REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	2/19/10	

DESCRIPTION

PMI MODEL ADA-506F-30, OPTION TSS61, LM IS A 5.4 TO 5.9 GHz, DC COUPLED, TEMPERATURE COMPENSATED LINEAR AMPLIFIER DETECTOR MODULE WITH 8nS RISE TIME AND 10nS FALL TIME. THIS UNIT OPERATES ON +15 VDC @ 250mA AND −15 VDC @ 80mA AND MEASURES 2.50" x 2.90" x 0.50" WITH SMA FEMALE CONNECTORS.

SPECIFICATIONS

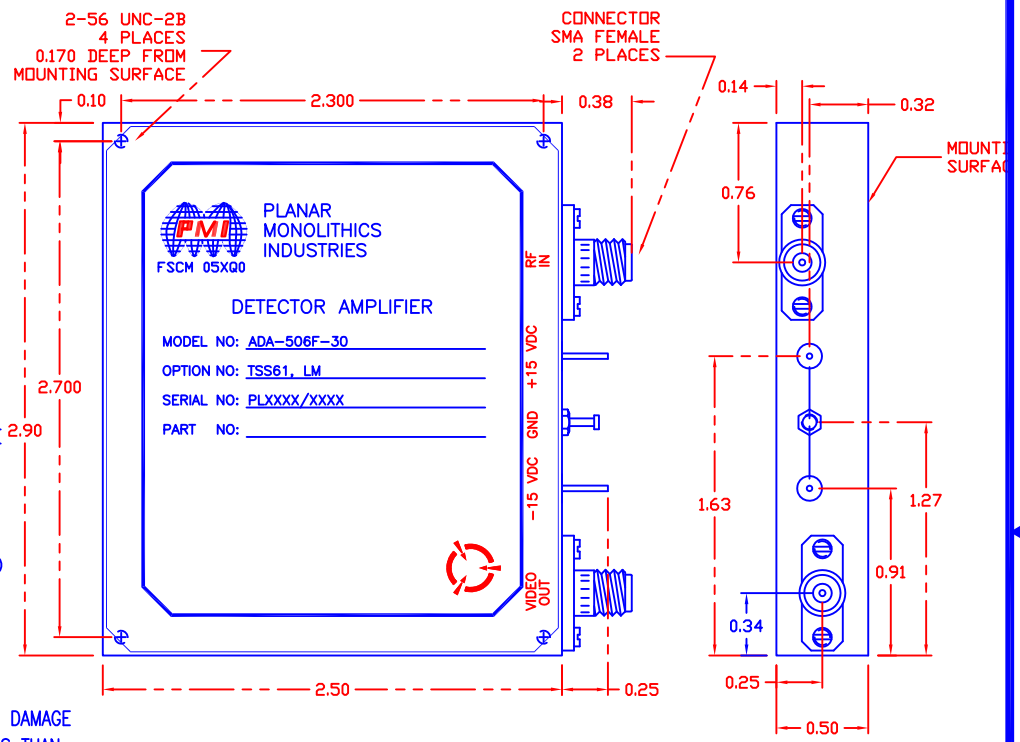
- FREQUENCY RANGE ..... 5.4 TO 5.9 GHz
- FREQUENCY FLATNESS ..... ± 1.0 dB MAXIMUM
- VIDEO BAND ..... DC TO 30 MHz, MINIMUM
- RISE TIME (10% TO 90% RF) ..... 4nS TYPICAL, 8nS MAXIMUM
- FALL TIME(90% TO 10% RF) ..... 10nS TYPICAL
- FUNCTIONAL CONFIGURATION ..... 20dB RF AMPLIFIER DETECTOR/COMPRESSED VIDEO AMPLIFIER
- INPUT RANGE ..... −40dBm TO −10dBm
- TRANSFER FUNCTION ..... V/OUT SLOPE = 300 V/mW TYPICAL @ −40dBm to −33dBm
- STABILITY VS. TIME ..... AFTER STABILIZING 20 MINUTE @ BASE TEMPERATURE WITHOUT CHANGE OVER 8HR. PERIOD IS < V/OUT CHANGE CAUSED BY ±0.2dB INPUT POWER CHANGE (BETWEEN −37dBm & −35dBm ±0.3dB) (BETWEEN −37dBm & −40dBm ±0.6dB)
- OUTPUT OFFSET VOLTAGE ..... 20mV, MAXIMUM
- OVERSHOOT/RINGING ..... OUTPUT VOLTAGE RINGING NOT TO EXCEED 0.5dB REFERRED TO INPUT POWER LEVEL
- VSWR (RF) ..... 2:1 MAXIMUM
- VIDEO LOAD ..... 50Ω TYPICAL
- TSS (30 MHz BW) ..... −50 dBm TYPICAL
- MAXIMUM RF INPUT ..... WITHSTANDS +20dBm CONTINUOUS INPUT POWER (NONOPERATIONAL) WITHOUT DAMAGE
- TEMPERATURE STABILITY ..... V OUT @ TEMPERATURE EXTREMES IS LESS THAN V OUT CHANGE BY ±0.2dB INPUT POWER CHANGE (BETWEEN −37dBm & −35dBm ±0.3dB) (BETWEEN −37dBm & −40dBm ±0.6dB)
- VIDEO OUTPUT VOLTAGE ..... 2.2 +/−0.2 VDC @ INPUT POWER LEVEL OF −10dBm
- DC POWER ..... +15V @ 250mA TYPICAL, −15V @ 80 mA TYPICAL
- FINISH ..... PAINTED GRAY

ENVIRONMENTAL RATINGS

- TEMPERATURE: ..... +20°C TO +50°C (OPERATING) −20°C TO +70°C (NONOPERATING)
- HUMIDITY: ..... 0 TO 95%, NONCONDENSING
- 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: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

MECHANICAL OUTLINE



ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.010
X.XXX ±0.005

PART NO.	
APPROVALS	DATE
DRAWN RAB	03/06/00
CHECKED	
ISSUED	

PLANAR MONOLITHICS INDUSTRIES
FREDERICK, MARYLAND

TITLE
OUTLINE DRAWING
ADA-506F-30
OPTION TSS61, LM

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27012061	A

SCALE N/S SHEET 1 of 1