

PMI MODEL NO.: PS-360-DC-3 OPTION 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.

- FREQUENCY RANGE: 6 – 18 GHz
- INSERTION LOSS: 12.0 dB MAXIMUM, 10 dB TYPICAL
- VSWR: 2.0:1 MAXIMUM
- ACCURACY: $\pm 15^\circ$ MAXIMUM (PEAK TO PEAK)
- PM/AM: ± 2.5 dB MAXIMUM
- TRANSLATION RATE: 0 TO 500 kHz
- CARRIER SUPPRESSION: 18 dB
- SIDE BAND SUPPRESSION: 15 dB
- PHASE SHIFT:
 - RANGE: 360° IN 256 STEPS
 - CONTROL INPUT: 8 BIT TTL
 - SWITCHING SPEED: 50% TTL TO WITHIN 500ns MAX
(10° OF FINAL PHASE VALUE)
 - HARMONICS: -25dBc
- POWER HANDLING CAPABILITY:
 - WITHOUT DEGRADATION: $+10\text{dBm}$
 - SURVIVAL POWER: $+20\text{dBm}$
- POWER SUPPLY: $+5\text{VDC}$ ($\pm 5\%$) @ 115mA
..... -12 TO -15VDC @ 20mA
- CONNECTORS:
 - INPUT/OUTPUT: SMA FEMALE
 - POWER & CONTROL: 15 PIN MICRO-D
- SIZE: (L) 1.60 X (W) 1.75" X (H) 0.50"
*EXCLUDING MOUNTING HOLES + CONNECTOR
- FINISH: GRAY EPOXY POLIMIDE COATING IAW MIL-C-22750,
TYPE I OVER EPOXY POLIMIDE PRIMER
IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

- 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
	1	ORIGINAL RELEASE	08/28/13	

The drawing shows the mechanical specifications for the PS-360-DC-3 Phase Shifter. The top view (left) shows a rectangular unit with a width of 1.60 inches and a total length of 1.85 inches. It features a SMA female connector (J1) on the left and SMA female connectors (J2 and J3) on the right. The side view (right) shows a height of 0.36 inches and a mounting surface width of 0.50 inches. The unit is labeled with 'PLANAR MONOLITHICS INDUSTRIES', 'FSCM 05XQ0', 'MADE IN USA', and 'PHASE SHIFTER'. The model number is PS-360-DC-3 OPTION 618 and the serial number is PLXXXXX/XXXX.

Top View Dimensions:

- Overall Width: 1.60
- Overall Length: 1.85
- Distance from Left Edge to J1 Center: 0.88
- Distance from J1 Center to J2 Center: 1.50
- Distance from J2 Center to J3 Center: 0.88
- Distance from J3 Center to Right Edge: 0.36

Side View Dimensions:

- Overall Height: 0.36
- Distance from Top Edge to J2 Center: 0.82
- Distance from J2 Center to J3 Center: 0.11
- Distance from J3 Center to Bottom Edge: 0.25

Labels and Features:

- PLANAR MONOLITHICS INDUSTRIES
- FSCM 05XQ0
- MADE IN USA
- PHASE SHIFTER
- MODEL NO: PS-360-DC-3 OPTION 618
- SERIAL NO: PLXXXXX/XXXX
- J1, J2, J3: SMA connectors
- PIN 1: Micro-D connector pin
- MOUNTING SURFACE: Bottom surface
- 0.38 FOR SMA FEMALE, 0.50 FOR SMA MALE: Connector pin dimensions
- SMA(F) REMOVABLE, 2 PLACES: SMA connector locations
- 15 PIN MICRO-D, MALE CONNECTOR: Bottom connector

PIN	FUNCTION	PIN	FUNCTION
1	GROUND	9	90°
2	+5V	10	180° (MSB)
3	-12V TO -15V	11	N/C
4	1.4° (LSB)	12	45°
5	2.8°	13	GROUND
6	5.6°	14	N/C
7	22.5°	15	N/C
8	11.3°		

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001:2000 CERTIFIED



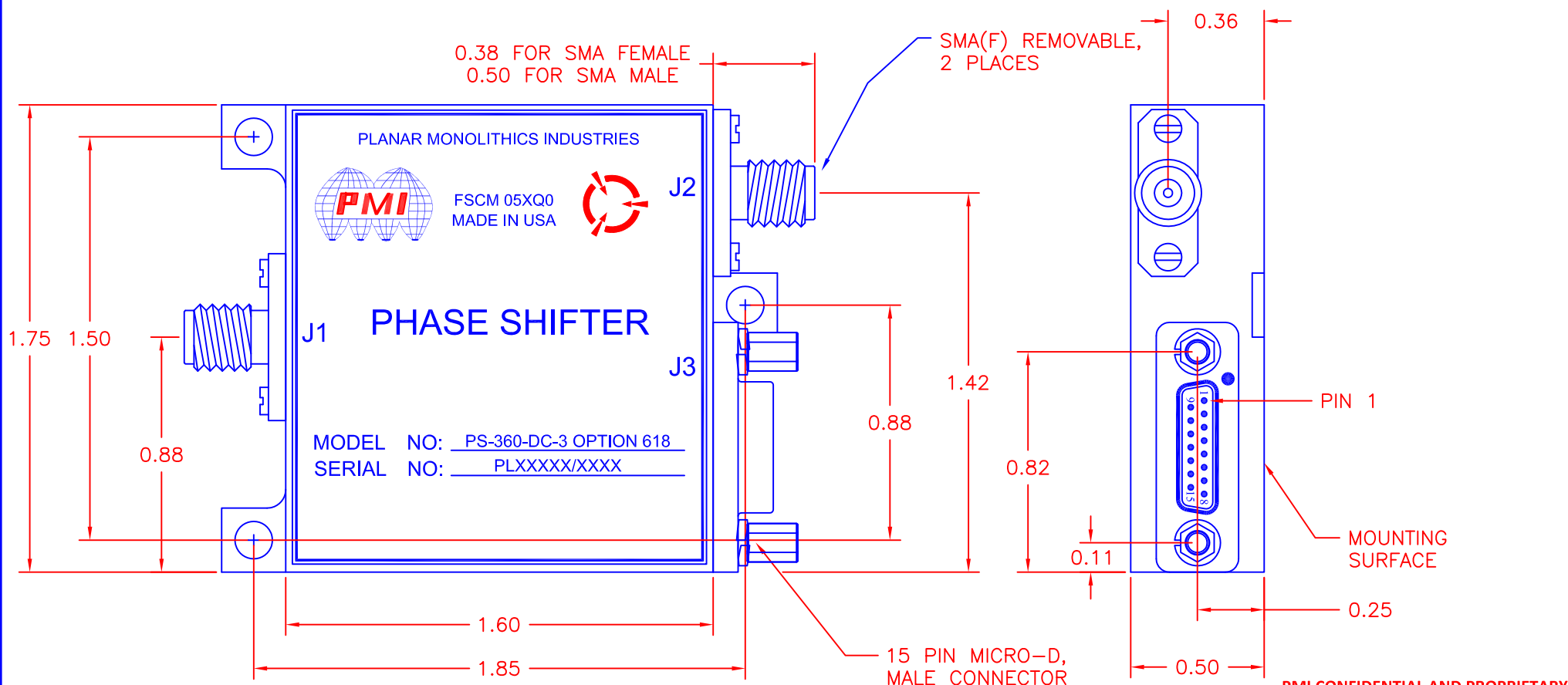
APPROVALS DATE		TITLE PRODUCT FEATURE			
		PS-360-DC-3 OPTION 618			
		6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER			
DRAWN <i>sfk</i>	08/28/13	SIZE A	FSCM NO. 05XQ0	DWG NO. 27020921	REV 1
CHECKED					
ISSUED		SCALE N:S		SHEET 1 OF 3	

DESCRIPTION

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MECHANICAL OUTLINE



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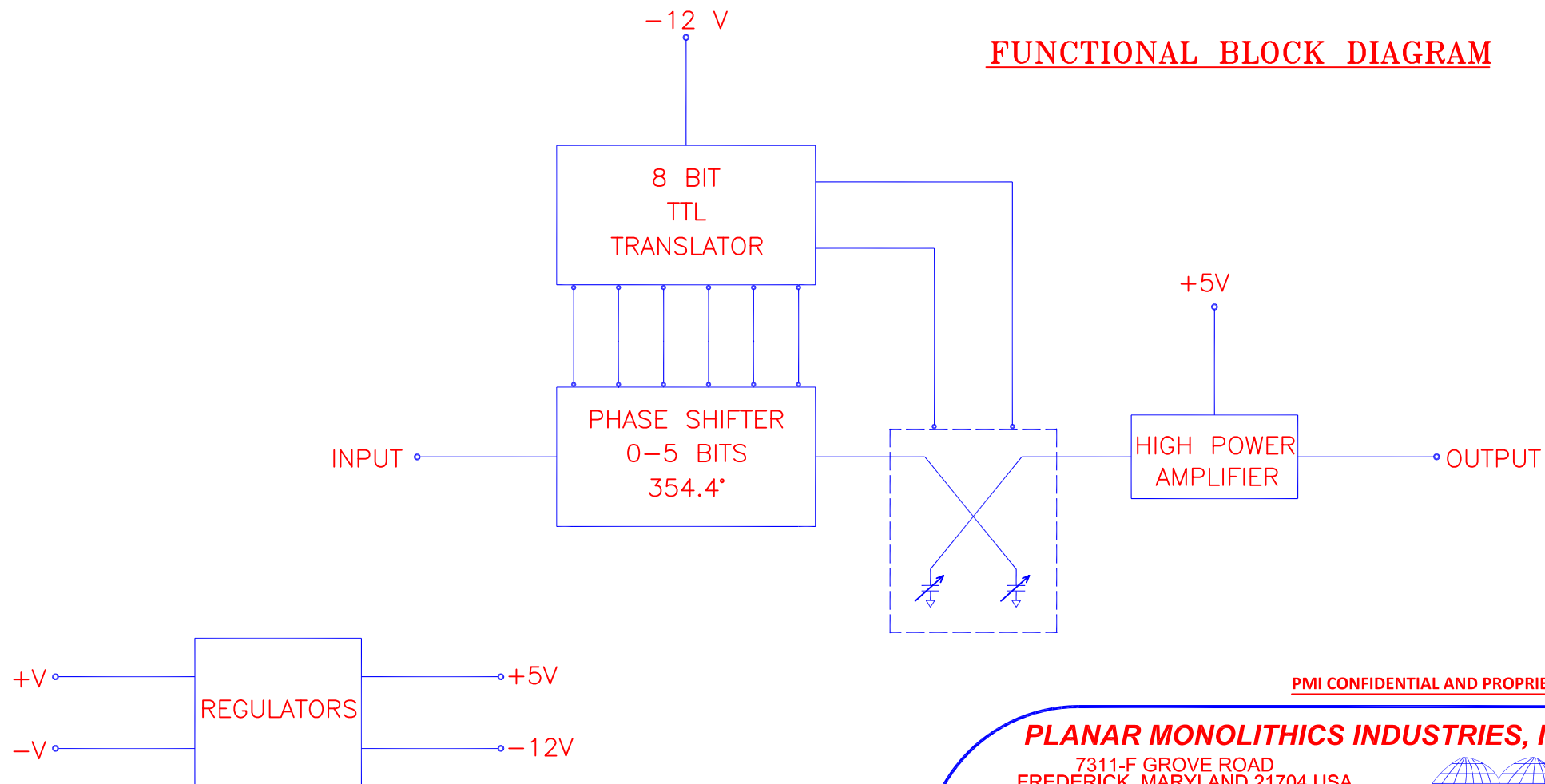
APPROVALS		DATE		TITLE			
DRAWN	<i>sfk</i>		08/28/13	PRODUCT FEATURE			
CHECKED				PS-360-DC-3 OPTION 618			
ISSUED				6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER			
SIZE	FSCM NO.	DWG NO.	REV.				
A	05XQ0	27020921	1				
SCALE	N:S			SHEET	2 OF 3		

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REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
	1	ORIGINAL RELEASE	08/28/18

FUNCTIONAL BLOCK DIAGRAM



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APPROVALS		DATE		TITLE			
DRAWN	<i>sfc</i>		08/28/18	PRODUCT FEATURE			
CHECKED				PS-360-DC-3 OPTION 618			
ISSUED				6 TO 18 GHz DIGITAL CONTROLLED PHASE SHIFTER			
SIZE	A	FSCM NO.	05XQ0	DWG NO.	27020921	REV.	1
SCALE	N:S			SHEET	3 OF 3		