TMF8701 Daughter Card

Title	TMF8701 Daughter Card		
Size: A	Number: DC-TMF8701-01	Revision: B	
Date: 20.03.2019		Sheet 1 3 of	
File: \\..\Title Page.SchDoc		Drawn By: J.Dolic	

TMF8701 Daughter Card

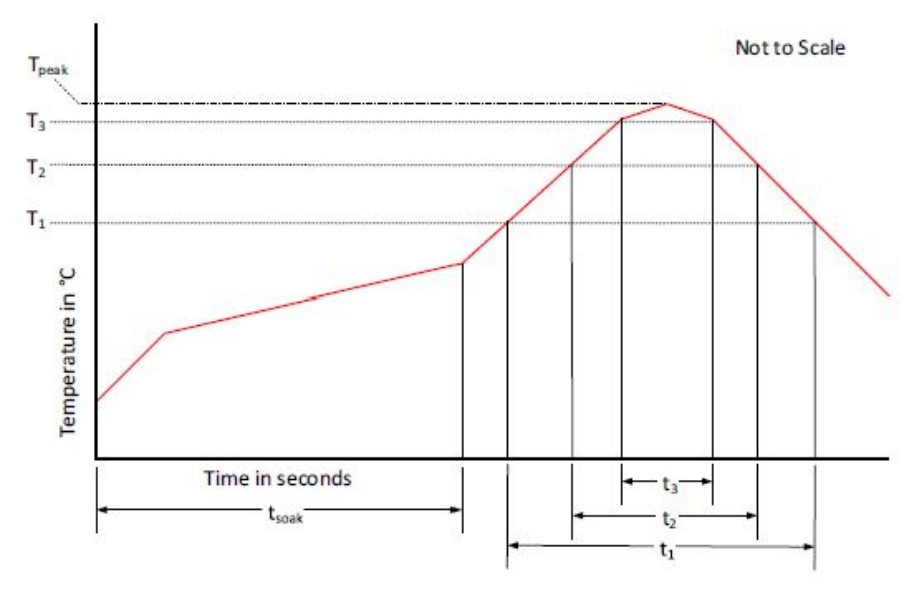
Table of Contents

Revision History

Version: A J.Dolic

Initial Release

Suggested Board Reflow Profile



Parameter	Reference	Device
Average temperature gradient in preheating		2.5 °C/sec
Soak time	t_{soak}	2 to 3 minutes
Time above 217 °C (T1)	t_1	Max 60 sec
Time above 230 °C (T2)	t_2	Max 50 sec
Time above T_{peak} – 10 °C (T3)	t_3	Max 10 sec
Peak temperature in reflow	T_{peak}	260 °C
Temperature gradient in cooling		Max -5 °C/sec

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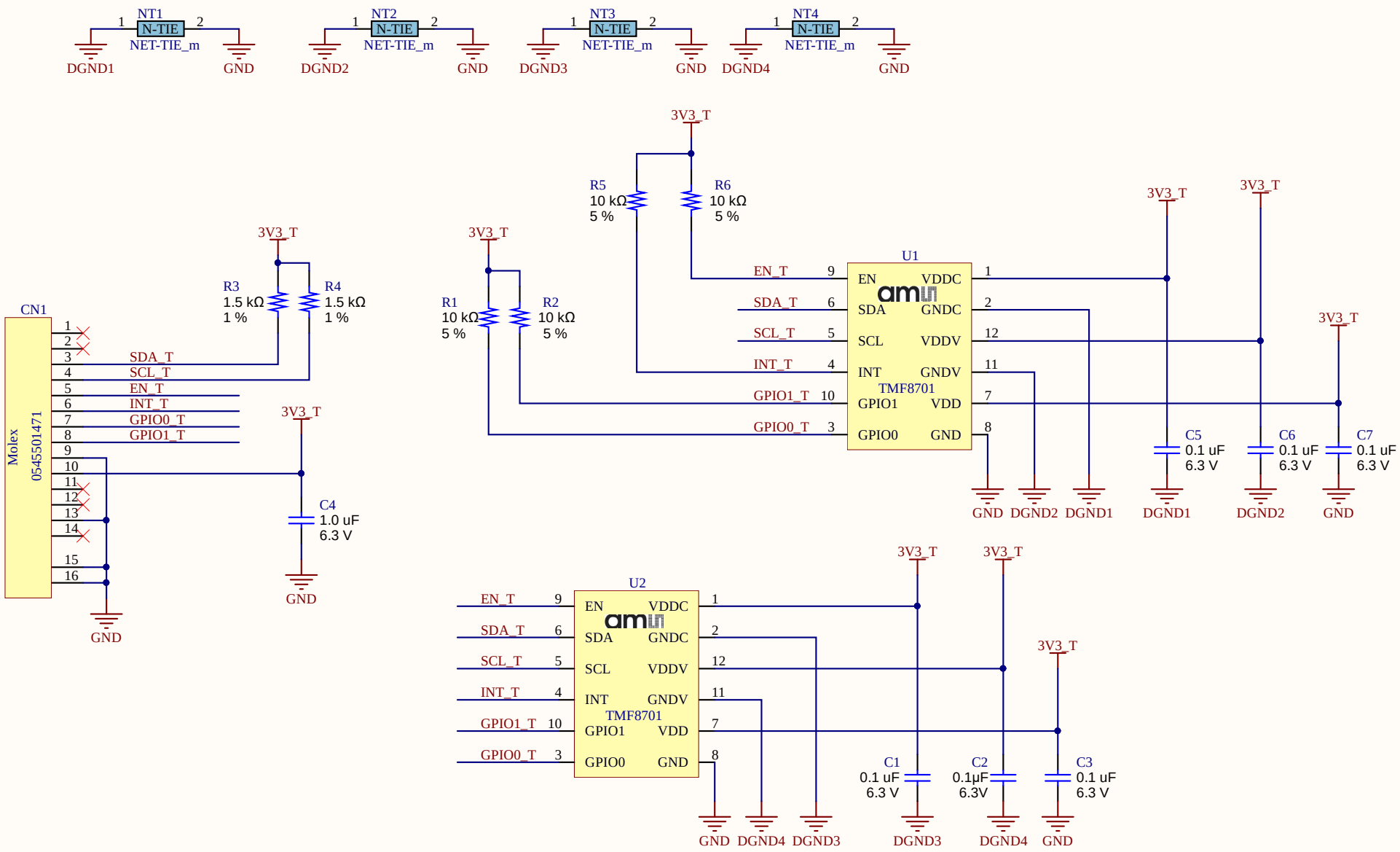
File: \\..\Project Page.SchDoc		Drawn By: J.Dolic	



Mounting Holes

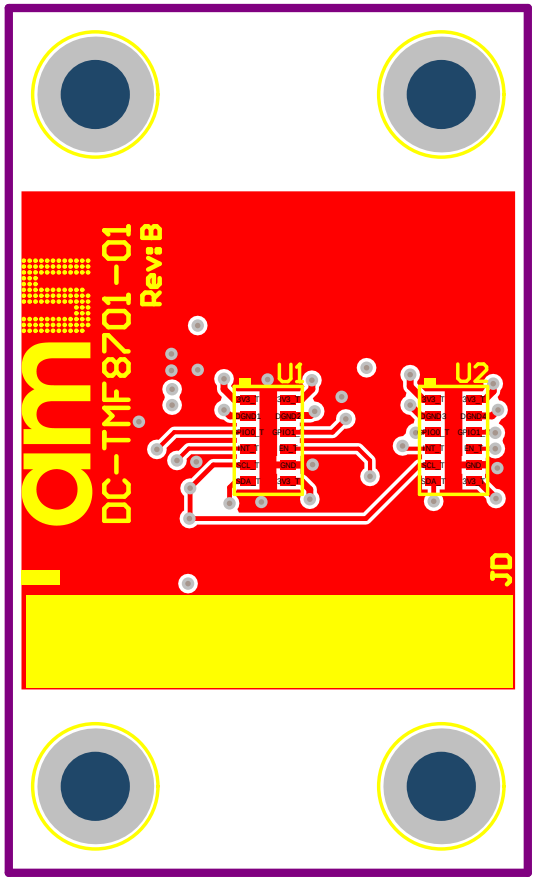
M1 M2 M3 M4

Either Place U1 or U2, but not both

Title:	TMF8701 Daughter Card
Board Number:	DC-TMF8701-01
Rev:	B
Date:	20.03.2019
Author:	J.Dolic
Sheet	3 of 3

Board Details

1. Board Size: 750mil x 1250mil +/- 10%
2. Board Thickness: 62mil +/- 10%
3. Board material: FR4 with 0.5oz Copper
4. Component count: 25
5. Pad Count: 80
6. Hole Count: 43
7. Soldermask Color: Black
8. Silkscreen Color: White
9. No Silkscreen over exposed copper.
10. PCB Manufacturer not to add any additional silkscreen
11. Fabricate to IPC-600 Class 1 unless otherwise specified
12. RoHS compliant
13. There are two score marks on this board.



Layers Currently On

Title_Block Top Layer	
BoardOutline	Top Overlay
	Multi-Layer

Title	TMF8701 Daughter Card
Number: DC-TMF8701-01	Rev: B
Print Name: Top Layer	
Variant: [No Variations]	Print Date: 20.03.2019
File: PCB.PcbDoc	Drawn By:J.Dolic

Board Details

1. Board Size: 750mil x 1250mil +/- 10%
2. Board Thickness: 62mil +/- 10%
3. Board material: FR4 with 0.5oz Copper
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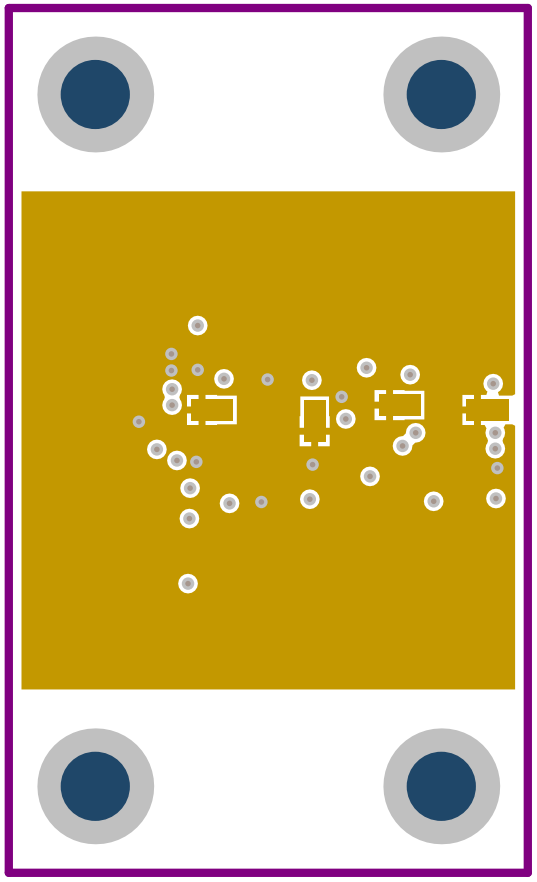
12. RoHS compliant
13. There are two score marks on this board.



Layers Currently On

Title_Block	
MID1	
BoardOutline	
	Multi-Layer

Title	TMF8701 Daughter Card
Number	DC-TMF8701-01
Rev	B
Print Name	Mid1 Layer - GND
Variant: [No Variations]	Print Date: 20.03.2019
File: PCB.PcbDoc	Drawn By:J.Dolic

Board Details

1. Board Size: 750mil x 1250mil +/- 10%
2. Board Thickness: 62mil +/- 10%
3. Board material: FR4 with 0.5oz Copper
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5. Pad Count: 80
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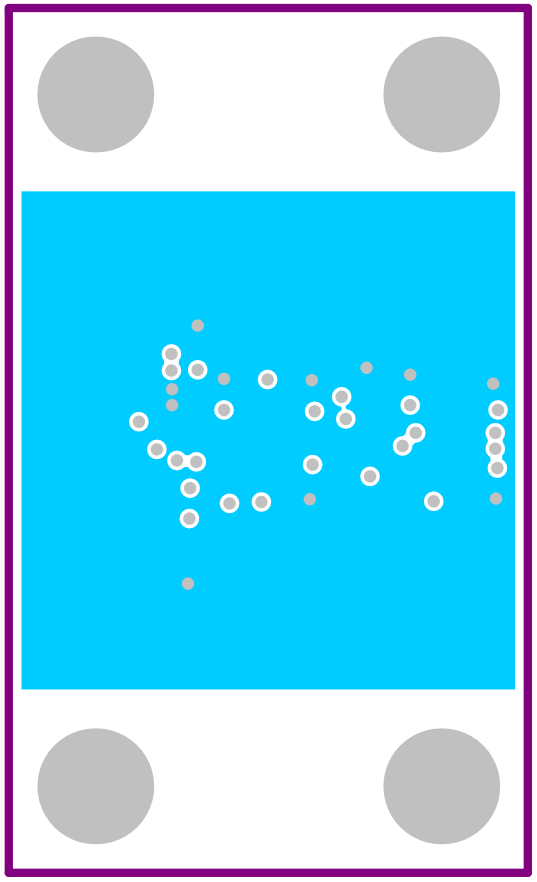
8. Silkscreen Color: White
9. No Silkscreen over exposed copper.
10. PCB Manufacturer not to add any additional silkscreen
11. Fabricate to IPC-600 Class 1 unless otherwise specified
12. RoHS compliant
13. There are two score marks on this board.



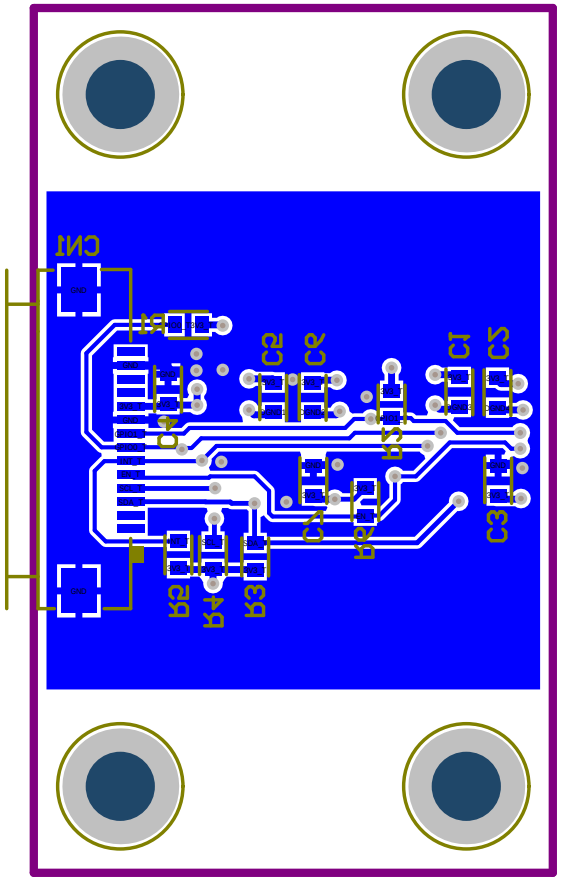
Layers Currently On

Title_Block	
MID2	
BoardOutline	
	Multi-Layer

Title	TMF8701 Daughter Card
Number	DC-TMF8701-01
Rev	B
Print Name	Mid2 Layer - PWR
Variant: [No Variations]	Print Date: 20.03.2019
File: PCB.PcbDoc	Drawn By:J.Dolic

Board Details

1. Board Size: 750mil x 1250mil +/- 10%
2. Board Thickness: 62mil +/- 10%
3. Board material: FR4 with 0.5oz Copper
4. Component count: 25
5. Pad Count: 80
6. Hole Count: 43
7. Soldermask Color: Black
8. Silkscreen Color: White
9. No Silkscreen over exposed copper.
10. PCB Manufacturer not to add any additional silkscreen
11. Fabricate to IPC-600 Class 1 unless otherwise specified
12. RoHS compliant
13. There are two score marks on this board.



Layers Currently On

Title_Block	Bottom Overlay
Bottom Layer	Multi-Layer
BoardOutline	

Title	TMF8701 Daughter Card
Number	DC-TMF8701-01
Rev	B
Print Name	Bottom Layer
Variant: [No Variations]	Print Date: 20.03.2019
File: PCB.PcbDoc	Drawn By:J.Dolic

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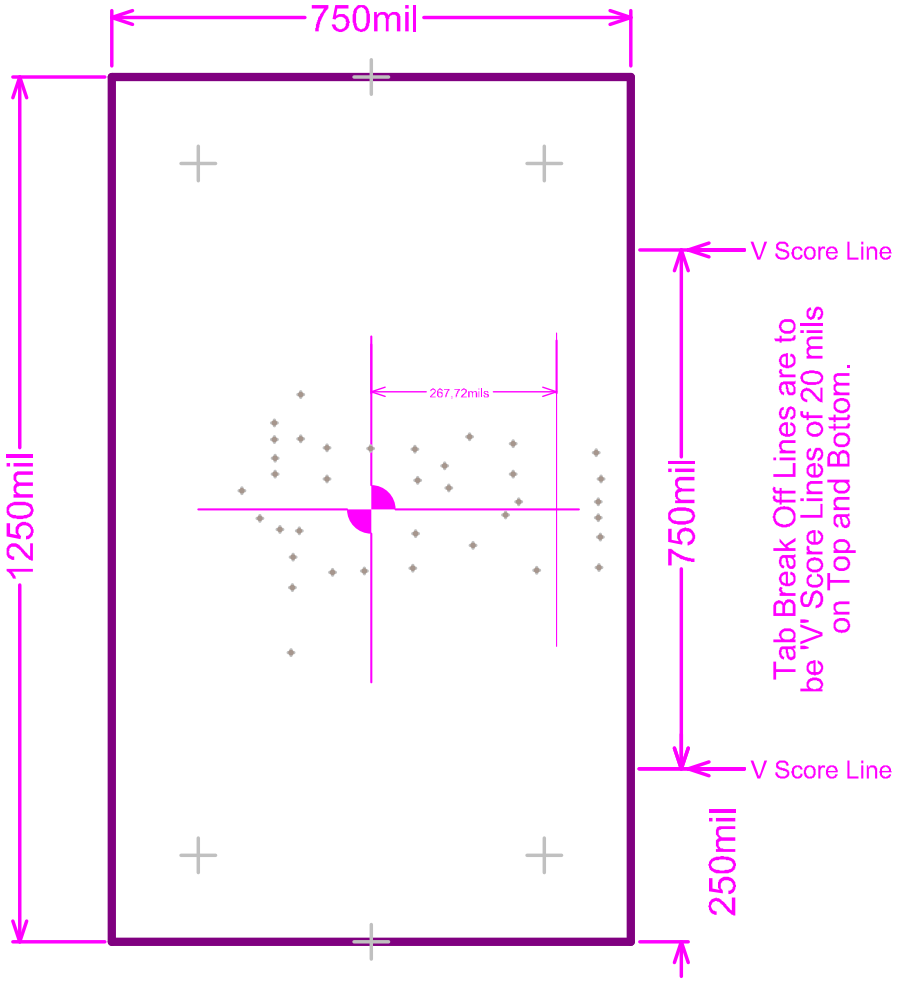
8. Silkscreen Color: White
9. No Silkscreen over exposed copper.
10. PCB Manufacturer not to add any additional silkscreen
11. Fabricate to IPC-600 Class 1 unless otherwise specified
12. RoHS compliant
13. There are two score marks on this board.



Layers Currently On

Title_Block	Drill Guide
Dimension BoardOutline	Keep-Out Layer Multi-Layer

Title	TMF8701 Daughter Card	
Number	DC-TMF8701-01	Rev B
Print Name	Board Dimensions	
Variant: [No Variations]		Print Date: 20.03.2019
File: PCB.PcbDoc		Drawn By:J.Dolic

Board Details

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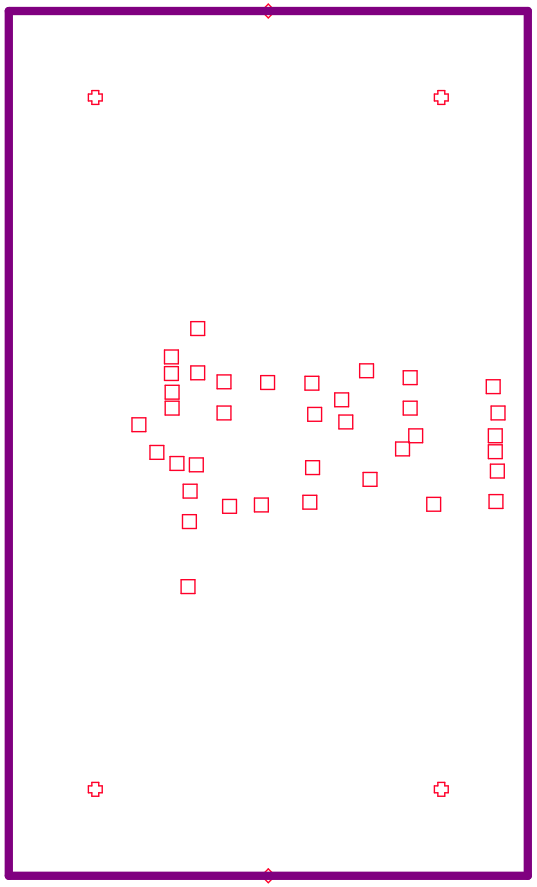
12. RoHS compliant
13. There are two score marks on this board.



Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Technology
◇	2	100,00mil (2,540mm)	NPTH	Round	TOP - BOTTOM	Pad	Rounded	c0hn254
⌖	4	100,00mil (2,540mm)	PTH	Round	TOP - BOTTOM	Pad	Rounded	c425h254m435p425
□	37	8,00mil (0,203mm)	PTH	Round	TOP - BOTTOM	Via	Rounded	v46h20
	43 Total							

Layers Currently On

Title_Block

Drill Drawing

BoardOutline

Title	TMF8701 Daughter Card
Number	DC-TMF8701-01
Rev	B
Print Name	Drill Drawing
Variant: [No Variations]	Print Date: 20.03.2019
File: PCB.PcbDoc	Drawn By:J.Dolic

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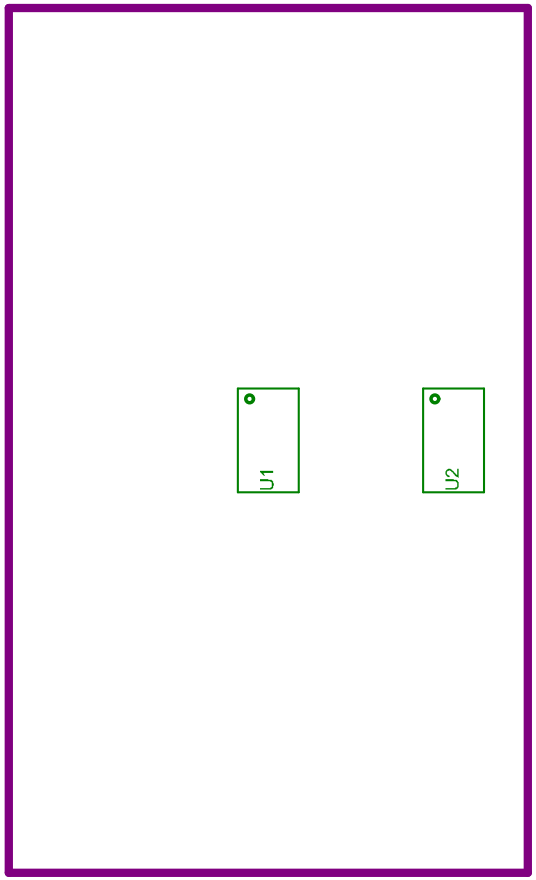

Layers Currently On

Title_Block **BoardOutline** **TopAssembly**	Multi-Layer

Title	TMF8701 Daughter Card	
Number	DC-TMF8701-01	Rev B
Print Name	TOP Assembly	
Variant: [No Variations]		Print Date: 20.03.2019
File: PCB.PcbDoc		Drawn By:J.Dolic

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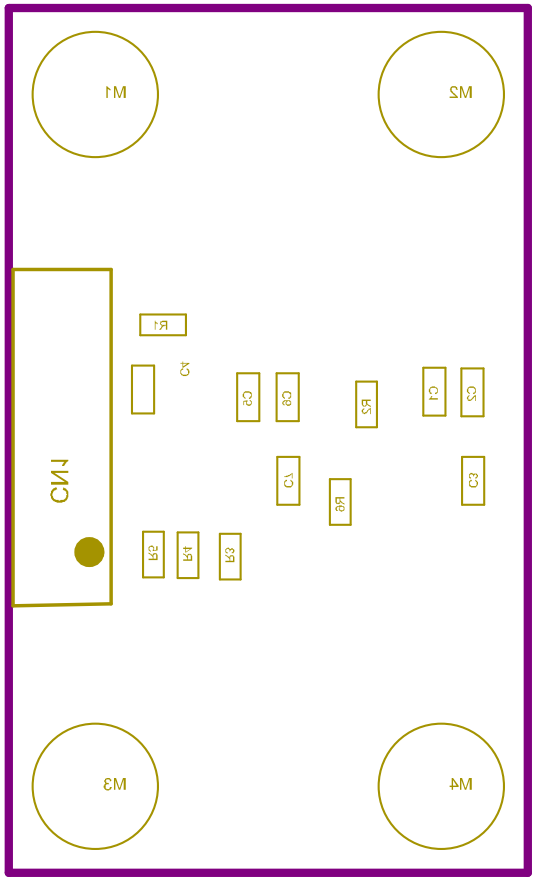
11. Fabricate to IPC-600 Class 1 unless otherwise specified
12. RoHS compliant
13. There are two score marks on this board.



Layers Currently On

Title_Block	
BoardOutline	
BottomAssembly	
	Multi-Layer

Title	TMF8701 Daughter Card	
Number	DC-TMF8701-01	Rev B
Print Name	BOTTOM Assembly Mirrored	
Variant: [No Variations]		Print Date: 20.03.2019
File: PCB.PcbDoc		Drawn By:J.Dolic

Design Rules Verification Report

Filename : \\fsup04\cnc_prodmgmt\OSL\11_HW_Application_PS\Koloth\Hardware\DC-Dual_T

Warnings 0
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=5mil) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Short-Circuit Constraint (Allowed=Yes) (IsTextInverted),(All)	0
Un-Routed Net Constraint ((All))	0
Width Constraint (Min=4.921mil) (Max=393.701mil) (Preferred=11.811mil) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=15.748mil) (Conductor Width=5.906mil) (Air Gap=5.906mil)	0
Minimum Annular Ring (Minimum=5mil) (All)	0
Hole Size Constraint (Min=6mil) (Max=232.284mil) (All)	0
Hole To Hole Clearance (Gap=11.811mil) (All),(All)	0
Minimum Solder Mask Sliver (Gap=1mil) (All),(All)	0
Silk To Solder Mask (Clearance=0mil) (IsPad),(All)	0
Silk to Silk (Clearance=0mil) (All),(All)	0
Net Antennae (Tolerance=20mil) (All)	0
Height Constraint (Min=0mil) (Max=1000mil) (Prefered=500mil) (All)	0
Total	0

Electrical Rules Check Report

Class	Document	Message
Warning	Project Page.SchDoc	Incorrect link between project variant "Default Build" and schematic component Component R3 1K5,0402,1%
Warning	Project Page.SchDoc	Incorrect link between project variant "Default Build" and schematic component Component R4 1K5,0402,1%
Warning	Project Page.SchDoc	Incorrect link between project variant "Default Build" and schematic component Component U1 TOF
Warning	Project Page.SchDoc	Incorrect link between project variant "Default Build" and schematic component Component U2 TOF

Bill of Materials

TMF8701 Daughter Card

Source Data From: DC-TMF8701-01.PrjPcb

Project: DC-TMF8701-01.PrjPcb

Variant: None

Creation Date 20.03.2019 13:55:07

Print Date: 20-Mar-19 1:55:18 PM

Designator	Comment	Manufacturer	Manufacturer Part Number	Description	Alternate	Quantity
C1, C2, C3	0.1uF,6V3, 0402, 10%, 0.1uF,6V3,0402, 10%	Murata Electronics North America	GRM155R70J104KA01D	Cap 0.1uF,6V3, 0402, 10%		3
C4	1.0uF,6V3, 0402, 20%	AVX	04026D105MAT2A	Cap 1.0uF,6V3, 0402, 20%	YES	1
CN1	CONN FFC TOP 14POS 0.50MM R/A	Molex	0545501471	CONN FFC TOP 14POS 0.50MM R/A		1
M1, M2, M3, M4	Mounting Hole	PennEngineering	SMTO-M1-1ET	Mounting nut 0.1" Dia M1 thread		4
R1, R2, R5, R6	10K,0402,5%	Vishay Dale	CRCW040210K0JNED	Res, 10K, 0402, 5%		4
U2	TOF	ams AG	TMF8701	TOF		1
						14

Approved

Notes

Parts with alternate marked as YES may be replaced by an equivalent with preapproval from AMS.
Parts from ams AG will be consigned