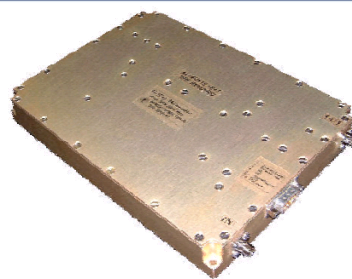




The MP3420/85MK-A4 is suitable for 3.5 GHz high power, linear applications, and supports Wi-Max & LTE. The amplifier is designed for both TDD & FDD modulations. This amplifier employs linear GaN power devices that provide ample output power, wide dynamic range, and excellent gain flatness. Band Pass and Low Pass filters are included into the module to improve Selectivity and Harmonic responses.



Model: MP3420/85/45MK-A4

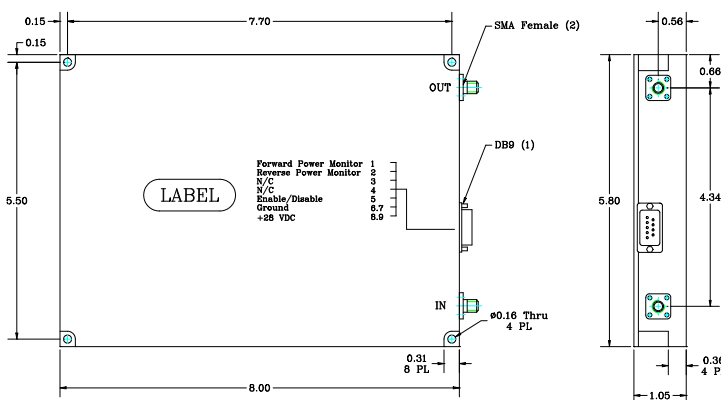
1. Electrical Characteristics		
Item	Value	Note
Frequency Range	3377.5 ~ 3462.5 MHz	
Operating Bandwidth	85 MHz	
Frequency Response	-1 dB Pass Band: 73 MHz (Min.)	Over Freq. Range
	-3 dB Pass Band: 85 MHz (Min.)	Over Temp. Range
	Rejection: 0.9-1.5 GHz Offset from F0: 80 dBc (Min.) 100 MHz Offset from F0: 65 dBc (Typ.)	
Gain	45 dB (Min.)	10 Watts Output
Gain Flatness	± 1.0 dB (Max.)	Over Freq. Range of 73 MHz
Output P1	+44 dBm (Min.)	
Output Psat	+46 dBm (Min.)	
Reverse Power Handling	+45 dBm (Min.)	
Input / Output VSWR	1.43:1 dB (Max.)	
Output VSWR	Isolator Included	
Output IP3	+52 dBm (Min.)	2 CW tones; +40 dBm per tone @ 1 MHz spacing
Noise Figure	5 dB (Max.)	Noise Floor: In Band: -64 dBm / MHz (Max.) Out of Band: -90 dBm / MHz (Max.)
HPA Enable / Disable	TTL "0V" or "Short to GND" ⇒ Enable TTL "5V" or "Open" ⇒ Disable	
Switching On/Off Time	≤ 2μs	
Forward Power Monitor	2.4 ± 0.1V @ +40 dBm	RMS Detection @ Pin 1
Reverse Power Monitor	2.4 ± 0.1V @ +40 dBm	RMS Detection @ Pin 2
Over Power Protection	If Input Power > +2 dBm, Gain Stages Shutdown	
Over Temperature Shutdown	+85°C ± 5°C	Auto Recover @ +70°C ± 5°C
DC Input Voltage / Current	+28VDC ± 1V / 3.0A (Typ.)	DC Input Voltage / Current @ Pout +40 dBm
Over Driver Protection	Gain Stages Shutdown if input power ≥ 3 dBm ± 1.0 dBm	Output Power is limited @ +46 dBm +/- 1 dBm
MAX CW Input Without Damage	+20 dBm	
Input / Output Impedance	50 Ω	
DC Input Protection	With Voltage Limit Diode	

2. Mechanical Characteristics		
Monitoring Connector	DB-9 Male	4 – 40 screw
RF INPUT Connector	SMA Female	
RF OUTPUT Connector	SMA Female	
DC Input	DB-9 Male	Pin 8, 9
Dimensions	8.0" x 5.8" x 1.0"	

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

4. DB9 Pin Description		
1	Forward Power Monitor	0 – 2.4 V
2	Reverse Power Monitor	0 – 2.4 V
3, 4	N/C	
5	Enable / Disable	Enable: TTL Low Disable: TTL High
6, 7	GND	
8, 9	+28 VDC	

5. Outline Drawing



Revision History			
REV	Reason to Change	Date	Initialed by