

ACCEPTANCE TEST RESULTS

Date	Job No.	Model	Serial No.	Frequency	Output Power	Gain
2019-07-05	1810146	SS4026-40	190701	26.5 – 40.0 GHz	40W	46dB

Power amplifier final test	Test	Verify	QA	Approve
	GH	JR		

ELECTRICAL SPECIFICATIONS: -20C , **25C** , 75C

No.	PARAMETER	SPECIFICATONS	TEST RESULTS (GHz)					NOTES	P/F
			26.5	31.0	33.0	38.0	40.0		
1	Operating Frequency - Plot 3dB BW	26.5 – 40.0 GHz	X	X	X	X	X	Plot 1	P
2	Output Power @ Rated Input	40W Min	45.6	47.0	50.8	50.5	43.8	Plot 2 Record	P
3	Output Power @ 1dB G.C.P.	20W Min	25.5	25.4	45.4	51.8	44.4	Plot 1 Record	P
4	Power Gain	46dB Min	X	X	X	X	X	Plot 2	P
5	Small Signal Gain Flatness	Ref. Only(dB)	X	X	X	X	X	Plot 1, 2	P
6	Input Power Flatness at Rated Pout	Ref. Only(dBm)	-13.8	-11.9	-16.8	-7.9	-5.6	Record	P
7	Power Gain Flatness @ rated input power	4dB p-p Max	X	X	X	X	X	Plot 2	P
8	Input Return Loss	S11: 10dB Min	X	X	X	X	X	Plot 1, 2	P
9	Inter-modulation Distortion (3rd Order Intercept) 2-tones @ 36dBm/Tone, Δ = 1MHz	IMD: -30dBc Typ	X	X	X	X	X	Record	P
		IP3: +45dBmTyp	X	X	X	X	X	Calculated	P
10	Harmonics @ rated output power	2 nd : -20dBc Typ	X	X	X	X	X	Record	P
11		3 rd : -20dBc Typ	X	X	X	X	X		P
12	Spurious Signals (Non-harmonics)	-60dBc Min	X	X	X	X	X	Record	P
13	Noise Figure	Ref. Only(dB)	X	X	X	X	X	Record	P
14	Switching Time, 1KHz TTL, P _{IN} = -10dBm	5μSec Max	T _{ON} : N/A					Record	N/A
			T _{OFF} : N/A						
15	Operating Voltage	100 - 240VAC	220					Verify	P
16	Power Consumption @ Rated Power	2000Watts Max	1414.6	1434.4	1482.8	1584.0	1509.2	Record	P
17	Idle Power Consumption	Ref. Only(W)	1238.6					Record	P
18	Power Consumption @ Shutdown	Ref. Only(W)	283.8					Record	P
19	Gain Adjustment Range	30dB	X	X	X	X	X	Plot 3	P
20	Input Overdrive @ +3dBm Max	Pout W	X	X	X	X	X	Record	N/A
21		Pd W	X	X	X	X	X		
22	Load VSWR - Open @ Rated Pout	I _{DD} Amp	X	X	X	X	X	Record	N/A
23	Load VSWR - Short @ Rated Pout		X	X	X	X	X		N/A
24	Over Temperature Alarm	70 - 75°C	Verified					Verify	P
25	Module Operating mode Test	Built-In	Verified					Record	P
26	Protection Against excess Output VSWR	Built-In	Shutdown @ 5:1					Record	P
27	Protection Against excess Duty cycle	Built-In	N/A					Record	N/A
28	Protection Against RF input over drive	Built-In	Verified					Record	P
29	Protection Against Over Temperature	Built-In	Verified					Record	P
30	Protection Against Over and under Voltage	Built-In	Verified					Record	P

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31	Protection Against Over Current	Built-In	Shutdown @ 41A (9.2V)	Record	P
32	Remote control via Serial, USB, LAN and GPIB	Built-In	Verified	Record	P
33	Fans Operation Test	Built-In	Verified	Record	P

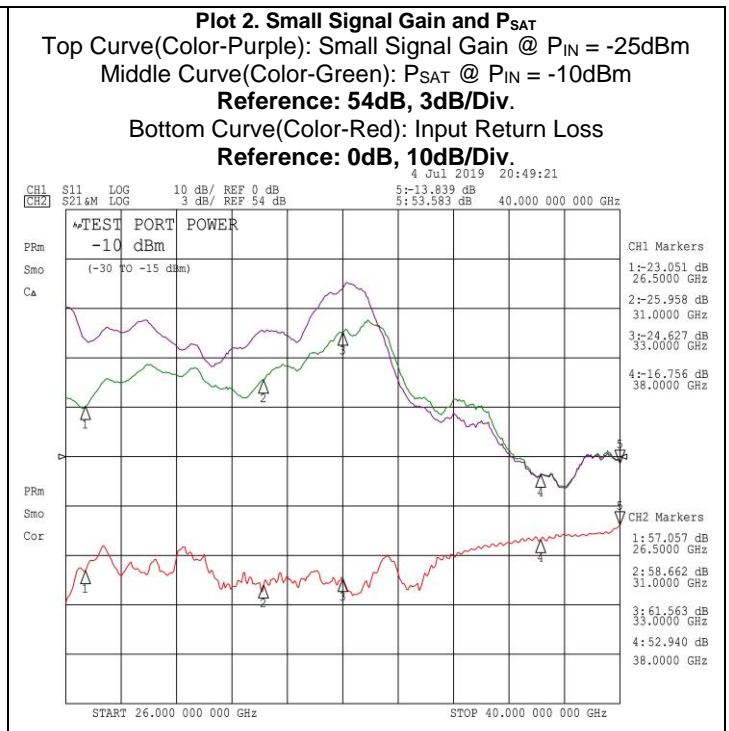
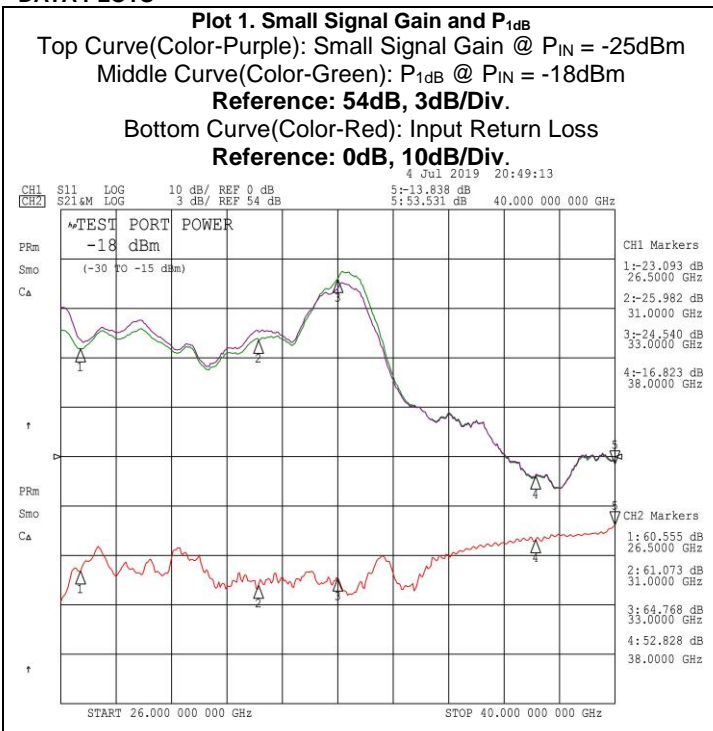
TABLE OF DISPLAYED FWD POWER @ 46.00dBm OUTPUT POWER (ACTUAL OUTPUT)

Freq(GHz)	26.5	27	28	29	30	31	32	33	34	35	36	37	38
Displayed Value	43.69	44.80	43.36	44.59	46.07	44.80	44.35	41.91	42.46	41.33	40.40	39.93	38.99
Freq(GHz)	39	40											
Displayed Value	38.95	33.44											

ACTUAL P1dB Measurement (Reference Only / Maximum Output)

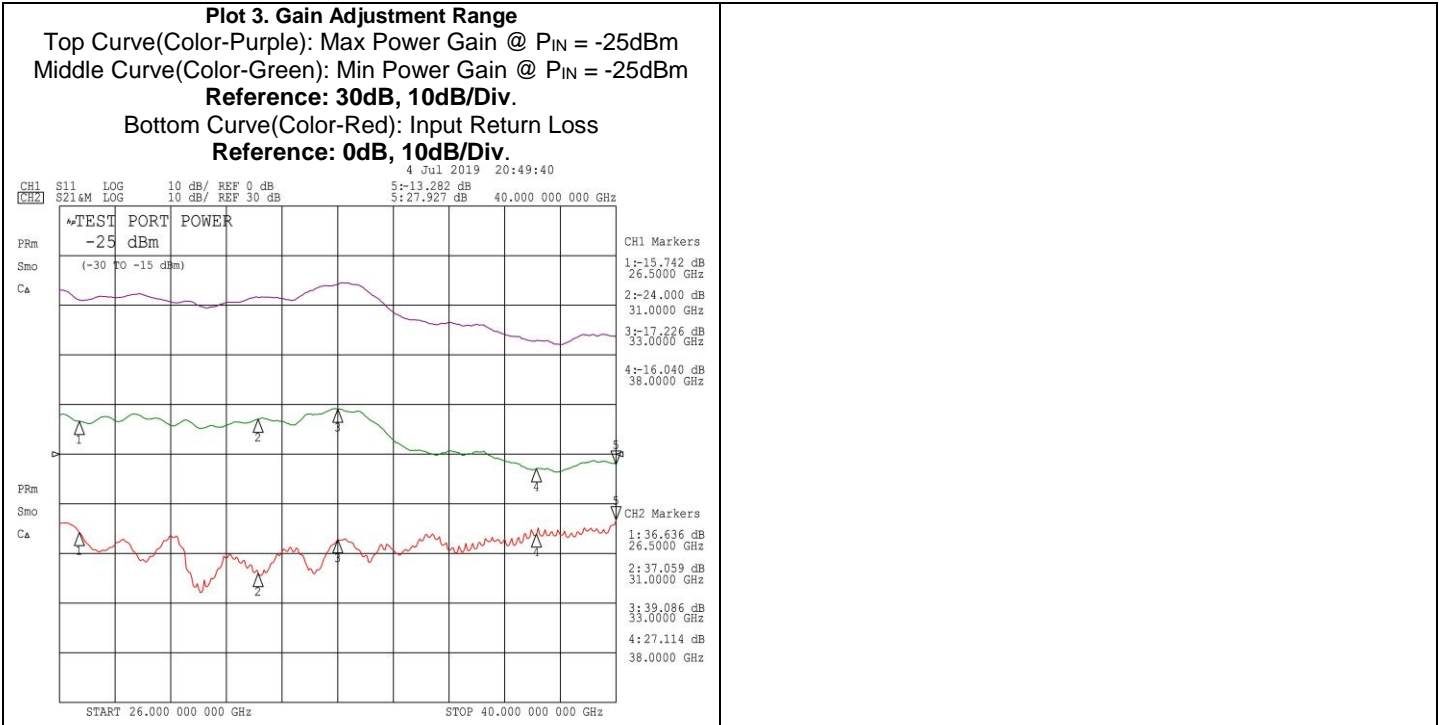
Freq(GHz)	26.5	27	28	29	30	31	32	33	34	35	36	37	38
dBm	44.06	45.50	44.83	45.68	43.88	44.05	44.15	46.62	46.69	46.66	46.63	46.83	47.14
Freq(GHz)	39	40											
dBm	46.58	46.44											

DATA PLOTS



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TEST EQUIPMENTS

No.	EQUIPMENT	MODEL	NOTES
1	Network Analyzer	8722ES	
2	Signal Source	69077B	
3	NFA Series Figure Analyzer	N8975A	
4	Spectrum Analyzer	E4440A	
5	Power Meter	ML2438A	