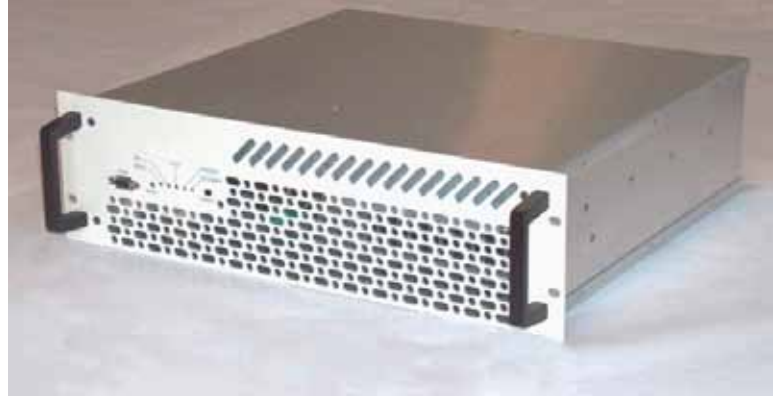




# UA70-R

## 10Wrms DVB-T/20W ps UHF Amplifier

UA70-R is a full LD-MOS Broadcast Power Amplifier 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.



- Full LD-MOS Power Amplifier
- 20Wps Out
- 10Wrms Out DVB-T
- DTV (8 VSB): 20Wrms
- BroadBand (470-862 MHz)
- Designed for SKD sales
- Internal cabling free
- Easy maintenance without special tools
- RS232-RS485 interface
- Control software included
- Extremely strong mechanical structure

This picture is a mere example, it does not bind the provided product

### Electrical Data

<b>Voltage Supply</b>	88 to 240Vac
<b>Power Consumption</b>	180W @20W Ps Black Field @650MHz (typ.) 180W @10Wrms DVB-T @650MHz (typ.)
<b>Current Consumption</b>	1 A max @ 220 V digital application
<b>Operating Temperature</b>	0 to +45 °C
<b>Humidity</b>	Up to 90% (non condensing)
<b>Gain Stability</b>	0 to 45 deg. +/-0.5dB <sup>1</sup>
<b>Gain</b>	61dB nom. ±2dB (fine ADJ available)
<b>Power Out (@1dB compression)</b>	Min. 50W (Typ. 70W)
<b>Input Return Loss</b>	Min. -16dB (Typ. -20dB)
<b>Output Return Loss</b>	Min. -16dB (Typ. -20dB)
<b>Load Mismatch (CW 30W F<sub>0</sub> 860MHz VSWR=2:1)</b>	No degradation
<b>P<sub>out</sub> Common Amplif.</b>	20W Ps IMD < -47dB Red Field (without pre correction)
<b>P<sub>out</sub> DVB-T</b>	10Wrms shoulder < -36dBc (with pre correction)
<b>DTV (8 VSB)</b>	20Wrms
<b>P<sub>out</sub> PEP</b>	50W IMD < -27 dBc

### Mechanical data and Interfaces

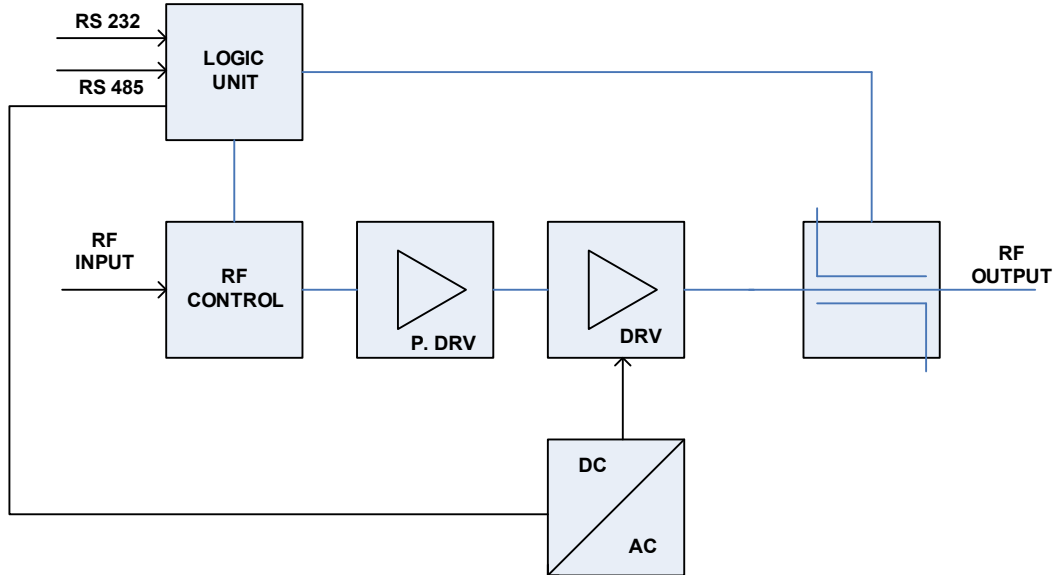
<b>Dimensions</b>	19" 3HU std 400mm depth <sup>2</sup>
<b>Weight</b>	12 Kg.
<b>RF in</b>	N connector rear panel
<b>RF out</b>	N connector rear panel
<b>RF mon</b>	SMA connector rear panel
<b>RS232</b>	D 9 poles front and rear panel
<b>RS485</b>	D 9 poles rear panel
<b>Local Enable</b>	Switch front panel Two-pole connector rear panel

<sup>1</sup> WARM UP:

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

<sup>2</sup> See pag. 4

Block Diagram



### Remote control

Enable <sup>1</sup>	RF Enable ON/Stand By
GAIN (option)	Gain setting

### 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
°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 DVBT)
RF out	Output Power in W (PS for analog, RMS for DVBT)
RF DRV	RF Driver Output in W (PS for analog, RMS for DVBT)
RF Heatsink Temperature	Temperature in °C
IDC Driver	Value in A
IDC Final Stage	Value in A
VDC	PS Output Voltage

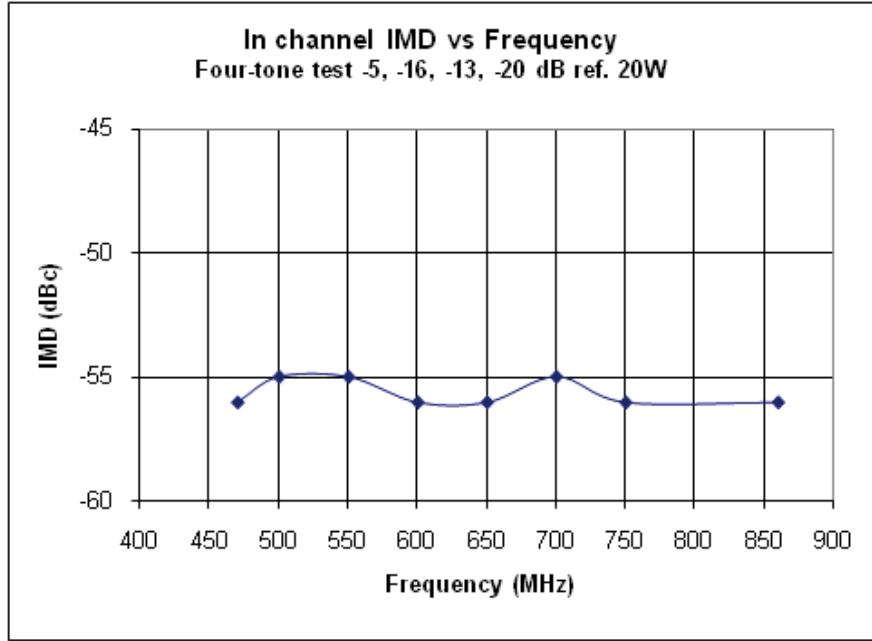
### Self Protections

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

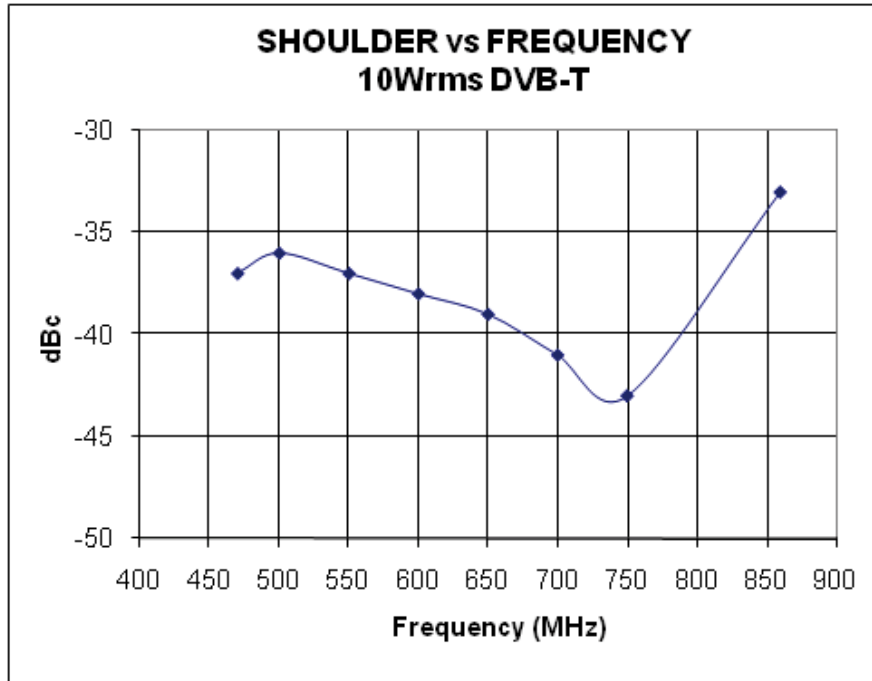
<sup>3</sup> An output on the rear panel can manage the external Power Supply ON/OFF. The external PS will be switched OFF in case of alarm.



# UA70-R



Without pre correction



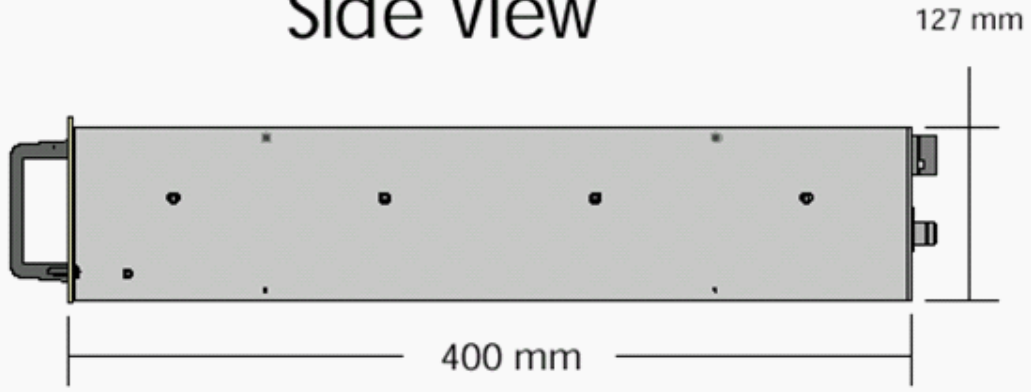
Without pre correction

**Note:** By the use of UBS DVB-T Modulator Mod. PT8750 + PT8731 option, and the proper pre correction, the UA70-R is able to deliver 30Wrms at better than  $-36$ dBc shoulders on all the band.



UA70-R

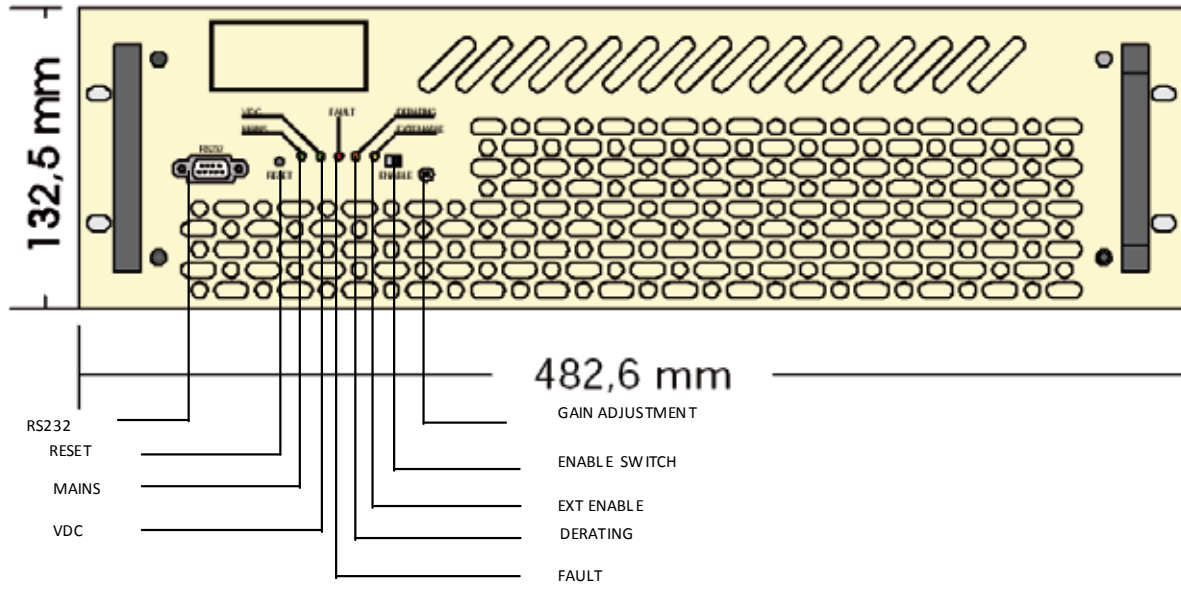
Side View



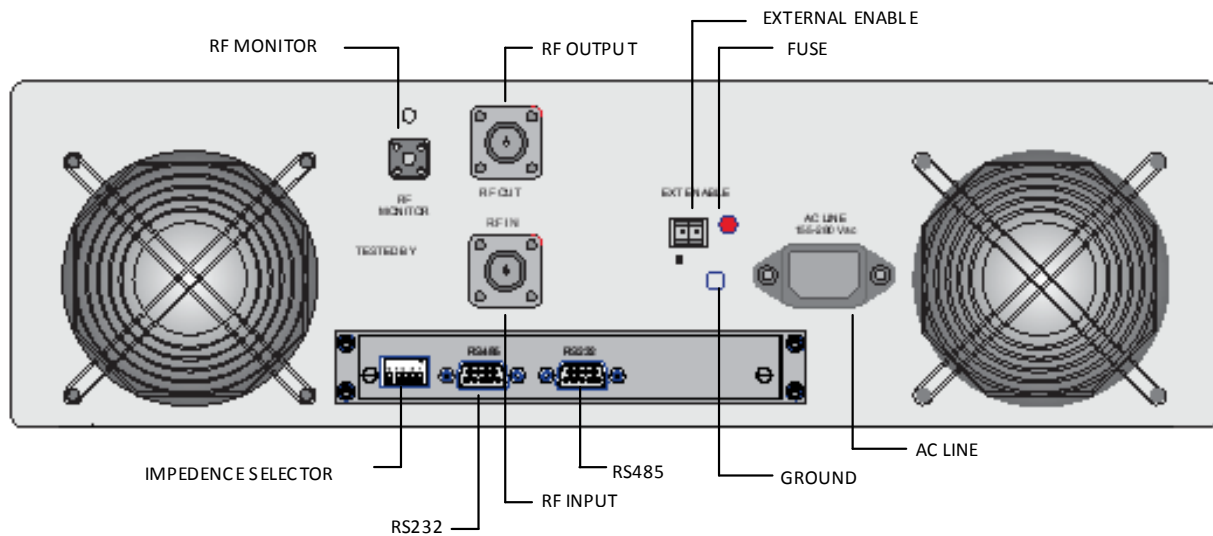
Top View



## Front Panel



## Rear Panel





## UA70-R

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