HD31120
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class A/AB linear GaAsFET hybrid design
Instantaneous wide bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	41 - 45 GHz	
Power Output Psat	4 Watt Min / 6 Watt Typ	Pin = 0dBm for nominal Pout
Power Output @ P1dB	3.5 Watt Typ	
Power Gain	37 dB Min	
Power Gain Flatness	4.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
Noise Figure	12 dB Max	
Harmonics	-20 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	12 VDC Nom	
Current Consumption	17 Amp Typ	At rated Pout
Input Power Protection	+3 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1 Max	At rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	100 x 100 x 27 mm	Excluding connectors
Weight	2.5kg Typ	
RF Connectors In/Out	2.4 mm Female	Optional 2.92mm Female
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

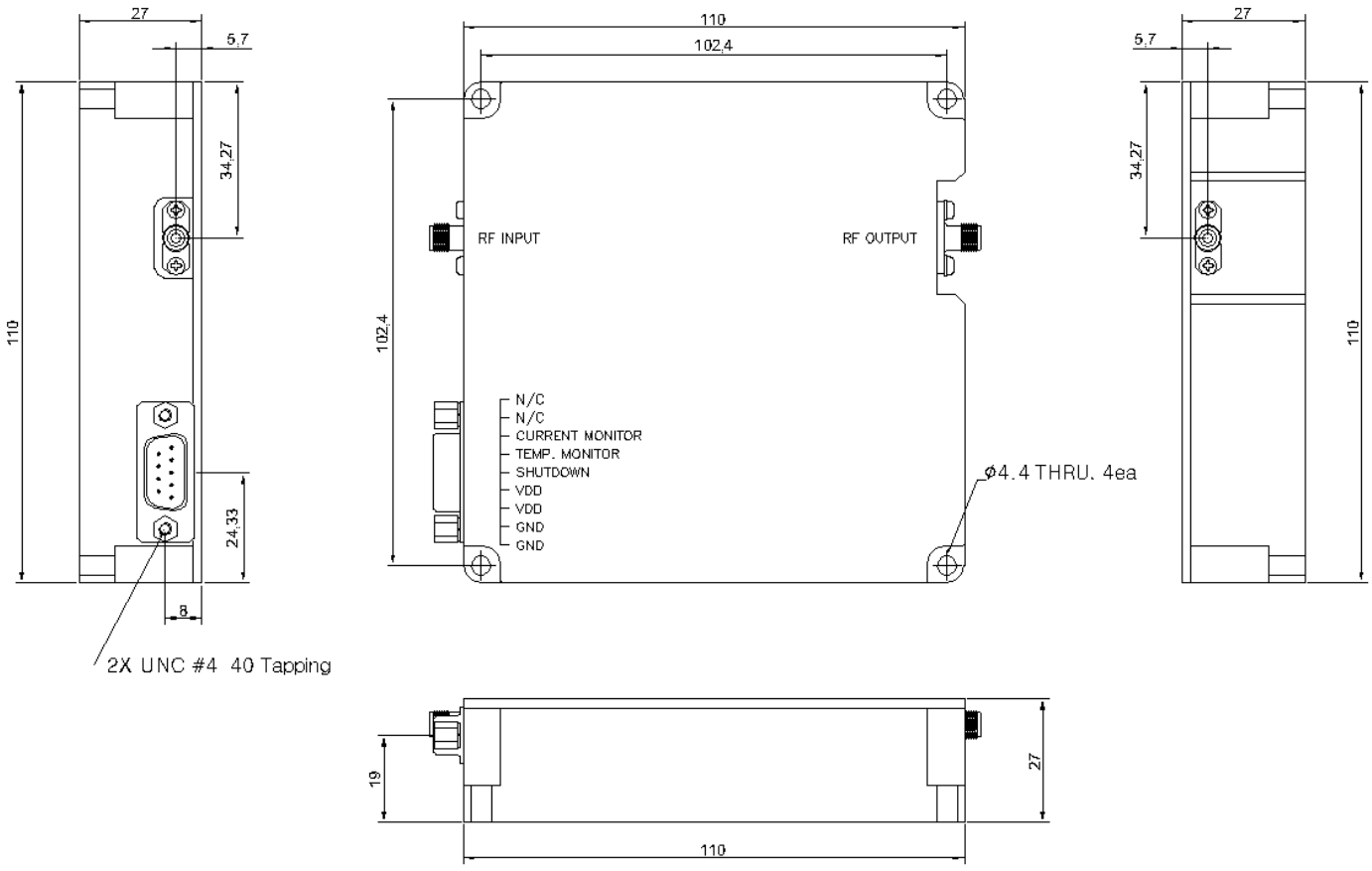
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	Reserved
2	N/C	Reserved
3	CURRENT SENSOR	I_D @ 20mV/100mA Typ
4	TEMP SENSOR	V_T @ 10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL “Hi” or Open; Disable = TTL “Lo” or Short
6, 7	VDD	12VDC
8, 9	GND	Ground

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OUTLINE DRAWING



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