

## DESCRIPTION

PMI MODEL NO.: PS-360-DC-1 OPTIONS: 911 IS AN 8-BIT DIGITAL CONTROLLED PHASE SHIFTER OPERATING FROM THE 9 TO 11 GHz FREQUENCY RANGE. THE PHASE SHIFTER HAS A 360° RANGE AND IS HIGH SPEED.

## SPECIFICATIONS

- FREQUENCY RANGE: ..... 9 TO 11 GHz MINIMUM
- INSERTION LOSS: ..... 12.0 dB MAXIMUM, 10 dB TYPICAL
- VSWR: ..... 2.0:1 MAXIMUM
- ACCURACY (MAXIMUM): ..... ±12° MAXIMUM  
..... ±9° Typical
- PM/AM (MAXIMUM): ..... ±2 dB MAXIMUM
- TRANSLATION RATE: ..... 0 TO 500 kHz MINIMUM
- CARRIER SUPPRESSION: ..... MAIN BAND: >20 dB Typical
- SIDE BAND SUPPRESSION: ..... MAIN BAND: >20 dB Typical

PERFORMANCE CHARACTERISTICS	
PHASE SHIFT	POWER HANDLING CAPABILITY
RANGE: 360° IN 256 STEPS	WITHOUT PERFORMANCE DEGRADATION: +13 dBm
CONTROL INPUT: 8 BIT TTL	SURVIVAL POWER: +30 dBm
SWITCHING SPEED 50% TTL TO WITHIN 500 nS MAX 10° OF FINAL PHASE VALUE:	POWER SUPPLY REQUIREMENTS
HARMONICS: >20 dBc typ. (9-11 GHz)	+12V ± 5%, 250 mA
>20 dBc typ. (9-11 GHz)	-12V ± 5%, 20 mA

## OPTIONS:

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

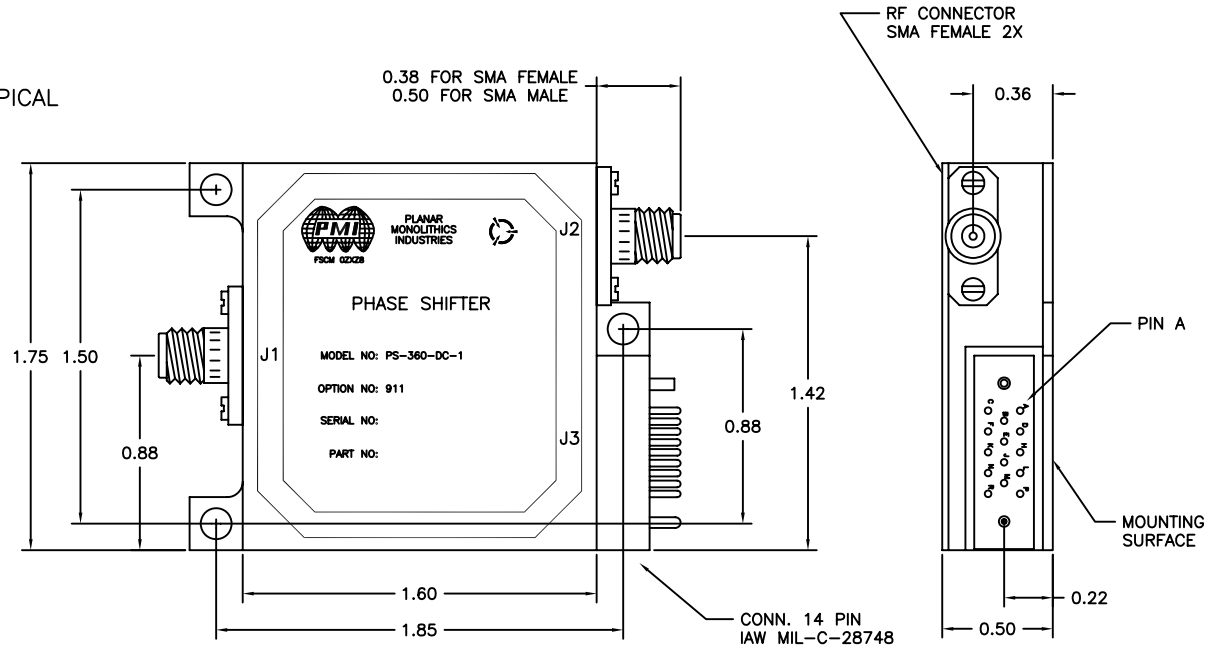
## ENVIRONMENTAL RATINGS:

- 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	05/18/08	



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

## PLANAR MONOLITHICS INDUSTRIES, INC.

7311-G GROVE ROAD  
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ISO 9001:2000 CERTIFIED



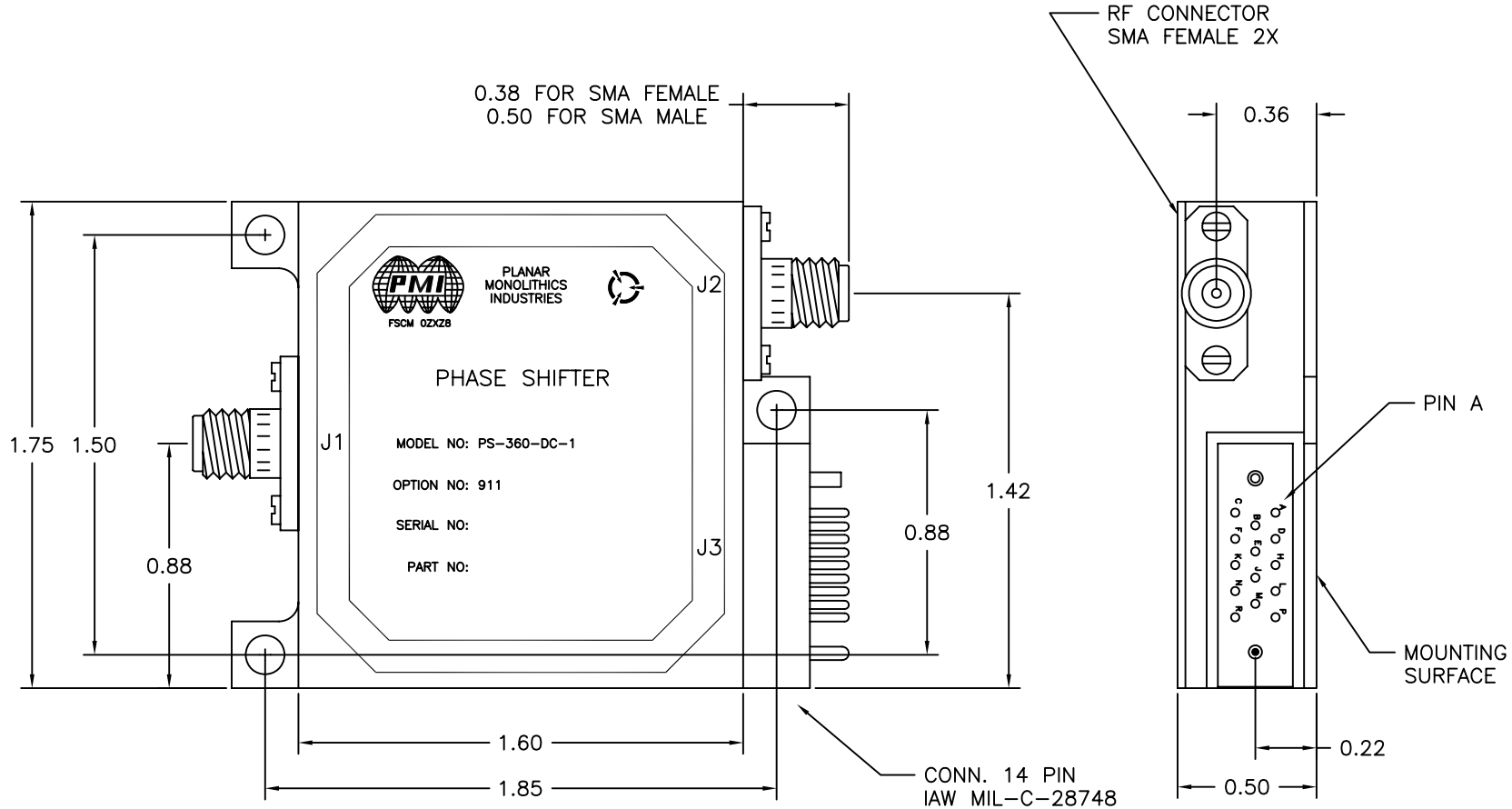
APPROVALS		DATE	TITLE		
DRAWN <i>PMV</i>		5-18/08	PRODUCT FEATURE PS-360-DC-1 OPTION: 911 9 TO 11 GHz DIGITAL CONTROLLED PHASE SHIFTER		
CHECKED			SIZE A	FSCM NO. OZXZ8	DWG NO. 100-7735-001
ISSUED			SCALE N:S		SHEET 1 OF 3

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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE	5/19/08	

# MECHANICAL OUTLINE



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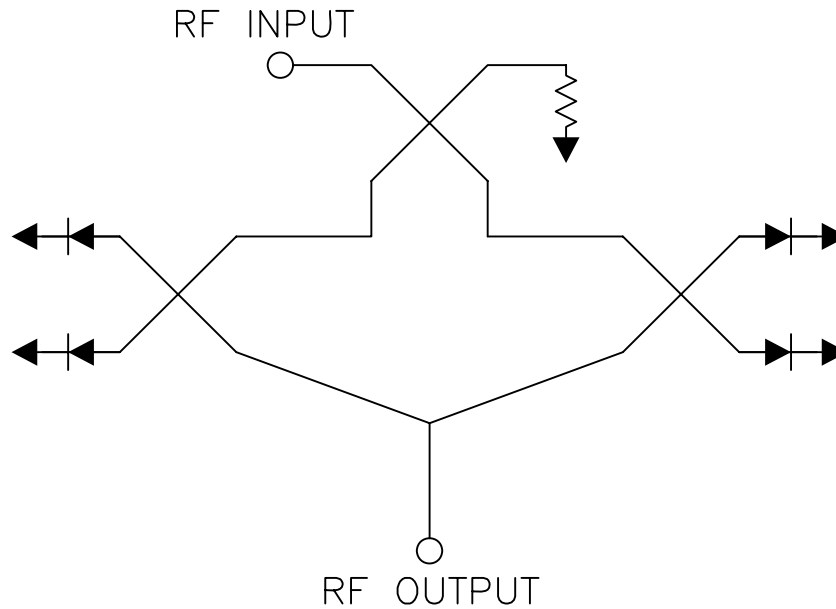
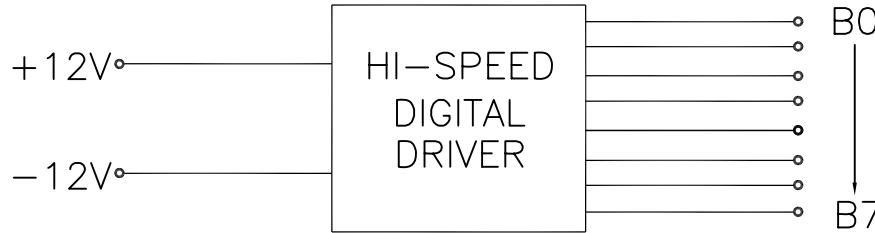
APPROVALS		DATE	TITLE			
DRAWN <i>PMV</i>		5/19/08	MECHANICAL OUTLINE PS-360-DC-1 OPTION: 911 6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER			
CHECKED			SIZE A	FSCM NO. 02XZ8	DWG NO. 100-7735-001	REV. -
ISSUED			SCALE N:S		SHEET 2 OF 3	

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**FUNCTIONAL BLOCK DIAGRAM**



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APPROVALS		DATE	TITLE			
DRAWN <i>PMI</i>		5/19/08	FUNCTIONAL BLOCK DIAGRAM PS-360-DC-1 OPTION: 911			
CHECKED			6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	0ZXZ8	100-7735-001	-
			SCALE	N:S		SHEET
					3 OF 3	