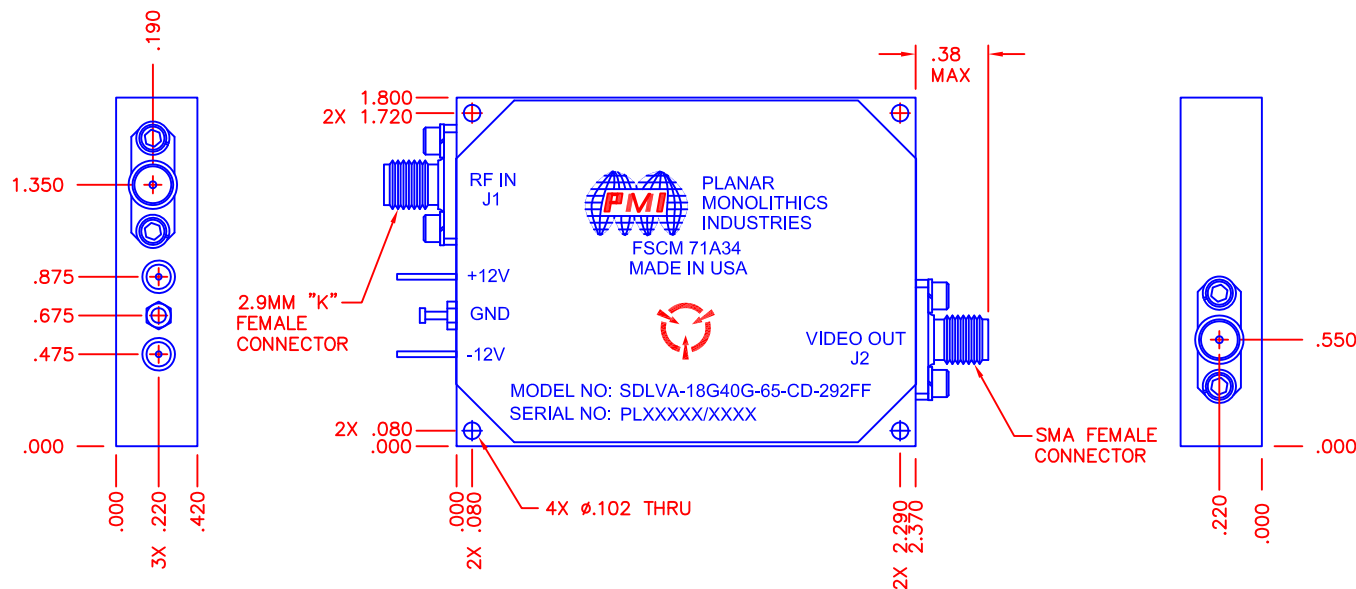


## DESCRIPTION

THE MODEL SDLVA-18G40G-65-CD-292FF IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 18 TO 40 GHz FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 65 dB, A LOG SLOPE OF 25 mV / dB, AND A NOMINAL VIDEO BANDWIDTH OF 32 MHz. FURTHERMORE, IT HAS BEEN DESIGNED USING CUTTING EDGE GaAs TECHNOLOGY WHICH PROVIDES STUNNING PERFORMANCE AND RELIABILITY IN A COMPACT PACKAGE MAKING IT AN OPTIMUM SOLUTION FOR HIGH SPEED CHANNELIZED RECEIVER APPLICATIONS.

## SPECIFICATIONS

- FREQUENCY RANGE:————— 18 GHz to 40 GHz
- TSS ————— -65 dBm @ 25° C
- INPUT POWER HANDLING —— 10 dBm MAX
- VIDEO LOG RANGE ————— -63 dBm to +2 dBm
- VIDEO LOG LINEARITY ————— ± 2.0 dB @ 25° C  
  ± 3.0 OVER TEMP
- VIDEO LOG SLOPE ————— 25 mV / dB nom
- VIDEO LOG INTERCEPTS:
- VIDEO OUTPUT AT 2 dBm—— 1940 mV MAX                 1.350 ———
- 1476 mV MIN
- VIDEO OUTPUT AT -63 dBm—— 280 mV MAX
- 65 mV MIN                 .875 ———
- VIDEO FREQ FLATNESS ————— ± 2.5 dB MAX @ 25° C                 .675 ———
- PULSE WIDTH RANGE ————— 30 nS TO CW                 .475 ———
- VIDEO RISE TIME ————— 11 nS (8 nS typ)
- RECOVERY TIME ————— 60 nS (40 nS typ)
- DELAY TIME ————— 15 nS (5 nS typ)                 .000 ———  
  7 nS over temp typ
- VIDEO OUTPUT IMPEDANCE — 50 Ω
- UNPUT VSWR (50 Ω ) ————— 2.5:1
- DC POWER SUPPLY:
- +V: ————— +12V @ 400 mA
- V: ————— -12V @ 200 mA
- \*NOTE: DO NOT SUPPLY +V WITHOUT -V SUPPLIED AS WELL  
AS THIS MAY DESTROY THE UNIT
- SIZE: ————— (L) 2.37" X (W) 1.80" X (H) 0.42"
- FINISH: ————— NICKEL PLATE PER SAE AMS 2404



## ENVIRONMENTAL RATINGS

- **TEMPERATURE:** \_\_\_\_\_ -54°C TO +85°C (OPERATING)  
-62°C TO +86°C (STORAGE)
- **HUMIDITY:** \_\_\_\_\_ MIL-STD-202F, METHOD 103B COND. B
- **SHOCK:** \_\_\_\_\_ MIL-STD-202F, METHOD 213B COND. B
- **VIBRATION:** \_\_\_\_\_ MIL-STD-202F, METHOD 204D COND. B
- **ALTITUDE:** \_\_\_\_\_ MIL-STD-202F, METHOD 105C COND. B
- **TEMPERATURE CYCLE:** \_\_\_\_\_ MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010  
WEIGHT: 4 oz. MAX

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	7-20-15	

**PLANAR MONOLITHICS INDUSTRIES, INC.**

7311-F GROVE ROAD  
FREDERICK, MARYLAND 21704 USA  
TEL: 301-662-5019 FAX: 301-662-1731  
WEBSITE: [www.pmi-rf.com](http://www.pmi-rf.com)  
E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)  
ISO 9001 CERTIFIED



		TITLE			
APPROVALS		DATE		PRODUCT FEATURE SDLVA-18G40G-65-CD-292FF 18 TO 40 GHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER	
DRAWN JOHN M		7-20-15			
CHECKED		SIZE A	FSCM NO. 71A34	DWG NO. DWG000135	REV A
ISSUED		SCALE N:S			SHEET 1 OF 1