

**ELECTRICAL SPECIFICATIONS @ 230VAC Single-phase, 25°C ambient, 200W System, MGC mode unless specified otherwise**

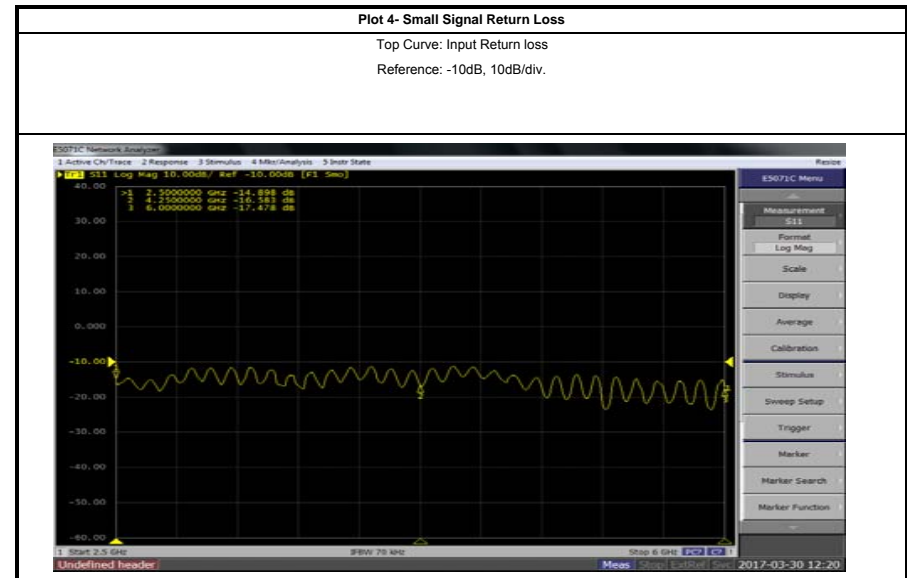
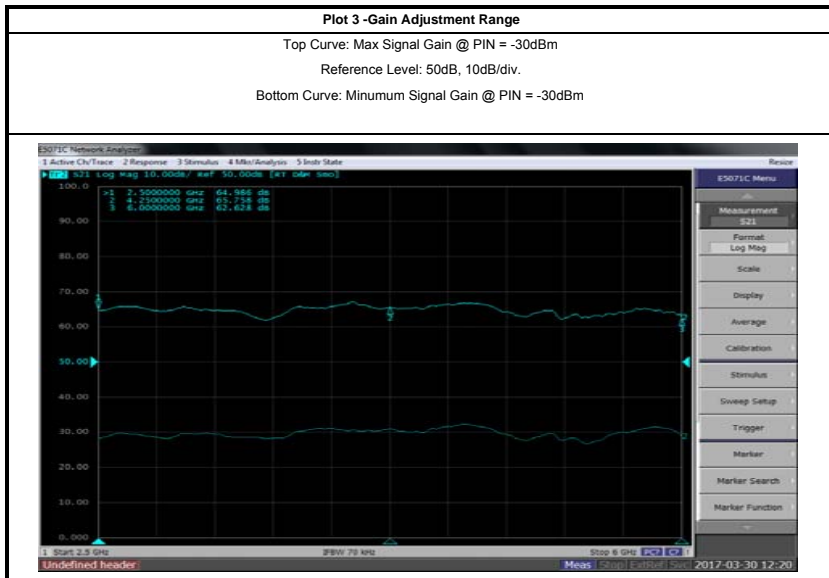
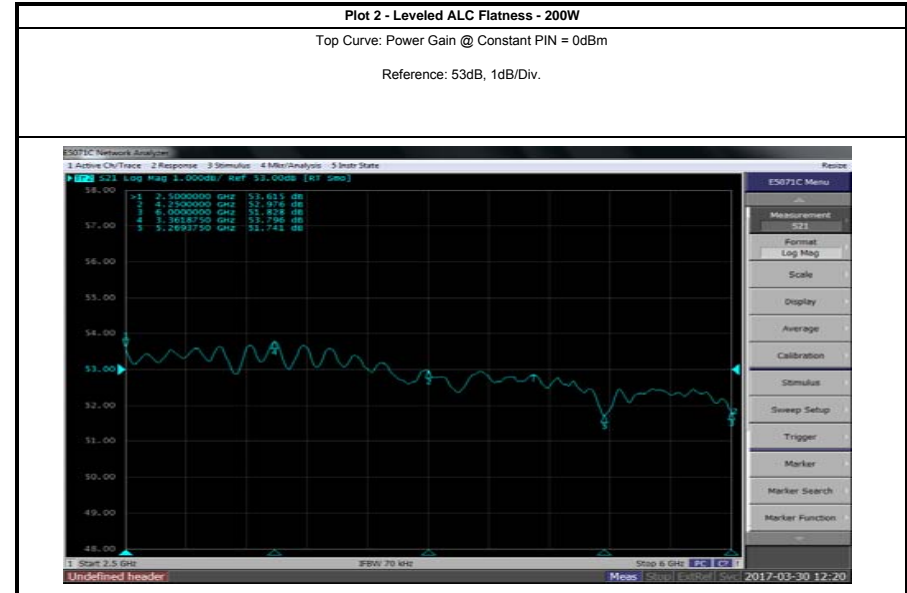
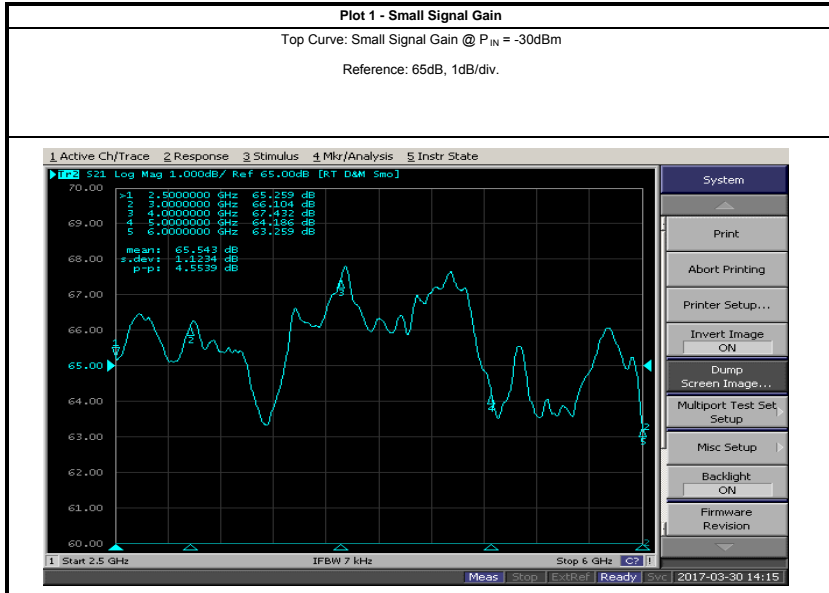
Parameter	Specifications					Frequency (MHz) & Test Results											Pass/Fail	
	Symbol	Min	Typ	Max	Unit	Notes	2500	2850	3200	3550	3900	4250	4600	4950	5300	5650		6000
Operating Frequency Range	BW	2500		6000	MHz	Plot 1 (pg4)	x	x	x	x	x	x	x	x	x	x	x	Pass
Input Frequency Hopping f1 to f2 >100µS, minimum dwell =20µS	F <sub>1-2</sub>	100			µSec	Record (see pg6)	x	x	x	x	x	x	x	x	x	x	x	Pass
Output Power CW @ 200W (into 2:1 VSWR)	P <sub>out</sub>	53			dBm	Record	53	53	53	53	53	53	53	53	53	53	53	Pass
Power Reporting Accuracy	P <sub>FWD</sub>			±1.5	dB	Record (see pg3)	x	x	x	x	x	x	x	x	x	x	x	Pass
	P <sub>REV</sub>			±1.5	dB		x	x	x	x	x	x	x	x	x	x	x	Pass
Sample Port @ P <sub>OUT</sub> = 53 dBm	P <sub>sample</sub>	-2		2	dBm	Record	0.09	-0.1	-0.15	-0.42	-0.44	-0.65	-0.75	-0.87	-0.7	-0.8	-0.9	Pass
Input Power for rated P <sub>OUT</sub> = 200W (CW-MGC MODE minimum VVA attenuation)	P <sub>IN</sub>	-10		2	dBm	Record	-6.23	-5.2	-2.4	-2.6	-8	-6.6	-6.3	-4.7	-2.9	-6.1	-0.7	Pass
Small Signal Gain Flatness, P <sub>IN</sub> = -30dBm	ΔG			±2.5	dB	Plot 1 (pg4)	x	x	x	x	x	x	x	x	x	x	x	Pass
Leveled ALC Flatness @ 53dBm	ΔALC			±1.5	dB	Plot 2 (pg4)	x	x	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	x	x	Pass
Wide Band Noise Level, beyond 3MHz from carrier, including phase noise	N <sub>OWIDE</sub>			-50	dBm/kHz	Record (DVT ONLY)	-87.5	-86.7	-86.8	-88.5	-87.38	-88	-89.1	-91.1	-90.3	-93.1	-95.5	Pass
RF Noise in transmission mode @ 53dB Gain, @ 5MHz from carrier, inc phase noise	No			-75	dBm/Hz	Record (DVT ONLY)	-121.5	-120.5	-121.3	-122.5	-121.3	-121.7	-122.5	-125.4	-124.2	-126.6	-128.5	Pass
Input Return Loss	S <sub>11</sub>			-10	dB	Plot 4 (pg4)	x	x	x	x	x	x	x	x	x	x	x	Pass
Inter-modulation (2nd Order) 2-Tones @ 47dBm/Tone	IMD <sub>2nd</sub> Δ = 10kHz			-20	dBc	Record	-21.5	-23	-51	-84	-100	-83	-87	-85	-89	-81	-90	Pass
	IMD <sub>2nd</sub> Δ = 1MHz			-20	dBc	Record	-21.5	-23.5	-51	-83	-95	-83	-87	-85	-89	-80	-90	Pass
Inter-modulation (3rd Order) 2-Tones @ 47dBm/Tone	IMD <sub>3rd</sub> Δ = 10kHz			-23	dBc	Record	-25.2	-25	-26	-23	-24	-27	-27	-26	-24	-26	-36	Pass
	IMD <sub>3rd</sub> Δ = 1MHz			-23	dBc	Record	-29	-27	-25	-28	-29	-31	-30	-30	-29	-31	-24	Pass
Out-of-Band IMD Distortion Level 2-Tones @ 47dBm/Tone, Δ = 1MHz	>6500MHz			-50	dBc	Record	x	x	x	x	x	x	x	x	x	x	-62	Pass
In-Band Harmonics @ P <sub>out</sub> = 200W CW	2 <sup>nd</sup>		-15	-12	dBc	Record	-22	-25	-55	-88	-86	-86	-87	-88	-87	-73	-88	Pass
	3 <sup>rd</sup>		-19	-13	dBc		-75	-73	-74	-91	-84	-71	-83	-78	-72	-88	-68	Pass
Out-of-Band Harmonic Distortion Level @ P <sub>out</sub> = 200W	>6500MHz			-50	dBc	Record	-74	-80	-90	-91	-90	-71	-85	-70	-71	-83	-68	Pass
Spurious Signals	Spur		-70	-60	dBc	Record	-75	x	x	x	x	-74	x	x	x	x	-73	Pass
AM Modulation 85% depth FC = 4000MHz @ 56W average (~200W peak)	3kHz			-20	dBc	Record	-22											Pass
Switching Time, 1KHz TTL, P <sub>IN</sub> = 0dBm	T <sub>ON 90%</sub>			10	µSec	Plot 5 (pg5)	1.7											Pass
	T <sub>OFF 10%</sub>			10			Plot 6 (pg5)	1.7										
Operating Voltage (Single phase 50/60Hz)	V <sub>AC</sub>	207	230	253	Volt	Verify		√										
Power Consumption @ Cold Standby	I <sub>SD</sub>			550	VA	Record	410											Pass
Power Consumption @ Hot Standby	I <sub>SB</sub>			800	VA	Record	612											Pass
Power Consumption @ P <sub>OUT</sub> = 200W	P <sub>D</sub>			1800	VA	Record	1223	1221	1431	1406	1252	1350	1454	1649	1822	1601	2046	Fail
Power Factor @ P <sub>OUT</sub> = 200W	PF	0.8				Record	0.970	0.971	0.970	0.970	0.975	0.975	0.980	0.980	0.980	0.970	0.970	Pass
AC Power THD (voltage / current)	THD			5	%	Record	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.3	1.3	1.2	Pass
NTE Test, Limiter = 53.5dBm (AGC mode)	P <sub>OOD</sub>			53.5	dBm	Record P <sub>OUT</sub>	53.5	x	x	x	x	53.5	x	x	x	x	53.5	Pass
Input Overdrive - Shut down	P <sub>IOD</sub>			8	dBm	Verify	√											Pass
Thermal Overload @ device fault - Shut down	T <sub>SD</sub>			80	°C	Verified	√											-
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	Pass/Fail
2500	External Test Equipment	52.8	49.7	46.8	45.2	±1.5 dB	Pass
	Ethernet Reporting	53	50.4	47.3	45.3		
	Pass/Fail	P	P	P	P		
4250	External Test Equipment	53.1	49.8	46.9	44.9	±1.5 dB	Pass
	Pass/Fail	P	P	P	P		
6000	External Test Equipment	52.8	50	46.8	45	±1.5 dB	Pass
	Pass/Fail	P	P	P	P		

Reverse Power, Open Load (AGC MODE)					
Frequency (MHz)	Measuremnt Method	PIN =-10dBm	PIN =-8dBm	PIN =-7dBm	PIN =-6dBm
2500	External Test Equipment FWD PWR	42	43	43.9	44.9
	Ethernet Reporting FWD PWR	42.6	43.6	44.3	45.3
	Ethernet Reporting REV PWR	40	41.3	42.2	43.2
4250	External Test Equipment FWD PWR	43.3	44	46.1	47.4
	Ethernet Reporting FWD PWR	43	45.3	46.3	47.9
	Ethernet Reporting REV PWR	41	43.3	43	45
6000	External Test Equipment FWD PWR	40.3	42.1	43.2	44.5
	Ethernet Reporting FWD PWR	42.7	44.5	45.6	47.2
	Ethernet Reporting REV PWR	41	40	43	44

PERFORMANCE PLOTS



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