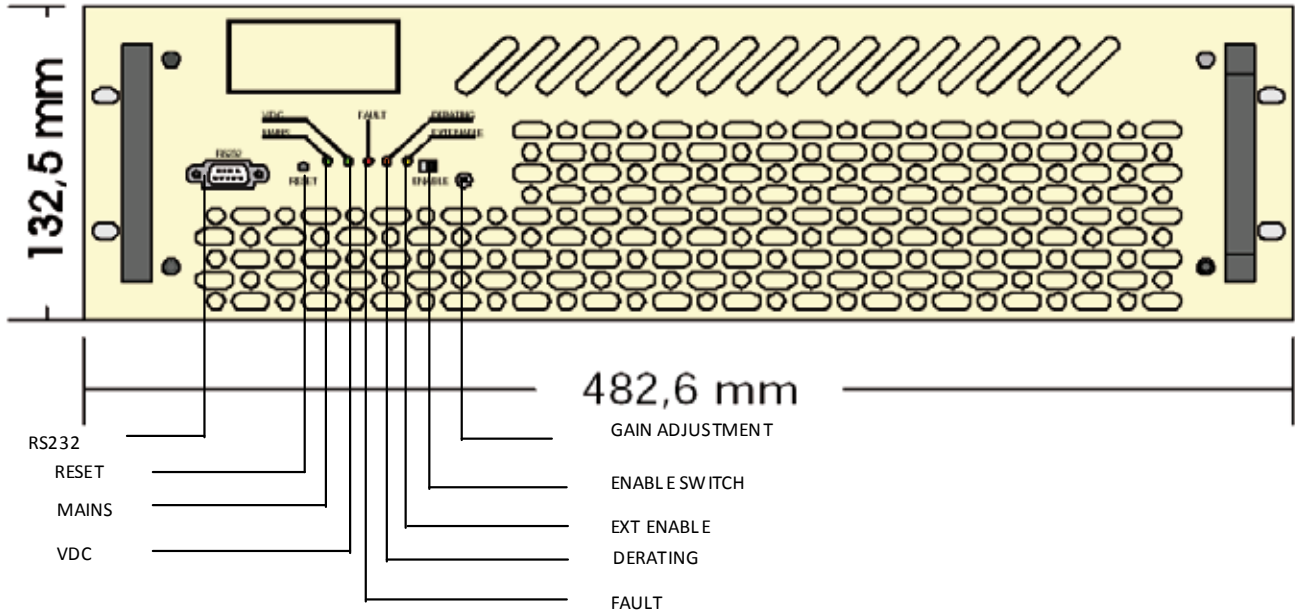
Side View



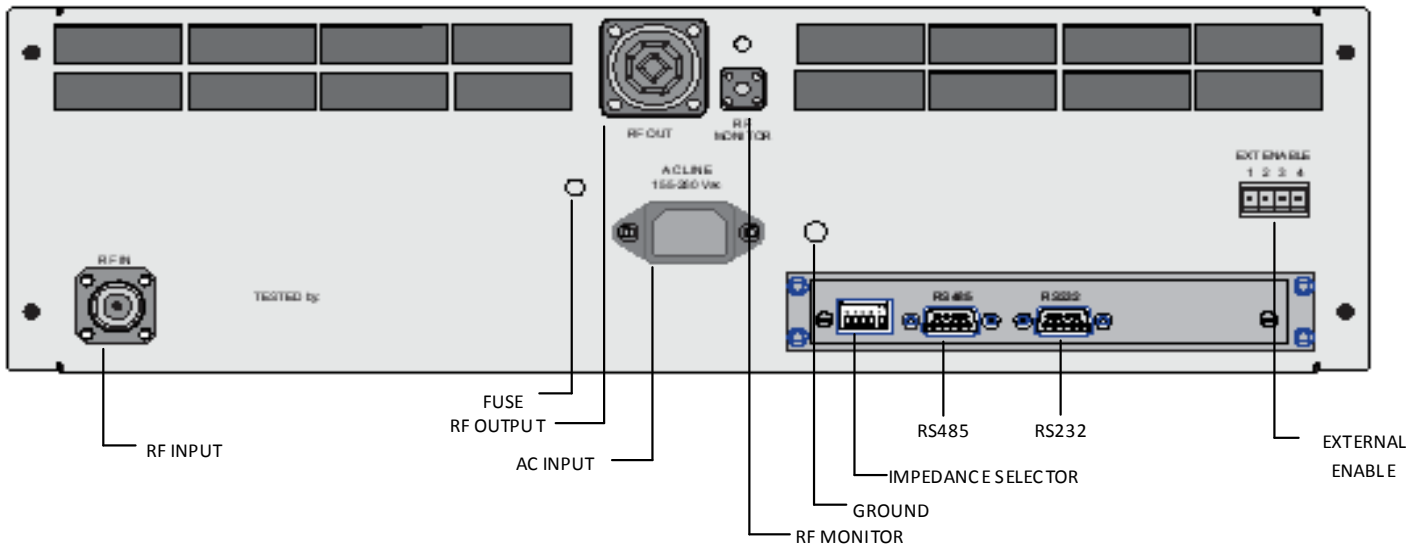
Top View



Front Panel



Rear Panel





VA500-R

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