



Planar Monolithics Industries, Inc.

RF & Microwave Components and Modules to 40GHz

ISO9001:2008 Certified

May 21, 2014

2.0 to 4.0GHz 45dB DLVA with Fixed 600nS Pulsed Output PMI Model No. DLVA-2G4G-45-70-CD-1

PMI Model No. DLVA-2G4G-45-70-CD-1 is a detector log video amplifier (DLVA) that operates between the 2.0 to 4.0GHz frequency range. It has a dynamic range of 45dB, a log slope of 70mV/dB and a nominal video bandwidth of 14MHz. Furthermore, the DLVA has features that can convert any incoming signal ranging from 50ns to CW to a pulsed output of 600ns. In addition, the DLVA will not trigger an output with input pulse widths of 40ns or less. This state of the art design utilizes cutting edge technology which provides stunning performance and reliability in a compact package making it an optimum solution for high speed channelized receiver applications.



Frequency Range	2.0 to 4.0GHz
Input VSWR (50 OHMS)	1.92:1 (-10dB max)
Input Power Handling	+20dBm max
Video Log Range	-30dBm to +15dBm
Video Log Linearity	±1.5dB @ 25°C
Video Log Slope	70mV/ dB ±5mVdB
Video Frequency Flatness	±1.5dB max
Pulse Width Range (50ns with little degradation in performance) (PW less than 40nS will not trigger an output)	80ns to CW
Video Output Impedance	100 OHMS
Video Rise Time	35nS max
Fall Time	200nS max
Recovery Time	1.0uS max
Settling Time	60nS max
Video Output Pulse Width	600nS ±200nS
Video Output Noise	60mV PTP
DC Power Supply	+12V @ 50mA +5V @ 80mA -12V @100mA
Size	3.035" x 0.91" x 0.35"

PLANAR MONOLITHICS INDUSTRIES, INC.

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LOG TRANSFER WITH FREQUENCY
 MODEL: DLVA-2G4G-45-70-CD-1
 TESTED BY: EBenson
 TEST DATE: 01/20/2014
 SERIAL NO: PL14510
 TEST TEMP: +25C

Monday, January 20, 2014
 11:14 AM



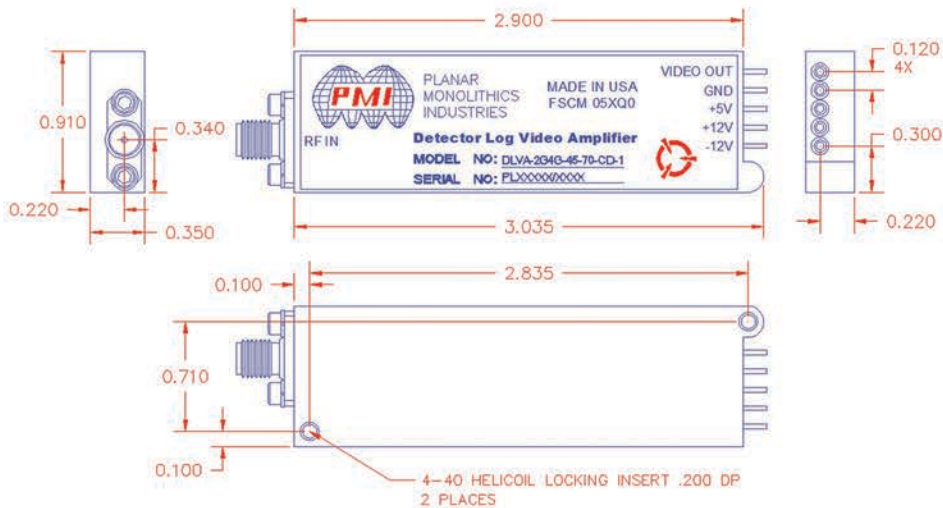
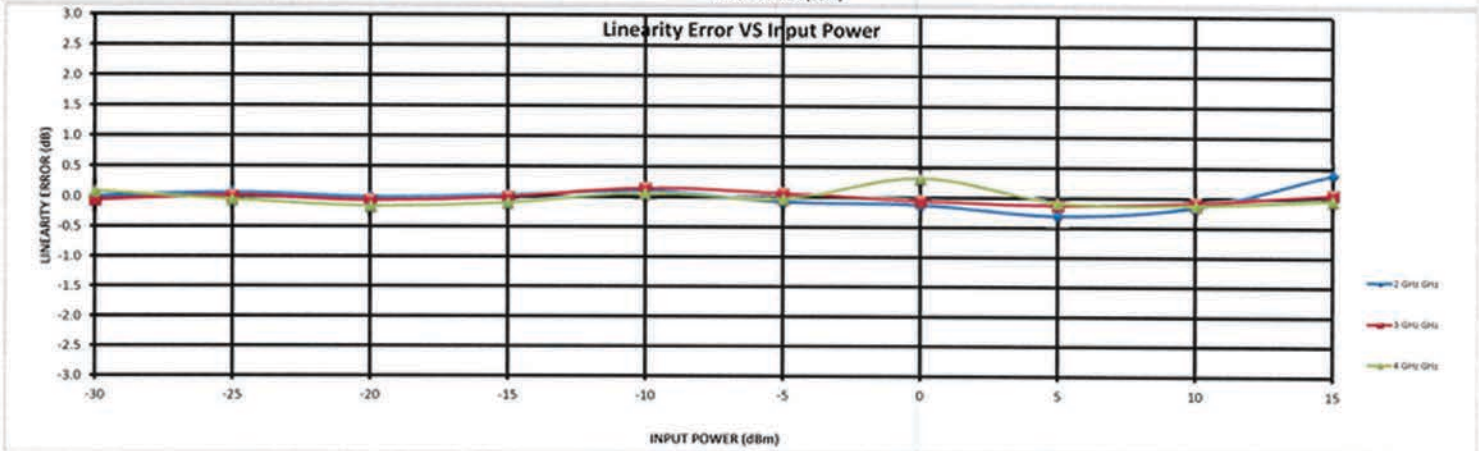
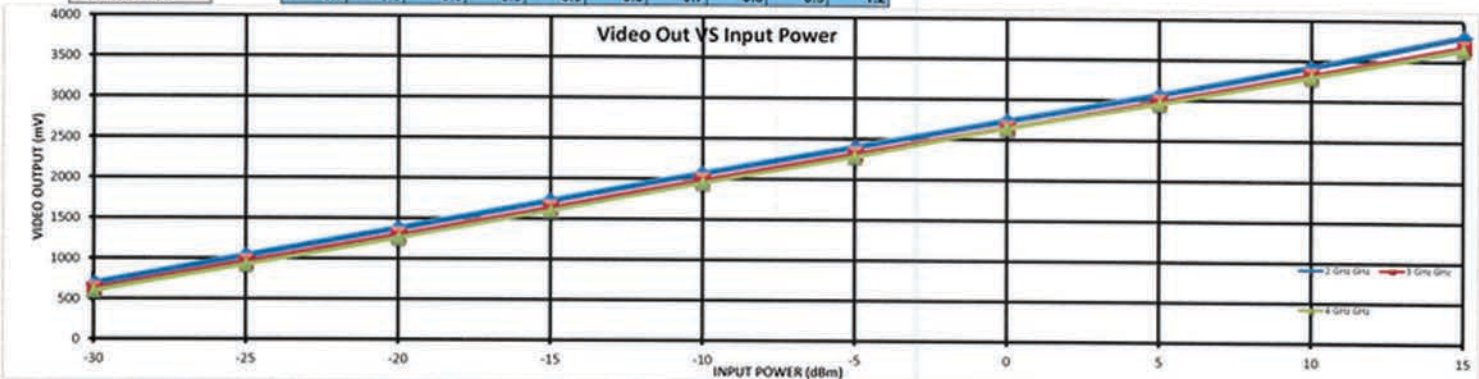
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Frequency		-30	-25	-20	-15	-10	-5	0	5	10	15	
2 GHz	INTERCEPT (mV)	2749										
	SLOPE (mV/dB)	68.63										
		690	1038	1376	1722	2070	2401	2741	3072	3425	3806	
3 GHz	INTERCEPT (mV)	2658										
	SLOPE (mV/dB)	67.76										
		621	965	1299	1642	1991	2324	2655	2989	3331	3679	
4 GHz	INTERCEPT (mV)	2627										
	SLOPE (mV/dB)	67.82										
		599	929	1261	1604	1954	2287	2650	2962	3298	3643	
Flatness +/-dB		0.7	0.8	0.8	0.9	0.9	0.8	0.7	0.8	0.9	1.2	

RF Input Power (dBm)
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)



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