

MAPPST2933-190M



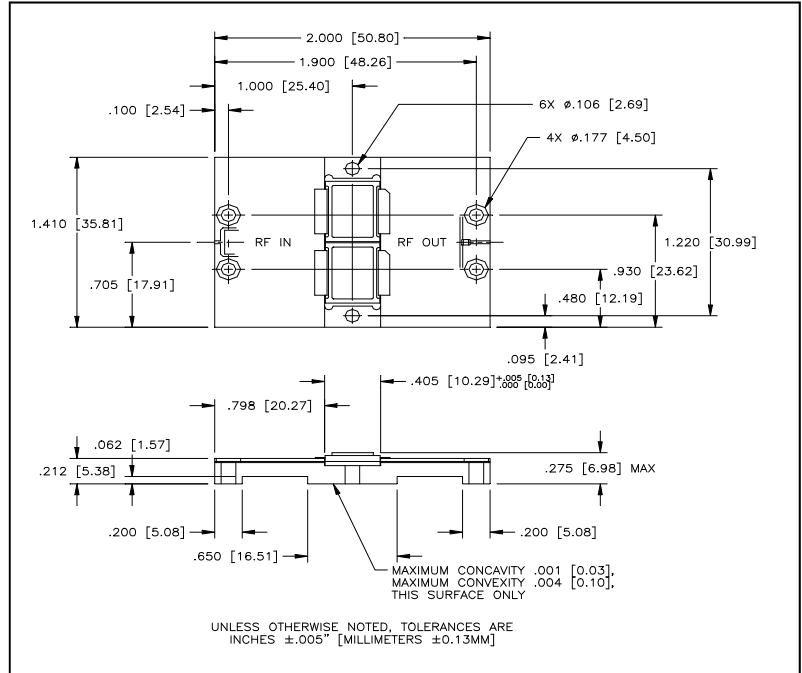
Radar Pulsed Power Pallet
190W, 2.9-3.3 GHz

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 $\epsilon_r = 10.5$
- 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 Temperature	T_j	200	°C
Thermal Resistance	θ_{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	P_{in}	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	-	37.9	Wpk
Power Gain	G_p	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	7.0	-	dB
Collector Efficiency	η_C	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	35	-	%
Input Return Loss	RL	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	10	-	dB
Pulse Amplitude Droop	Droop	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	-	.7	dB
2 nd Harmonic	2fc	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	TBD	-	dBc
Spurious Level	Spurious	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	-	-50	dBc
Insertion Phase Deviation		$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	-20	+20	Deg.
Tolerance & Stability	VSWR-T	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	-	2:1	VSWR
Stability at Overdrive	OD-STAB	$P_{in} = (P_{in} @ P_{out} = 190Wpk) + 1dB$ [Note 1]	-	-	-
Gain Flatness over Frequency	GF	$V_{CC} = 36V$, $P_{out} = 190Wpk$, $F = 2.9, 3.1, 3.3$ GHz	-	1.0	dB

Note : No oscillations and no spurs at 1dB overdrive