

**Production documentation for:**

**name:** *RPEM\_Template1*

**version:** *A*

**variant:** *Template*

**code:** *YourProjectCode*

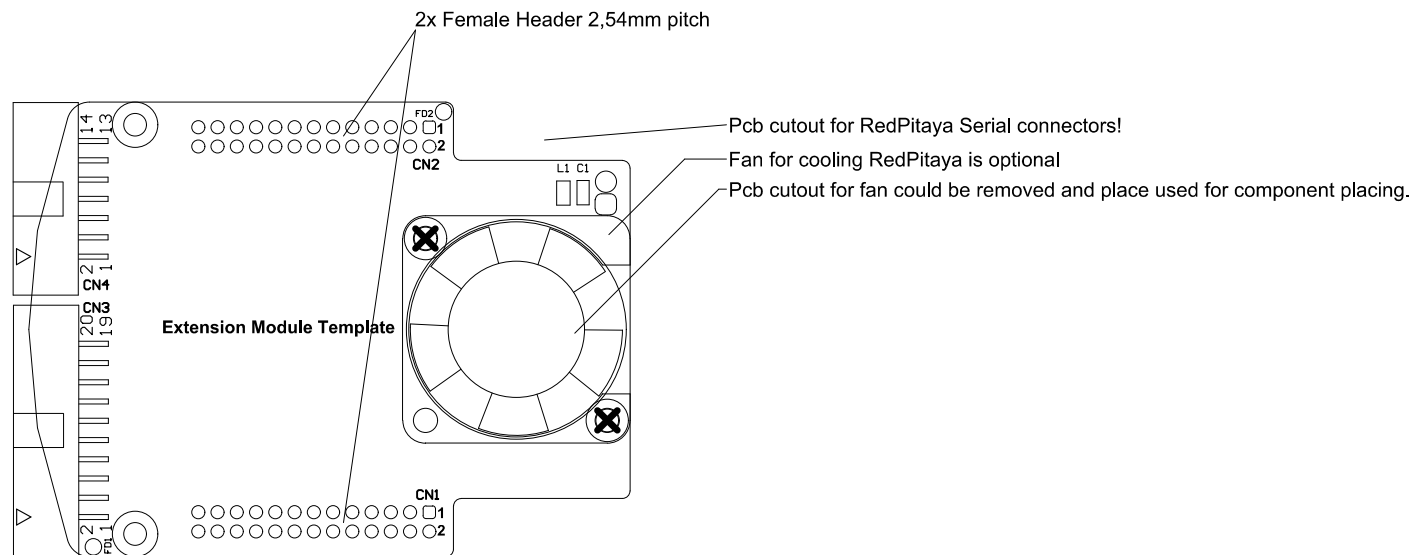
**variant description:** *Template for Red Pitaya Extension Module*

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Designer: RedPitaya	Project: RPEM_Template1	Sheet 1 of 2
Drawn By: RedPitaya	Variant: Variant_name	Version: A
Approved By: RedPitaya	Modif. Date: 25.7.2014	Print Date: 25.7.2014
		Size: A4 H

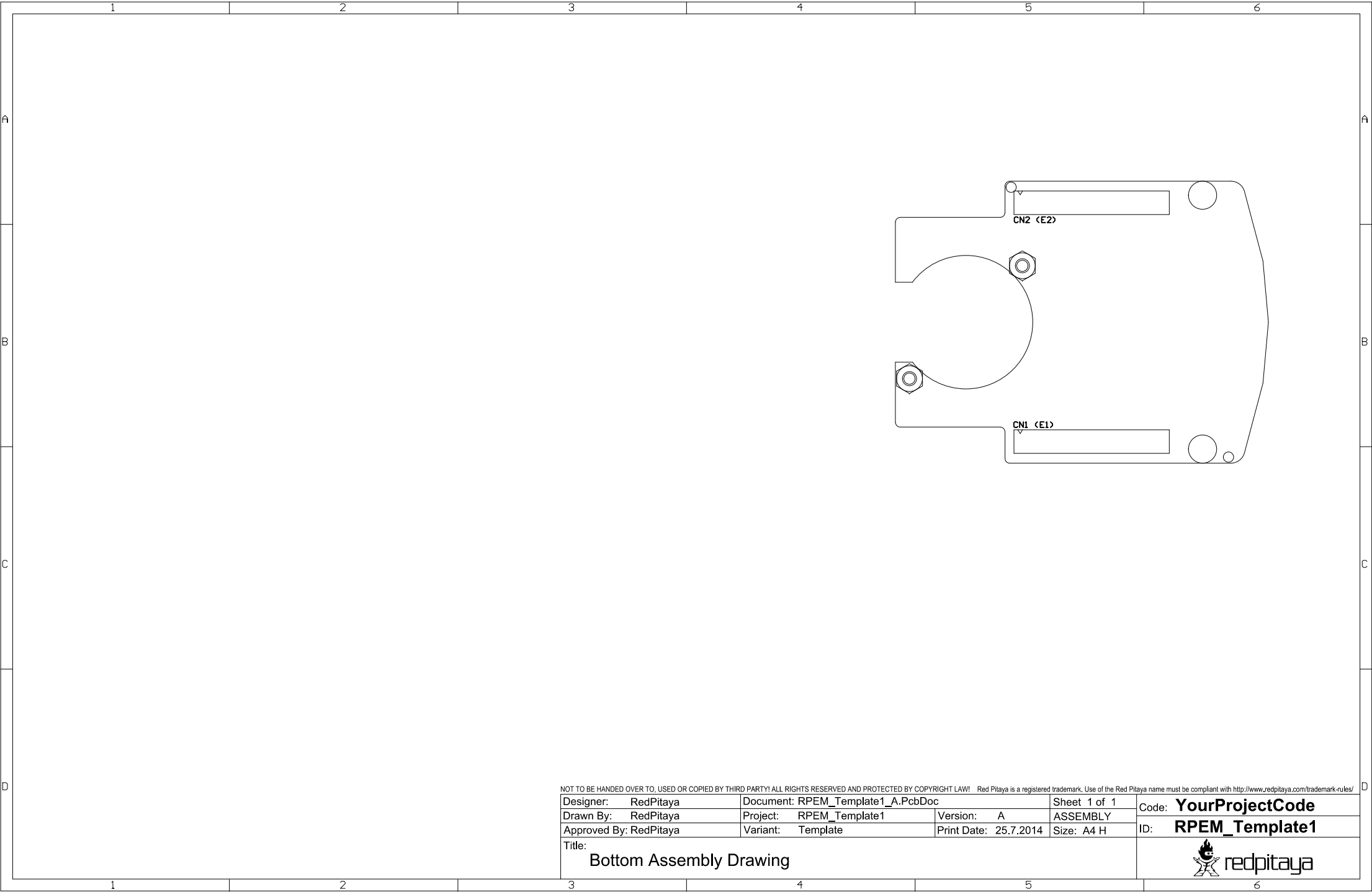
**Red Pitaya Extension Module Template 1**






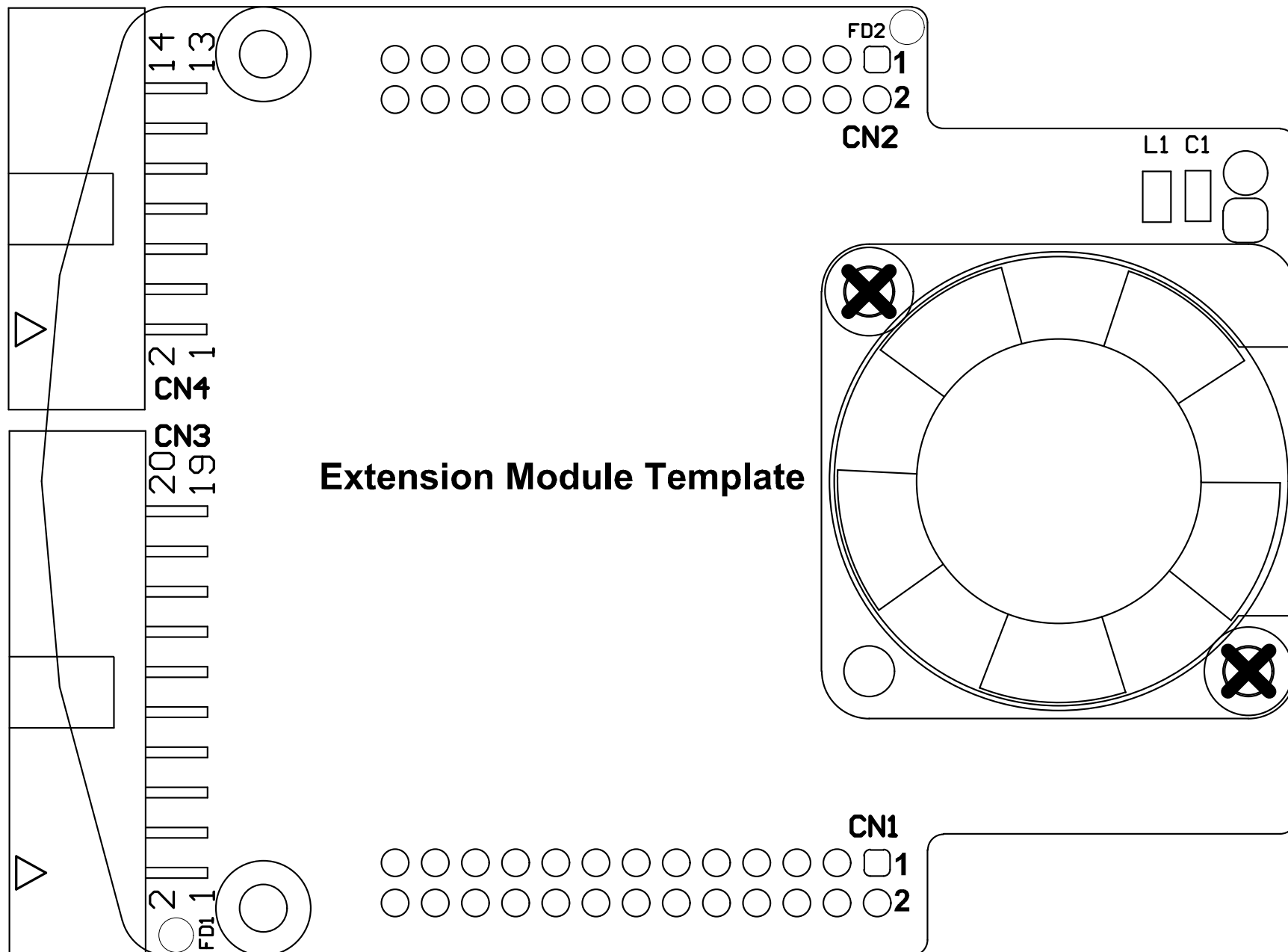
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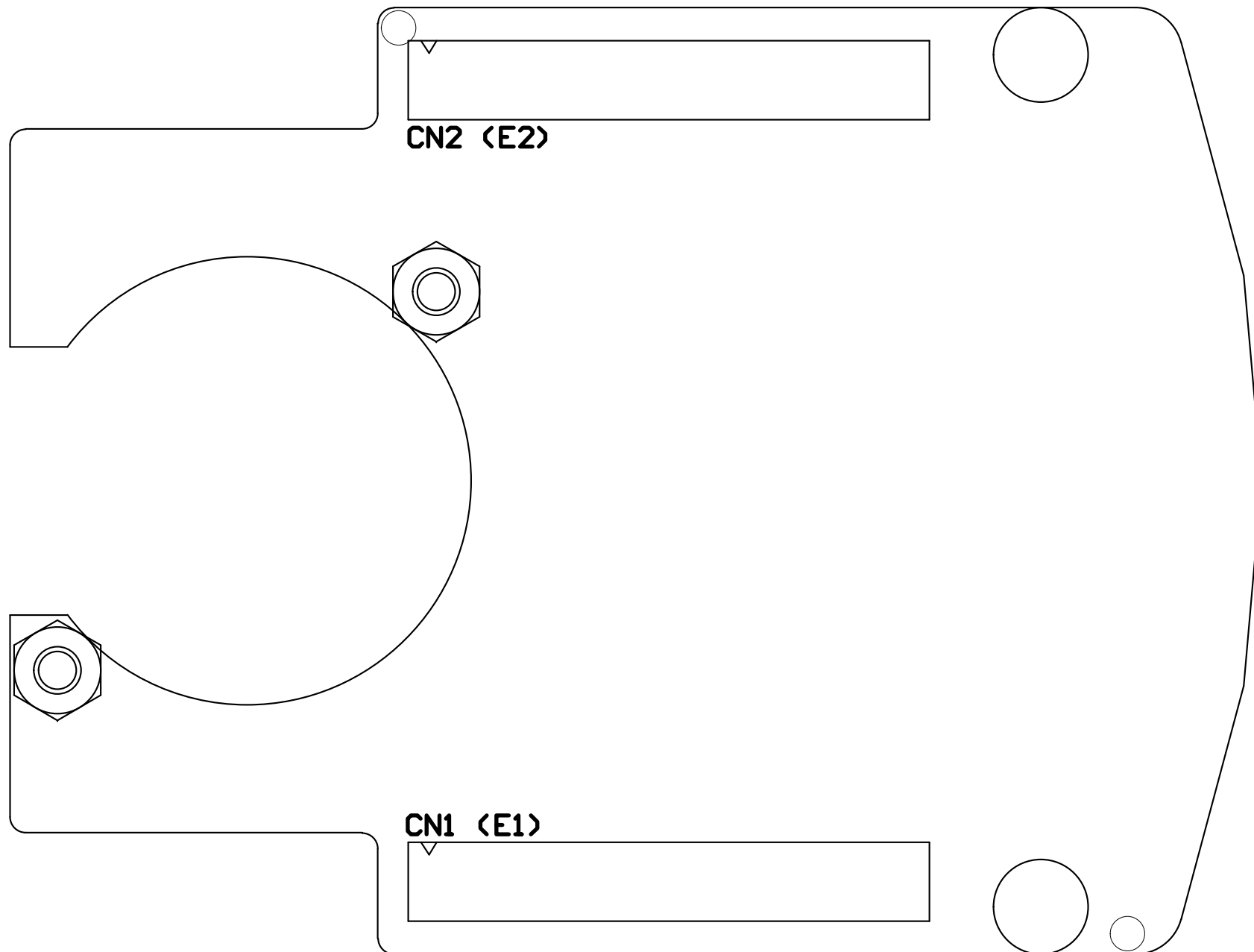
Designer: RedPitaya	Document: RPEM_Template1_A.PcbDoc	Sheet 1 of 1	Code: <b>YourProjectCode</b>
Drawn By: RedPitaya	Project: RPEM_Template1	Version: A	ASSEMBLY
Approved By: RedPitaya	Variant: Template	Print Date: 25.7.2014	Size: A4 H
Title: <b>Top Assembly Drawing</b>			ID: <b>RPEM_Template1</b>
			 <b>redpitaya</b>

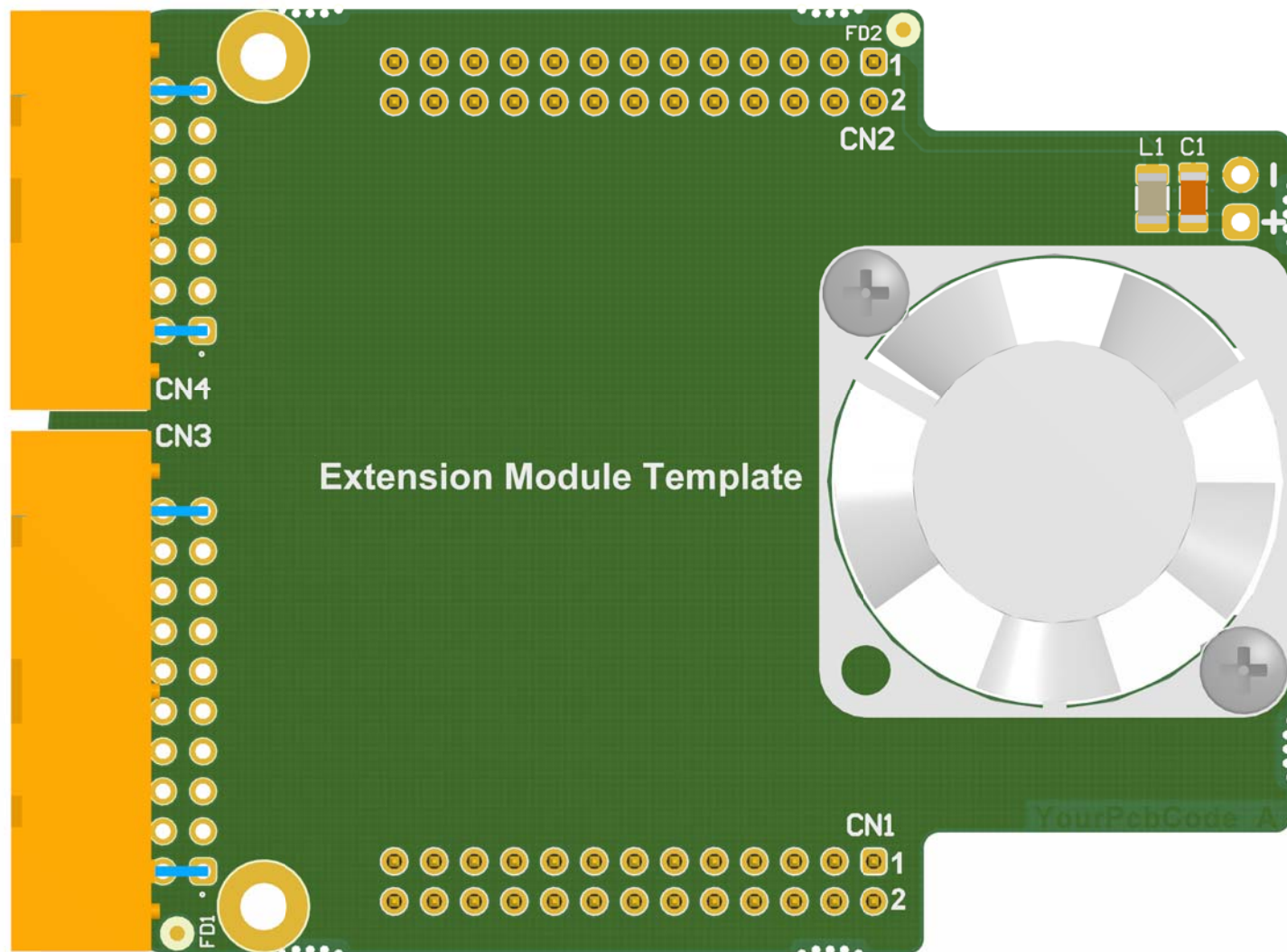


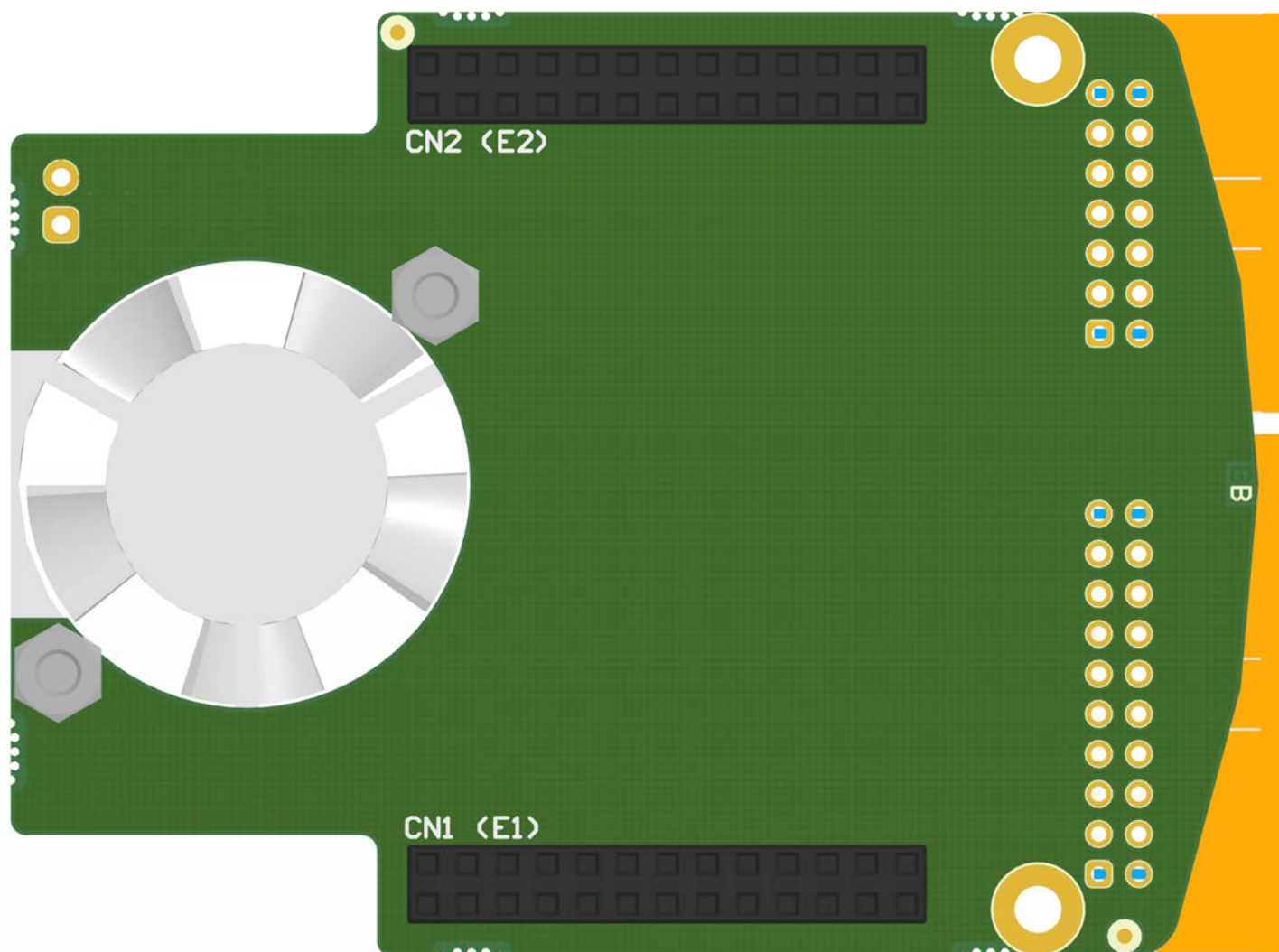
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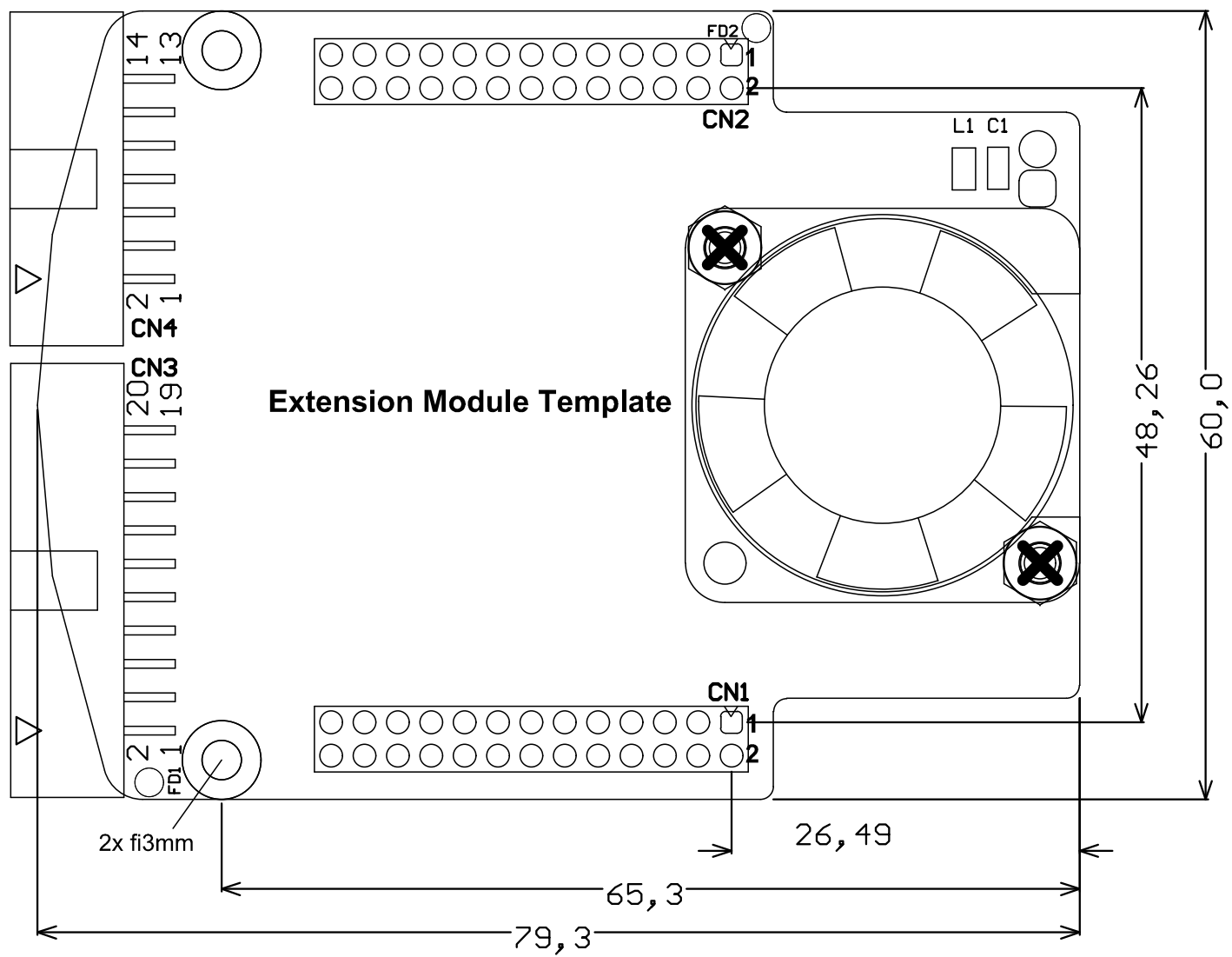
Designer: RedPitaya	Document: RPEM_Template1_A.PcbDoc	Sheet 1 of 1	Code: <b>YourProjectCode</b>
Drawn By: RedPitaya	Project: RPEM_Template1	Version: A	ASSEMBLY
Approved By: RedPitaya	Variant: Template	Print Date: 25.7.2014	Size: A4 H
Title: <b>Bottom Assembly Drawing</b>			 <b>redpitaya</b>













## Bill Of Material

## Red Pitaya Extension Module Template 1

Source Data From:

RPEM\_Template1\_A.PrjPcb

Project:

RPEM\_Template1

Version:

A

Variant:

Template

Template for Red Pitaya Extension Module

Product Code:

YourProjectCode



Report Date:

9:19:33 25.7.2014

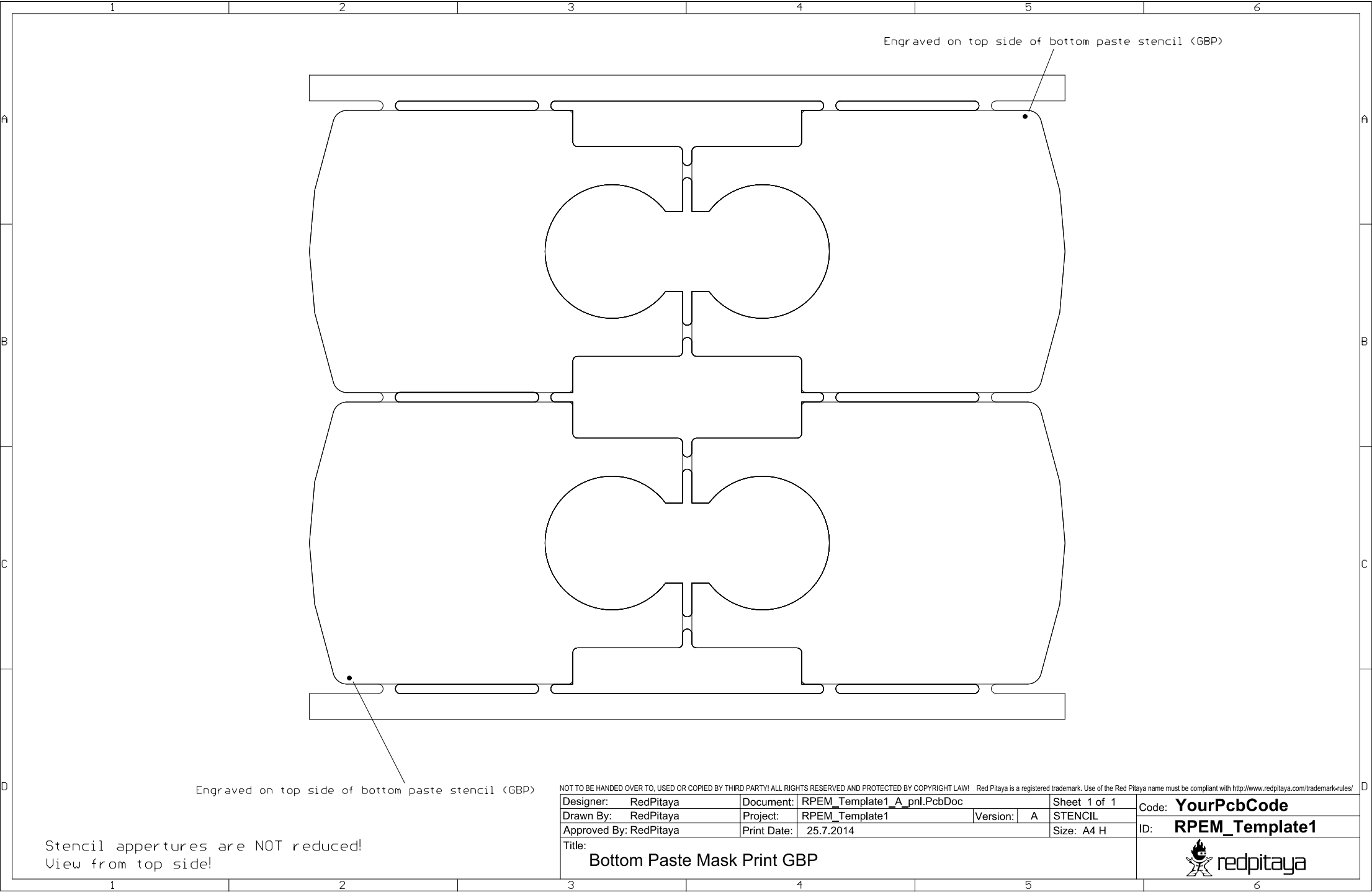
Print Date:

9:19 25.07.2014


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#	Designator	Quantity	Description	Value	Value2	Manufacturer	Manufacturer Part Number
1	PCB1	1	Printed circuit board 2 layer 52x60mm Panel 2x2 106x137mm	RPEM_Template1_A	FR4 1.6mm 35-35um Cu		
2	FD1, FD2	2	Fiducial top&bottom round 1.27mm	R			
3	C1	1	Capacitor Chip Ceramic 3216m(1206)	47uF	10V ±10% X5R	Murata	GRM31CR61A476ME15L
4	L1	1	Chip inductor wire wounded 3218m(1207)	47uH	205mA 0.92R ±10% SRF12MHz	Taiyo Yuden	LB3218T470K
5	CN4	1	CN IDC THT right angle P2.54mm low profile	IDC14LPH	14pin Male 350V 1A 20mR	Harting	09185147323
6	CN3	1	CN IDC THT right angle P2.54mm low profile	IDC20LPH	20pin Male 350V 1A 20mR	Harting	09185207323
7	CN1 (E1), CN2 (E2)	2	Connector FEMHDR Board-Board P2.54mm Pcb Straight thd	100-2-026-0-NFX-YS0-2331	26pin Fem 50V 1A	MPE-Garry	100-2-026-0-NFX-YS0-2331
8	MP3, MP4	2	Nut DIN934 hexagonal metric	M3	Steel nickel plated		
9	MP1, MP2	2	Screw DIN7985A metric PH head	M3x10mm	Steel nickel plated		
10	M1	1	Fan VAPO ball bearing SQ30H6,9	MC30060V2-0000-A99	5Vcc 72mA 3.7CFM/0.48m3/min 7500rpm	Sunon	MC30060V2-0000-A99
Approved		Total Quantity	Notes				
Total components:		14					

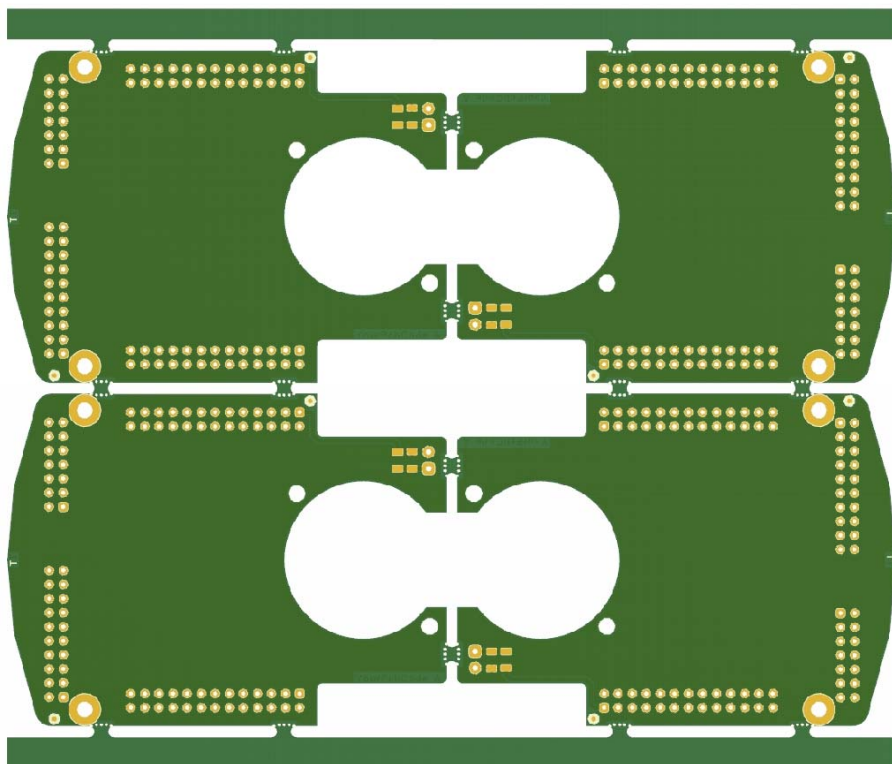
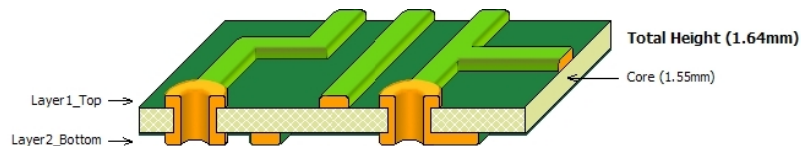




Stencil apertures are NOT reduced!  
View from top side!

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Designer:	RedPitaya	Document:	RPEM_Template1_A_pnl.PcbDoc	Sheet	1 of 1
Drawn By:	RedPitaya	Project:	RPEM_Template1	Version:	A
Approved By:	RedPitaya	Print Date:	25.7.2014	STENCIL	
Title:				Size:	A4 H
Bottom Paste Mask Print GBP				ID:	RPEM_Template1
				Code: YourPcbCode	
				 redpitaya	

1 2 3 4 5 6



**Production documentation for:**

**PCB: RPEM\_Template1**

**version: A**

**code: YourPcbCode**

**Confidential documentation!**

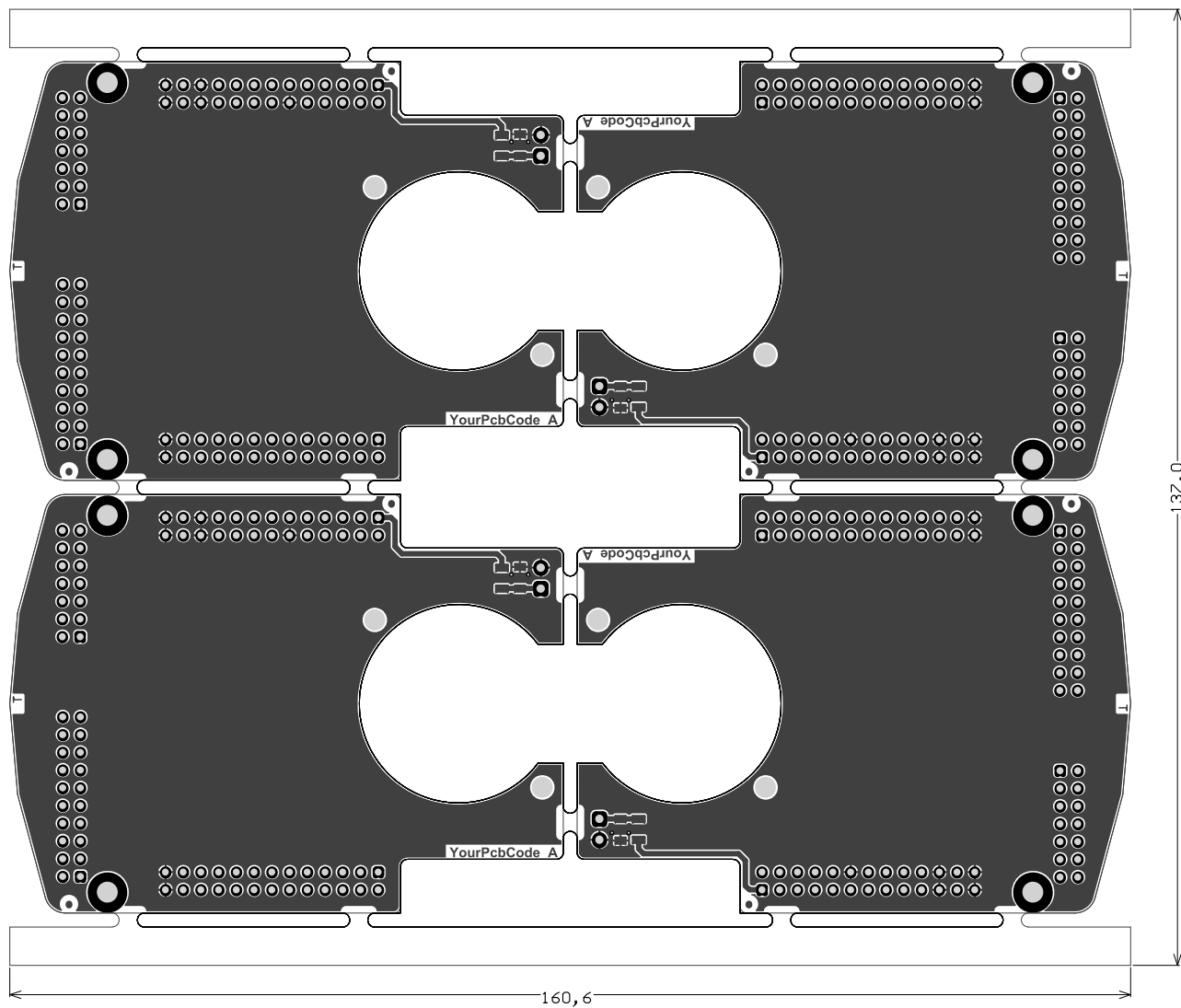
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Designer: RedPitaya	Pcb: RPEM_Template1	Sheet 1 of 1
Drawn By: RedPitaya	Version: A	PCB doc
Approved By: RedPitaya	Pcb code: YourPcbCode	Print Date: 25.7.2014
		Size: A4 H


**Printed Circuit Board**

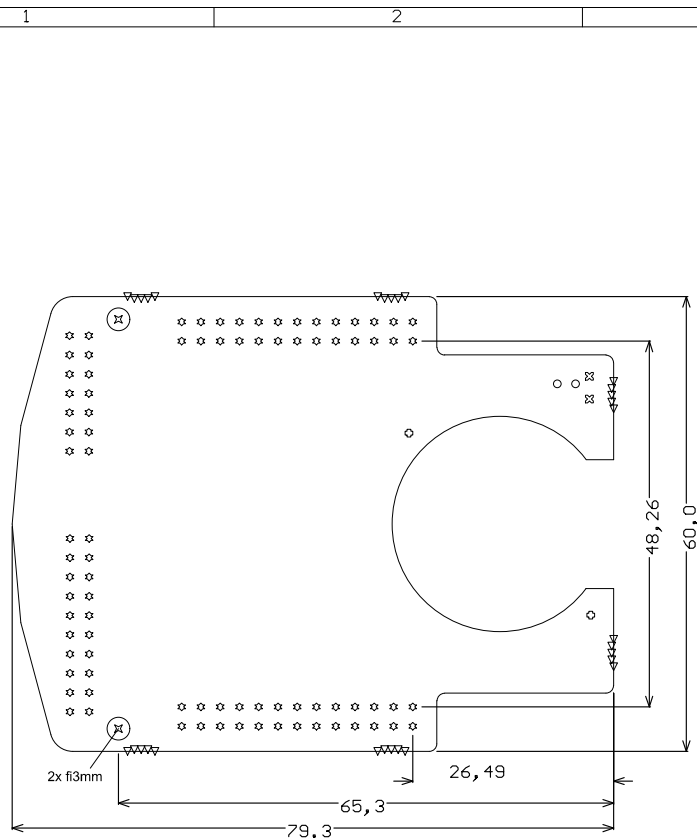


1 2 3 4 5 6



Milled with 2.0mm mill

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Designer:	RedPitaya	Document:	RPEM_Template1_A_pnl.PcbDoc	Sheet	1 of 1
Drawn By:	RedPitaya	Project:	RPEM_Template1	Version:	A
Approved By:	RedPitaya	Print Date:	25.7.2014	Size:	A4 H
Title:				Code:	
Panelization				ID:	
				RPEM_Template1	
				 redpitaya	



#### Notes:

- Board shall be fabricated - performance class II as per IPC-6011 and IPC6012
- PCB manufacturer logo, P/N, revision and/or date code of manufacturing shall be printed in top solder mask (not over pcb traces, allowed over copper plane).  
The date code shall be in the format: "WWYY" where WW=week and YY= year, max height 0.15 inches
- Silkscreen printed on both sides; color= WHITE
- Material: high temperature FR4 class epoxy glass  
min 35um copper for all layers  
Must be RoHS compliant and survive a lead-free assembly max reflow of 260 deg C (5 passes)  
Td rating: >340 deg C  
Tg = 150 deg C (min)
- Solder mask: SMOBC per IPC-SM-840C, class T must be Rohs compliant, 0.001" max measured over bare copper plating, must clear all lands as indicated on gerber solder mask layers, color= GREEN
- Finish: HAL-Sn100CL 7-10um over bare copper only
- Solderability test: Category 2 of J-STD-003
- Finished boards shall not have nicks, scratches, voids, exposed copper, poor plating or misdrilled holes
- All holes sizes are after plating
- All finished boards are to be 100% electrically tested
- Unless otherwise indicated, all linear toleracnes shall be XX.X +/-0.2mm and XX.XX +/- 0.1mm
- Gerber file GM1 shows board outline (milling line)
- Panelization: 2x2 (160,6x137mm)

#### Additional notes:


- Finished board thickness = 1.6mm +/- 10%; measured over top/bottom copper and solder mask

#### Layer Stack Up Detail for: RPEM\_Template1\_A.PcbDoc

Layer Name	Gerber Document	Copper Thickness	Dielectric Height	Dielectric Material	Dielectric Constant	Dielectric Type
Top Solder Mask	(.GTS)		0.0102mm	Solder Resist	3.50	
Layer1_Top	(.GTL)	0.035mm	1.55mm		4.6	Core
Layer2_Bottom	(.GBL)	0.035mm				
Bottom Solder Mask	(.GBS)		0.0102mm	Solder Resist	3.50	

Symbol	Hit Count	Tool Size	Plated	Hole Type
○	2	0.3mm <11.811mil>	PTH	Round
▽	30	0.6mm <23.622mil>	NPTH	Round
☆	86	1mm <39.37mil>	PTH	Round
⊗	2	1.2mm <47.244mil>	PTH	Round
⊕	2	3mm <118.11mil>	NPTH	Round
⊗	2	3mm <118.11mil>	PTH	Round
	124 Total			

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Designer: RedPitaya	Document: RPEM_Template1_A.PcbDoc	Sheet 1 of 1	Code: YourPcbCode
Drawn By: RedPitaya	Project: RPEM_Template1	Version: A	PCB
Approved By: RedPitaya	Variant: [No Variations]	Print Date: 25.7.2014	Size: A4 H
Title: Drill Drawing and Dimensions GD1			ID: RPEM_Template1
			 redpitaya