

Avionics Pulsed Power Transistor
50 W, 960 - 1215 MHz, 10 μ s Pulse, 10% Duty

Rev. V1

Typical RF Performance

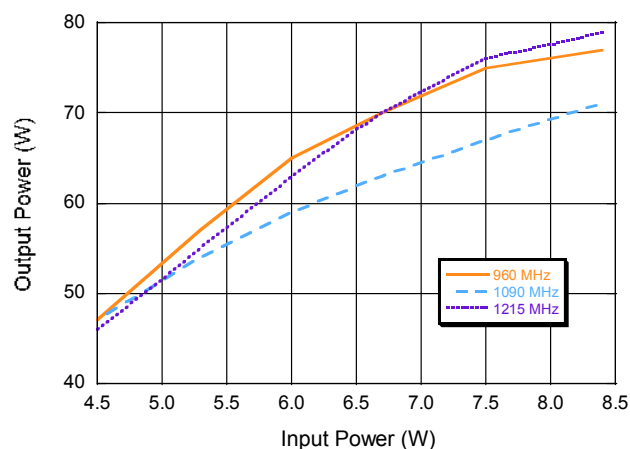
Freq. (MHz)	Pin (W)	Pout (W)	Gain (dB)	Δ Gain (dB)	Ic (A)	Eff (%)	RL (dB)	VSWR-S (1.5:1)	VSWR-T (10:1)	P1dB Overdrive	
										Pout (W)	Δ Po
960	6.2	65.9	10.25	-	2.66	49.6	-22.2	S	P	73.4	0.48
1090	6.2	61.9	9.98	-	2.58	48.0	-15.2	S	-	68.7	0.45
1215	6.2	64.6	10.16	0.35	2.50	51.6	-15.9	S	-	74.8	0.63

Note: Δ Po(dB) is the difference between Pout at 1dB overdrive and Pout at Pin = 6.2 W.

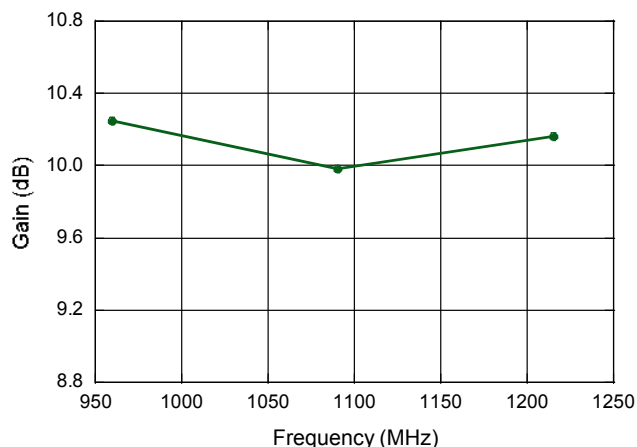
Absolute Maximum Ratings @ +25°C

Parameter	Rating
Collector-Emitter Voltage (V_{CES})	65 V
Emitter-Base Voltage (V_{EBO})	3.0 V
Collector Current (Peak) (I_C)	5.3 A
Power Dissipation @ +25°C (P_{TOT})	220 kW
Storage Temperature (T_{STG})	-65°C to +200°C
Junction Temperature (T_J)	200°C

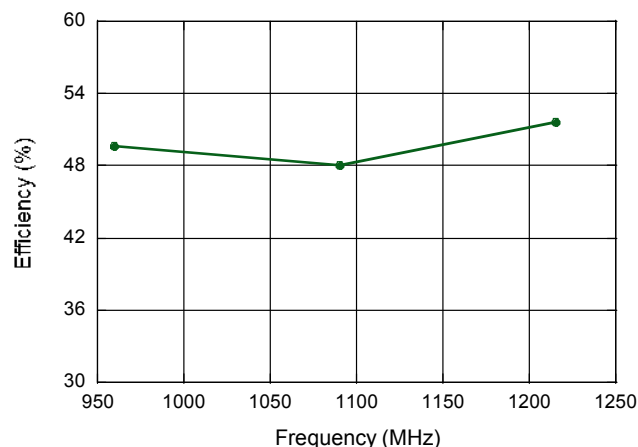
Output Power vs. Input Power



Gain vs. Frequency



Collector Efficiency vs. Frequency

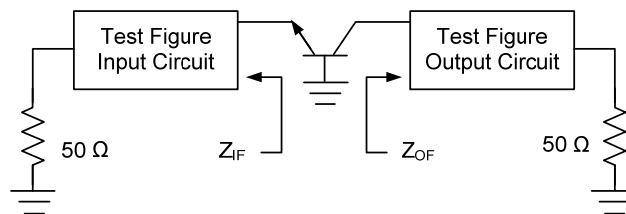


Avionics Pulsed Power Transistor 50 W, 960 - 1215 MHz, 10 μ s Pulse, 10% Duty

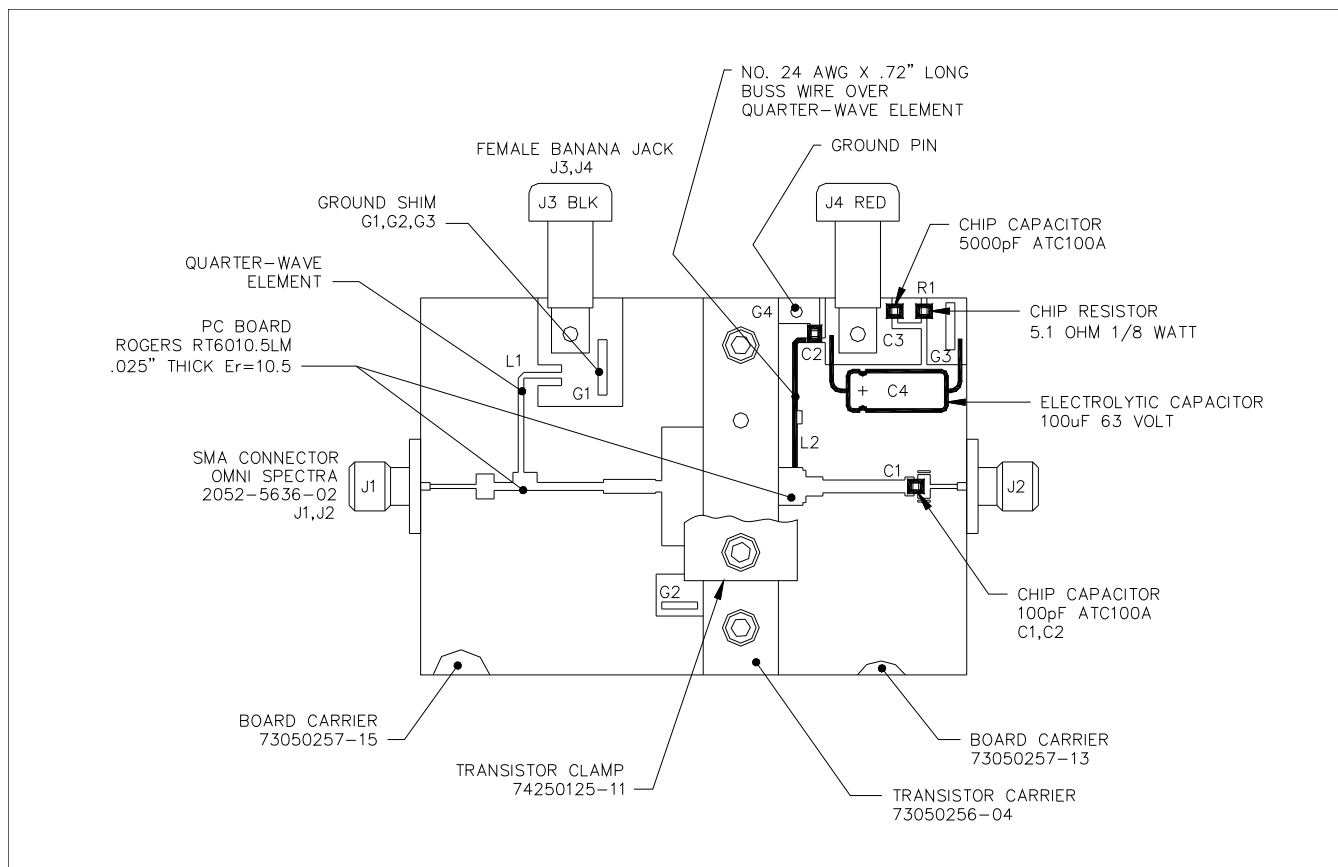
Rev. V1

Broadband Test Fixture Impedance

Frequency (MHz)	Z_{IF} (Ω)	Z_{OF} (Ω)
960	3.5 - j7.5	12.0 - j7.8
1030	3.8 - j7.0	11.1 - j6.4
1090	3.9 - j6.8	10.6 - j5.1
1150	3.9 - j6.8	10.8 - j3.8
1215	3.6 - j7.0	11.1 - j3.2



Test Fixture Assembly



Avionics Pulsed Power Transistor
50 W, 960 - 1215 MHz, 10 μ s Pulse, 10% Duty

Rev. V1

Test Fixture Circuit Dimensions

