

SOLIDWORKS Educational Product. For Instructional Use Only

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN **MILLIMETERS**  
TOLERANCES:  
ANGULAR EACH  $\pm$  BEND  $\pm$   
TWO PLACE DECIMAL  $\pm$ .01  
THREE PLACE DECIMAL  $\pm$ .001

MATERIAL	FR4
FINISH	--
Weight	
DO NOT SCALE DRAWING	

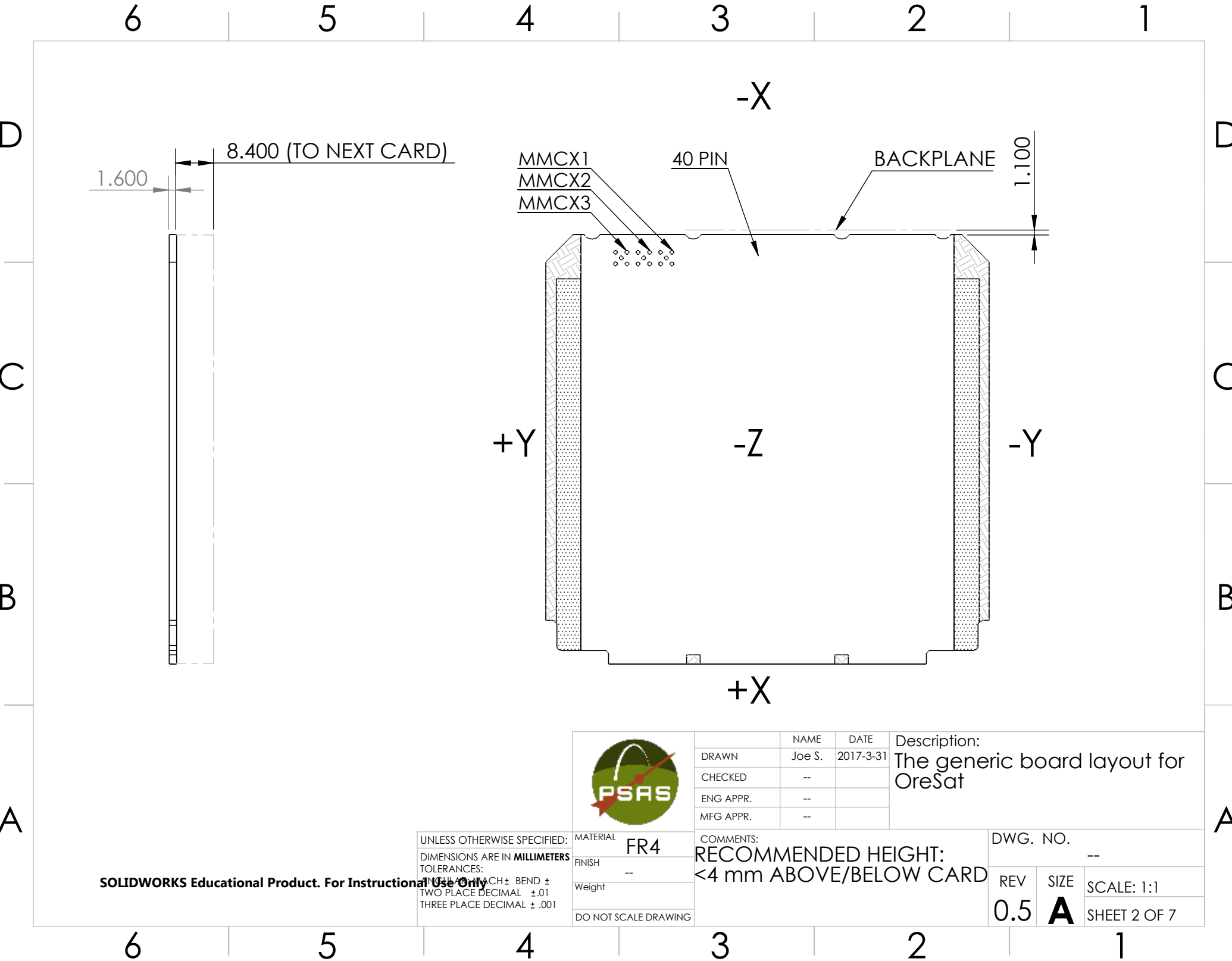


	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for OreSat

COMMENTS:  
**RECOMMENDED HEIGHT:**  
**<4 mm ABOVE/BELOW CARD**

DWG. NO.	--
REV	0.5
SIZE	<b>A</b>
SCALE:	1:1
SHEET	1 OF 7



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TWO PLACE DECIMAL  $\pm$ .01  
THREE PLACE DECIMAL  $\pm$ .001

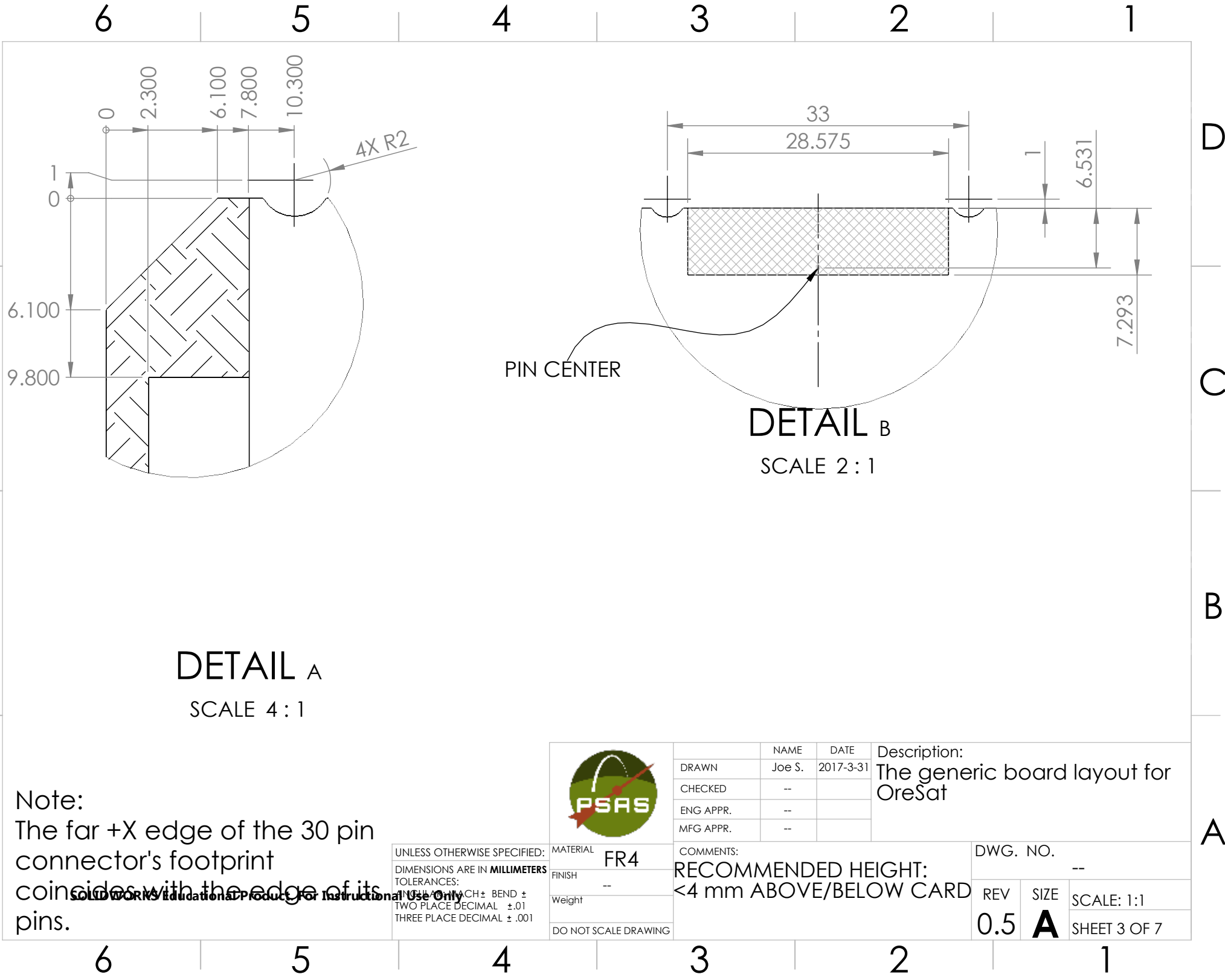
	MATERIAL
	FR4
	FINISH
	--
	Weight
DO NOT SCALE DRAWING	

	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for  
OreSat

COMMENTS:  
**RECOMMENDED HEIGHT:**  
**<4 mm ABOVE/BELOW CARD**

DWG. NO.		--
REV	SIZE	SCALE: 1:1
0.5	<b>A</b>	SHEET 2 OF 7



DETAIL A  
SCALE 4 : 1

DETAIL B  
SCALE 2 : 1

Note:  
The far +X edge of the 30 pin connector's footprint coincides with the edge of its pins.

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TOLERANCES:  
ANGULAR EACH  $\pm$  BEND  $\pm$   
TWO PLACE DECIMAL  $\pm$ .01  
THREE PLACE DECIMAL  $\pm$ .001

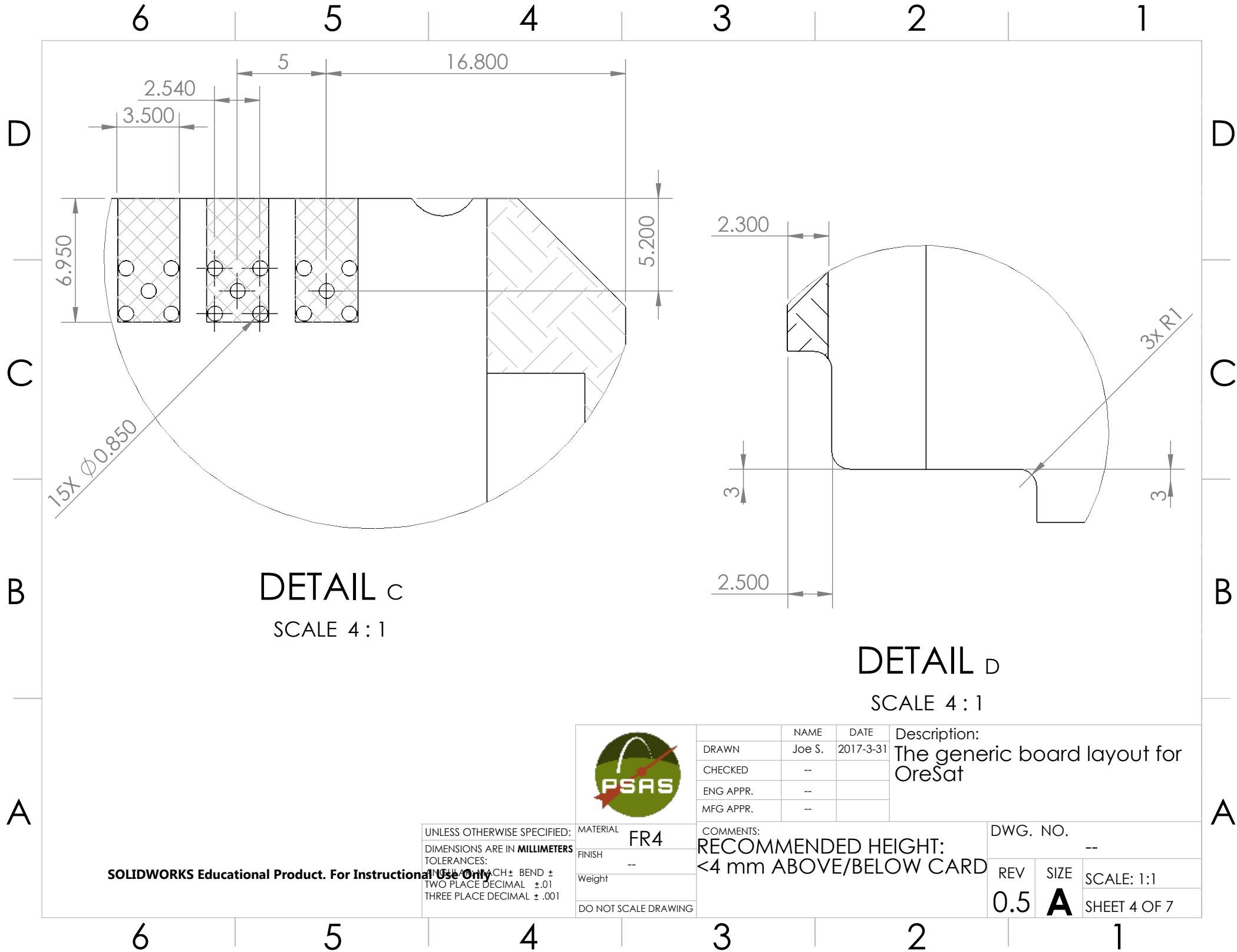
	MATERIAL	FR4
	FINISH	--
	Weight	
	DO NOT SCALE DRAWING	

	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for OreSat

COMMENTS:  
RECOMMENDED HEIGHT:  
<4 mm ABOVE/BELOW CARD

DWG. NO.			--
REV	SIZE	SCALE: 1:1	
0.5	A	SHEET 3 OF 7	



6

5

4

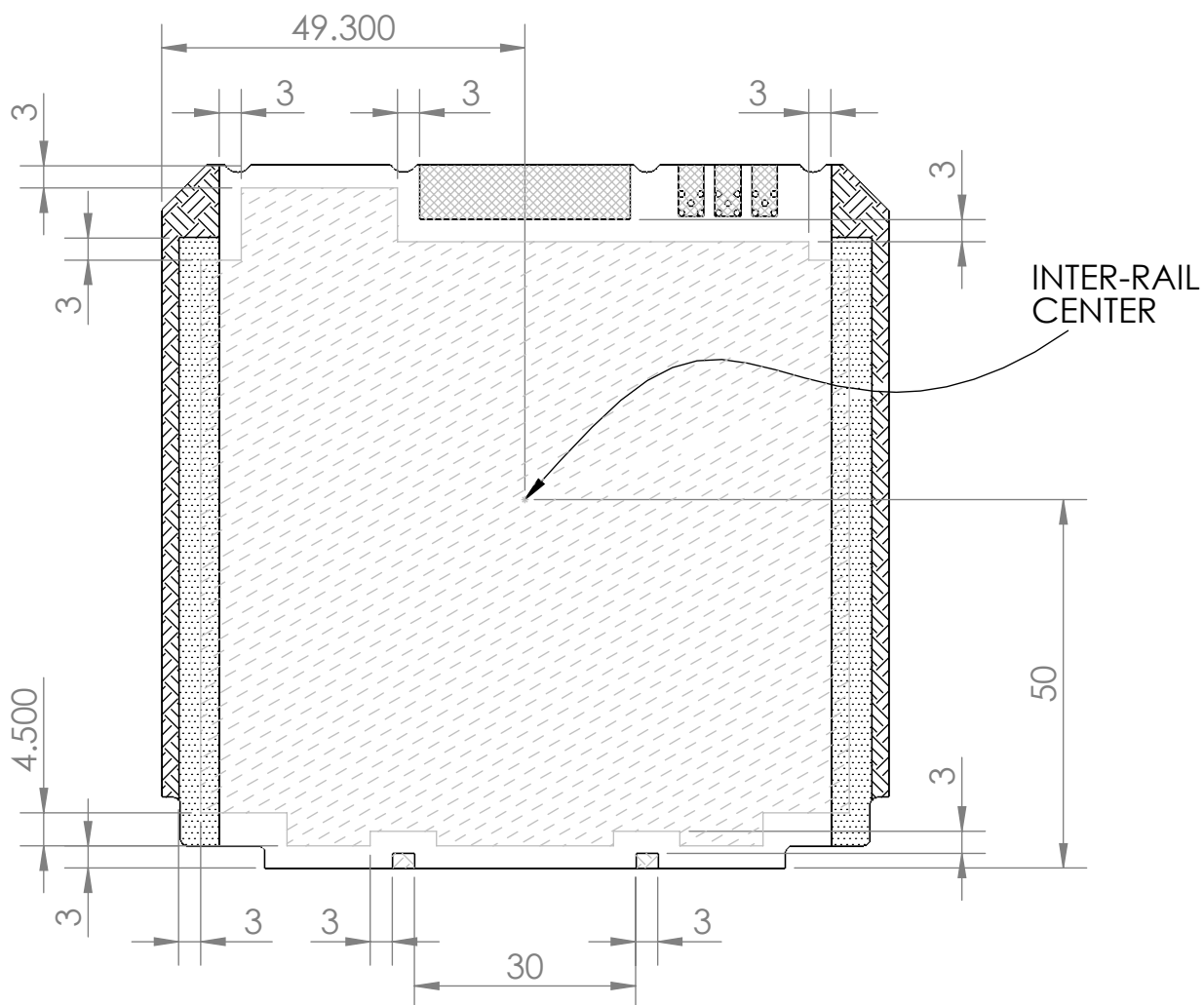
3

2

1



RECOMMENDED BUILD AREA



Note:  
Large components should  
be placed such that thier  
total center of mass lies  
near the inter-rail center.

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TWO PLACE DECIMAL  $\pm$  .01  
THREE PLACE DECIMAL  $\pm$  .001



MATERIAL **FR4**  
FINISH --  
Weight  
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	Joe S.	2017-3-31
CHECKED	--	
ENG APPR.	--	
MFG APPR.	--	

Description:  
The generic board layout for  
OreSat

COMMENTS:  
**RECOMMENDED HEIGHT:**  
**<4 mm ABOVE/BELOW CARD**

DWG. NO.		--
REV	SIZE	SCALE: 1:1
0.5	<b>A</b>	SHEET 5 OF 7

6

5

4

3

2

1

4

3

2

1

-X

KEY:

- CONNECTOR FOOTPRINT
- THERMAL CONTACT
- LOW CLEARANCE (1.45 mm)
- RECOMMENDED BUILD AREA

D

C

B

A

+Z

+X

-Y

+Y

Note 1/5:  
The 1.45 mm low clearance area only affects the +Z faces of cards 2, 8, 14, and 20 and the -Z faces of cards 1, 7, 13, 19. All others have the usual 4 mm recommended and 8.6 mm possible clearance.

Note 2/5:  
Large components should be placed such that thier total center of mass lies near the inter-rail center.

Note 3/5:  
Large components should be placed near the +/-Y edges to mitigate vibration during launch.

Note 4/5:  
Powerful components should be placed near the +/-Y edges to spread heat.

Note 5/5:  
The far +X edge of the 30 pin connector's footprint coincides with the edge of its pins.