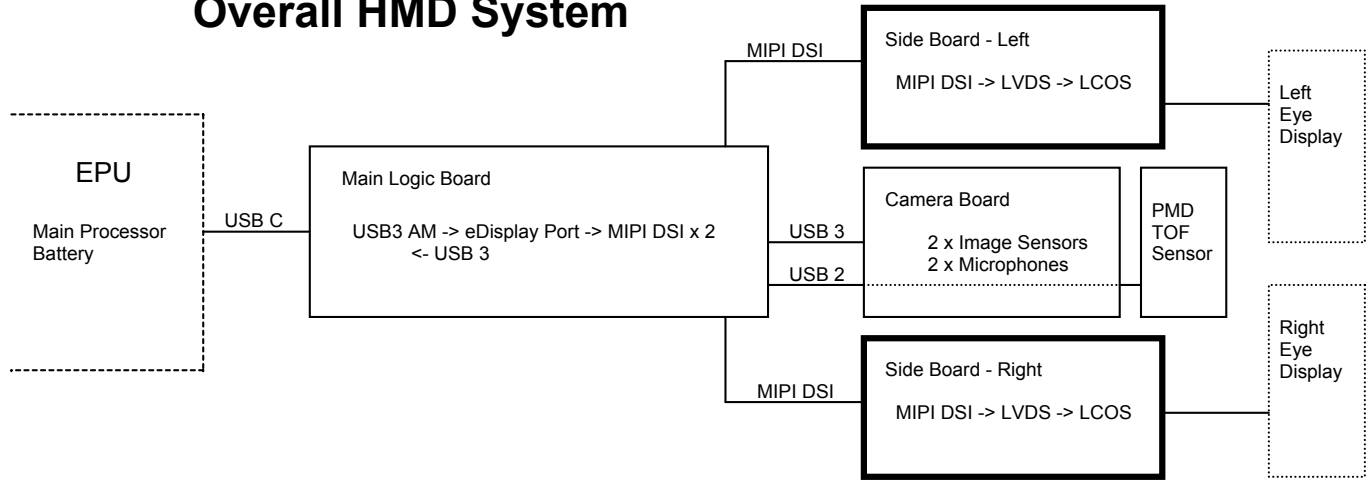
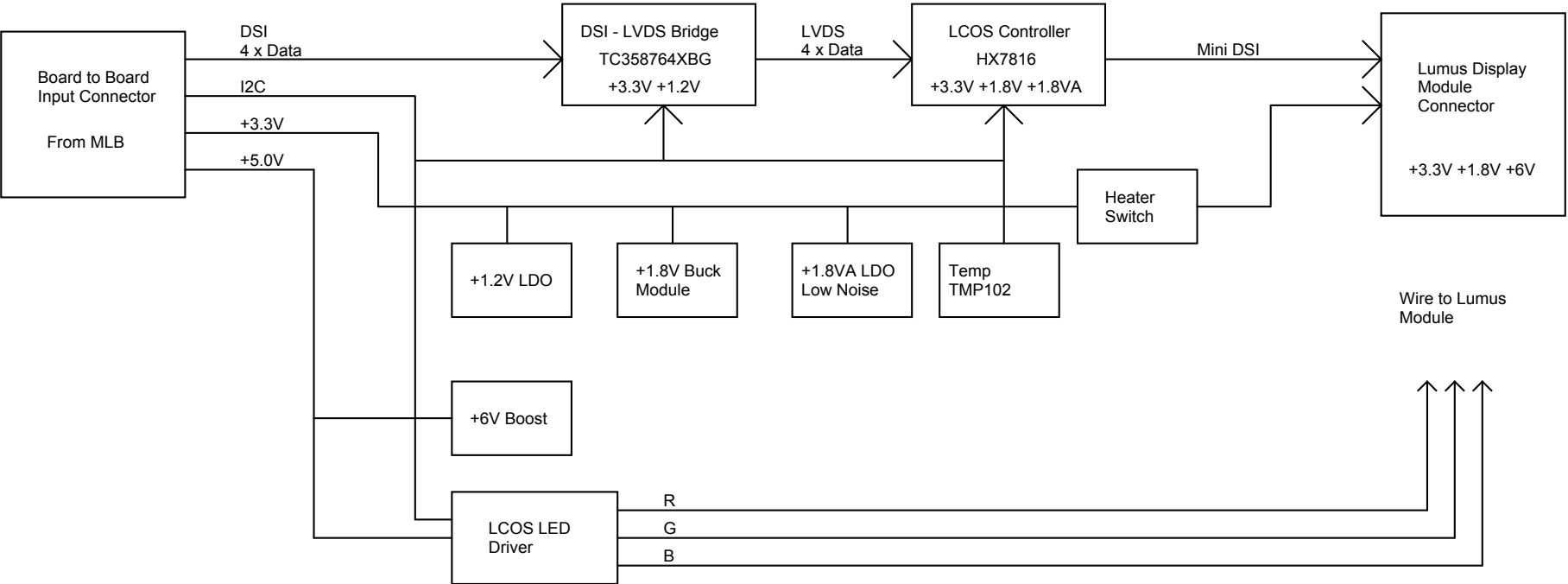


Overall HMD System



Side Board

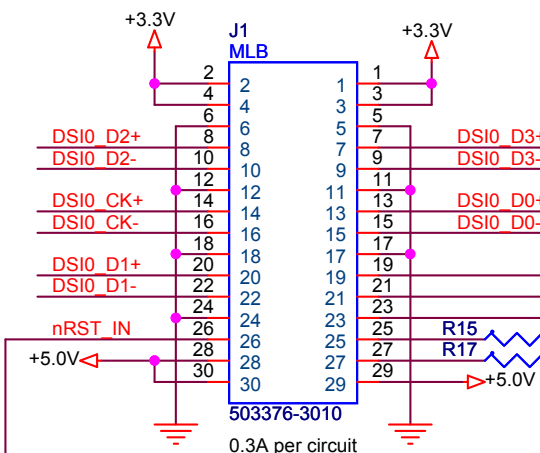


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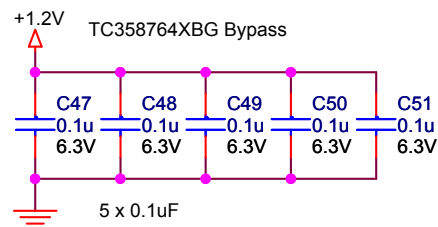
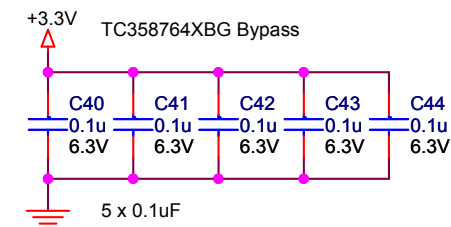
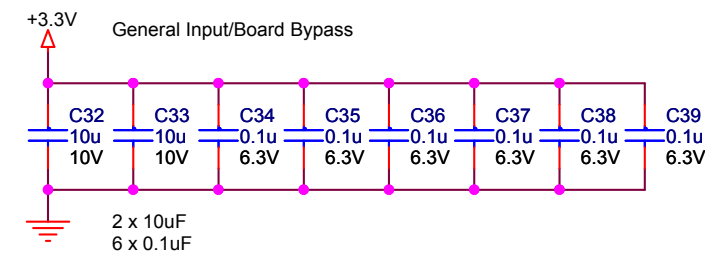
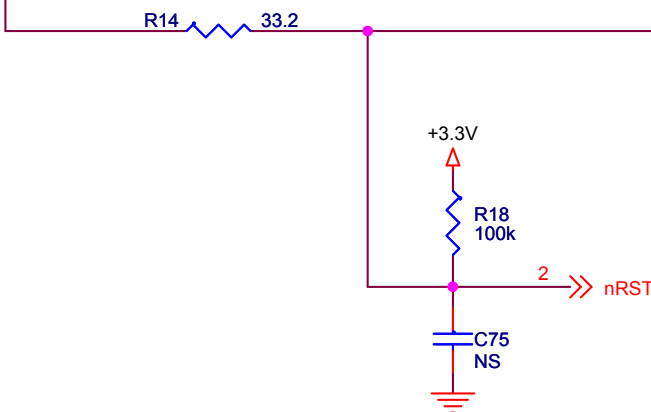
PAGE	DESCRIPTION
1	Block Diagram
2	LCOS Controller
3	Data Path
4	Power Supplies
5	LCOS LED Driver

Atheer			Rev
Design Name	HMD Side Board	Doc Num	ATH-2HSBA2 A
Page Name	Block Diagram		
Size	Drawn By: Jay Patterson	G8 PN: ATH-2HSBA2-A	
B	Date: Tuesday, May 10, 2016	Sheet 1 of 5	

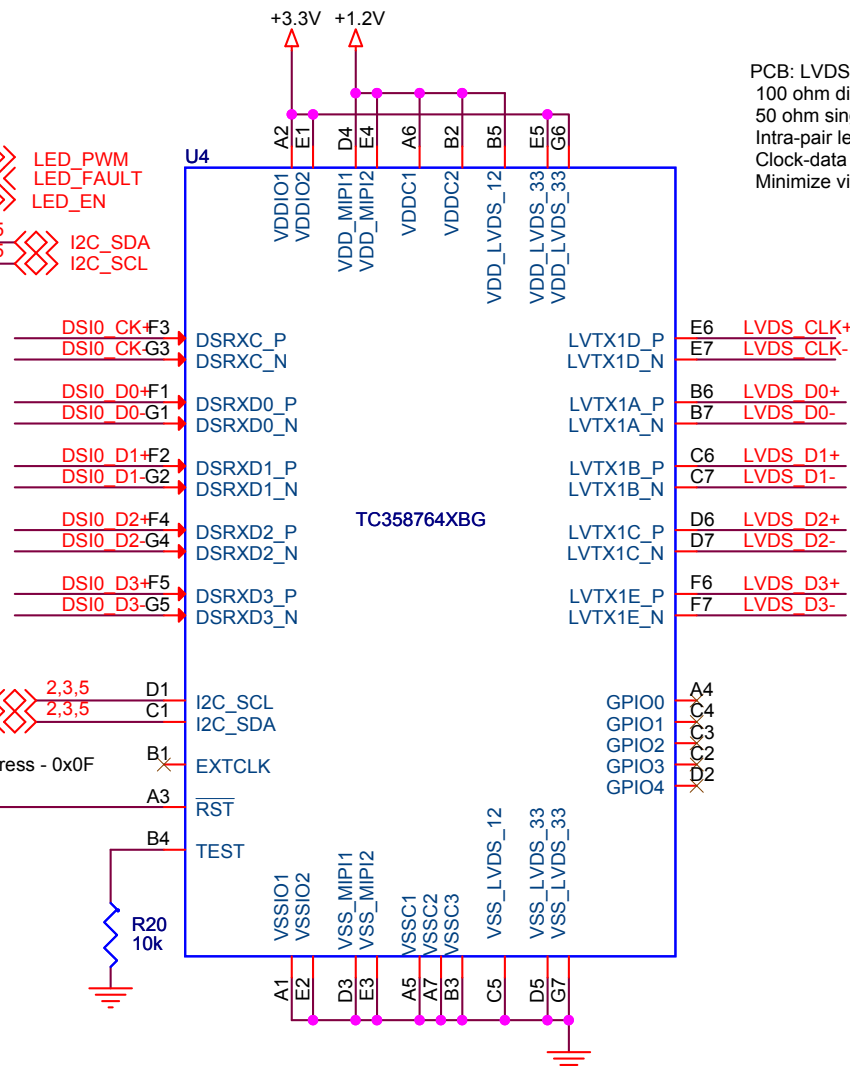
MLB Connector



PCB: DSI Routing Instructions
90 ohm differential
50 ohm single-ended
Intra-pair length difference: < 6 mil
Clock-data length difference: < 60 mil
for each of DSI0 and DSI1 sets

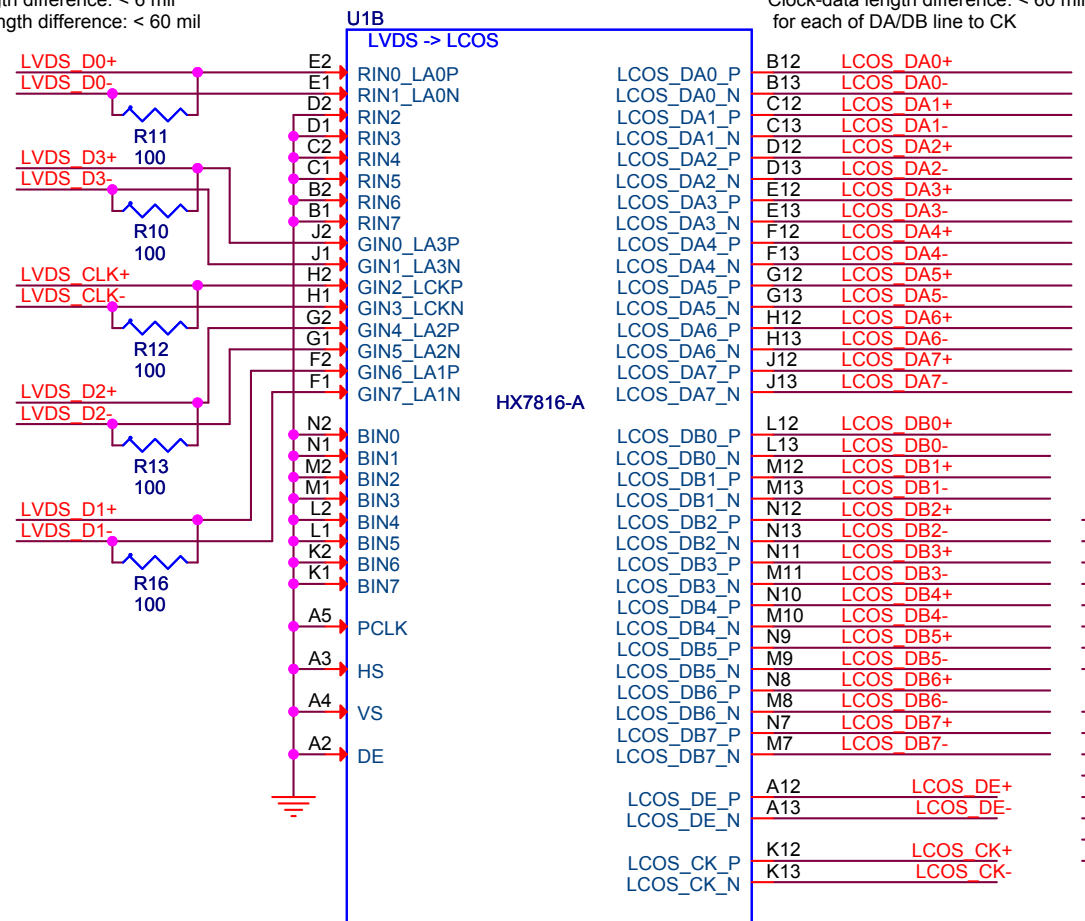


DSI-LVDS Bridge

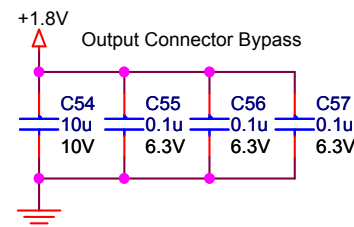
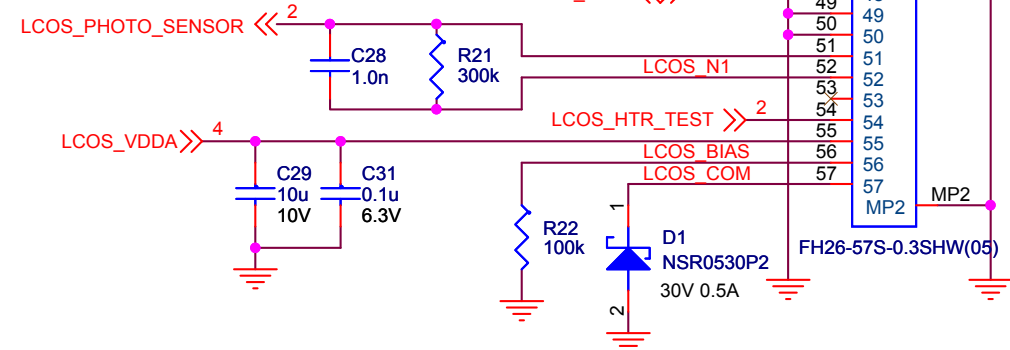


PCB: LVDS Routing Instructions
100 ohm differential
50 ohm single-ended
Intra-pair length difference: < 6 mil
Clock-data length difference: < 60 mil
Minimize vias

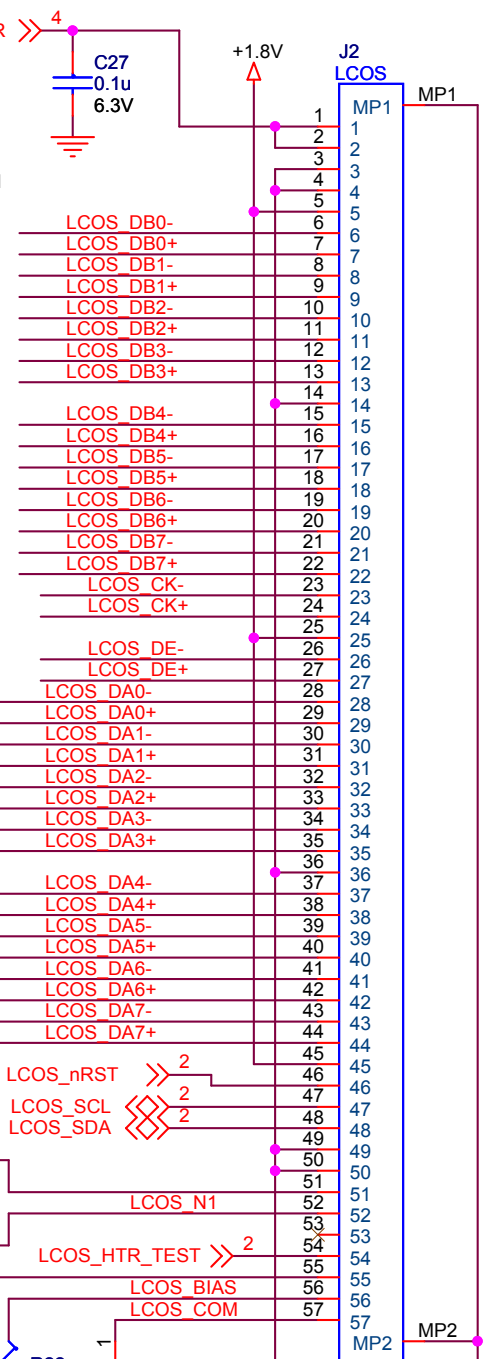
LVDS-LCOS Bridge



PCB: LCOS DSI Routing Instructions
90 ohm differential
50 ohm single-ended
Intra-pair length difference: < 6 mil
Clock-data length difference: < 60 mil
for each of DA/DB line to CK



Display Connector



Atheer

Design Name **HMD Side Board**

Doc Num **ATH-2HSBA2**

Page Name **Data Path**

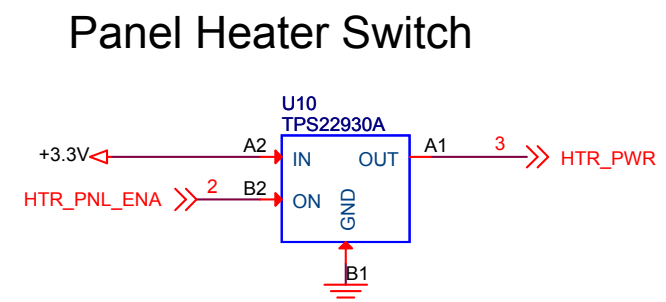
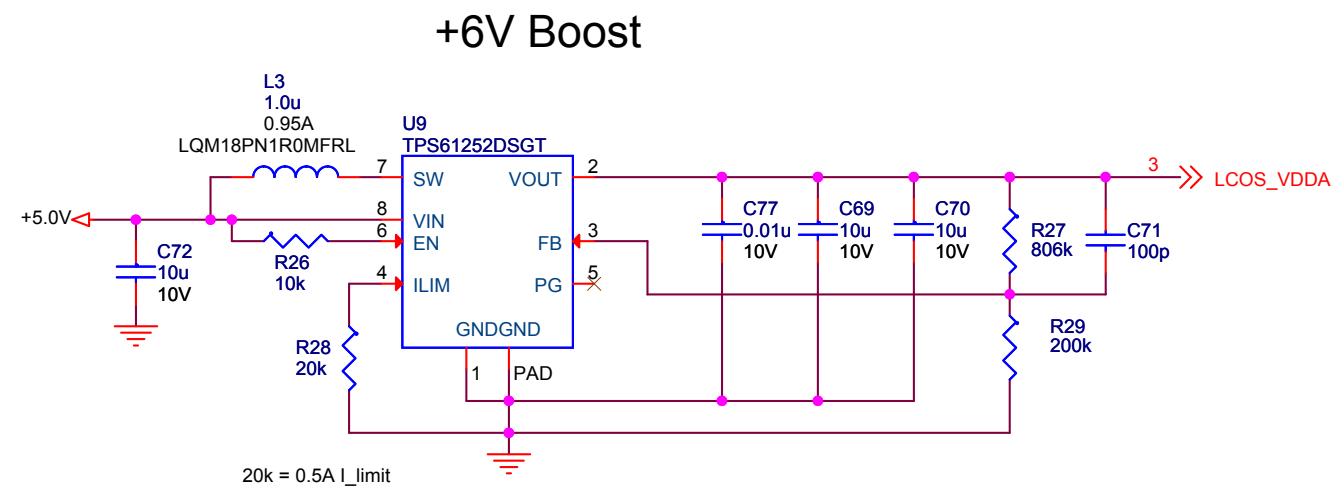
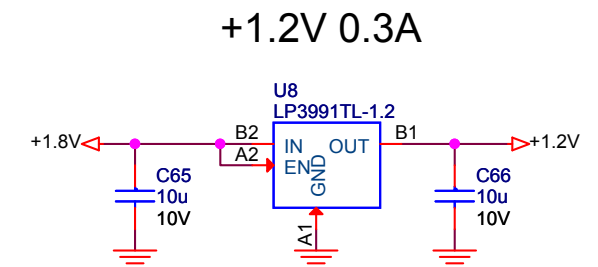
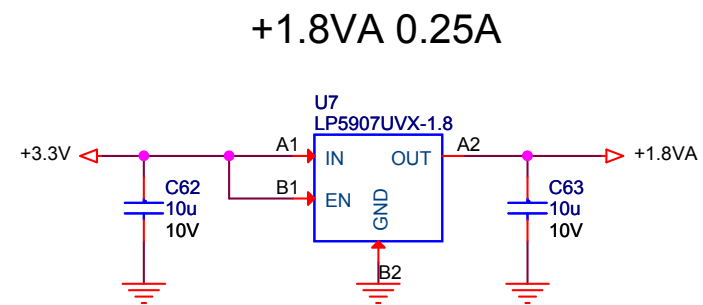
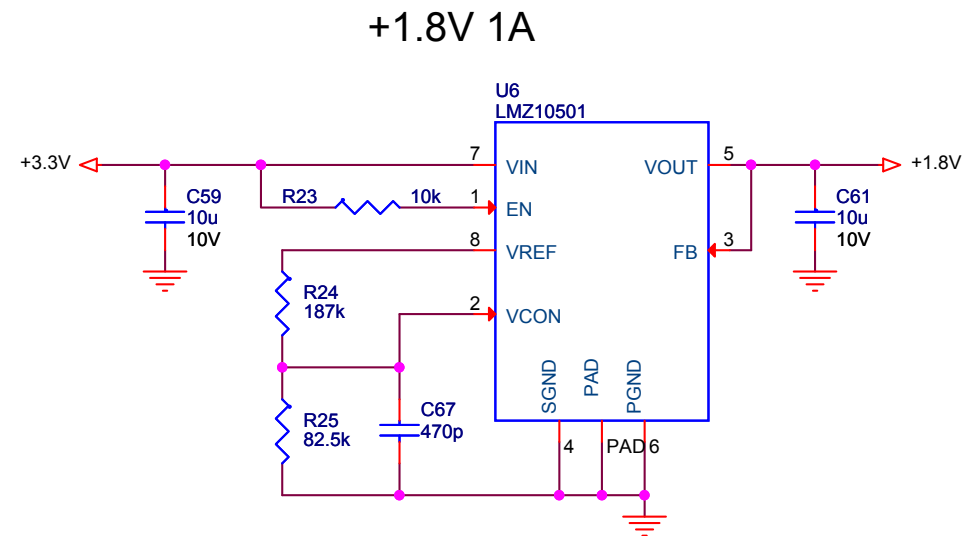
Size **Drawn By: Jay Patterson**

G8 PN: **ATH-2HSBA2-A**

B Date: **Tuesday, May 10, 2016**

Sheet **3** of **5**

Input +3.3V and +5.0V are controlled on MLB.
Sometimes disabled.



Atheer					Rev	
Design Name	HMD Side Board			Doc Num	ATH-2HSBA2	A
Page Name	Power					
Size	Drawn By: Jay Patterson			G8 PN: ATH-2HSBA2-A		
B Date:	Tuesday, May 10, 2016			Sheet 4		of 5

[illegible]

Atheer					Rev	
Design Name	HMD Side Board			Doc Num	ATH-2HSBA2	A
Page Name	Display LED Driver					
Size	Drawn By: Jay Patterson			G8 PN: ATH-2HSBA2-A		
B Date:	Tuesday, May 10, 2016			Sheet 5 of 5		