



The MP270/35/10SK-A5 is suitable for VHF and UHF linear amplification. The amplifier employs linear GaN power devices that provide high efficiency, ample output power, wide dynamic range, and high gain. The product integrates a bi-directional coupler for monitoring Forward and Reverse Power.



Model: MP270/35/10SK-A5

| 1. Electrical Characteristics | | |
|-------------------------------|---|---|
| Item | Value | Note |
| Frequency Range | 20 ~ 530 MHz | |
| Power Gain | 38 (Min.) | Pout @ +40 dBm |
| Gain Flatness | ± 2.0 dB (Max.) | Over Frequency Range |
| Gain Variation | ± 1.0 dB | Over Temperature Range |
| Output Psat | +40 dBm (Min.) | |
| Input VSWR | 1.3:1 (Max.) | |
| HPA Enable/Disable | TTL "Low or Open" ⇒ Enable TTL "High" ⇒ Disable | |
| Harmonics | -10 dBc (Max.) / -15 dBc (Typ.) | Pout @ +40 dBm |
| Forward Power Monitor | 2.0 ± 0.2 V @ 10 Watts | RMS Detection |
| Reverse Power Monitor | 2.0 ± 0.2 V @ 10 Watts | RMS Detection |
| Over Temperature Protection | Shutdown @ +85°C ± 5°C | Auto Recover @ +70°C ± 5°C |
| DC Input Voltage / Current | +28 VDC ± 1V / 0.7 A (Typ.) +5 VDC / 0.05 A (Max.) | DC Input Voltage / Current @ Pout @ 10 Watts CW |
| Efficiency | 45% (Min.) | |
| Input /Output Impedance | 50 Ω | |
| Capable of Handling VSWR | 6:1 | |
| Input Max. without Damage | +4 dBm | |

| 2. Mechanical Characteristics | | |
|-------------------------------|---------------------|--------------|
| Monitoring Connectors | DB9-Male | 4 – 40 screw |
| RF IN/OUT Connector | SMA 4 Hole –Female | |
| Dimensions | 3.0" x 2.75" x 0.8" | |
| Weight | 0.28 lb | |

| 3. Environment Characteristics | | |
|--------------------------------|---------------|------------|
| Operating Temperature | -20°C ~ +80°C | Base Plate |

| Revision History | | | |
|------------------|----------------------------------|----------|--------------|
| REV | Reason to Change | Date | Initialed by |
| A | Pass-band expanded to 20-530 MHz | 10/10/13 | YZ |

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

5. Outline Drawing

