



The **MP300/32/5SK-HE-A1** is suitable for VHF and UHF linear amplification. The amplifier employs linear LDMOS power devices that provide high efficiency, ample output power, wide dynamic range, and high gain.

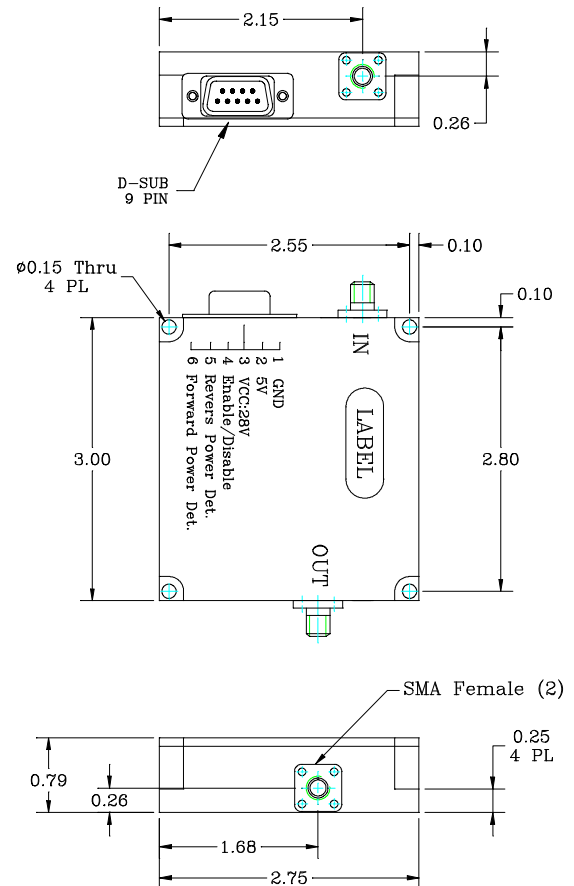


## Model: MP300/32/5SK-HE-A1

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	100 ~ 500 MHz	
Gain	32 ± 1 dB (Typ.)	
Gain Flatness	± 2.0 dB (Max.)	Over Frequency Range
Gain Variation	± 1.0 dB	Over Temperature Range
Output P1	+37 dBm (Typ.)	
Output P3	+38 dBm (Typ.)	
Input VSWR	1.3:1 (Max.)	
HPA Enable/Disable	TTL "0V" ⇒ Enable TTL "5V or Open" ⇒ Disable	
Harmonics	-10 dBc (Max.) / -15 dBc (Typ.)	Pout @ 5 Watts CW
Forward Power Monitor	4.0 ± 0.2 V @ 5 Watts	RMS Detection
Reverse Power Monitor	4.0 ± 0.2 V @ 5 Watts	RMS Detection
Over Temperature Protection	Shutdown at +85°C ±5°C	
DC Input Voltage / Current	30 VDC ± 1V / 0.47A (Max.)	DC Input Voltage / Current Pout @ 5 Watts CW
Efficiency	45% (Typ.) 40% (Min.)	See Table
Input /Output Impedance	50 Ω	
Input Max. without Damage	+10 dBm	

5. DB9 Pin Description		
1	GND	
2	+5 VDC	
3	+28 VDC	
4	Enable / Disable	Enable: TTL Low Disable: TTL High or Open
5	Reverse Power Detection	
6	Forward Power Detection	
7, 8, 9	N/C	

## 6. Outline Drawing



2. Mechanical Characteristics		
Monitoring Connector	DB-9 Male	4 – 40 screw
RF IN/OUT Connector	SMA 4 Hole – Female	
Dimensions	3.0" x 2.75" x 1.0"	

3. Environment Characteristics		
Operating Temperature	-20°C ~ +70°C	Base Plate

4. Efficiency vs. Output Power							
Pout (dBm)	100 MHz	200 MHz	300 MHz	400 MHz	500 MHz		
	Efficiency	Efficiency	Efficiency	Efficiency	Efficiency	Efficiency	Efficiency
35	40%	40%	39.5%	39.5%	39%		
36	42%	42%	41%	41%	40%		
37	47.6%	47.6%	47%	47%	46%		
38	49%	49%	48%	48%	48%		

Revision History			
REV	Reason to Change	Date	Initialed by