HD31225
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear balanced Push-Pull LDMOS design
Instantaneous ultra-wide bandwidth
Suitable for all single channel modulation standards
Small form factor, light weight
Built-in monitoring and protection circuits
High efficiency, reliability, and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	20 - 500 MHz	
Power Output @ Psat	350 Watt Min	CW or pulse
Power Output @ P1dB	250 Watt Min	CW or pulse
Power Gain	22 dB Min / 24 dB Typ	33dBm or less for rated Pout
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input Return Loss	-10 dB Max	
2-Tone Intermodulation (IMD)	-30 dBc Typ	45 dBm/Tone, Δ = 1 MHz
Harmonics 2nd / 3rd	-30 dBc / -12 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 30 VDC	
Current Consumption	40 Amp Max	At rated Pout
Input Power Protection	+40 dBm Max	<10 Sec without damage
Load VSWR Protection	3 : 1 Max[1]	<1 minute at rated output
Turn On / Off Speed	7 µSec Max	Optional

1 Modules could be damaged due to excessive VSWR beyond 1 minute

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	up to 95 %	Non-condensing
Altitude	3000 meters	
Shock & Vibration	Normal transport[2]	

2 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	360 x 270 x 30 mm	Excluding connectors
Weight	5.85 Kg.	
RF Connectors In/Out	SMA female / Type-N Female	
DC Power / Interface Connector	9 Pin Hybrid D-Sub	9W4
Cooling	External Heatsink	Forced air required

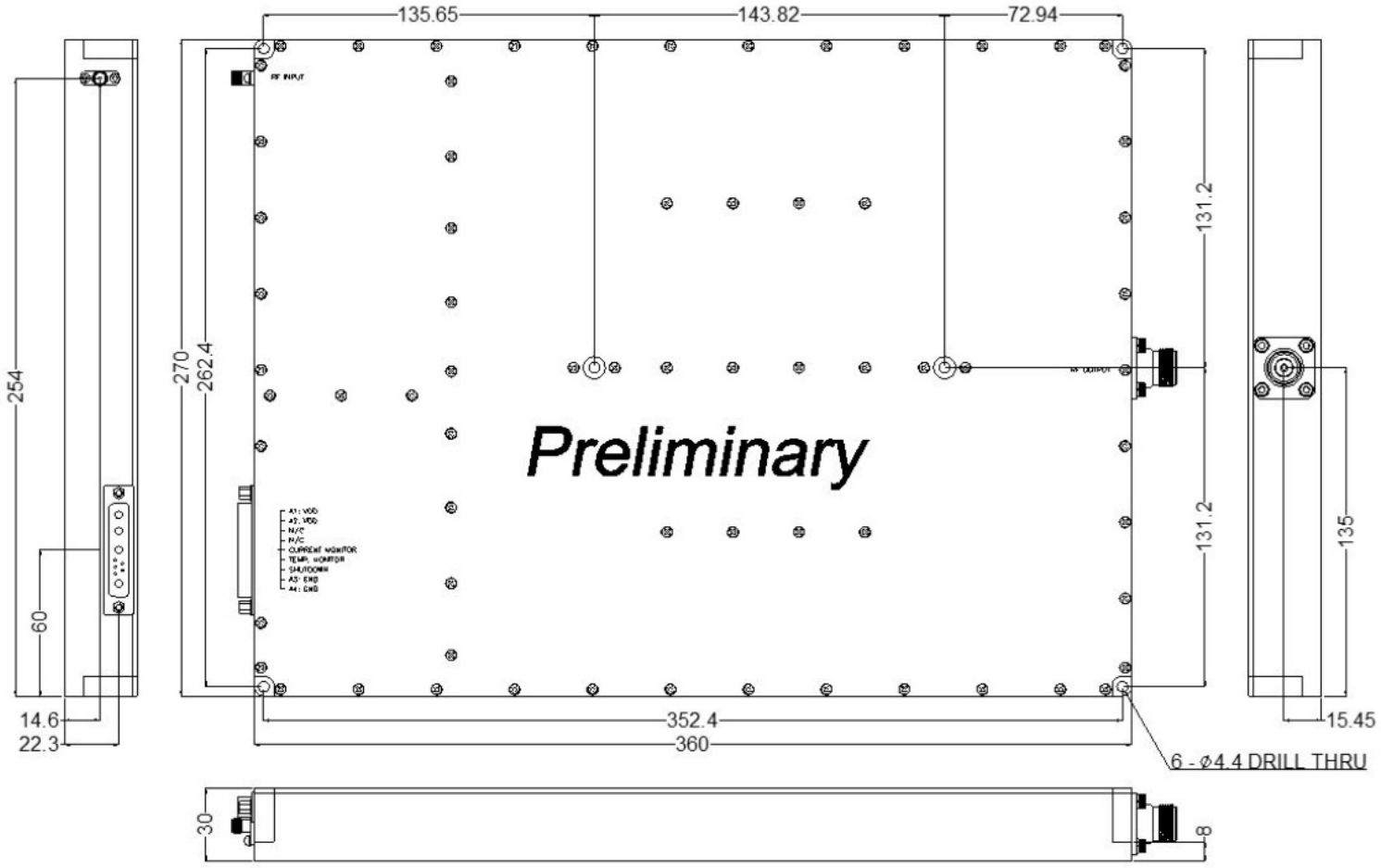
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Specifications subject to change without notice. Specifications and drawings may vary with selected options.

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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	N/C
2	N/C	N/C
3	CURRENT SENSOR	I_D@10mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL High or Open; Disable = TTL Low or Short
A1, A2	VDD	28VDC
A3, A4	GND	Ground

OUTLINE DRAWING



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