



PLANAR MONOLITHICS INDUSTRIES
7311F GROVE ROAD, FREDERICK MD. 21701
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JOB NO: P20617

SUMMARY TEST DATA
ON
SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER--SDLVA

CUSTOMER: _____
JOB NO: P20617
MODEL NO: SDLVA-0120-70-FN-07103
SERIAL NO: PM207590

TESTED BY: R. Apple
TEMPERATURE: 0°C TO 60°C
DATE: 8/3/02

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	FREQUENCY RANGE	750 TO 1250 MHz	750 MHz TO 1250 MHz	✓
2	INPUT VSWR (OVER DYNAMIC RANGE)	2.5:1 (MAX) 20.50	1.21:1	✓
3	LOGGING RANGE	65dBm (MIN)	65 dBm	✓
4	TSS (TYPICAL)	- 60 dBm (TYPICAL)	- 60 dBm	✓
5	LOG SLOPE (±10%)	15 mV/dB PLOTS ATTACHED	15.57 mV/dB 14.32 mV/dB SEE PLOT	✓
6	LOG LINEARITY (-61 to +4 dBm)	±2.0 dB (MAX) PLOTS ATTACHED	+ 0.60 dB - 0.71 dB SEE PLOT	✓
7	ADJUSTABLE TO 1.175 VOLTS@ -61 dBm AND 2.15 VOLTS@ +4 dBm	OUTPUT VOLTAGE: 1.175V @ -61 dBm 2.15V @ +4 dBm	1.175V @ -61 dBm 2.15V @ +4 dBm	✓
8	RISE TIME (10% to 90% POINTS)	30 nsec (MAX)	< 30 ns	✓
9	FALL TIME (90% TO 10% POINTS)	30 nsec (MAX)	< 30 ns	✓
10	LIMITED IF OUTPUT	0 dBm (TYPICAL)	- 3.79 dBm - 0.54 dBm	✓
11	DC POWER @ +15V NO LOAD	100 mA (MAX)	80 mA	✓
12	DC POWER @ -15V NO LOAD	190 mA (MAX)	144 mA	✓

PRODUCTION MANAGER APPROVAL: _____ DATED: _____

QA/QC APPROVAL: _____ DATED: 8/6/02

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BY
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TABULATED TEST DATA @ 750 MHz, 1.0 GHz AND 1.3 GHz @ +25 DEGREES C



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TECHNICIAN: RENE AFABLE MODEL NUMBER: SDLVA-0120-70-FN07103
DATE: AUGUST 3, 2002 SERIAL NUMBER: PM207590

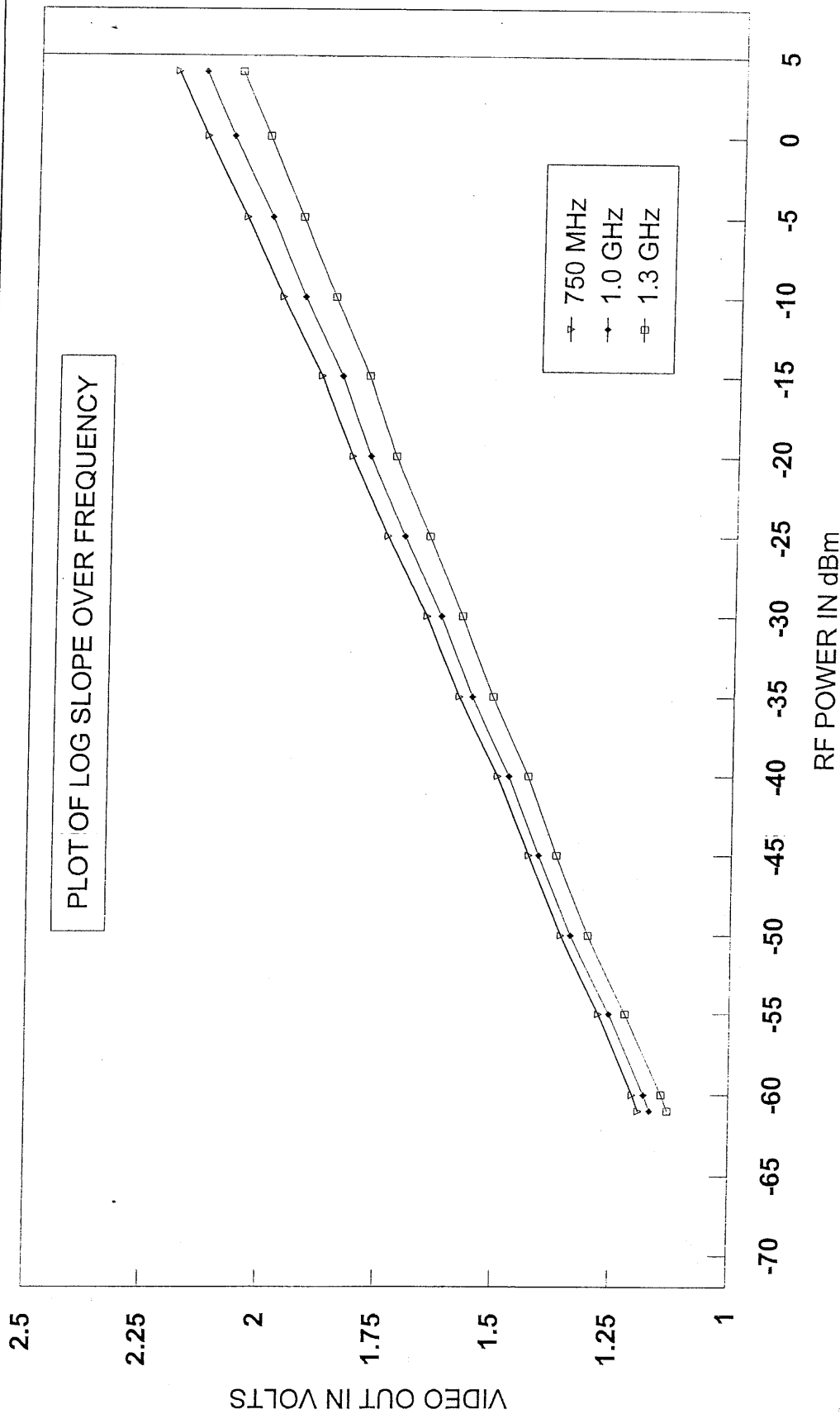
RF POWER IN (dBm)	750 MHz		1.0 GHz		1.3 GHz	
	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)
4	2.206	-0.57	2.146	-0.81	2.069	-1.09
0	2.141	-0.56	2.084	-0.82	2.009	-1.14
-5	2.054	-0.54	2	-0.84	1.934	-1.19
-10	1.974	-0.54	1.927	-0.84	1.862	-1.22
-15	1.888	-0.54	1.845	-0.85	1.787	-1.23
-20	1.82	-0.54	1.781	-0.86	1.726	-1.25
-25	1.741	-0.54	1.704	-0.87	1.651	-1.26
-30	1.654	-0.55	1.623	-0.89	1.578	-1.28
-35	1.582	-0.57	1.554	-0.91	1.51	-1.3
-40	1.498	-0.59	1.474	-0.95	1.433	-1.35
-45	1.43	-0.62	1.409	-1.02	1.371	-1.42
-50	1.359	-0.66	1.338	-1.09	1.301	-1.52
-55	1.277	-0.78	1.255	-1.26	1.221	-1.77
-60	1.204	-1.161	1.18	-1.97	1.143	-3.19
-61	1.191	-1.32	1.167	-2.28	1.13	-3.79
DC POWER @ +5 VOLTS	+80 mA					
DC POWER @ -5 VOLTS	-144 mA					
LOG SLOPE						
BEST FIT STRAIGHT LINE	15.5705	mV/dB	14.9668	mV/dB	14.3212	mV/dB
LOG ERROR IN dB	0.76		0.53		0.60	
LOG ERROR IN dB	-0.71		-0.60		-0.46	
FREQUENCY FLATNESS						
LOG VIDEO FROM THE VALUE @ 1 GHz IN dB						

TABULATED TEST DATA @ 750 MHz, 1.0 GHz AND 1.3 GHz @ +25 DEGREES C

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1	FREQUENCY RANGE	750 TO 1250 MHz	750 MHz To 1250 MHz	✓
2	INPUT VSWR (OVER DYNAMIC RANGE)	2.5:1 (MAX)	1.25:1	✓
3	LOGGING RANGE	65dBm (MIN)	65 dBm	✓
4	TSS (TYPICAL)	- 60 dBm (TYPICAL)	- 60 dBm	✓
5	LOG SLOPE (±10%)	15 mV/dB PLOTS ATTACHED	15.24mV 14.17mV SEE PLOT	✓
6	LOG LINEARITY (-61 to +4 dBm)	±2.0 dB (MAX) PLOTS ATTACHED	0.77 dB -0.80 dB see plot	✓
7	ADJUSTABLE TO 1.175 VOLTS@ -61 dBm AND 2.15 VOLTS@ +4 dBm	OUTPUT VOLTAGE: 1.175V @ -61 dBm 2.15V @ +4 dBm	1.175V @ -61 dBm 2.15V @ +4 dBm	✓
8	RISE TIME (10% to 90% POINTS)	30 nsec (MAX)	< 30 ns	✓
9	FALL TIME (90% TO 10% POINTS)	30 nsec (MAX)	< 30 ns	✓
10	LIMITED IF OUTPUT	0 dBm (TYPICAL)	-4.36 dBm -0.75 dBm	✓
11	DC POWER @ +15V NO LOAD	100 mA (MAX)	80 mA	✓
12	DC POWER @ -15V NO LOAD	190 mA (MAX)	142 mA	✓

PRODUCTION MANAGER APPROVAL: _____ DATED: _____

 QA/QC APPROVAL: _____ DATED: 8/6/02

TABULATED TEST DATA @ 750 MHz, 1.0 GHz AND 1.3 GHz @ +25 DEGREES C



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TECHNICIAN: RENE AFABLE MODEL NUMBER: SDLVA-0120-70-FN07103
DATE: AUGUST 3, 2002 SERIAL NUMBER: PM207591

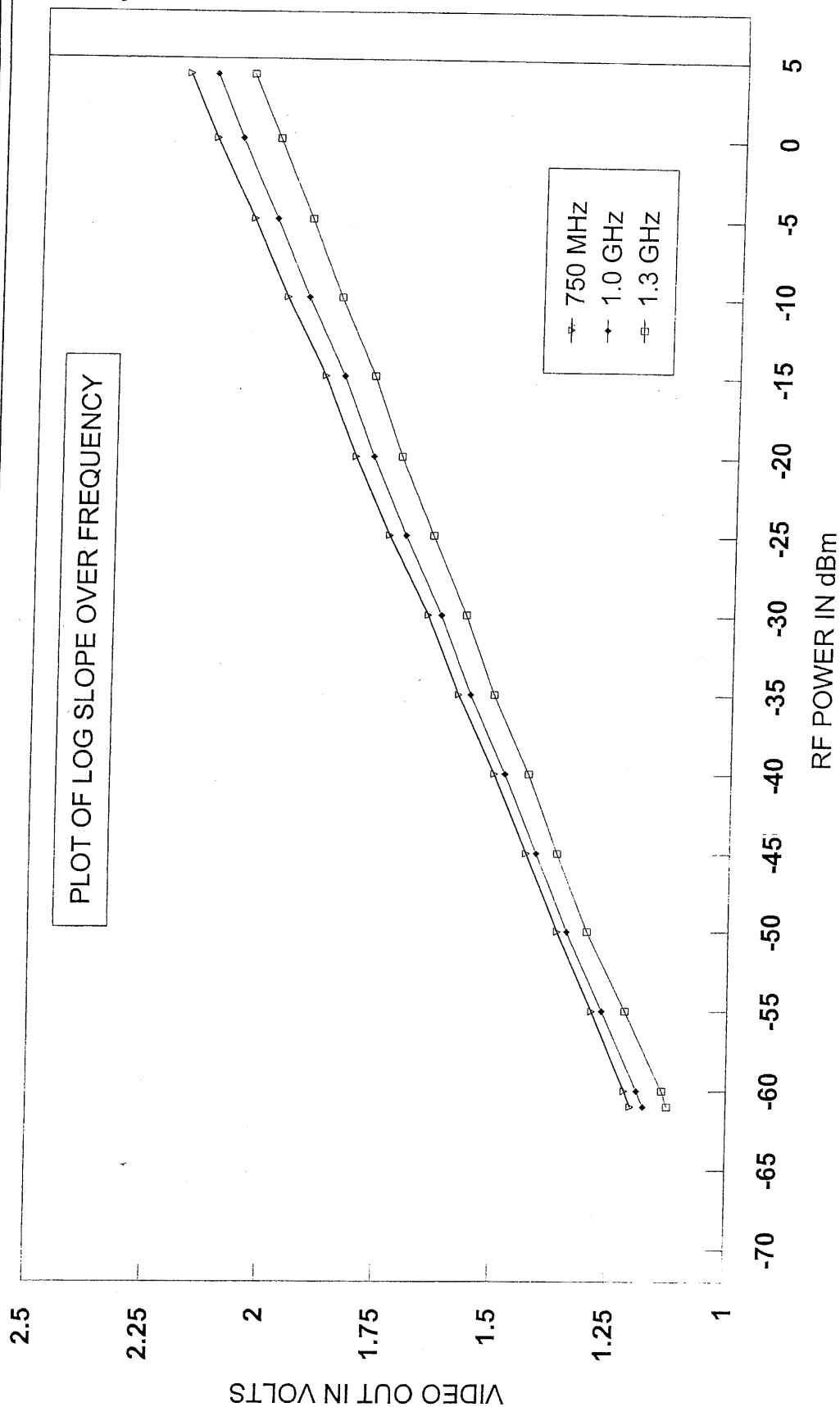
RF POWER IN (dBm)	750 MHz	750 MHz	1.0 GHz	1.0 GHz	1.3 GHz	1.3 GHz
	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)
4	2.194	-0.78	2.135	-0.99	2.054	-1.2
0	2.132	-0.76	2.076	-1	1.995	-1.26
-5	2.046	-0.75	1.997	-1.03	1.922	-1.31
-10	1.971	-0.75	1.925	-1.034	1.854	-1.34
-15	1.885	-0.75	1.844	-1.05	1.779	-1.36
-20	1.816	-0.75	1.778	-1.063	1.717	-1.38
-25	1.74	-0.75	1.705	-1.079	1.645	-1.39
-30	1.653	-0.76	1.625	-1.1	1.571	-1.42
-35	1.584	-0.76	1.558	-1.12	1.506	-1.44
-40	1.503	-0.79	1.48	-1.15	1.43	-1.49
-45	1.432	-0.81	1.411	-1.2	1.367	-1.55
-50	1.364	-0.85	1.343	-1.26	1.299	-1.63
-55	1.287	-0.93	1.265	-1.39	1.216	-1.89
-60	1.215	-1.22	1.189	-2.1	1.136	-3.65
-61	1.202	-1.37	1.175	-2.43	1.125	-4.36
DC POWER @ + 5 VOLTS	+80 mA					
DC POWER @ - 5 VOLTS	-142 mA					
LOG SLOPE						
BEST FIT STRAIGHT LINE	15.2495	mV/dB	14.7042	mV/dB	14.1760	mV/dB
LOG ERROR IN dB	0.68		0.43		0.77	
LOG ERROR IN dB	-0.80		-0.50		-0.73	
FREQUENCY FLATNESS						
LOG VIDEO FROM THE VALUE @ 1 GHz IN dB						

TABULATED TEST DATA @ 750 MHz, 1.0 GHz AND 1.3 GHz @ +25 DEGREES C

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CUSTOMER: _____
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SERIAL NO: PM207592

TESTED BY: R. Apple
TEMPERATURE: 0°C TO 60°C
DATE: 8/3/02

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	FREQUENCY RANGE	750 TO 1250 MHz	750 MHz TO 1250 MHz	✓
2	INPUT VSWR (OVER DYNAMIC RANGE)	2.5:1 (MAX) 19.22	1.25:1	✓
3	LOGGING RANGE	65dBm (MIN)	65 dBm	✓
4	TSS (TYPICAL)	- 60 dBm (TYPICAL)	- 60 dBm	✓
5	LOG SLOPE (±10%)	15 mV/dB PLOTS ATTACHED	15.07 mV/dB 14.13 mV/dB SEE PLOT	✓
6	LOG LINEARITY (-61 to +4 dBm)	±2.0 dB (MAX) PLOTS ATTACHED	+ 0.66 dB - 0.75 dB SEE PLOT	✓
7	ADJUSTABLE TO 1.175 VOLTS@ -61 dBm AND 2.15 VOLTS@ +4 dBm	OUTPUT VOLTAGE: 1.175V @ -61 dBm 2.15V @ +4 dBm	1.175V @ -61 dBm 2.15V @ +4 dBm	✓
8	RISE TIME (10% to 90% POINTS)	30 nsec (MAX)	< 30 ns	✓
9	FALL TIME (90% TO 10% POINTS)	30 nsec (MAX)	< 30 ns	✓
10	LIMITED IF OUTPUT	0 dBm (TYPICAL)	-5.28 dBm -0.87 dBm	✓
11	DC POWER @ +15V NO LOAD	100 mA (MAX)	81 mA	✓
12	DC POWER @ -15V NO LOAD	190 mA (MAX)	141 mA	✓

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TECHNICIAN: RENE AFABLE MODEL NUMBER: SDLVA-0120-70-FN07103
DATE: AUGUST 3, 2002 SERIAL NUMBER: PM207592

RF POWER IN (dBm)	750 MHz	750 MHz	1.0 GHz	1.0 GHz	1.3 GHz	1.3 GHz
	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)	VIDEO OUT (VOLTS)	LIMITED IF OUT (dBm)
4	2.184	-0.89	2.13	-1.31	2.05	-1.33
0	2.122	-0.87	2.072	-1.31	1.992	-1.38
-5	2.037	-0.87	1.993	-1.32	1.918	-1.43
-10	1.964	-0.87	1.922	-1.32	1.851	-1.46
-15	1.878	-0.87	1.841	-1.33	1.776	-1.49
-20	1.81	-0.88	1.775	-1.34	1.714	-1.5
-25	1.737	-0.88	1.705	-1.35	1.645	-1.52
-30	1.65	-0.89	1.624	-1.37	1.57	-1.53
-35	1.582	-0.9	1.558	-1.39	1.505	-1.55
-40	1.504	-0.92	1.483	-1.41	1.429	-1.6
-45	1.433	-0.94	1.413	-1.46	1.359	-1.76
-50	1.361	-1.02	1.342	-1.56	1.289	-1.93
-55	1.286	-1.17	1.262	-1.83	1.214	-2.08
-60	1.215	-1.44	1.188	-2.69	1.138	-3.98
-61	1.203	-1.59	1.175	-3.19	1.129	-5.28
DC POWER @ +5 VOLTS	+81 mA					
DC POWER @ -5 VOLTS	-141 mA					
LOG SLOPE						
BEST FIT STRAIGHT LINE	15.0793	mV/dB	14.6358	mV/dB	14.1381	mV/dB
LOG ERROR IN dB	0.66		0.37		0.47	
LOG ERROR IN dB	-0.75		-0.53		-0.49	
FREQUENCY FLATNESS						
LOG VIDEO FROM THE VALUE						
@ 1 GHz IN dB						

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