

DESCRIPTION

THE MODEL 024142SA 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.

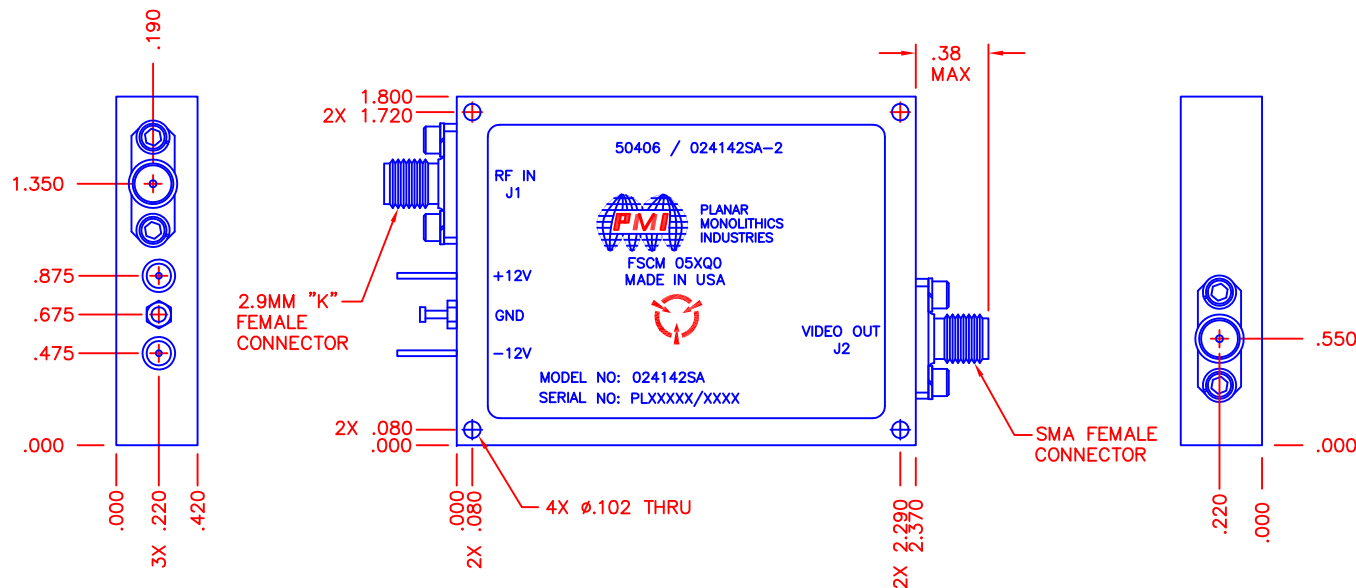
SPECIFICATIONS

- 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
1476 mV MIN
VIDEO OUTPUT AT -63 dBm 280 mV MAX
65 mV MIN
 - VIDEO FREQ FLATNESS ± 2.5 dB MAX @ 25° C
 - PULSE WIDTH RANGE 30 nS TO CW
 - VIDEO RISE TIME 11 nS (8 nS typ)
 - RECOVERY TIME 60 nS (40 nS typ)
 - DELAY TIME 15 nS (5 nS typ)
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	101085 - ORIGINAL RELEASE	4/03/13	

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
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



APPROVALS		DATE		TITLE	
DRAWN		CB HOLMES		PRODUCT FEATURE	
CHECKED				024142SA	
ISSUED				18TO 40 GHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER	
SIZE		FSCM NO.		DWG NO.	
A		05XQ0		DWG000123	
SCALE		N:S		SHEET	
				1 OF 1	