

120Wrms DAB L-band Amplifier

AL100-D is a full LD-MOS Broadcast Power Amplifier designed for digital 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
- 350W CW Out
- 120Wrms Out DAB
- Working Band (1450-1500 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

Voltage Supply	220Vac +15% -20% nominal 100-240Vac 50-60Hz for Pout up to 90Wrms 176-240Vac 50-60Hz for Pout over 120Wrms
Power Consumption	900W @120Wrms DAB @ 1475 MHz (typ.)
Current Consumption	5,5 A max @ 220 V PF > 0.97 digital application
Operating Temperature	0 to +45 °C
Humidity	Up to 90% (non condensing)
Gain Stability	0 to 45 deg. +/-0.5dB ¹
Gain	53dB nom. ±2dB (fine ADJ available)
Power Out (@1dB compression)	Min. 300W (Typ. 350W)
Input Return Loss	Min. -16dB (Typ. -20dB)
Output Return Loss	Min. -18dB (Typ. -22dB)
Load Mismatch (CW 380W F₀ 1500MHz VSWR=2:1) all phase angle	No degradation
P_{out} DAB	120 Wrms <-28dBc (without precorrection)
P_{out} PEP	500W IMD < -28 dBc

Mechanical data and Interfaces

Dimensions	19" 3HU std 600mm depth ²
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

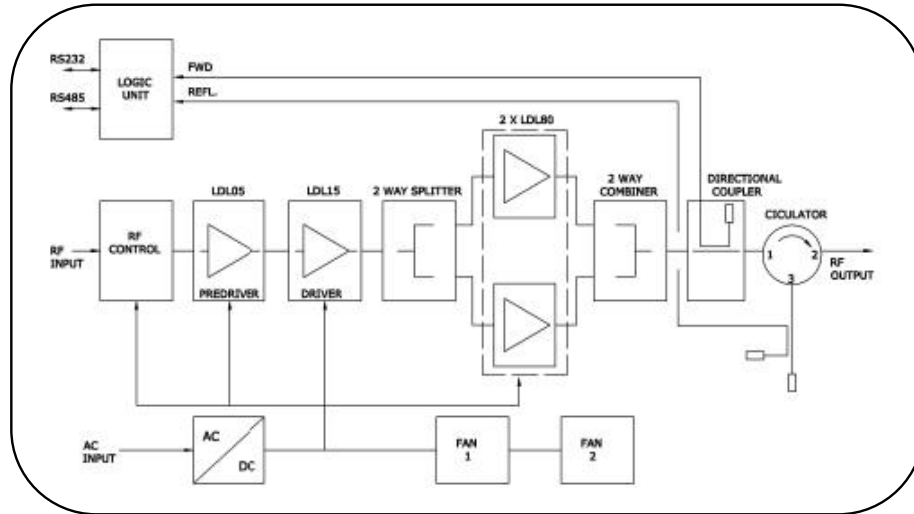
¹ WARM UP:

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. 3

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Block Diagram



Remote control

Enable ³	RF Enable ON/Stand By
GAIN (option)	Gain setting

Readable data by remote computer or Control Logic Unit (through RS232/RS485)

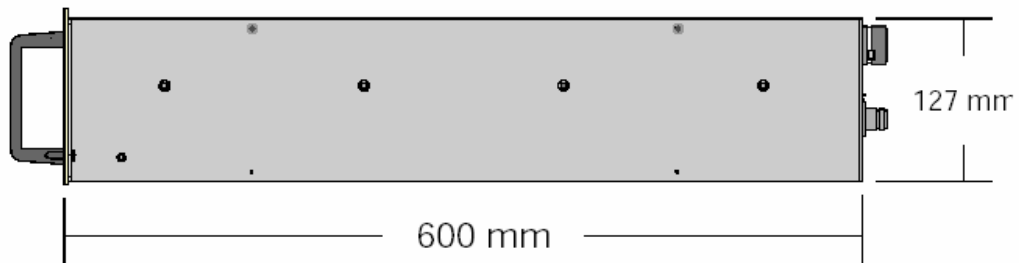
STATUS/ALARMS	NOTES
Enable	ON/STAND BY
RF Faults	ACTIVE if Gain < 6dB referred to nominal
PS Faults	ACTIVE if PS voltage absent
°C max	ACTIVE when RF Thermal Protection is ON
Pin max	ACTIVE when RF Overdrive Protection is ON
VSWR max	ACTIVE if VSWR max Protection is ON
I max	ACTIVE when Current is too high
MEASUREMENTS	
RF in	Input Power in mW rms for DAB signal
RF out	Output Power in W rms for DAB signal
RF DRV	RF Driver Output in W rms for DAB signal
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

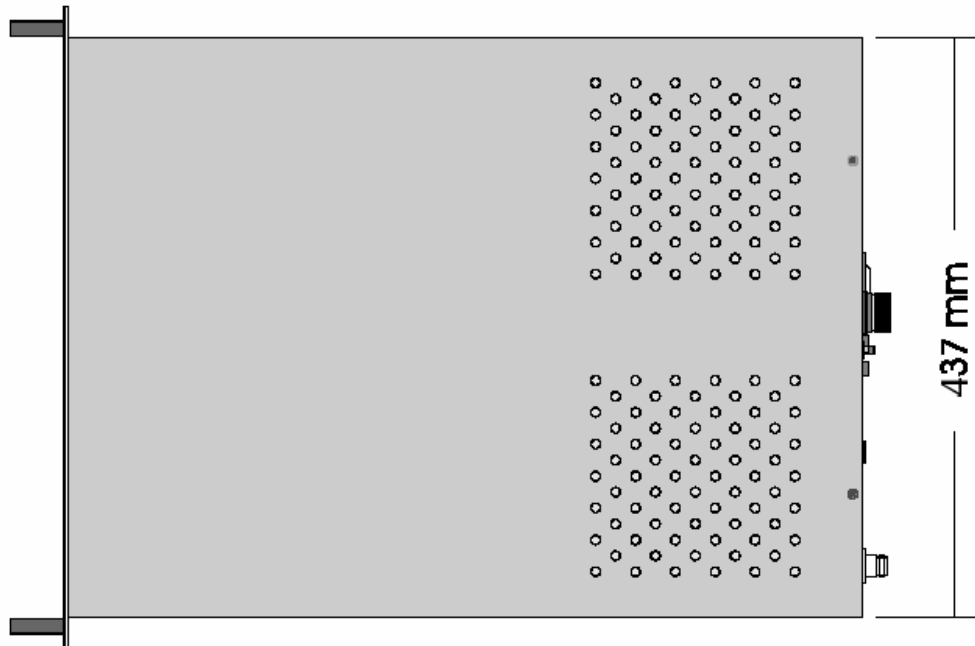
RF Thermal Protection	
Overdrive	Pin max must be set on the working channel with the used DAB L-band signal
VSWR max	VSWR max must be set on the working channel with the used DAB L-band signal
I max	

³ 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. Contact Res-Ingenium, +39 0763 316333 Fax +39 0763316002- or visit www.res-ingenium.com for a complete listing.

Side View

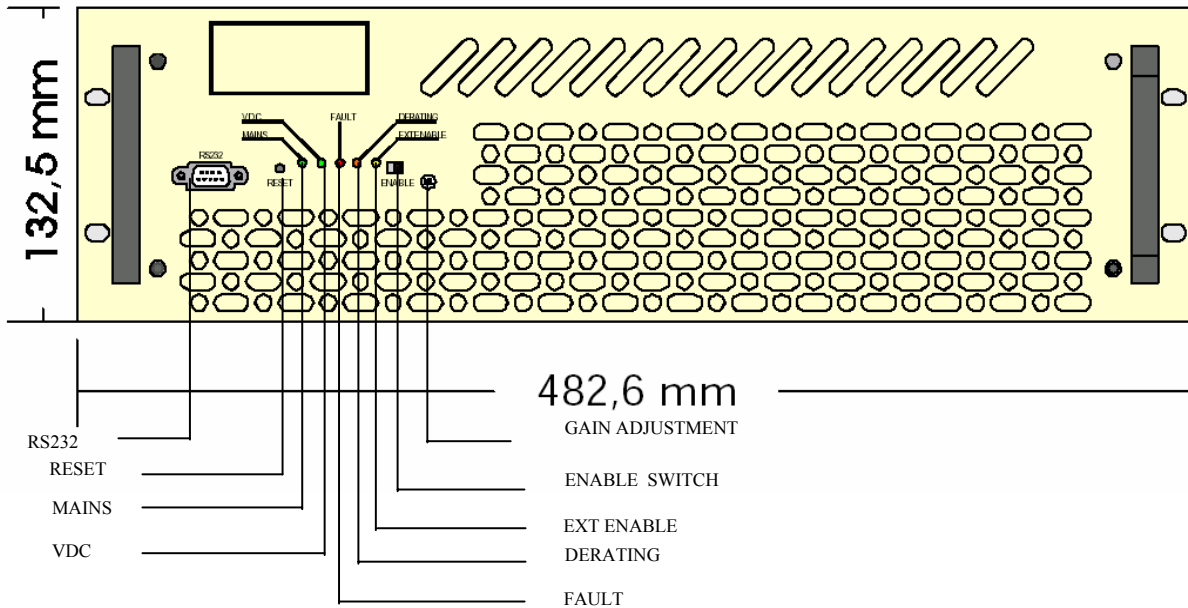


Top View

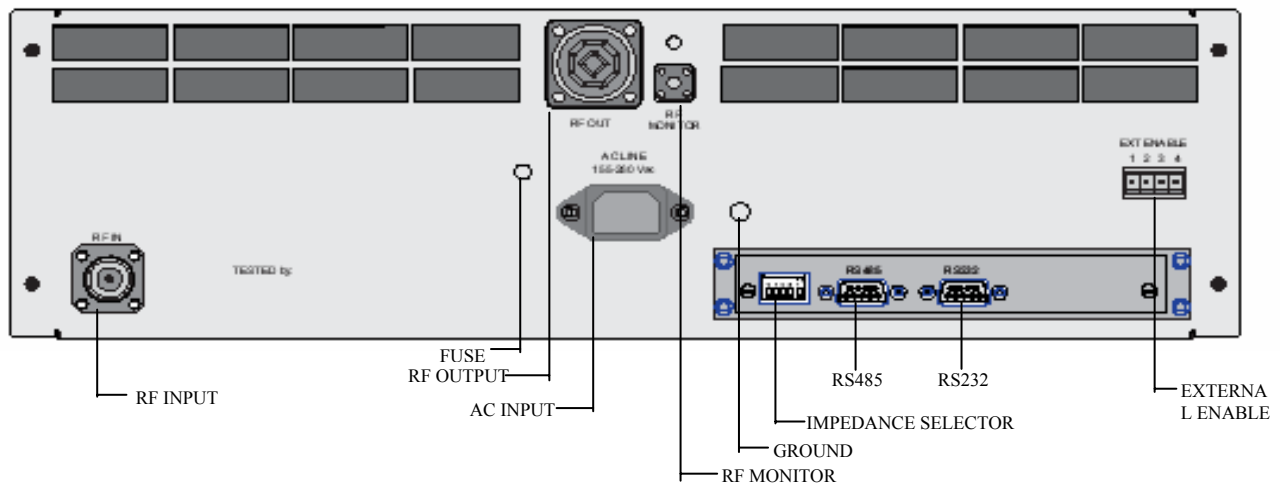


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Front Panel



Rear Panel



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