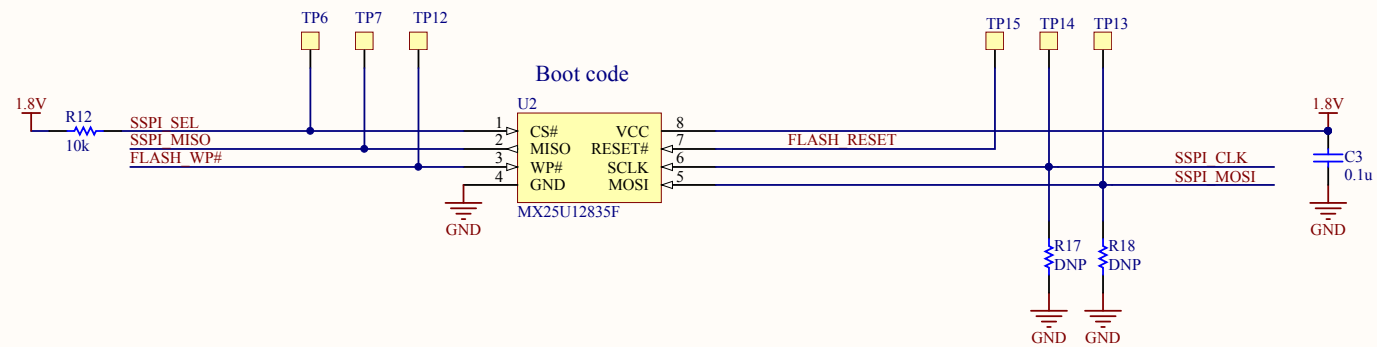


Route ground traces for C15, C16 and C17 to single vias on the EPAD. Isolate them from pours in inner layers

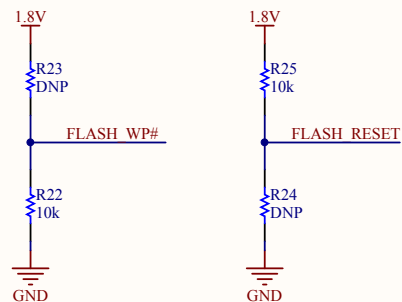
# Hello

TITLE M4F_MCU_Power		REV DVT
DATE 11/20/2014	DRAWN BY D. Fusi	SHEET 3 OF 7





TI wants 17 and R18 to be installed but we've always been good without



Datasheet is unclear, so for now we pull reset high and WP low

<h1>Hello</h1>		
TITLE Flash memory		REV DVT
DATE 11/20/2014	DRAWN BY D. Fusi	SHEET 5 OF 7



SD Card connector

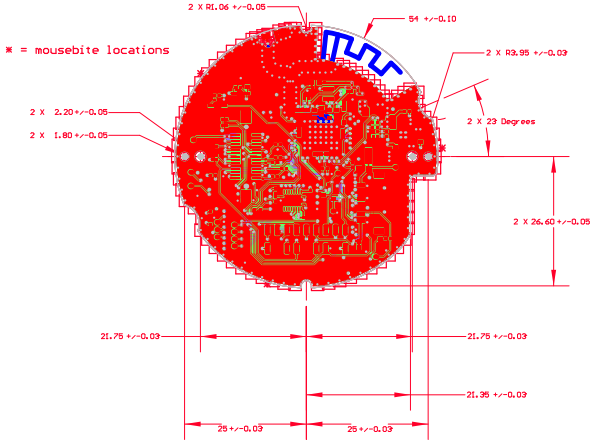
# Hello

TITLE SD_Card		REV DVT
DATE 11/20/2014	DRAWN BY D. Fusi	SHEET 7 OF 7

Fabrication / Assembly Notes

- 1. Material: Rigid FR-4, RoHS compliant; material should meet or exceed requirements of IPC 4101/126. ITEQ IT-180A Pre-approved.
- 2. Number of electrical layers: 6
- 3. Trace / Space minimum: 5mil (all layers)
- 4. Thickness: 0.782mm (31mils) +/- 0.1mm finished
- 5. Finish: ENIG plating on exposed copper
- 6. Soldermask: per IPC-SM-840, color matte black, registration within +/- 76um of circuit layer
- 7. Silkscreen: do printed silkscreen on top and bottom layers, color white. Clip on pads.
- 8. Board must be lead free process compatible and able to withstand minimum of 5 cycles at 250 degrees celsius
- 9. All Test/QA/QC markings to be made on back side of PCB
- 10. x mousebites shall be no larger than 0.05 mm
- 11. All Dimensions are after plating/finishing
- 12. All components must be placed within +/- 0.10mm
- 13. This board has controlled impedences between Layers 5 and 6.  
0.45mm traces on Bottom layer (Layer 6) are 50 ohm +/-5 Ohm controlled impedance traces referenced to layer 5.  
Fab vendor to adjust trace width as needed but no smaller than .125mm without approval.

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Paste				
2	Top Overlay				
3	Top Solder	Solder Resist	0.010mm	3.5	
4	Top Layer	Copper	0.025mm		
5	Dielectric1	FR-4	0.102mm	4.2	
6	Signal Layer 1	Copper	0.025mm		
7	Dielectric 5		0.152mm	4.2	
8	Signal Layer 2	Copper	0.025mm		
9	Dielectric 4		0.102mm	4.2	
10	GND	Copper	0.025mm		
11	Dielectric2		0.152mm	4.2	
12	PdR	Copper	0.025mm		
13	Dielectric3		0.102mm	4.2	
14	Bottom Layer	Copper	0.025mm		
15	Bottom Solder	Solder Resist	0.010mm	3.5	
16	Bottom Overlay				
17	Bottom Paste				



Symbol	Hit Count	Finished Hole Size	Plated	Hole Type
H	1	0.700mm (27.56mil)	NPTH	Round
V	1	0.900mm (35.43mil)	NPTH	Round
o	2	1.800mm (70.87mil)	NPTH	Round
o	2	2.200mm (86.61mil)	NPTH	Round
*	33	0.300mm (11.81mil)	PTH	Round
v	122	0.305mm (12.00mil)	PTH	Round
□	312	0.200mm (7.87mil)	PTH	Round
478 Total				

METRIC	DRAWER	DATE		
DESIGNER	DATE			
DESIGNER	rsb/dfusi	12/30/14	TITLE: Morpheus Middle Board	
PROPRIETARY AND CONFIDENTIAL			REV	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF HELLO INC.			SIZE B	
ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF HELLO INC IS PROHIBITED.			DWG. NO. 201-00004-05	
			SCALE: 1:1	
			WEIGHT:	
			SHEET 1 OF 1	



1. Material: Rigid FR-4, RoHS compliant; material should meet or exceed requirements of IPC 4101/126. ITEQ IT-180A Pre-approved.
2. Number of electrical layers: 6
3. Trace / Space minimum: 5mil (all layers)
4. Thickness: 0.782mm (31mils) +/- 0.1mm finished
5. Finish: ENIG plating on exposed copper
6. Soldermask: per IPC-SM-840, color matte black, registration within +/- 76um of circuit layer
7. Silkscreen: do printed silkscreen on top and bottom layers, color white. Clip on pads.
8. Board must be lead free process compatible and able to withstand minimum of 5 cycles at 250 degrees celsius
9. All Test/QA/QC markings to be made on back side of PCB
10. x mousebites shall be no larger than 0.05 mm
11. All Dimensions are after plating/finishing
12. All components must be placed within +/- 0.10mm
13. This board has controlled impedances between layers 5 and 6.  
0.45mm traces on Bottom layer (layer 6) are 50 ohm +/- 5 Ohm controlled impedance traces referenced to layer 5.  
Fab vendor to adjust trace width as needed but no smaller than .125mm without approval.

Symbol	Hit Count	Finished Hole Size	Plated	Hole Type
✕	1	0.700mm (27.56mil)	NPTH	Round
▼	1	0.900mm (35.43mil)	NPTH	Round
○	2	1.800mm (70.87mil)	NPTH	Round
○	2	2.200mm (86.61mil)	NPTH	Round
☆	33	0.300mm (11.81mil)	PTH	Round
▼	122	0.305mm (12.00mil)	PTH	Round
□	317	0.200mm (7.87mil)	PTH	Round
	478 Total			

