

DESCRIPTION

PMI MODEL NO.: PS-360-DC-3 OPTIONS: 618 IS AN 8-BIT DIGITAL CONTROLLED PHASE SHIFTER OPERATING FROM THE 6 TO 18 GHz FREQUENCY RANGE. THE PHASE SHIFTER HAS A 360° RANGE AND IS HIGH SPEED.

SPECIFICATIONS

- FREQUENCY RANGE: MAIN BAND 8 – 18 GHz
STRETCH BAND 6 – 18 GHz
- INSERTION LOSS: 12.0 dB MAXIMUM, 10 dB TYPICAL
- VSWR: 2.0:1 MAXIMUM
- ACCURACY (MAXIMUM): ±12° (8 – 18 GHz)PK TO PK
±15° (6 – 18 GHz)PK TO PK
- PM/AM (MAXIMUM): ±1.7 dB (8 – 18 GHz)
±2.5 dB (6 – 18 GHz)
- TRANSLATION RATE: 0 TO 500 kHz
- CARRIER SUPPRESSION: MAIN BAND: 25 dB
STRETCH BAND: 18 dB
- SIDE BAND SUPPRESSION: MAIN BAND: 20 dB
STRETCH BAND: 15 dB
- SWITCHING SPEED: <50nS
- RISE/FALL TIME: <20nS

PERFORMANCE CHARACTERISTICS	
PHASE SHIFT	POWER HANDLING CAPABILITY
RANGE: 360° IN 256 STEPS	WITHOUT PERFORMANCE DEGRADATION: +10 dBm
CONTROL INPUT: 8 BIT TTL	SURVIVAL POWER: +20 dBm
SWITCHING SPEED 50% TTL TO WITHIN 500 nS MAX 10° OF FINAL PHASE VALUE:	POWER SUPPLY REQUIREMENTS
HARMONICS: -30 dBc (8-18 GHz) -25 dBc (6-8 GHz)	+5V ± 5%, 115 mA -12 TO -15V, 20 mA

OPTIONS:

- 618: OPTIMIZED FOR 6 TO 18 GHz
- 7928A: CUSTOMER SPECIFICATIONS

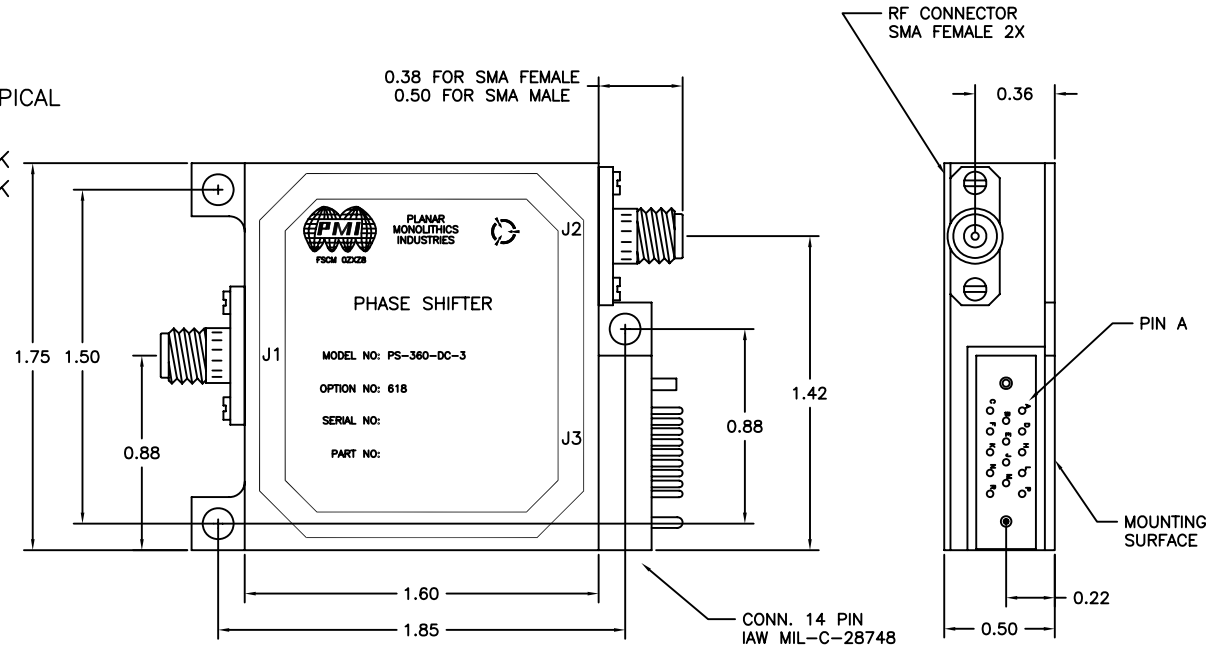
ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202G, METHOD 103B COND. B (96 HRS AT 95%)
- SHOCK: MIL-STD-202G, METHOD 213B COND. B (75 G, 6 MSEC)
- VIBRATION: MIL-STD-202G, METHOD 204D COND. B (0.06" DOUBLE AMPLITUDE OR 15G, WHICHEVER IS LESS)
- ALTITUDE: MIL-STD-202G, METHOD 105C COND. B (50,000 FT.)
- TEMPERATURE CYCLE: MIL-STD-202G, 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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE	12/14/07	
	A	SEE ECR# P07-015	12/21/07	



PIN	FUNCTION
A	GROUND
B	+5V
C	-12V TO -15V
D	1.4" (LSB)
E	2.8"
F	5.6"
H	22.5"
J	11.3"
K	90°
L	180° (MSB)
M	N/C
N	45°
P	GND
R	N/C

PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001:2000 CERTIFIED

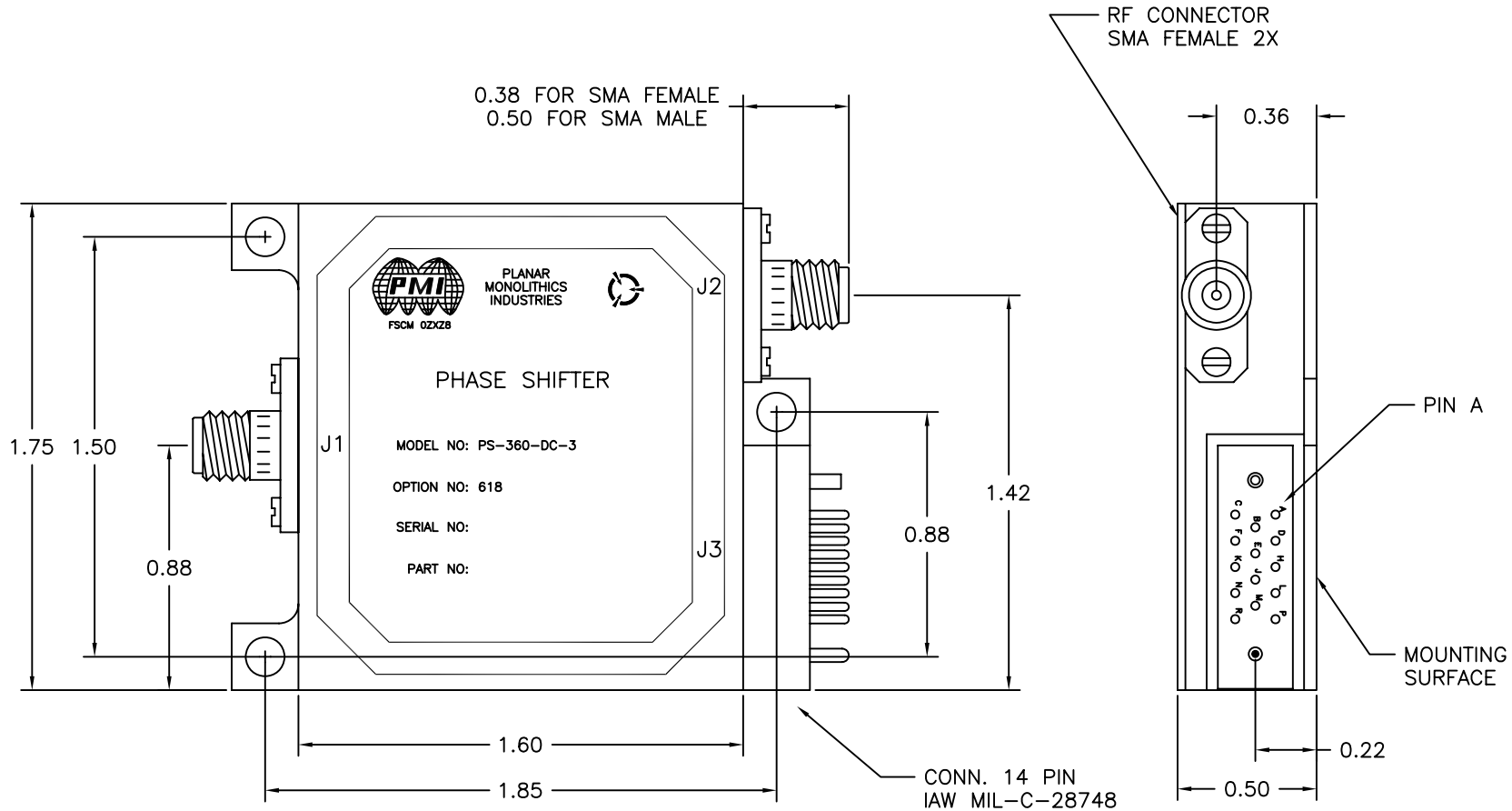


APPROVALS		DATE	TITLE		
DRAWN <i>WLS</i>		12/21/06	PRODUCT FEATURE PS-360-DC-3 OPTION: 618		
CHECKED <i>Rd</i>		12/14/07	6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER		
ISSUED			SIZE A	FSCM NO. OZXZ8	DWG NO. 100-7735-003
			SCALE N:S	SHEET 1 OF 3	

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MECHANICAL OUTLINE



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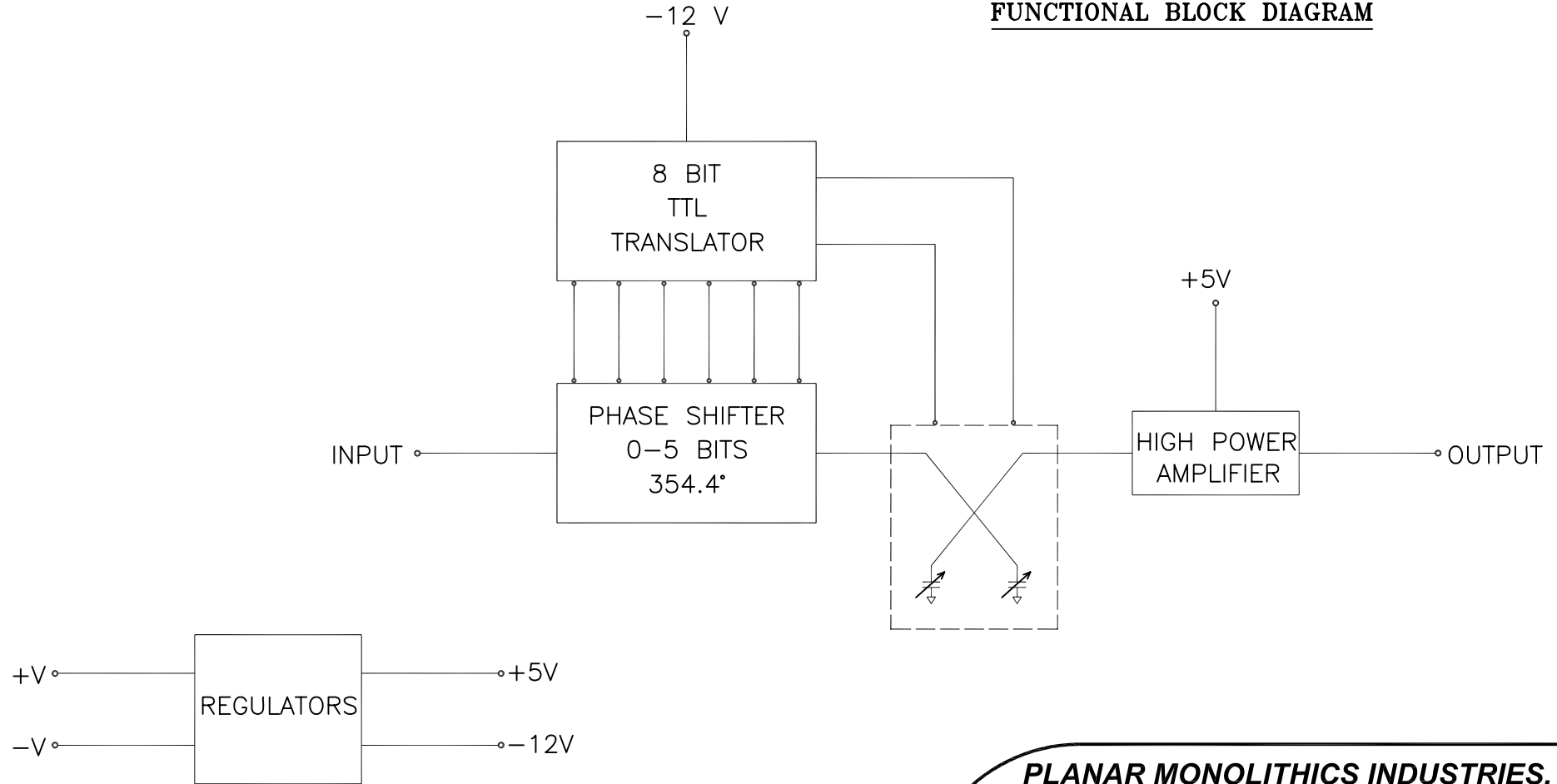
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APPROVALS		DATE	TITLE			
DRAWN <i>WLS</i>		12/21/06	MECHANICAL OUTLINE PS-360-DC-3 OPTION: 618			
CHECKED <i>RA</i>		12/14/07	6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER			
ISSUED			SIZE A	FSCM NO. OZXZ8	DWG NO. 100-7735-003	REV. A
SCALE N:S			SHEET		2 OF 3	

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FUNCTIONAL BLOCK DIAGRAM



CONFIDENTIAL AND PROPRIETARY

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APPROVALS		DATE	TITLE FUNCTIONAL BLOCK DIAGRAM PS-360-DC-3 OPTION: 618 6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER			
DRAWN	<i>WLS</i>	12/21/06	SIZE	FSCM NO.	DWG NO.	REV.
CHECKED	<i>RA</i>	12/21/06	A	0ZXZ8	100-7735-003	A
ISSUED			SCALE	N:S	SHEET	3 OF 3