

ELECTRICAL SPECIFICATIONS @ 120VAC, 25°C ambient, 50Ω System, MGC mode unless specified otherwise

Parameter	Specifications						Frequency (MHz) & Test Results										
	Symbol	Min	Typ	Max	Unit	Notes	1000	1250	1500	1750	2000	2250	2500	2750	3000	Pass/Fail	
Operating Frequency Range	BW	1000		3000	MHz	Plot 1 (pg4)	x	x	x	x	x	x	x	x	x	Pass	
Input Frequency Hopping F1=20MHz, F2=500MHz Min_Dwell=20µS (ALC fast Peak Detection mode only)	F ₁₋₂	100			µSec	DVT Only	x	x	x	x	x	x	x	x	x	Pass	
Output Power CW @ 900W (into 2:1 VSWR)	P _{out}	59.6			dBm	Record	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	Pass	
Output Power @1dB G.C.P (AM Modulation)	P _{1dB}	53			dBm	Record	>53	>53	>53	>53	>53	>53	>53	>53	>53	Pass	
Sample Port @ P _{OUT} = 54.0 dBm	P _{sample}	-5		5	dBm	Record	0	-1.8	0	-1.4	-1.4	-0.9	-2.6	-1.18	-2.55	Pass	
Input Power for rated P _{OUT} = 250W (CW/MGC MODE minimum VVA attenuation)	P _{IN}	-5		+5	dBm	Record	-9.1	-10.6	-9.1	-11.5	-11.3	-9.7	-7.4	-9.2	-6.3	Pass	
Small Signal Gain Flatness, P _{IN} = -30dBm	ΔG			±3.5	dB	Plot 1 (pg4)	x	x	x	x	x	x	x	x	x	Pass	
Leveled ALC Flatness @ 54dBm	ΔALC			±1.0	dB	Plot 2 (pg4)	x	x	x	x	x	x	x	x	x	Pass	
Gain Adjustment Range	VVA	20			dB	Plot 3 (pg4)	x	x	x	x	x	x	x	x	x	Pass	
Wide Band Noise Level, beyond 3MHz from carrier, including phase noise	N _{WIDE}			-50	dBm/kHz	DVT Only	x	x	x	x	x	x	x	x	x		
RF Noise in transmission mode	No			-80	dBm/Hz	DVT Only	x	x	x	x	x	x	x	x	x		
@ 59.6dB Gain @ 5MHz from carrier inc phase noise inter-modulation (2nd Order) 2-Tones @ 53.6dBm/Tone	IMD _{2nd} Δ=1MHz			-20	dBc	Record	-26.42	-37.09	-42.58	-50.32	-36.84	-32.51	-45.43	-82.43	-84.59	Pass	
Inter-modulation (3rd Order) 2-Tones @ 48dBm/Tone	500-520MHz			-25	dBc	Record	x	x	x	x	x	x	x	x	x	Fail	
	>520MHz			-60	dBc		x	x	x	x	x	x	x	x	x	x	Fail
Harmonics @ P _{out} = 200W	3 rd			-25	-20	dBc	Record	-29.2	-30.1	-35.7	-47.6	-30	-54	-49.9	-43.7	-63.1	Pass
Out-of-Band Harmonic Distortion Level @ Pout = 900W	>500-700MHz			-25	dBc	Record	-75	-57.94	-28.27	-58.79	-27.29	-87.39	-81.06	-86.59	-80	Pass	
	>700MHz			-60	dBc		-75	-75	-90.8	-92.11	-89.36	-91.83	-89.3	-91.85	-91.87		
Pulse performance Fc = 225MHz, P _{OUT} = 900W(peak) Pulse Period: 100µSec, 50%	T _{RISE 90%}			150	nSec	DVT Only											
Operating Voltage	V _{AC}	100	120	240	Volt	Verify	√										Pass
Power Consumption @ Cold Standby	I _{SD}				VA	Record	135										Pass
Power Consumption @ Hot Standby	I _{SB}				VA	Record	290										Pass
Power Consumption @ P _{OUT} = 500W (ALC mode)	P _D				VA	Record	2520	2176	2313	2036	2520	2988	2618	2727	2831	Fail	
Power Consumption @ P _{OUT} = 250W	P _D		1100	1500	VA	Record	936	1040	1102	1012	1248	1185	1268	1185	1227	Pass	
Input Overdrive –Shut down	P _{I_{OD}}			10	dBm	Verify	√										Pass
Thermal Overload –Shut down	T _{SD}			115	°C	DVT Only	√										Pass
Reflected Power Reduction Point (Approx. 3.5:1 VSWR trip point; max reduction -6dB)	VSWR			>3:1	VSWR	Verify	√										Pass

Power Reporting Accuracy

Forward Power, 50 Ohm Load (ALC MODE)							
Frequency (MHz)	Measuremnt Method	PIN =0dBm	PIN =0dBm	PIN =0dBm	PIN =0dBm	Limits	P/F
1000	External Test Equipment	54.6	51	46	41	±1 dB	Pass
	Ethernet Reporting	54	50	45	40		
	Pass/Fail						
2000	External Test Equipment	54.2	50.4	45.2	40.3	±1dB	Pass
	Pass/Fail						
3000	External Test Equipment	54.2	50.3	45.2	40.4	±1 dB	Pass
	Pass/Fail	P	P	P	P		

PERFORMANCE PLOTS

