

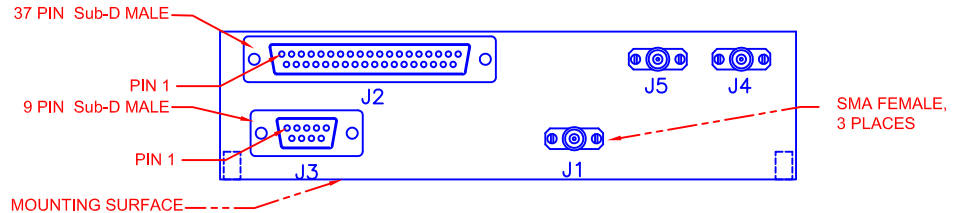
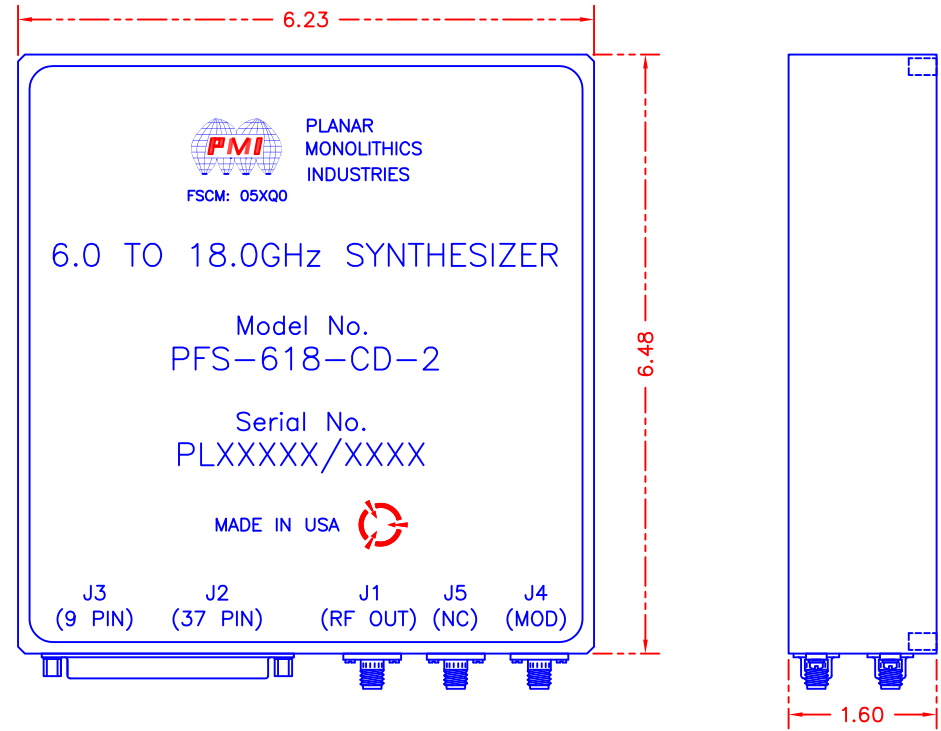
**DESCRIPTION:**

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER: PFS-618-CD-2 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	ORIGINAL RELEASE	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(±2.5dB) MAX
- FREQUENCY ACCURACY: ..... ±1MHz MAX
- FREQUENCY AGING: ..... ±2 PPM/YEAR
- SETTLING TIME TO 1MHz: ..... ≤1us TYP
- TUNING SPEED ..... ≤1us TYP
- 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: ..... -50dBc TYP
- HARMONICS: ..... -30dBc MAX
- SUB HARMONICS: ..... -55dBc MAX
- REFERENCE: ..... INTERNAL REFERENCE
- FREQUENCY MODULATION:
  - MOD BW: ..... DC-10MHz
  - FREQUENCY DEVIATION: ..... ±400MHz MIN, ±4V
  - 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)



**PMI CONFIDENTIAL AND PROPRIETARY**

**PLANAR MONOLITHICS INDUSTRIES, INC.**

7311-F GROVE ROAD  
 FREDERICK, MARYLAND 21704 USA  
 TEL: 301-662-5019 FAX: 301-662-1731  
 WEBSITE: [www.pmi-rf.com](http://www.pmi-rf.com)  
 E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)  
 ISO 9001:2008 CERTIFIED



**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

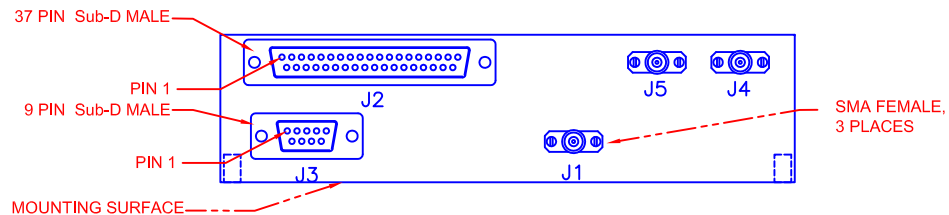
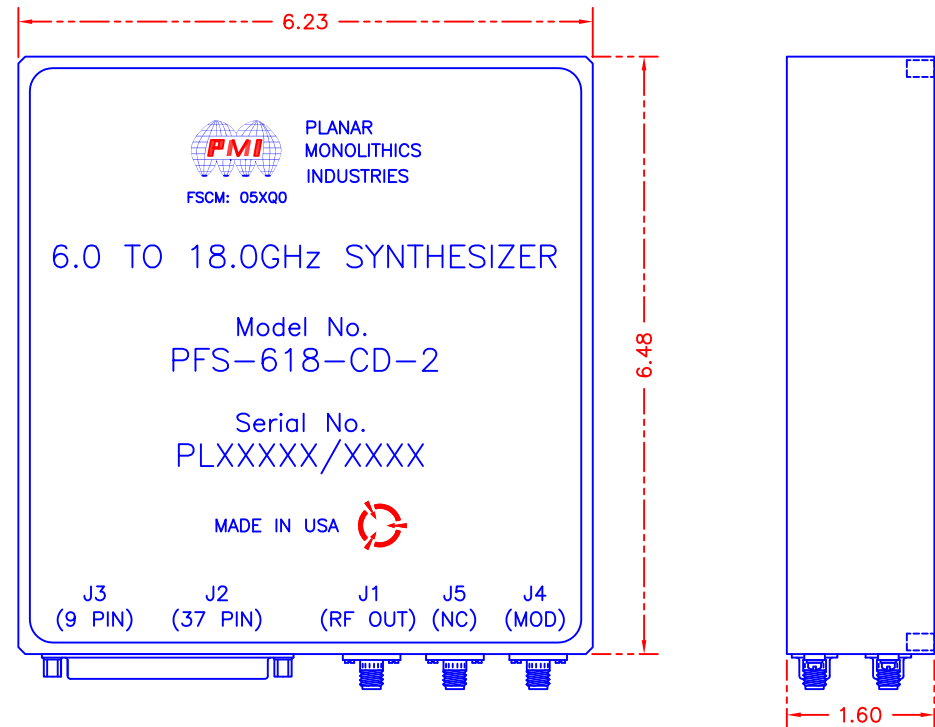
APPROVALS		DATE	TITLE			REV.
DRAWN <i>JJR</i>		8/17/12	PRODUCT FEATURE PFS-618-CD-2 6.0 TO 18.0GHz SYNTHESIZER			1
CHECKED			SIZE	FSCM NO.	DWG NO.	PRELIMINARY
ISSUED			A	05XQ0		
			SCALE	N:S	SHEET	1 OF 3

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	8/17/12	DPD



**PMI CONFIDENTIAL AND PROPRIETARY**

**DESCRIPTION:**

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER: PFS-618-CD-2 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.

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

**PLANAR MONOLITHICS INDUSTRIES, INC.**

7311-F GROVE ROAD  
FREDERICK, MARYLAND 21704 USA  
TEL: 301-662-5019 FAX: 301-662-1731  
WEBSITE: [www.pmi-rf.com](http://www.pmi-rf.com)  
E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)  
ISO 9001:2008 CERTIFIED

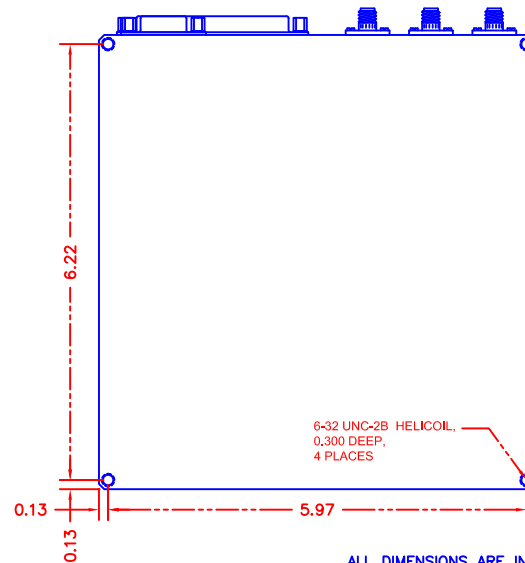
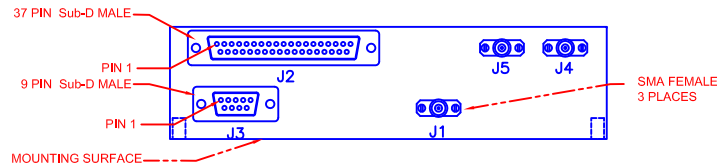
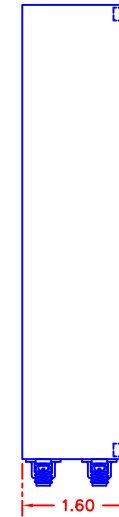
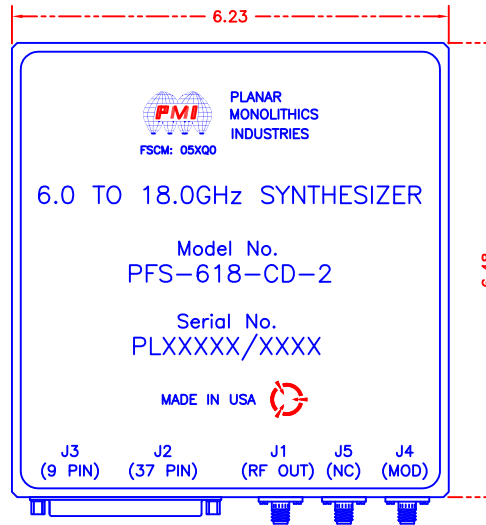


APPROVALS		DATE	TITLE			REV.
DRAWN <i>JJR</i>		8/17/12	PRODUCT FEATURE PFS-618-CD-2 6.0 TO 18.0GHz SYNTHESIZER			1
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	05XQ0		1
			SCALE	N:S	SHEET	2 OF 3
			PRELIMINARY			

**DESCRIPTION:**

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER: PFS-618-CD-2 IS A 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	ORIGINAL RELEASE	8/17/12	DPD



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

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

**PMI CONFIDENTIAL AND PROPRIETARY**

**PLANAR MONOLITHICS INDUSTRIES, INC.**

7311-F GROVE ROAD  
FREDERICK, MARYLAND 21704 USA  
TEL: 301-662-5019 FAX: 301-662-1731  
WEBSITE: [www.pmi-rf.com](http://www.pmi-rf.com)  
E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)  
ISO 9001:2008 CERTIFIED



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