AU21-D

10-20 Wrms UHF DVB-T Amplifier
50W p.s. UHF Analog Amplifier

AU21-D is a full LD-MOS Broadcast Power Amplifier designed for digital and analog signal repeaters and gap-fillers.. The unit is the state of the art in terms of easy assembly, reliability and performance. The complete unit can assure the compliance to all relevant international standards.

- **Full LD-MOS Power Amplifier**
- **10-20 Wrms Out DVB-T**
- **50W p.s. Out Analog**
- **BroadBand (470-862 MHz)**
- **Internal cabling free**
- **Easy maintenance without special tools**
- **RS232-RS485 interface**
- **Measures and Thresholds auto-ranging at amplifier setting up**
- **Control software included**
- **Extremely strong mechanical structure**

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

Electrical Data

| Voltage Supply	100 to 240Vac
Power Consumption	200W @ 20 Wrms DVB-T @650MHz (typ.) 500W @ 50W p.s. Analog signal @ 650MHz (typ.)
Current Consumption	0.9 A max @ 220 V digital application 2.5 A max @ 220 V analog application
Operating Temperature	0 to +45 °C
Humidity	Up to 90% (non condensing)
Gain	47dB nom.
Power Out (@1dB compression)	Min. 45W (Typ. 55W)
Input Return Loss	Min. -16dB (Typ. -20dB)
Output Return Loss	Min. -18dB (Typ. –20dB)
Load Mismatch (CW 40W F_0 860MHz VSWR=2:1)	No degradation
P_{out} DVB-T	Up to 20 Wrms shoulder < -35dBc (without precorrection) typ. 30 Wrms shoulder < -36dBc (with precorrection) typ.
Pout Common Amplif.	50W p.s. IMD < -50dBc Red Field (without precorrection) and Sound 1 = -13dB and Sound 2 = -20dB

Mechanical data and Interfaces

Dimensions	19" 1HU std 400mm depth[1]
Weight	11.5 Kg.
RF in	SMA connector front panel
RF out	SMA connector front panel
RF mon	SMA connector front panel
RS232	D 9 poles front panel
RS485	D 9 poles front panel hardware selection
Local Enable	Switch front panel

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[1] See pag. 4

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Block Diagram
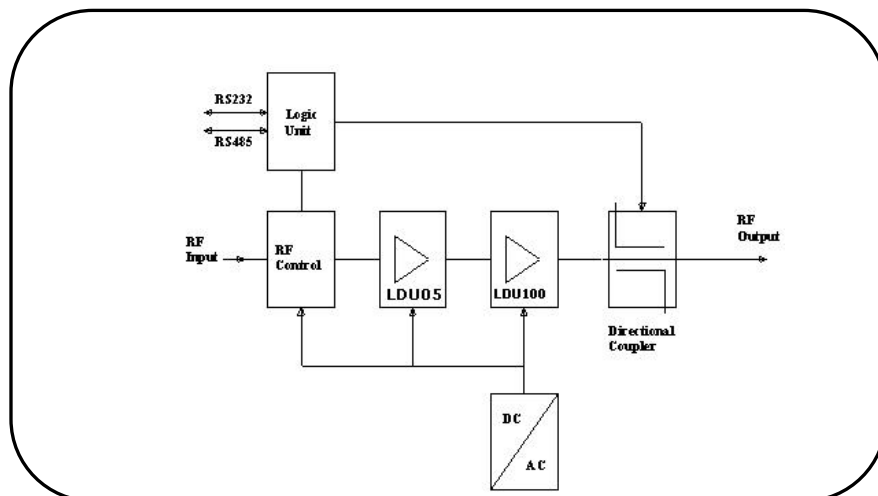
Remote control

Enable	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 uW (RMS for DVB-T/ p.s. for analog)
RF out	Output Power in W (RMS for DVB-T/ p.s. for analog)
RF REF	Reflected Power in W (RMS for DVB-T/ p.s. for analog)
RF Heatsink Temperature	Temperature in °C
IDC RF Section	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	

NOTE: all RF measures and protection thresholds automatically set up on the working frequency set by the user.

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MER/Shoulder@10W Pout

Without precorrection

MER/Shoulder@20W Pout

Without precorrection

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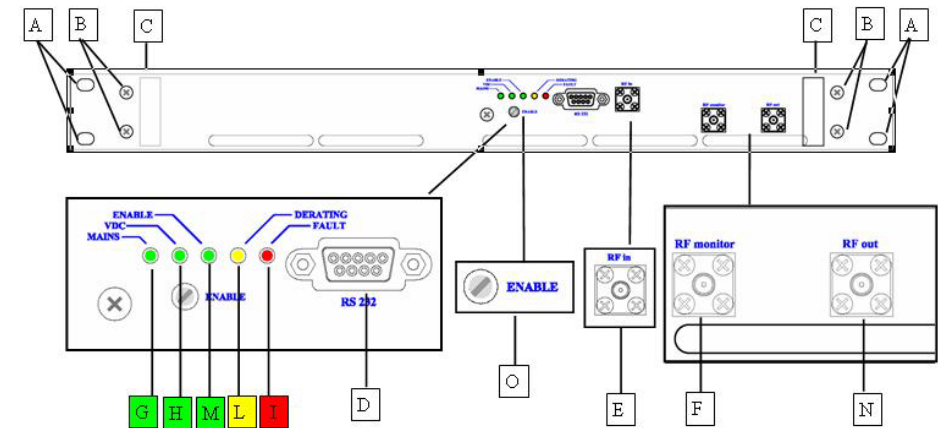
MER/Shoulder@30W Pout

Without precorrection

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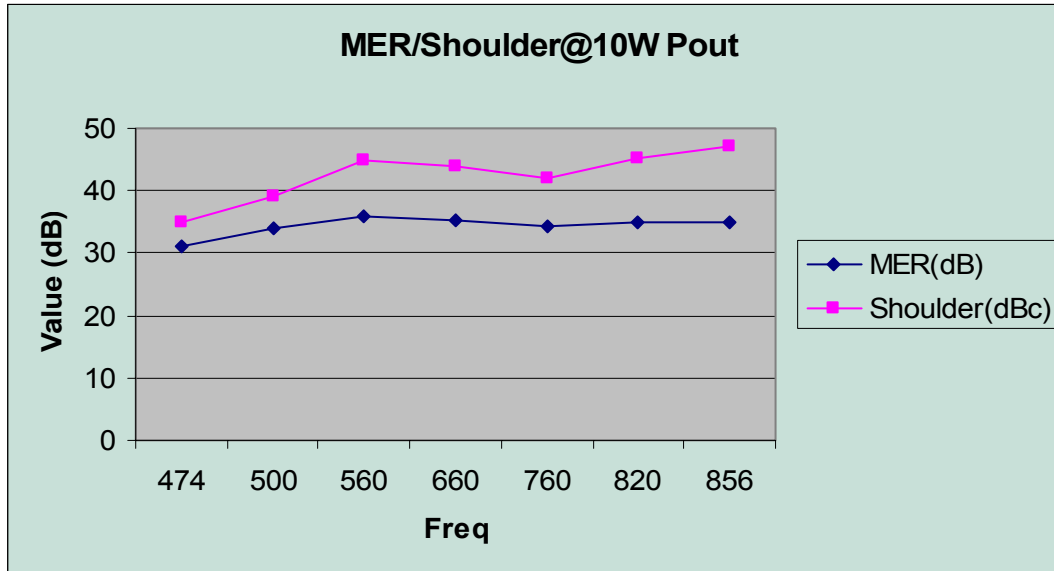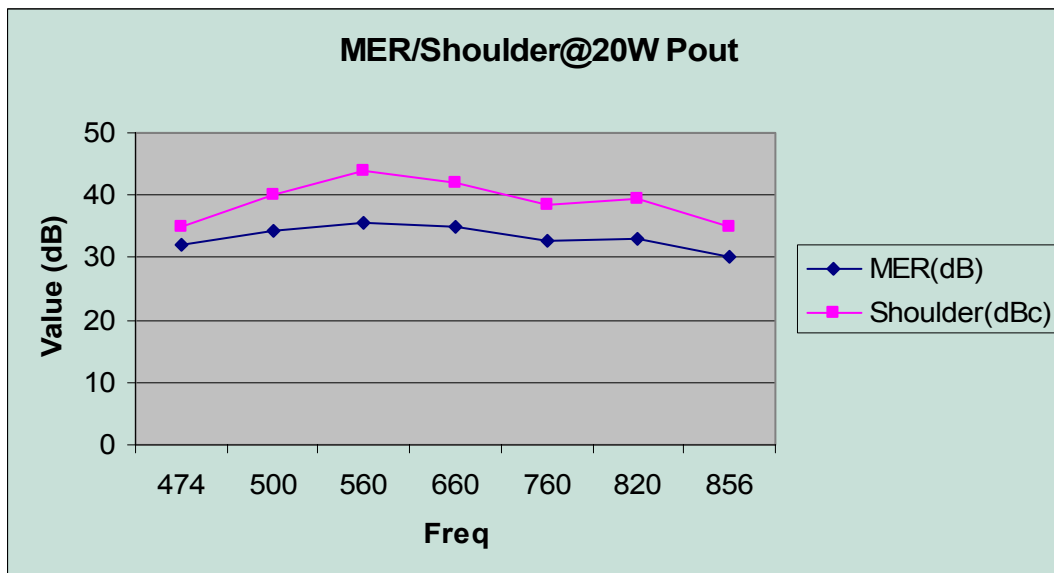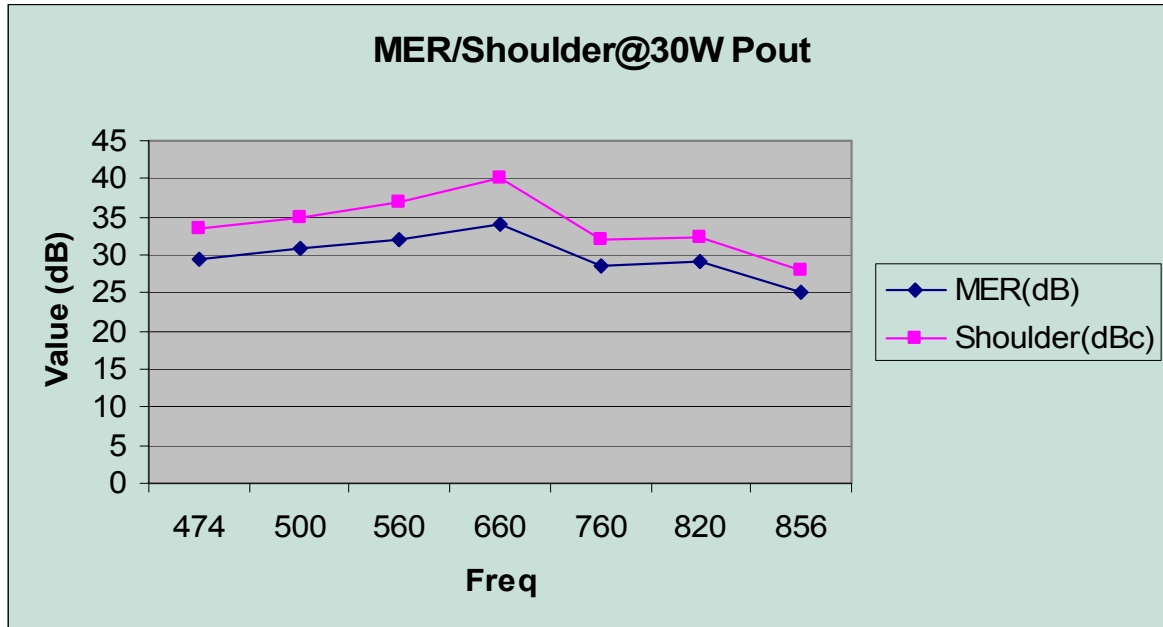
FRONT PANEL

A: Rack fixing
B: Front Panel fixing Screws
C: Handles
D: RS232/RS485 Connector
E: RF In
F: RF Mon
N: RF Out
O: Hardware Enable Switch

LED INDICATORS

G: Mains Led (ON with VAC Power Supply connected)
H: Vdc Led (ON with Power Supply active)
I: Fault Led (ON when amplifier gain is 6dB less than nominal. If led flashes, the amplifier is under protection condition)
L: Derating Led (ON when temperature is too high and Output Power is automatically reduced)
M: Hardware + Software Enable (Active when amplifier is ON)

REAR PANEL
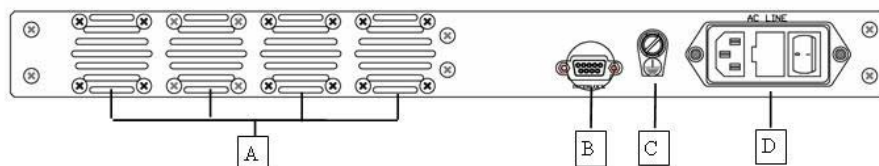
A: fan
B: Interlock
C: Ground
D: AC Power Supply Input 100/240 Vac (standard)

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