



The MP883/40/20SK-A2 is a broadband and high power amplifier for 805-960 MHz frequency band. It is suitable for Jamming or communication operation. The amplifier employs advanced GaN power devices that provide ample output power, good gain flatness over broadband, a wide dynamic range, and high efficiency. The product integrates a bi-directional coupler for monitoring Forward and Reverse Power.

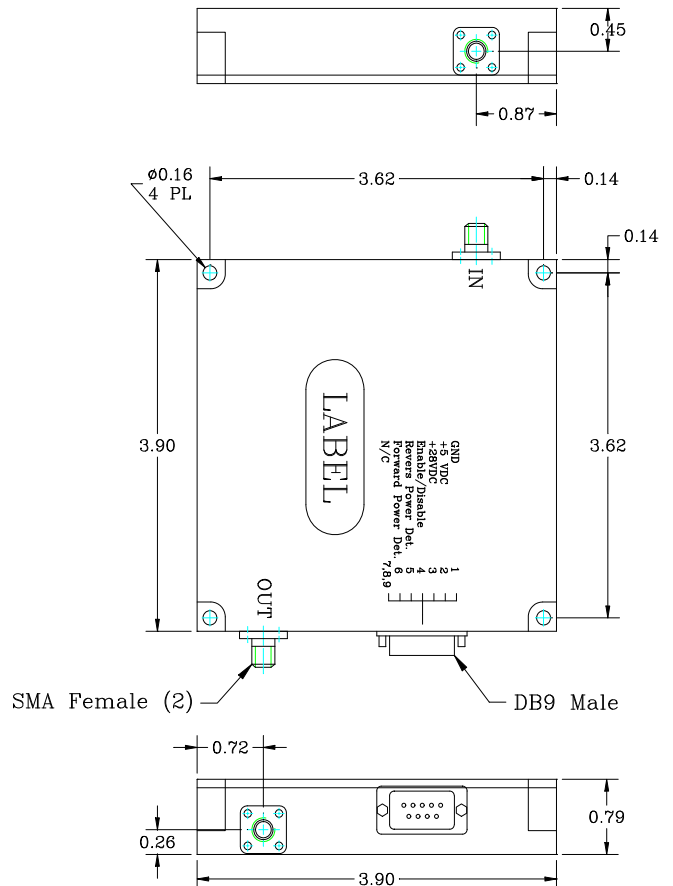


## Model: MP883/40/20SK-A2

| 1. Electrical Characteristics      |  |   |
|------------------------------------|--|---|
| Item                               | Value  | Note  |
| Frequency Range                    | 805 ~ 960 MHz                                      |   |
| Power Gain                         | 43 dB (Min.)                                       | @ +43 dBm                                     |
| Gain Flatness                      | ± 1.0 dB (Typ.)                                    | Over Frequency @ 20 Watts Output              |
| Output Psat                        | +43 dBm (Min.)                                     |   |
| Harmonics                          | -25 dBc (Typ.)                                     | Pout @ 20 Watts                               |
| Spurious                           | -70 (dBc.)   | Pout @ 20 Watts                               |
| Input VSWR                         | 2:1 (Max.)   |   |
| HPA Enable/Disable                 | TTL "Low or Open" ⇒ Enable<br>TTL "High" ⇒ Disable |   |
| Switching On/Off Time              | ≤ 5μs  |   |
| Over Temperature Protection        | Shutdown @ +85°C ±5°C                              | Auto Recover @ +70°C ±5°C                     |
| Forward Power Monitor              | 2.0 ± 0.2 V@ 20 Watts                              | RMS Detection                                 |
| Reverse Power Monitor              | 2.0 ± 0.2 V@ 20 Watts                              | RMS Detection                                 |
| DC Input Voltage / Current         | +28 VDC ± 1V / 1.5A (Max.)<br>+5V / 0.15 A (Max.)  | DC Input Voltage / Current @ Pout 20 Watts CW |
| Efficiency                         | > 45%  |   |
| Input /Output Impedance            | 50 Ω   |   |
| Max. Input Signal (without Damage) | +3 dBm   |   |
| Load Conditions without Damage     | 6:1  | Pout @ 20 Watts                               |

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

## 5. Outline Drawing



| 2. Mechanical Characteristics |                    |            |
|-------------------------------|--------------------|------------|
| Monitoring Connector          | DB-9 Male          | 4-40 screw |
| RF IN/OUT Connector           | SMA 4 Hole Female  |            |
| Dimensions                    | 3.9" x 3.9" x 0.8" |            |
| Weight                        | 0.64 lb            |            |

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

| Revision History |                            |         |              |
|------------------|----------------------------|---------|--------------|
| REV              | Reason to Change           | Date    | Initialed by |
|                  | Released for Production    | 3/20/12 | YZ           |
| A                | Add switching on/off time. | 1/22/15 | YZ           |
|                  |                            |         |              |
|                  |                            |         |              |