UD-20
UHF DIGITAL TV AMPLIFIER

This is a peak sync UHF Power Amplifier. Completely based on LDMOS technology, it is designed for both analog and digital applications. The unit is the state of the art in terms of easy assembly, reliability and performance. A RS232 connector is also available in the front panel to allow for a serial interface connection for remote control (modem, computer, etc…). This mechanical structure has been designed for modularity, which makes servicing easier and faster.

Features:

- LDMOS Technology

All devices used in the amplifying stages of the module are exclusively LDMOS. This technology ensures good linearity independent of the kind of signal driving the module.

- Types of applications

Designed for both digital and analog applications.

- High Gain

Due to its high gain, UD20 can be driving by low power levels, even if more modules are working in parallel.

- Class A/B Biasing

The class A/B biasing with LDMOS technology will allow common and separate amplification and the possibility to work with analog and digital TV signal.

- Broadband Design

The broadband design allows the UD20 to be used in any channel, thereby increasing its operational flexibility.

- Remote Control Capability

All LED measurements available on the front panel are compatible with a remote facility management system.

- Microprocessor/Controller

The microprocessor of UD20 is the most important component of the Control Logic Unit. All measurements and status data are processed along with decisions regarding protection, alarm circuits and control. It also controls the LEDs on the front panel.

- Ultra Fast Protection

The ultra fast protection is due to a solid-state switch (SPDT), which can turn the amplifier off in less than 300ns.

- Modular Construction

The mechanical design allows a very high modularity, as the equipment looks like a single metal box, which can be simply inserted in a rack.

TECHNICAL SPECIFICATIONS	
Voltage Supply	88 to 240Vac
Power Consumption	200W @20Wrms DVB-T @650MHz (typ.)
Current Consumption	1.5 A max @ 220 V digital application
Operating Temperature	0 to +45 °C
Humidity	Up to 90% (non condensing)
Gain	46dB nom. ±2dB (fine ADJ available)
Gain Stability	+/- 0.5dB between 00 to 450 ambient temperature
Power Out (@1dB compression)	Min. 80W (Typ. 100W)
Input Return Loss	Min. -16dB (Typ. -20dB)
Output Return Loss	Min. -16dB (Typ. –20dB)
Load Mismatch (CW 30W F0 @ 860MHz VSWR=2:1)	No degradation
Pout Common Amplification	60W Ps IMD > -47dB Red Field (without precorrection)
Pout DVB-T	20Wrms shoulder < -36dBc (with precorrection)
DTV (8 VSB)	35Wrms
P_{out} PEP	80W IMD < -27 dBc

MECHANICAL DATA AND INTERFACES	
Dimensions	19” 3HU std 400mm depth
Weight	12 Kg.
RF in	N connector rear panel
RF out	N 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