PROTOTYPE Media Bar Class B Medium Alpha

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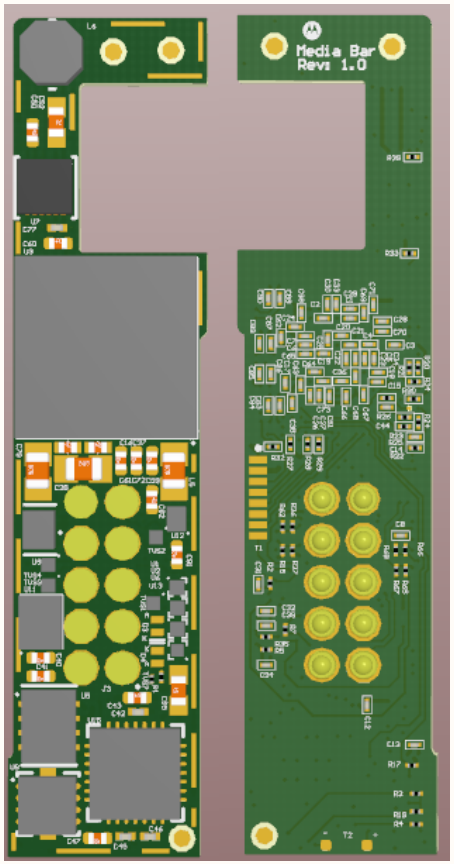
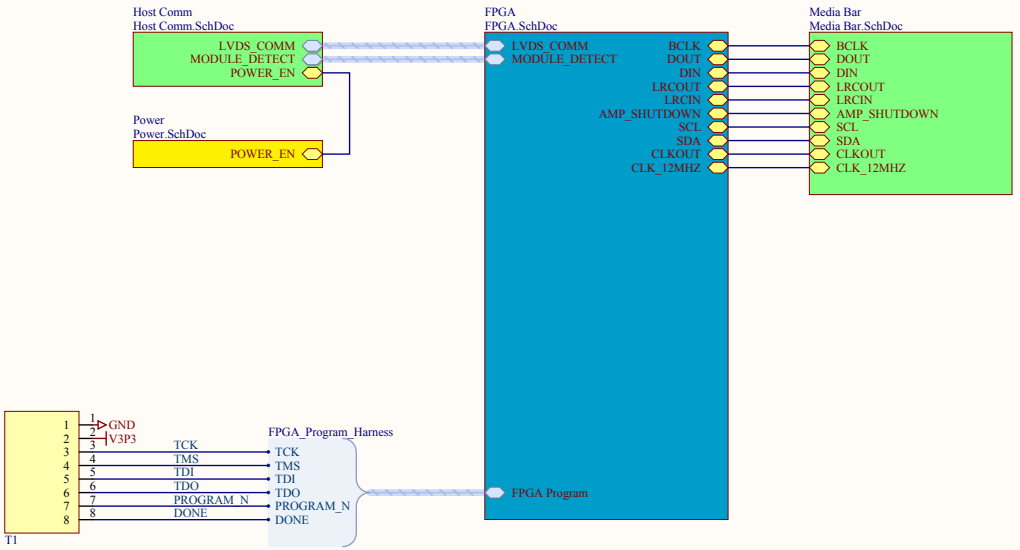
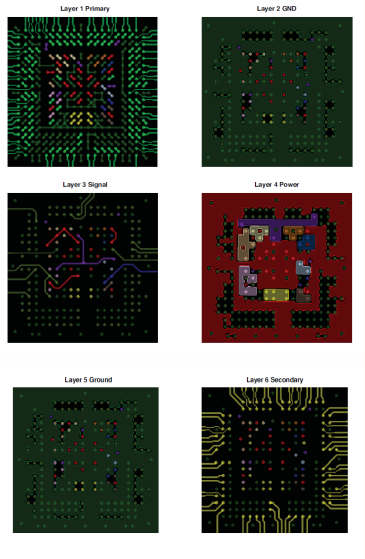


Block Diagram
Block Diagram.SchDoc

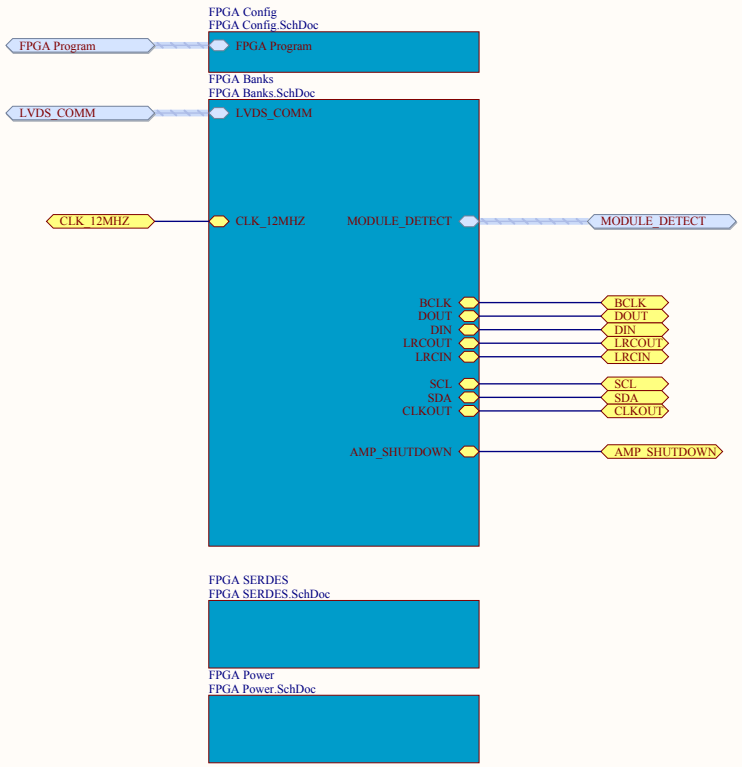


Title:	Block Diagram
Project:	Prototype Media Bar Module Class H Alpha.PrjPcb
Document:	Block Diagram.SchDoc
Engineer:	Nan-Wei
Drawn By:	Nan-Wei
Approved By:	* Revision: A
Date:	* Number: 2 of 10

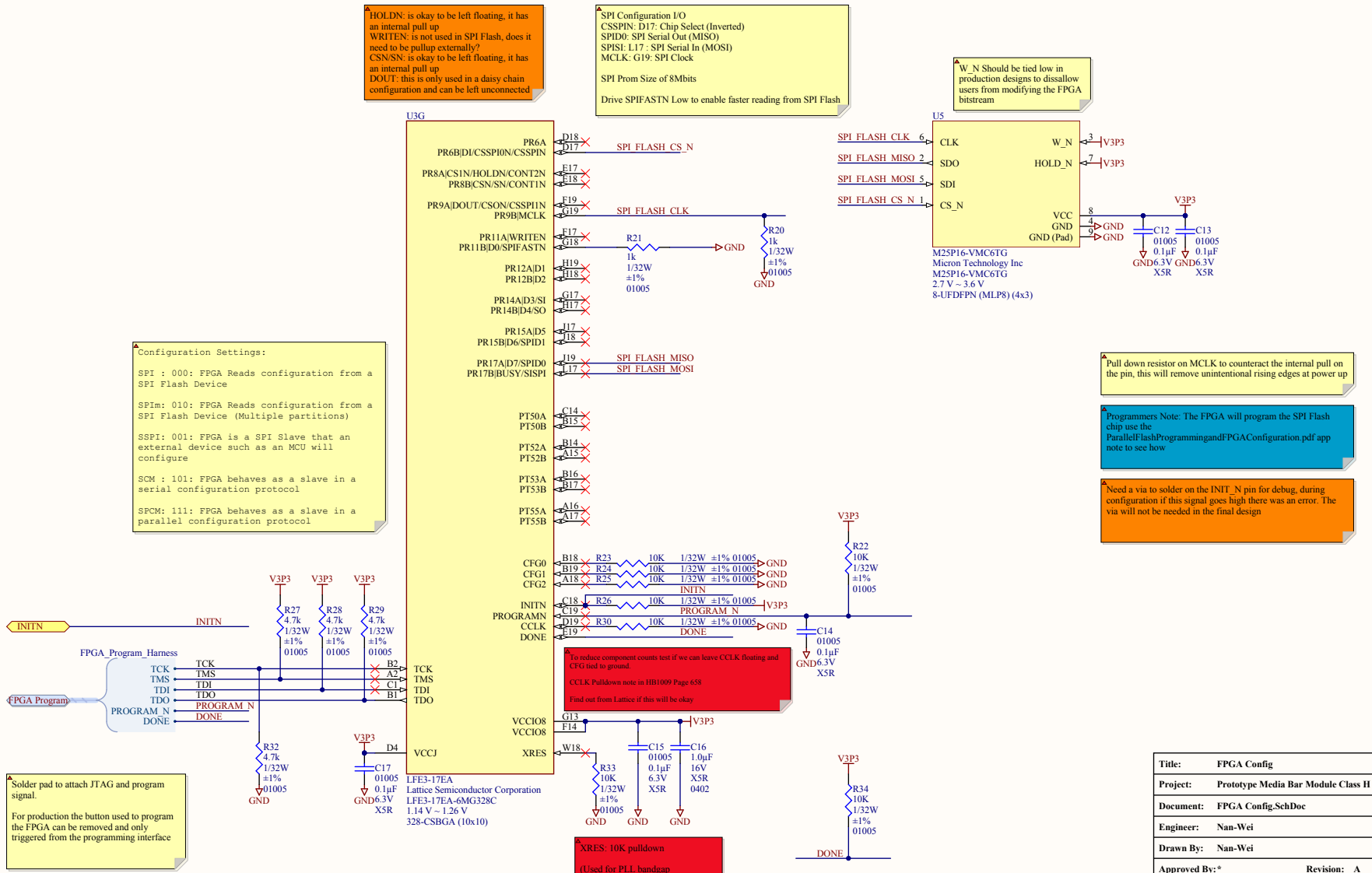


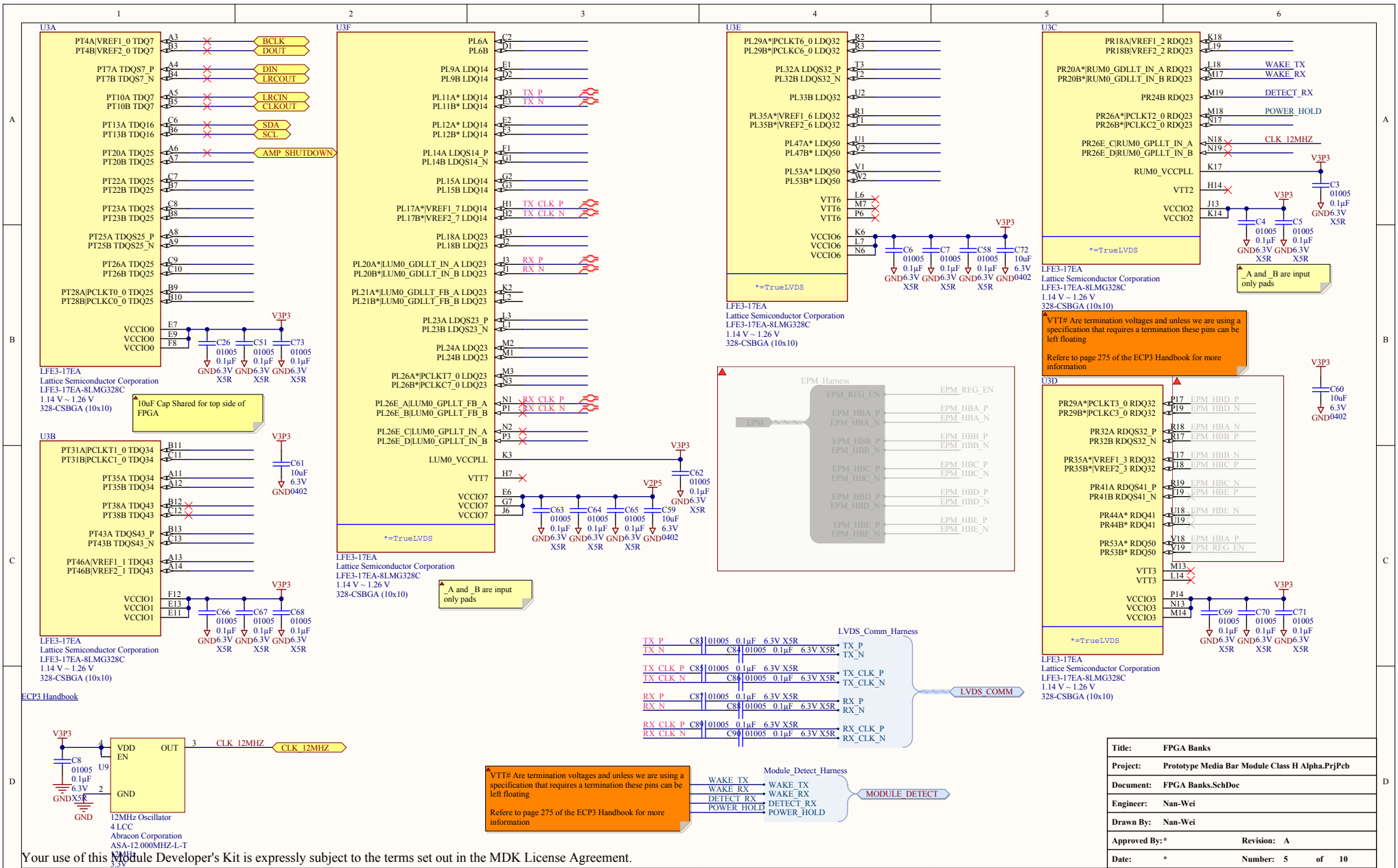
Layout Guidlines:

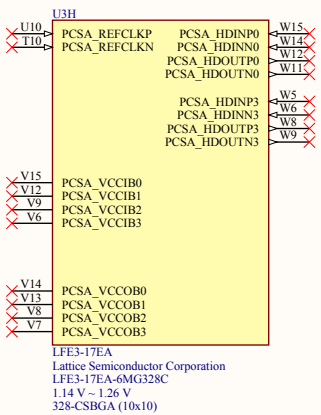
6 Layer Stackup
3-mil trace
5-mil via



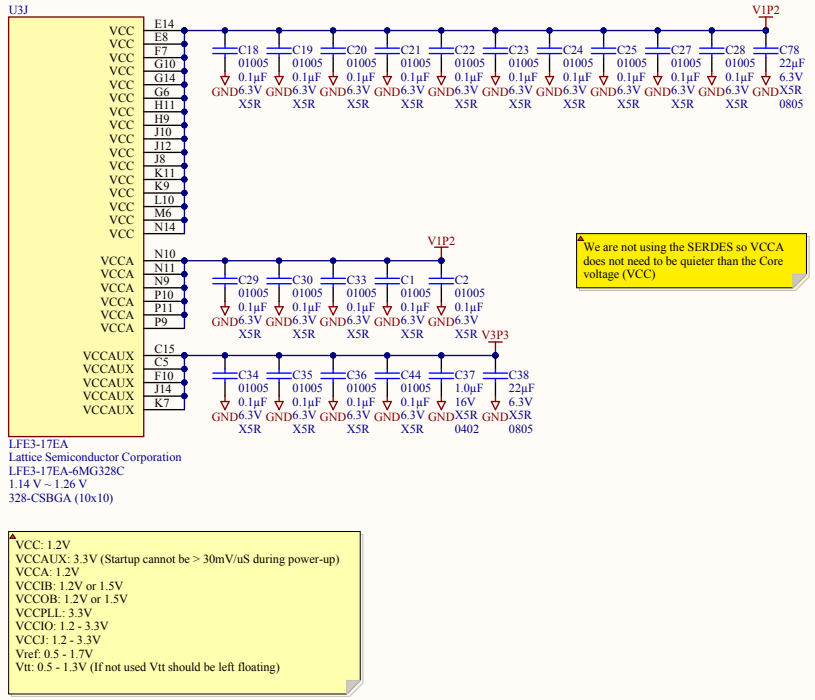
Title:	FPGA Top			
Project:	Prototype Media Bar Module Class H Alpha.PrjPcb			
Document:	FPGA.SchDoc			
Engineer:	Nan-Wei			
Drawn By:	Nan-Wei			
Approved By:	*	Revision:	A	
Date:	*	Number:	3 of 10	







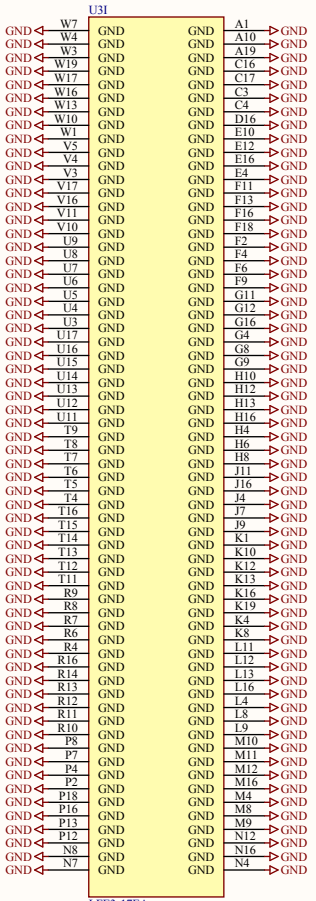
Title:	FPGA SERDES
Project:	Prototype Media Bar Module Class H Alpha.PrjPcb
Document:	FPGA SERDES.SchDoc
Engineer:	Nan-Wei
Drawn By:	Nan-Wei
Approved By: *	Revision: A
Date: *	Number: 6 of 10



LFE3-17EA
Lattice Semiconductor Corporation
LFE3-17EA-6MG328C
1.14 V ~ 1.26 V
328-CSBGA (10x10)

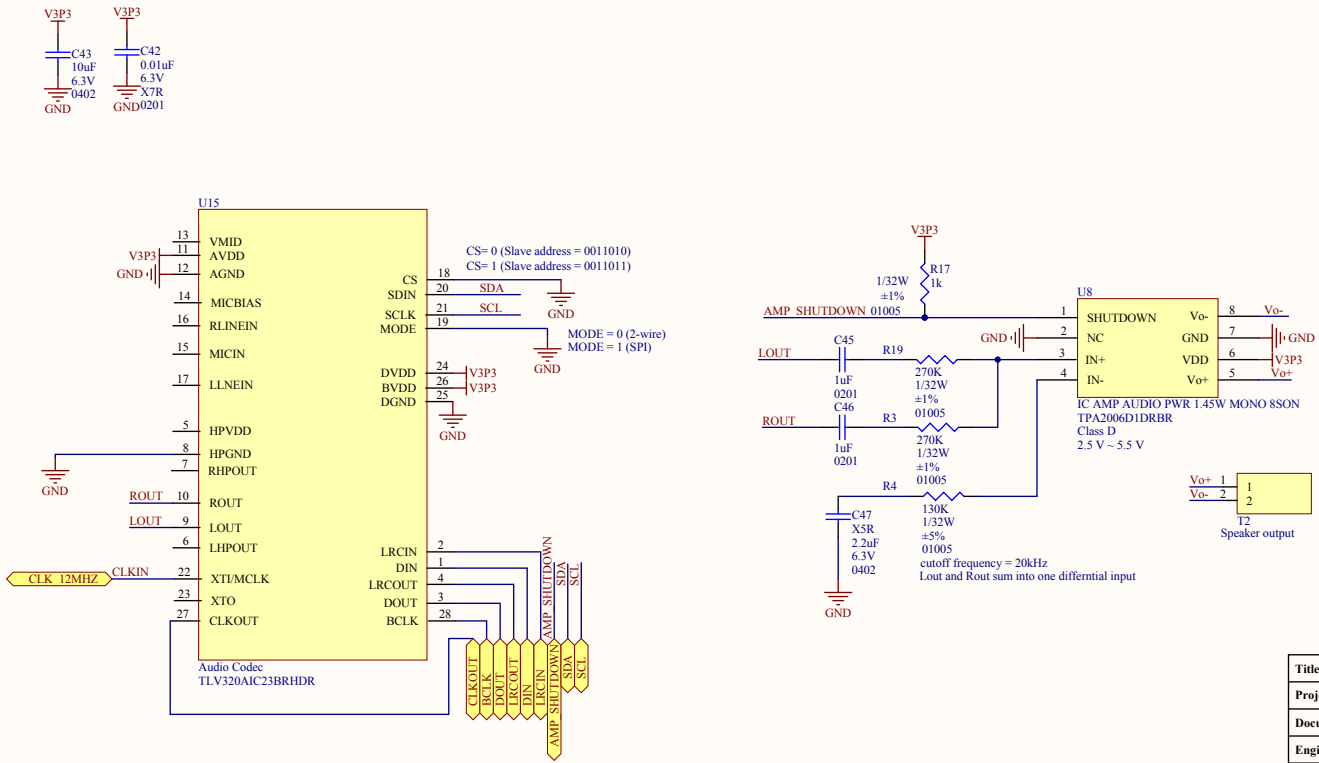
We are not using the SERDES so VCCA does not need to be quieter than the Core voltage (VCC)

VCC: 1.2V
VCCAUX: 3.3V (Startup cannot be > 30mV/uS during power-up)
VCCA: 1.2V
VCCIB: 1.2V or 1.5V
VCCOB: 1.2V or 1.5V
VCCPLL: 3.3V
VCCIO: 1.2 - 3.3V
VCCJ: 1.2 - 3.3V
Vref: 0.5 - 1.7V
Vtt: 0.5 - 1.3V (If not used Vtt should be left floating)

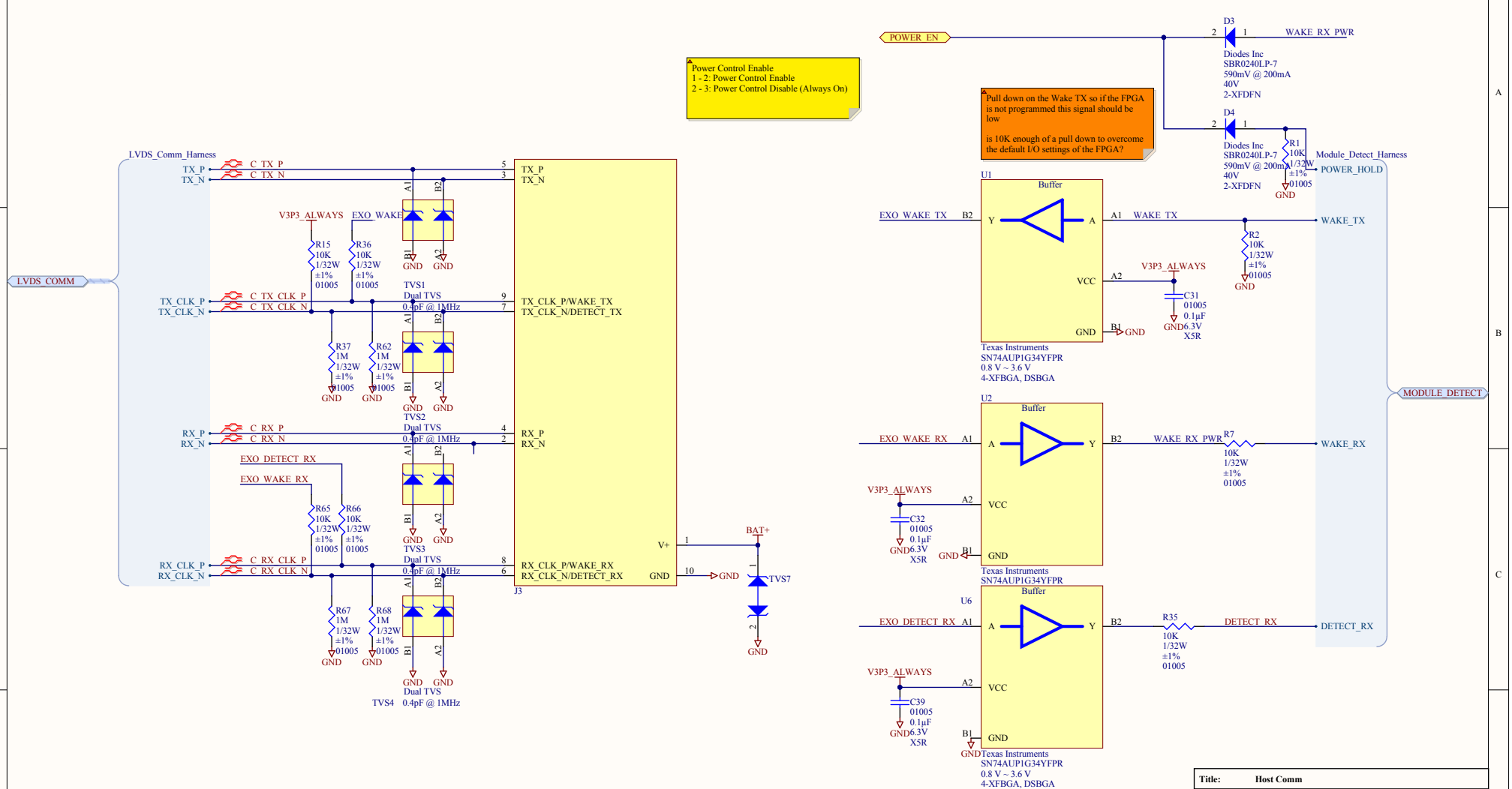


LFE3-17EA
Lattice Semiconductor Corporation
LFE3-17EA-6MG328C
1.14 V ~ 1.26 V
328-CSBGA (10x10)

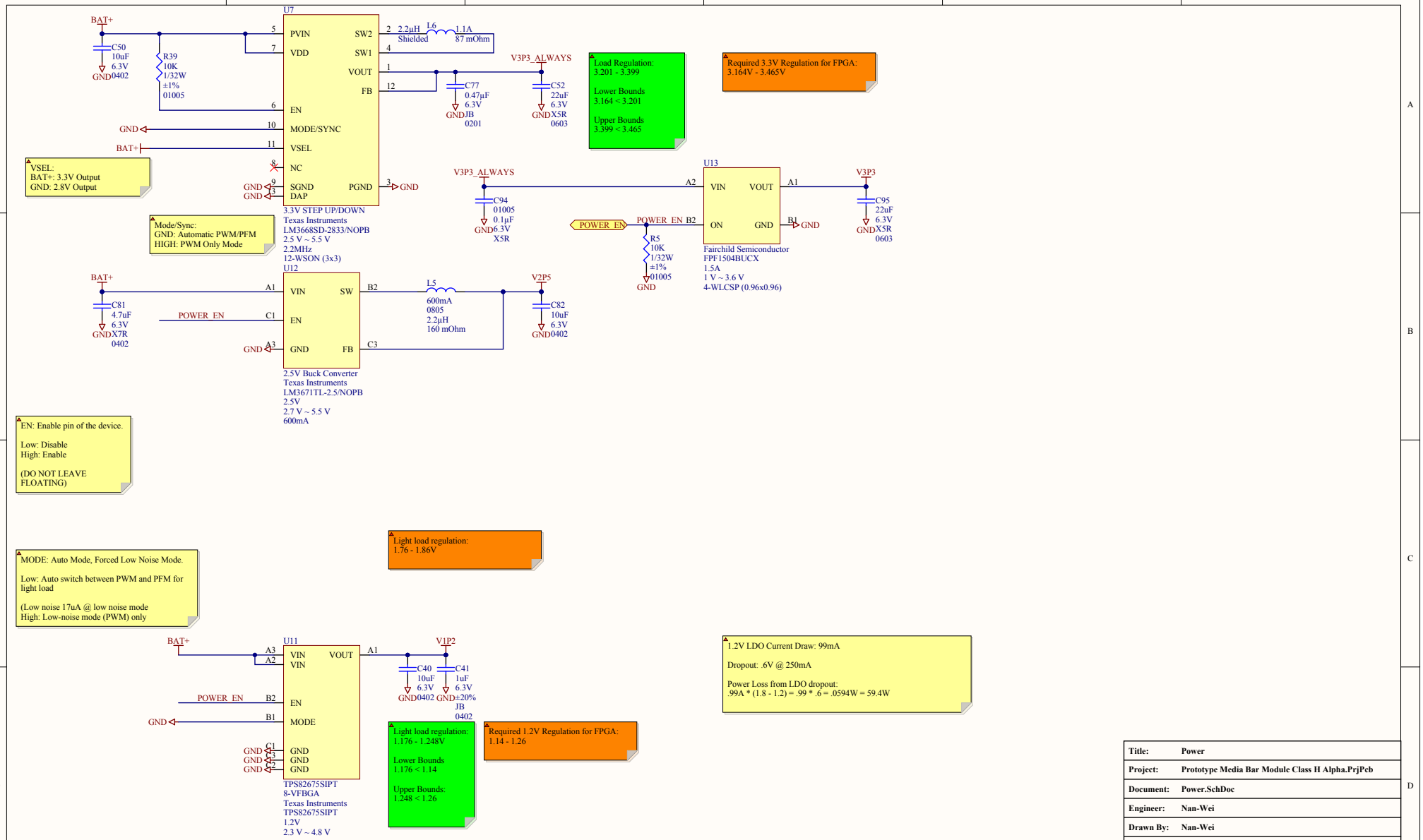
Title:	FPGA Power
Project:	Prototype Media Bar Module Class H Alpha.PrjPcb
Document:	FPGA Power.SchDoc
Engineer:	Nan-Wei
Drawn By:	Nan-Wei
Approved By: *	Revision: A
Date: *	Number: 7 of 10



Title:	Audio
Project:	Prototype Media Bar Module Class H Alpha.PrjPcb
Document:	Media Bar.SchDoc
Engineer:	Nan-Wei
Drawn By:	Nan-Wei
Approved By:	* Revision: A
Date:	* Number: 8 of 10



Title:	Host Comm
Project:	Prototype Media Bar Module Class H Alpha.PrjPcb
Document:	Host Comm.SchDoc
Engineer:	Nan-Wei
Drawn By:	Nan-Wei
Approved By:	* Revision: A
Date:	* Number: 9 of 10



Title:	Power
Project:	Prototype Media Bar Module Class H Alpha.PrjPcb
Document:	Power.SchDoc
Engineer:	Nan-Wei
Drawn By:	Nan-Wei
Approved By: *	Revision: A
Date: *	Number: 10 of 10