# MAPPST2933-190M

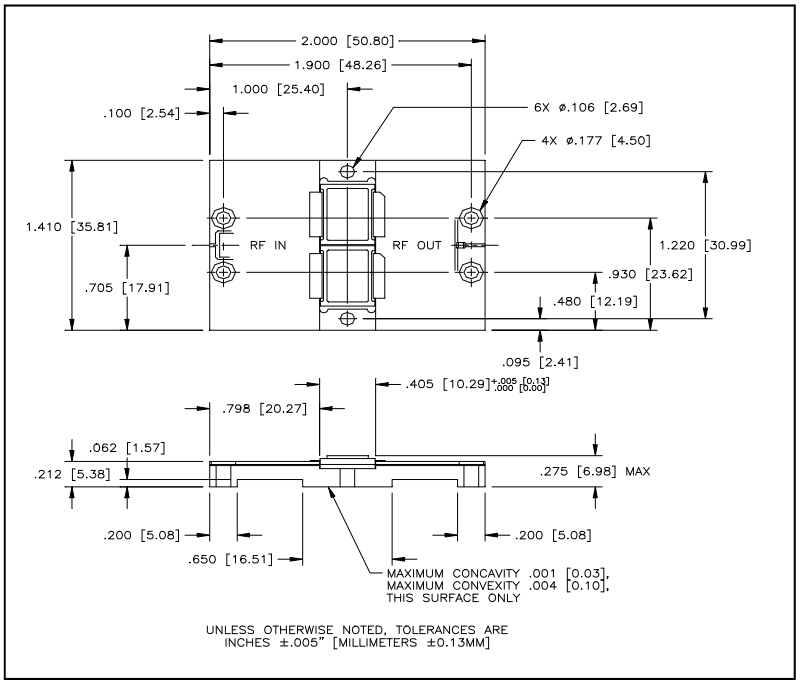
## Radar Pulsed Power Pallet
## 190W, 2.9-3.3 GHz

M/A-COM Products
*Released;*

### Features

- Input and output matched to 50W
- RC bias circuit included
- Dual NPN silicon class C power transistors on in BeO hermetic packages
- Soft substrate er = 10.5
- Nickel plated copper flange

### Outline Drawing




### ABSOLUTE MAXIMUM RATING AT 25°C

| Parameter | Symbol | Rating | Units |
|---|---|---|---|
| Collector-Emitter Voltage | $V_{CES}$ | 65 | V |
| Emitter-Base Voltage | $V_{EBO}$ | 3.0 | V |
| Junction Temparature | $T_j$ | 200 | °C |
| Thermal Resistance | $\theta_{JC}$ | TBD | °C/W |
| Operating Flange Temp. | $T_C$ | -10 to +100 | °C |
| Storage Temp. | $T_{STG}$ | -20 to +125 | °C |

### ELECTRICAL CHARACTERISTICS AT 25°C

| Parameter | Symbol | Test Conditions | Min | Max | Units |
|---|---|---|---|---|---|
| Input Power | Pin | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | - | 37.9 | Wpk |
| Power Gain | Gp | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | 7.0 | - | dB |
| Collector Efficiency | ηC | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | 35 | - | % |
| Input Return Loss | RL | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | 10 | - | dB |
| Pulse Amplitude Droop | Droop | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | - | .7 | dB |
| 2nd Harmonic | 2fc | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | TBD | - | dBc |
| Spurious Level | Spurious | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | - | -50 | dBc |
| Insertion Phase Deviation | | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | -20 | +20 | Deg. |
| Tolerance & Stability | VSWR-T | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | - | 2:1 | VSWR |
| Stability at Overdrive | OD-STAB | Pin = (Pin @ Pout = 190Wpk) + 1dB [Note 1] | - | - | - |
| Gain Flatness over Frequency | GF | Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz | - | 1.0 | dB |

Note : No oscillations and no spurs at 1dB overdrive





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