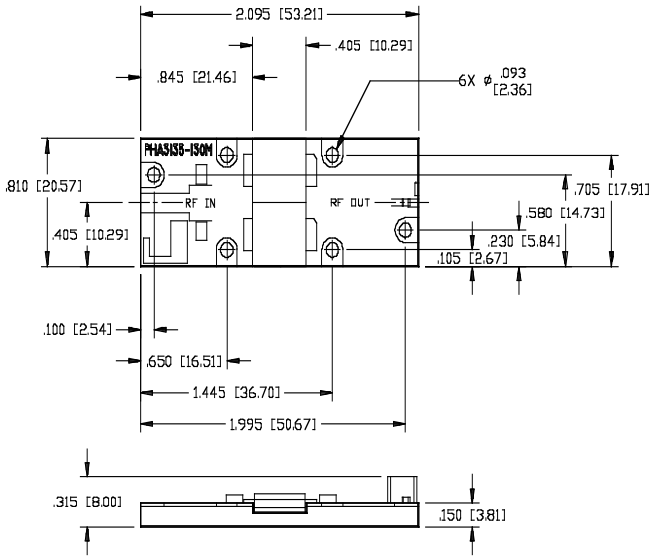
Radar Pulsed Power Module, 115, 130, 145W, 100µs Pulse 3.1 - 3.5 GHz

PHA3135-130M

V4.00

Features

- NPN Silicon Power Transistor
- Input and Output Matched to 50Ω
- Duroid Circuit Board
- Easily Combined for High Power Transmitters
- Plated Copper Flange



Unless Otherwise Noted, Tolerances Are: Inches ±.005˝
(Millimeters ±13mm)

Absolute Maximum Ratings at 25°C[1]

Parameter	Absolute Maximum
Suppy Voltage	40V
Input Power	26.5V
Output Power @ 3.3 GHz	200A
Thermal Resistance / Per Transistor	0.24A
Power Dissipation	400W
Operating Case Temp.	-30 to 1200°C
Storage Temperature	-40 to +125°C

1. Operation of this device outside of these limits may cause permanent damage.

Electrical Characteristics at 25°C

Parameter	Symbol	Test Conditions	Units	Min.	Max.
Output Power	P_{OUT}	V_{CC}=36 V, P_{IN}=21 W, F=3.1 GHz	W	145	-
Output Power	P_{OUT}	V_{CC}=36 V, P_{IN}=21 W, F=3.3 GHz	W	130	-
Output Power	P_{OUT}	V_{CC}=36 V, P_{IN}=21 W, F=3.5 GHz	W	115	-
Power Gain	G_P	V_{CC}=36 V, P_{IN}=21 W, F=3.1 GHz	dB	8.4	-
Power Gain	G_P	V_{CC}=36 V, P_{IN}=21 W, F=3.3 GHz	dB	7.9	-
Power Gain	G_P	V_{CC}=36 V, P_{IN}=21 W, F=3.5 GHz	dB	7.4	-
Collector Efficiency	η_C	V_{CC}=36 V, P_{IN}=21 W, F=3.1, 3.3, 3.5 GHz	%	35	-
Input Return Loss	RL	V_{CC}=36 V, P_{IN}=21 W, F=3.1, 3.3, 3.5 GHz	dB	6	-
Load VSWR Tolerance	VSWR-T	V_{CC}=36 V, P_{IN}=21 W, F=3.1, 3.3, 3.5 GHz	-	-	3:1
Load VSWR Stability	VSWR-S	V_{CC}=36 V, P_{IN}=21 W, F=3.1, 3.3, 3.5 GHz	-	-	2:1

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