

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER: PFS-618-CD-1 IS A FREQUENCY SYNTHESIZER THAT OPERATES OVER THE 6.0 TO 18.0 GHz FREQUENCY RANGE. THIS UNIT FEATURES HIGH SPEED, HIGH ACCURACY AND LOW PHASE NOISE.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	S012-085	8/17/12	DPD

SPECIFICATIONS:

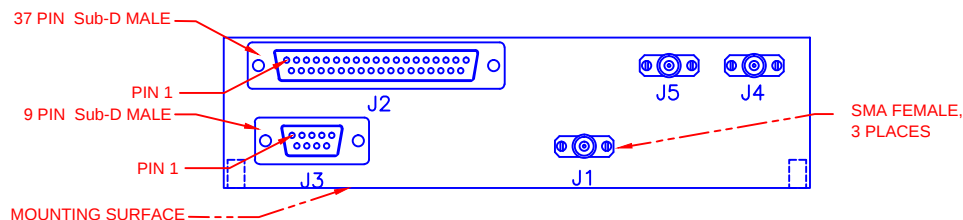
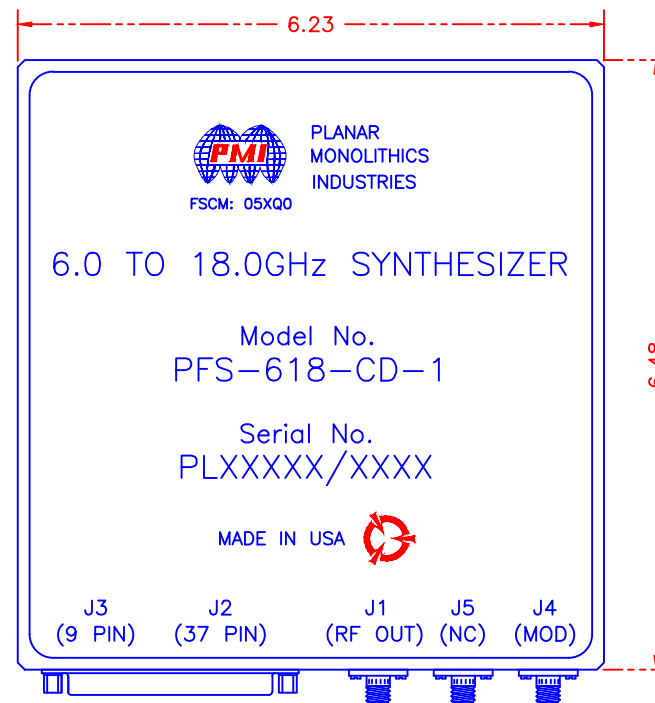
- FREQUENCY RANGE: 6.0 TO 18.0GHz
- FREQUENCY STEP SIZE, NOMINAL (LSB): 100kHz
- POWER OUTPUT LEVEL: 10dBm MIN
- POWER VARIATION OVER TEMPERATURE: 5dB P-P(± 2.5 dB) MAX
- FREQUENCY ACCURACY: ± 1 MHz MAX
- FREQUENCY AGING: ± 2 PPM/YEAR
- SETTLING TIME TO 1MHz: ≤ 1 us
- TUNING SPEED: ≤ 1 us
- TUNING CONTROL: BINARY, TTL 16 BITS MIN
(PLANNED 17 BITS PARALLEL)
- SSB NOISE: 6-18 GHz MAX
-78 dBc/Hz @ 1 kHz OFFSET
-96 dBc/Hz @ 100 kHz OFFSET
-100 dBc/Hz @ 10 MHz OFFSET
- SPURIOUS OUTPUT: -55dBc MAX
- HARMONICS: -30dBc MAX
- SUB HARMONICS: -55dBc MAX
- REFERENCE: INTERNAL REFERENCE
- FREQUENCY MODULATION:
 - MOD BW: DC-10MHz
 - FREQUENCY DEVIATION: ± 400 MHz MIN, ± 4 V
 - CONTROL: ANALOG
 - SENSITIVITY: 1.1 : 1
- POWER SUPPLY: +12V @ 2.5A MAX
-12V @ 0.6A MAX
+5V @ 4A MAX
-5V @ 2A MAX
- CONNECTORS:
 - CONTROL: 37 PIN Sub-D MALE
 - POWER: 9 PIN Sub-D MALE
 - RF OUTPUT: SMA FEMALE
 - MODULATION INPUT: SMA FEMALE
- OUTLINE: 6.23" (L) x 6.48" (W) x 1.6" (H)

ENVIRONMENTAL RATINGS

- TEMPERATURE: -20°C TO +70°C (OPERATING)

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ± 0.020
X.XXX ± 0.005



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001:2008 CERTIFIED



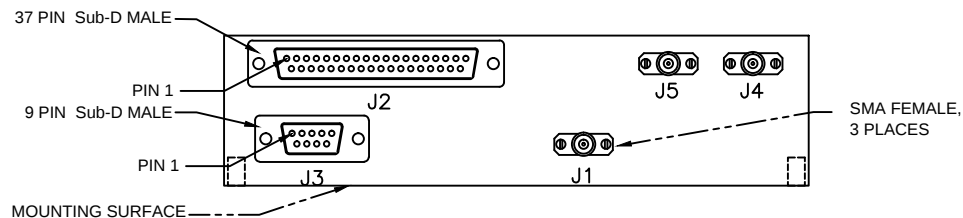
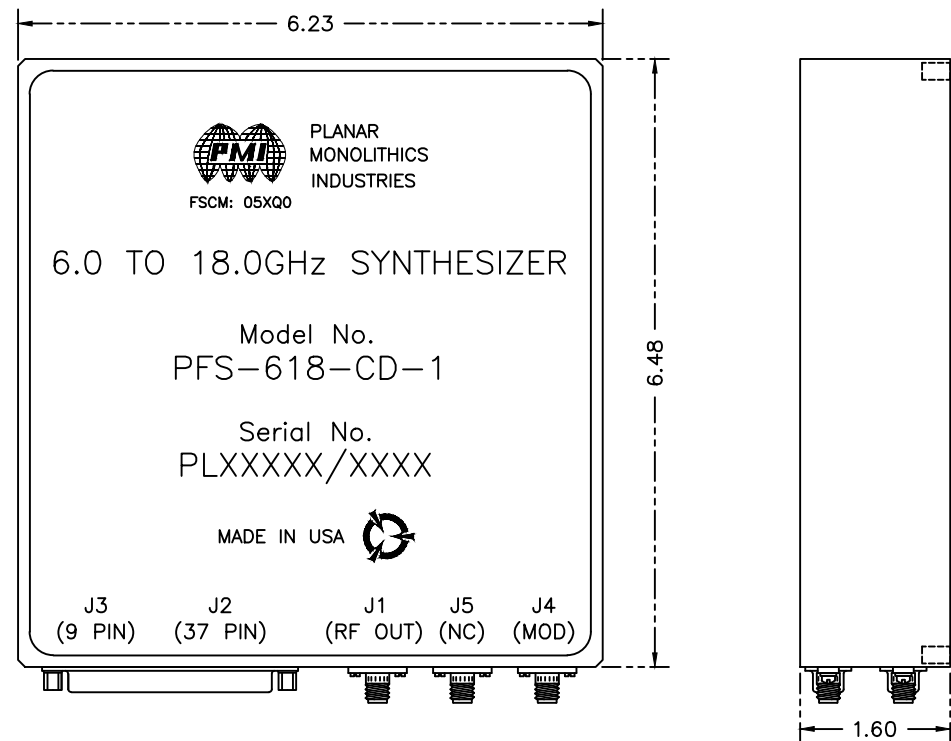
APPROVALS		DATE		TITLE			
DRAWN		8/17/12		PRODUCT FEATURE			
CHECKED				PFS-618-CD-1			
ISSUED				6.0 TO 18.0GHz SYNTHESIZER			
		SIZE	FSCM NO.	DWG NO.		REV.	
		A	05XQ0	27016781		1	
		SCALE N:S		SHEET		1 OF 3	

CONTROL CONNECTOR J2	
1	A16 TUNING WORD (MSB)
2	A14 TUNING WORD
3	A12 TUNING WORD
4	A10 TUNING WORD
5	A8 TUNING WORD
6	A6 TUNING WORD
7	A4 TUNING WORD
8	NC
9	LATCH
10	NC
11	GND
12	NC
13	NC
14	NC
15	NC
16	NC
17	A1 TUNING WORD
18	NC
19	A0 TUNING WORD (LSB)
20	A15 TUNING WORD
21	A13 TUNING WORD
22	A11 TUNING WORD
23	A9 TUNING WORD
24	A7 TUNING WORD
25	A5 TUNING WORD
26	A3 TUNING WORD
27	A2 TUNING WORD
28	NC
29	GND
30	NC
31	NC
32	NC
33	NC
34	NC
35	MODULATION ENABLE(1)/ DISABLE (0)
36	NC
37	GND

POWER CONNECTOR J3	
PIN NO	FUNCTION
1	+5V
2	-12V
3	+12V
4	GND
5	-5V
6	GND
7	GND
8	GND
9	+12V

CONNECTORS FUNCTIONS	
J1	RF OUTPUT
J2	CONTROL CONNECTOR
J3	POWER CONNECTOR
J4	MODULATION INPUT
J5	NC

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		TITLE PRODUCT FEATURE PFS-618-CD-1 6.0 TO 18.0GHz SYNTHESIZER				REV. 1
APPROVALS	DATE					
DRAWN <i>JJR</i>	8/17/12	SIZE A	FSCM NO. 05XQ0	DWG NO. 27016781		
CHECKED						
ISSUED		SCALE N:S		SHEET 2 OF 3		

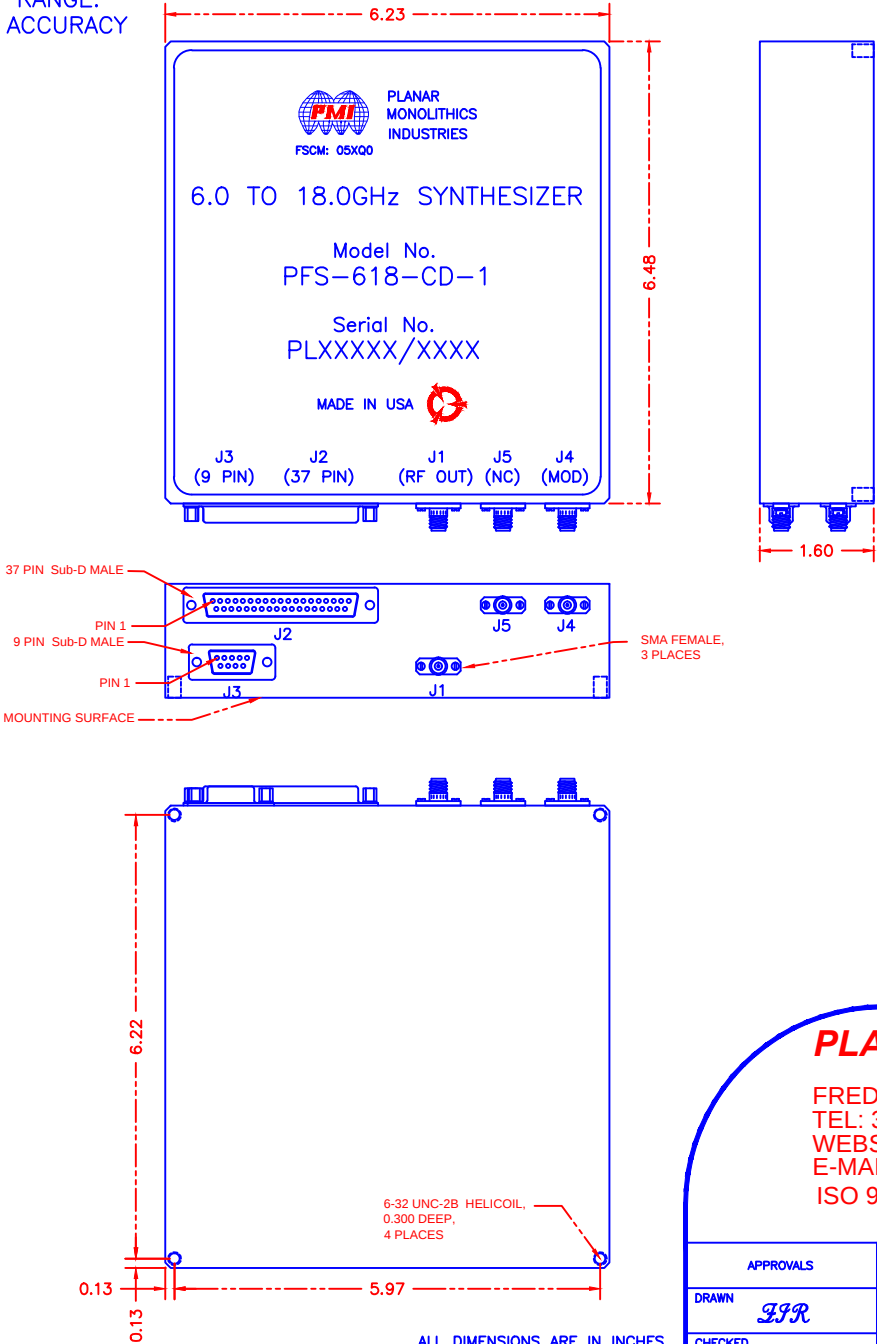
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DRAWN <i>IPR</i>		8/17/12	PRODUCT FEATURE PFS-618-CD-1 6.0 TO 18.0GHz SYNTHESIZER			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	05XQ0	27016781	1
			SCALE	N:S		SHEET 3 OF 3