

OPERATING NOTES (READ THIS FIRST)

1. Before DC Voltage is applied to the UDR25 the input and output ports must be terminated in 50 ohm loads. Failure to properly terminate any amplifier may result in damage to power transistors and void warranty.
2. The UDR25 comes mounted on a base plate. The plate must be mounted to a heat sink which will limit maximum temperature to 80 degrees Celsius when operating under worst case environmental conditions.
3. When the UDR25 is used as a final amplifier driving an antenna, an isolator must be used between amplifier and antenna to insure a constant load impedance to maintain low IMD performance and insure reliability over environmental operating range.

WARRANTY NOTICE

The components used in this amplifier are considered current technology and PTI expects that these components will be available for several years into the future. Technology changes very fast and the only guarantee that components will be available in the future is to purchase and maintain a limited stock to insure that service repairs are made without extended delays. Contact PTI for a recommended stocking list.



UDR25

UHF Broadband Class A Amplifier



PINEAPPLE TECHNOLOGY, INC.

2085 Humphrey Road • Penryn, CA 95663

Tel: 916-663-1016 • Fax: 916-663-1876

UDR25@ptibroadcast.com • www.ptibroadcast.com

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GENERAL DESCRIPTION

The Pineapple Technology, Inc. (PTI) UDR25 was designed for use in HIGH LINEARITY driver applications For UHF ANALOG AND DIGITAL TV BROADCAST transmitters. Class A operation of LD MOS DEVICE TECHNOLOGY in a BROADBAND configuration is considered the TECHNOLOGY of CHOICE for this application.

MAXIMUM RATINGS

BASE PLATE OPERATING TEMPERATURE	80 degrees Celsius
DC SUPPLY VOLTAGE	32 VDC
DC SUPPLY CURRENT	5 A
POWER OUTPUT	40 W CW
OUTPUT LOAD VSWR	5:1
POWER INPUT	4 W CW
INPUT RETURN LOSS	-15 dB
OPERATING FREQUENCY	420 - 860 MHz
Idq TOTAL/PALLET	2.8 AMPS

RECOMMENDED OPERATING CONDITIONS

INPUT & OUTPUT TERMINATION	50 OHM
DC SUPPLY VOLTAGE	28 VDC
BASE PLATE TEMPERATURE	60 degrees Celsius
FREQUENCY RANGE	470-806 MHz
ANALOG TV P-SYNC	25 W
DIGITAL TV AVERAGE POWER	8 W
Idq BIAS LEVEL PER DEVICE	1.4 AMPS
TOTAL Idq WITHOUT RF DRIVE	2.8 AMPS

OPERATING PERFORMANCE

PARAMETERS	MINIMUM	TYPICAL	MAXIMUM
POWER GAIN	13 dB	14.5 dB	
1 dB COMPRESSION	30 W	40 W	
IMD (3 TONE)		-55 dB	-50 dB
IMD (2 TONE)		-40 dB	-37 dB
DIGITAL SHOULDERS		-44 dB	-40 Db

MECHANICAL SPECIFICATIONS:

HEIGHT: 1.0 inches [25.4]

WEIGHT: 8 ounces

I/O CONNECTIONS: MICRO STRIP OR SMALL COAX (RG316)

DC CONNECTIONS: + DC TERMINAL

- DC CASE GROUND

