

MiiNePort E3 Schematic Design Guide

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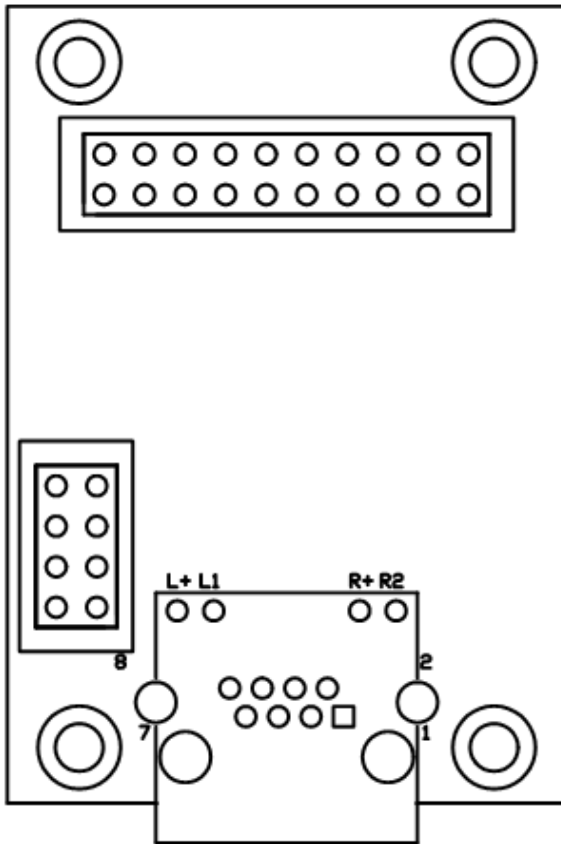
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The following topics are covered in this chapter:

- **Pin Description**
- **System Power Circuit Design**
- **RS-232 Circuit Design**
- **2W-RS-485 Circuit Design**
- **4W-RS-485 Circuit Design**
- **SW Reset and READY LED Circuit Design**
- **DIO Circuit Design**
- **Power-over-Ethernet Circuit Design**
- **DC Characteristics for Serial PIO INTERFACE**

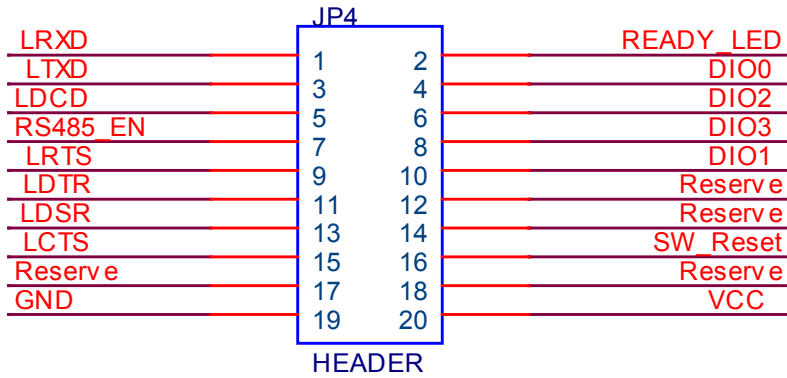
Pin Description

MiiNePort E3 & E3-H (Top View)



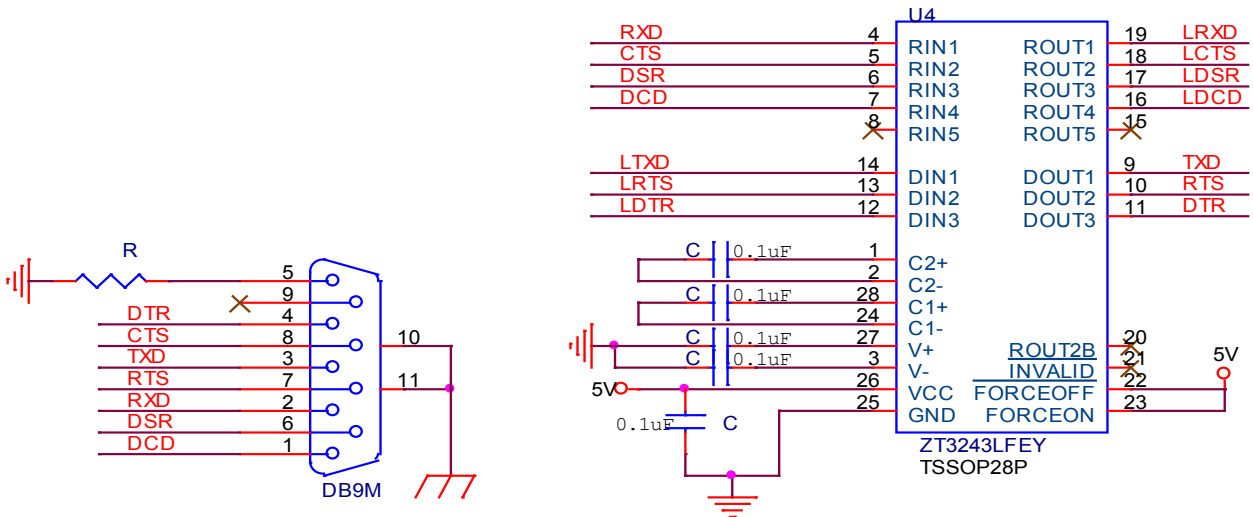
Ethernet Pins (JP2)			Serial Pins & Power Pins (JP4)		
Pin	Signal Name	Function	Pin	Signal Name	Function
1	Reserve	N/A	1	Serial Rx	Receive Serial Data
2	Reserve	N/A	2	Ready LED	System To Ready LED
3	Reserve	N/A	3	Serial Tx	Transmit Serial Data
4	Reserve	N/A	4	GPIO	Programmable I/O
5	POE signal pair 1	PoE power from TX signal	5	DCD	Receive Line Signal Detector
6	POE spare pair 1	PoE power from RJ45 4,5pin	6	GPIO	Programmable I/O
7	POE signal pair 2	PoE power from RX signal	7	RS485_ EN0	RS-485 Enable
8	POE spare pair 2	PoE power from RJ45 7,8pin	8	GPIO	Programmable I/O
			9	RTS	Request To Send
			10	GPIO	Programmable I/O
			11	DTR	Data Terminal Ready
			12	Reserve	N/A
			13	DSR	Data Set Ready
			14	Reserve	N/A
			15	CTS	Clear To Send
			16	SW_Reset	Reset to factory default
			17	Reserve	N/A
			18	Reserve	N/A
			19	GND	Circuit Ground
			20	VCC	Power Supply

System Power Circuit Design

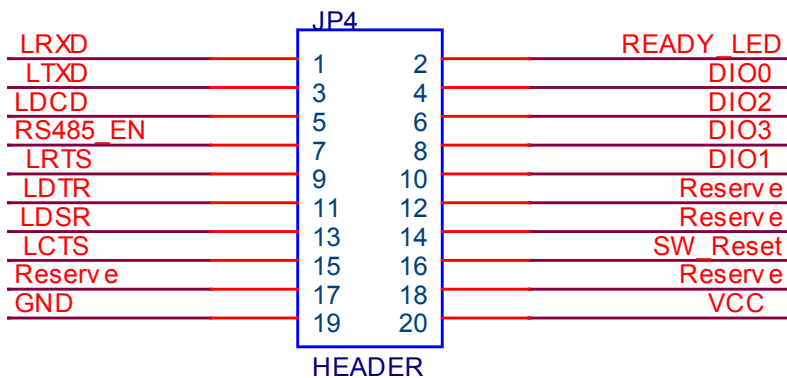


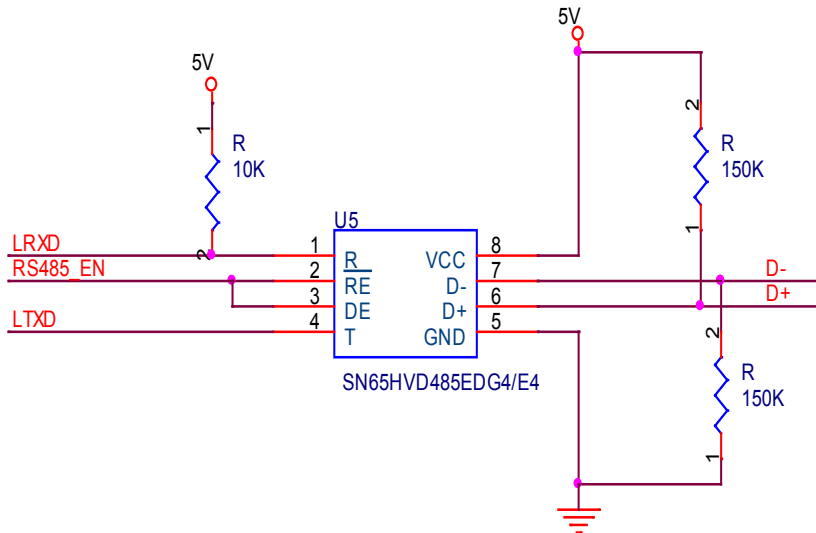
Symbol	Parameter	Min	Nominal	Max	Units
VCC	Supply Voltage	3.22	3.3~5	5.25	V

RS-232 Circuit Design

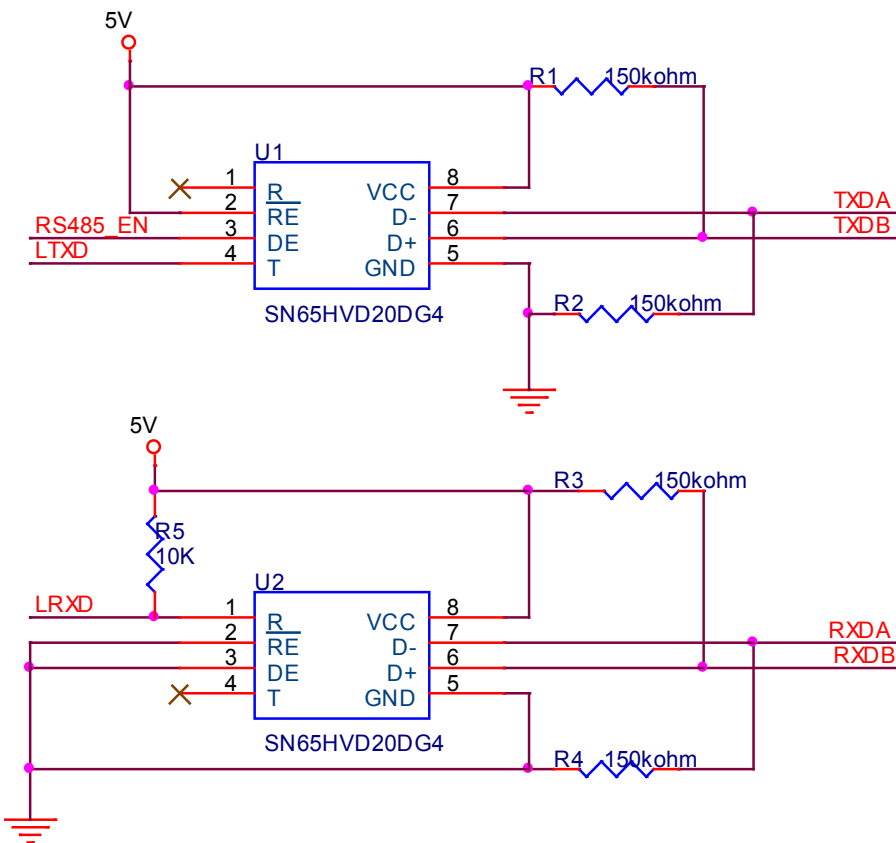


2W-RS-485 Circuit Design

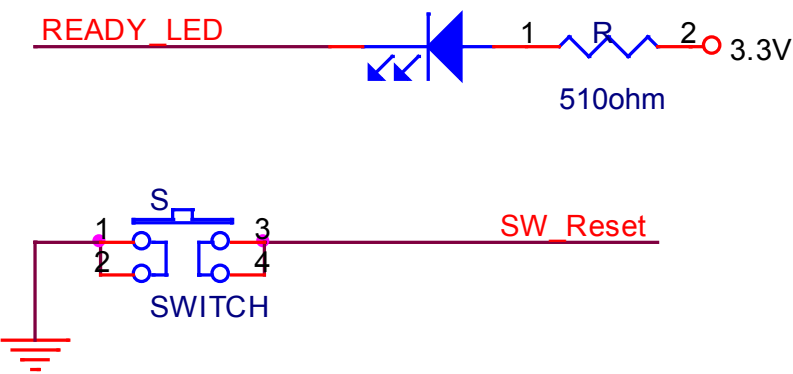
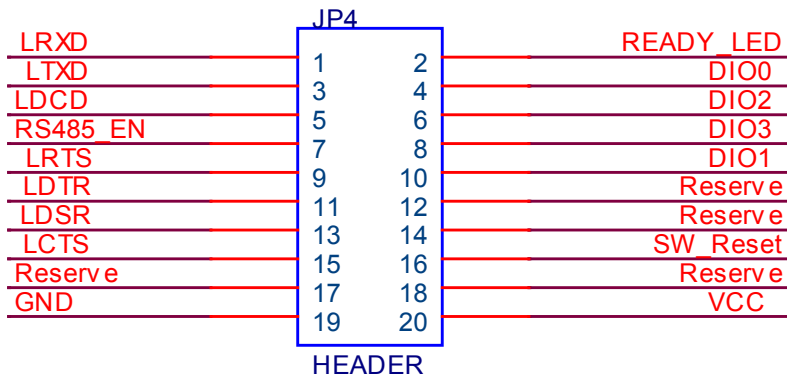




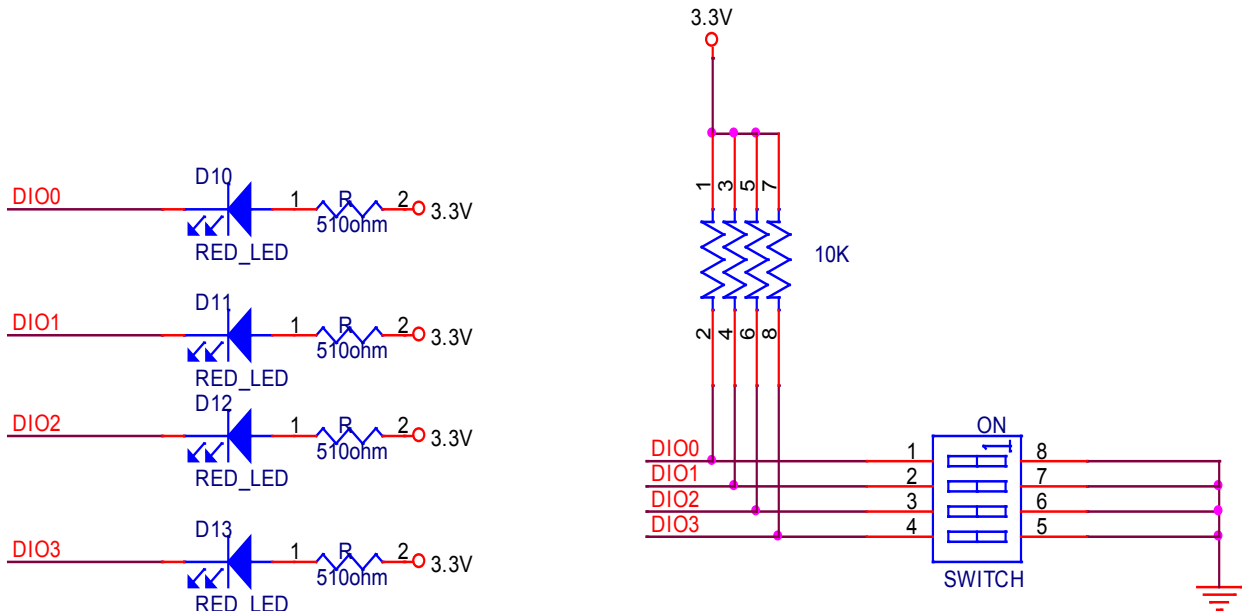
4W-RS-485 Circuit Design



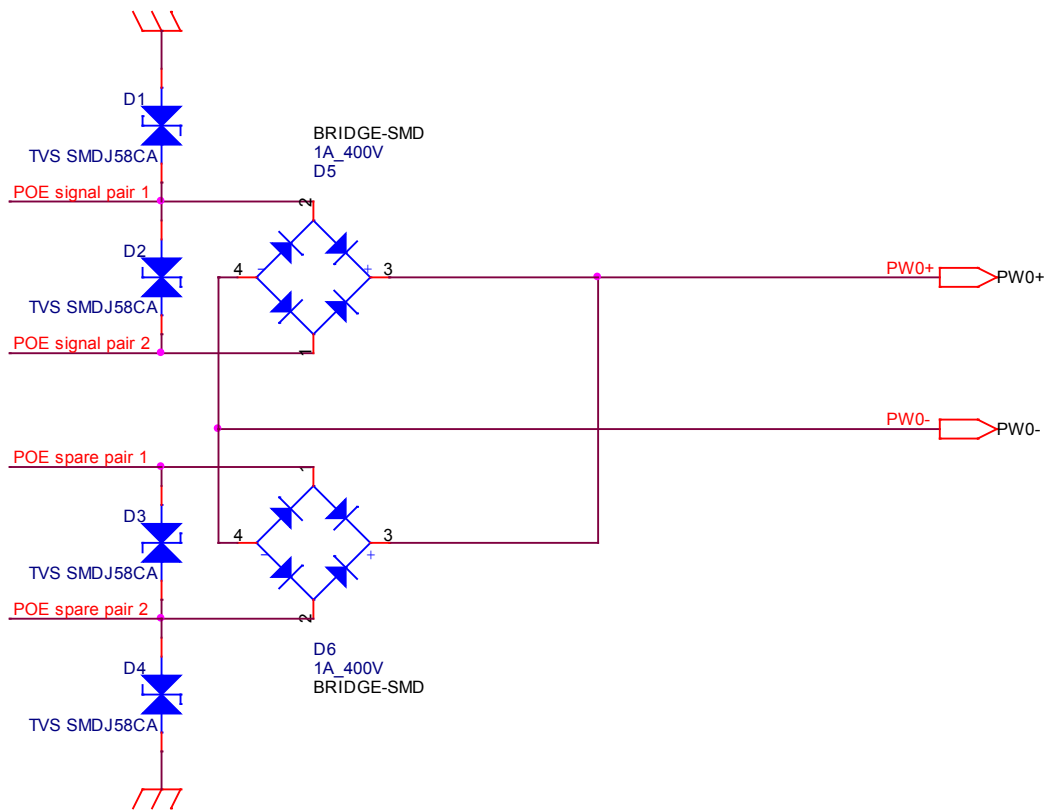
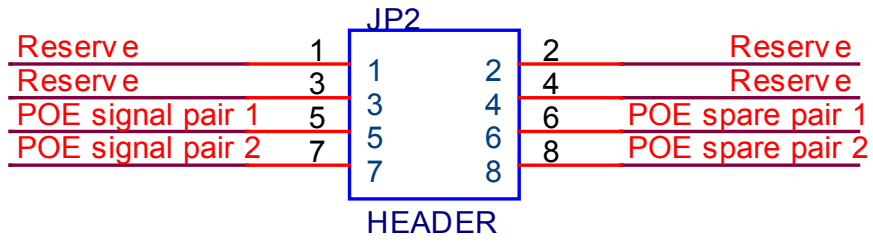
SW Reset and READY LED Circuit Design



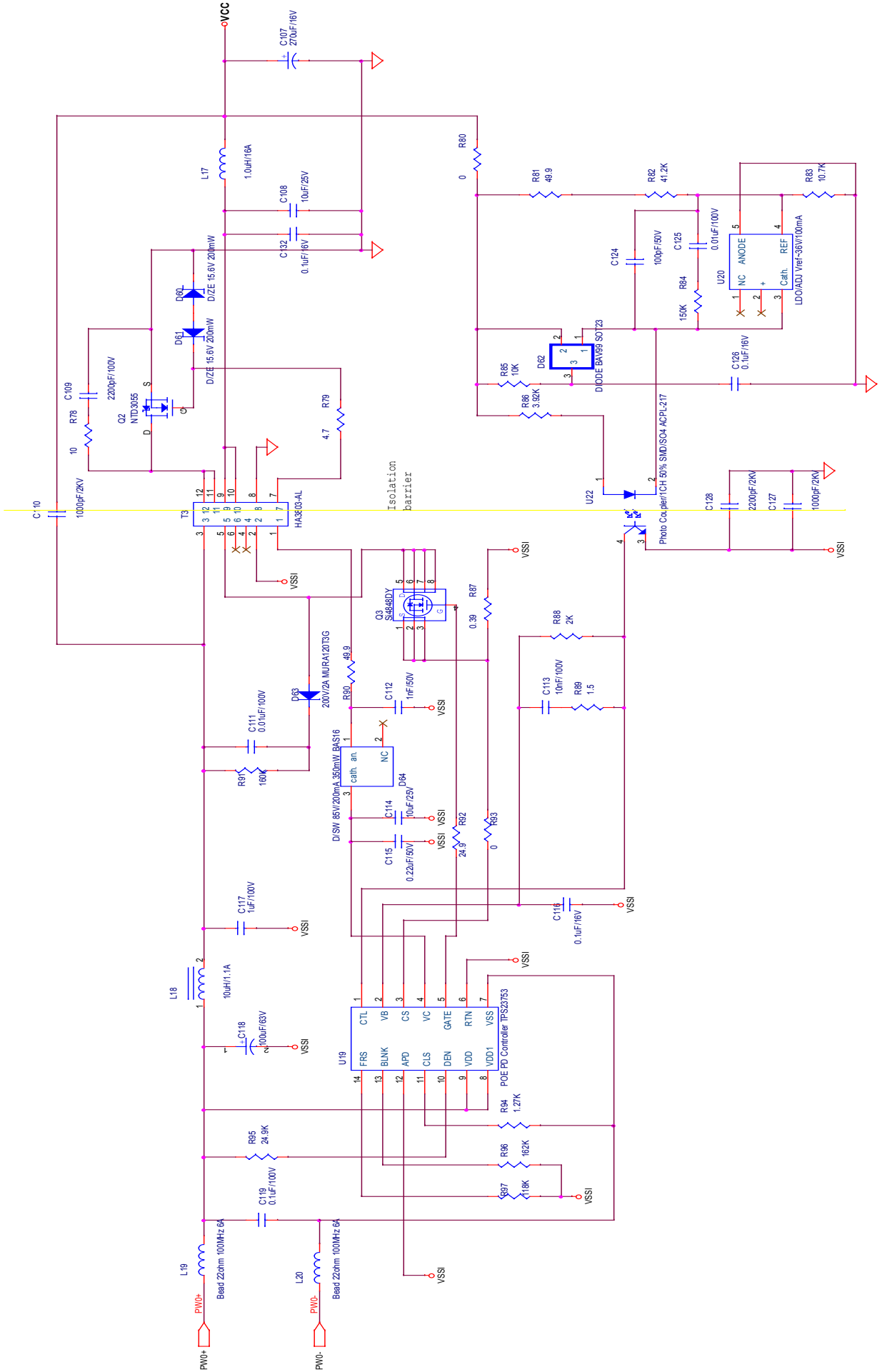
DIO Circuit Design



Power-over-Ethernet Circuit Design



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DC Characteristics for Serial PIO INTERFACE

Symbol	Parameter	Min	Nominal	Max	Units
VIL	Input Low Voltage	-0.3	N/A	0.8	V
VIH	Input High Voltage	2	N/A	5.5	V
VOL	Output Low Voltage	N/A	N/A	0.4	V
VOH	Output High Voltage	2.4	N/A	N/A	V
IOL	DIO/Other interface	11/5.6	N/A	N/A	mA
IOH	DIO/Other interface	12/7.2	N/A	N/A	mA
VIH	Input High Voltage	2	N/A	5.5	V