

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	4/25/2023	
	A2	ECN # 25-0225	8/5/2025	

**DESCRIPTION:**

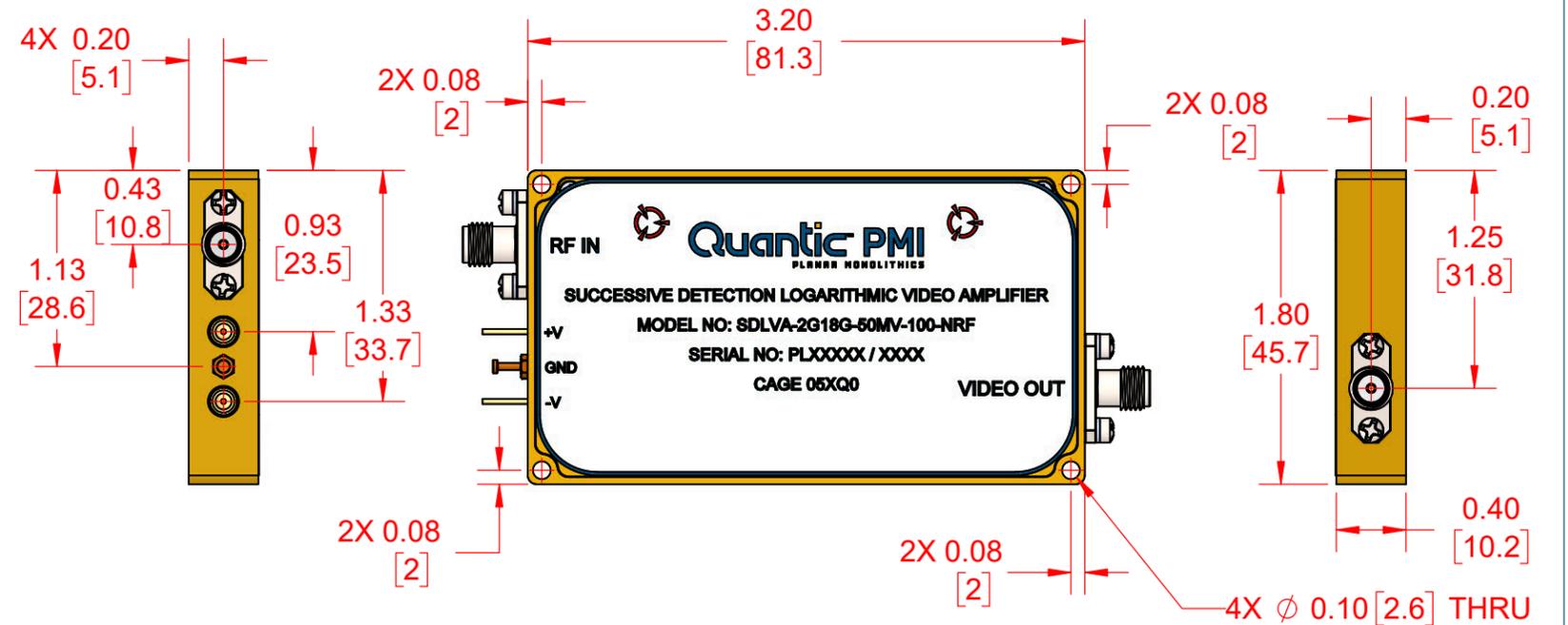
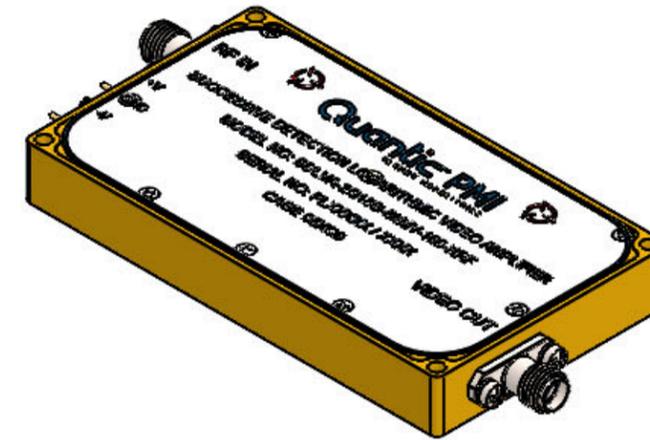
PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER SDLVA-2G18G-50MV-100-NRF IS A SUCCESSIVE DETECTION LOGARITHMIC VIDEO AMPLIFIER (SDLVA) DESIGNED TO OPERATE OVER THE 2 GHz TO 18 GHz FREQUENCY RANGE. THIS MODEL IS DESIGNED FOR ULTRA HIGH SPEED APPLICATIONS WHILE MAINTAINING FLATNESS AND ACCURACY.

**SPECIFICATIONS:**

- FREQUENCY:..... 2.0 TO 18.0 GHz
- FLATNESS:..... ± 2.0 dB MAX
- TSS:..... -69 dB MIN
- VSWR:..... 2.0:1 MAX (RF INPUT)
- POWER INPUT:..... +17 dBm CW MAX
- LOG SLOPE:..... 50 mV/dB (± 1.5 mV) 100 Ω LOAD
- LOG RANGE:..... -67 TO +5 dBm
- LOG LINEARITY:..... ± 1.0 dB (25°C)
- LOG LINEARITY:..... ± 1.35 dB (-30°C / +65°C)
- LOG REF LINE:..... FROM 200 mV @ -67 dBm TO 3800 mV @ +5 dBm, WITH A 50 mV/dB LOG SLOPE
- LOG OFFSET:..... 0 mV ± 100 mV
- PULSE RANGE:..... 30 ns TO CW
- RISE TIME:..... 10 ns MAX, 6 ns TYP
- FALL TIME:..... 40 ns TYP
- RECOVERY TIME:..... 60 ns TYP
- POWER SUPPLY:..... +15 V OR +12 V @ 350 mA NOM  
-15 V OR -12 V @ 180 mA NOM
- CONNECTORS:..... SMA FEMALE
- SEALING:..... HARD CONDUCTIVE EPOXY
- FINISH:..... GOLD PLATED

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... -30°C TO +65°C (OPERATING)  
-65°C TO +125°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
- SALT ATMOSPHERE:..... MIL-STD-202G, METHOD 101E COND. C
- FUNGUS:..... MIL-STD-810C, METHOD 508.2
- TEMPERATURE CYCLE:..... MIL-STD-202F, METHOD 107D COND. A
- ELECTROMAGNETIC COMPATIBILITY:..... MODULE DESIGN SHALL BE BASE ON THE REQUIRMENTS STATED IN MIL-STD-461D CLASS A3 AND TO OPERATE IN THE ENVIRONMENT STATED IN THE REQUIREMENTS MIL-STD-462 (MEASUREMENT OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS)



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

PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS DRAWN <b>M. HANKEN</b> REDRAWN ISSUED		DATE		<b>Quantic PMI</b> PLANAR MONOLITHICS 7309-A GROVE ROAD FREDERICK MARYLAND 21704 USA TEL: (301) 662-5019, FAX: (301) 662-1731 WEB: WWW.QUANTICPMI.COM, EMAIL: SALES@QUANTICPMI.COM ISO 9001 CERTIFIED	
		5/1/2023			
TITLE				OUTLINE	
SDLVA-2G18G-50MV-100-NRF				REV. A2	
SIZE	FSCM NO.	DWG NO.	REV.		
B	05XQ0	27045460	A2		
SCALE 1:1			SHEET 1 OF 1		

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE:  
FRACTIONS DECIMALS ANGLES  
± .XX ± 0.02 ±  
± .XXX ± 0.01