

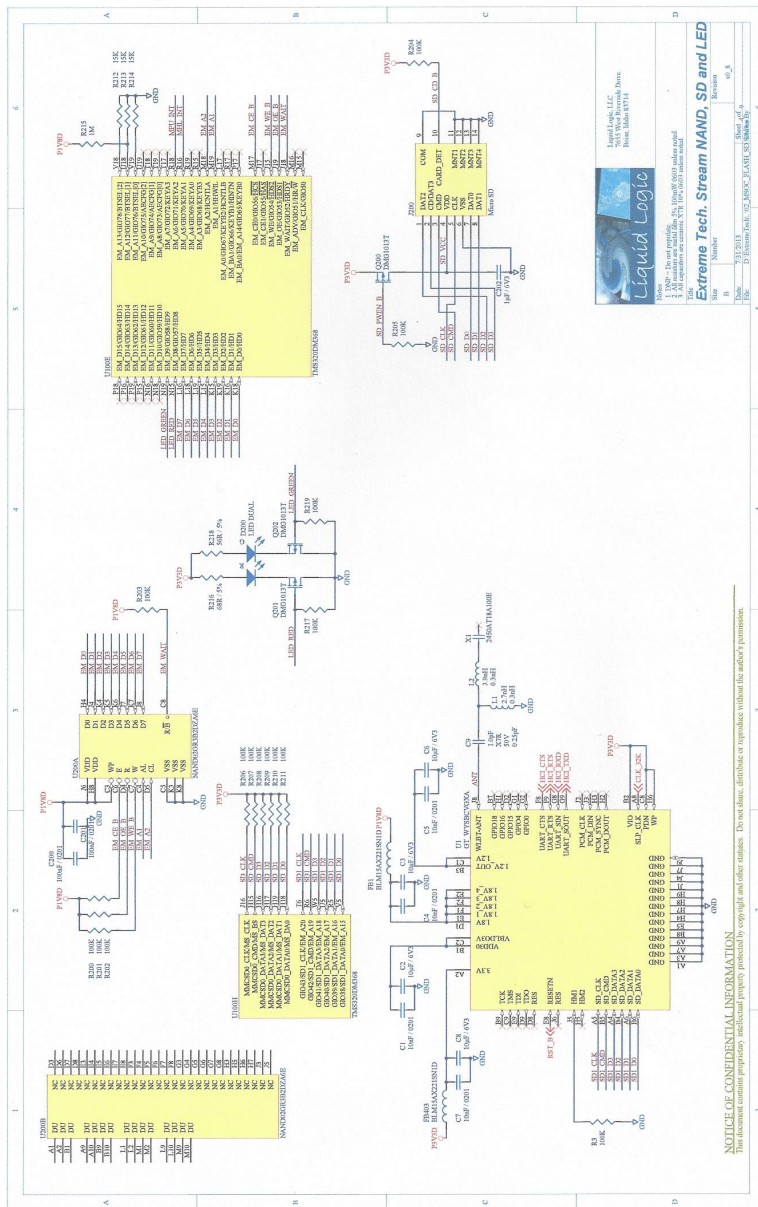
The schematic diagram illustrates the internal circuitry of the Extreme Tech. Stream Power Supply. It is divided into several functional sections labeled A through D:

- Section A:** Input section showing the AC input (ZBR_IN) connected to a transformer (T1) and a bridge rectifier (BR1). The output is filtered by a large electrolytic capacitor (C18) and a Zener diode (ZD1) for over-voltage protection.
- Section B:** Main power regulation section featuring a 500W power MOSFET (M1) driven by a gate driver (U1). The MOSFET's drain is connected to the primary of a power transformer (T2). The secondary of T2 provides multiple output voltages (e.g., 5V, 12V, 15V, 18V, 24V, 28V, 30V, 32V, 35V, 38V, 40V, 42V, 45V, 48V, 50V) through a series of output capacitors (C19-C30).
- Section C:** Output filtering and protection section. It includes a common-mode choke (M1) and a series of output capacitors (C31-C40) to filter the various output voltages. A fuse (F1) is placed in the main output line for protection.
- Section D:** Control and monitoring section. It includes a microcontroller (U2) that manages the power MOSFET's operation. It also features a current sense resistor (R1) and a feedback network (R2, R3) to maintain stable output voltages. A thermal shutdown circuit (U3) is also present to protect the MOSFET from overheating.

Parts List:

Ref	Part	Value	Notes
U1	IRF540	500W MOSFET	Power MOSFET
U2	AT89C51	8K	Microcontroller
U3	LM317	3.0V	Thermal shutdown
U4	7805	5.0V	Regulator
U5	7812	12.0V	Regulator
U6	7815	15.0V	Regulator
U7	7818	18.0V	Regulator
U8	7824	24.0V	Regulator
U9	7828	28.0V	Regulator
U10	7830	30.0V	Regulator
U11	7832	32.0V	Regulator
U12	7835	35.0V	Regulator
U13	7838	38.0V	Regulator
U14	7840	40.0V	Regulator
U15	7842	42.0V	Regulator
U16	7845	45.0V	Regulator
U17	7848	48.0V	Regulator
U18	7850	50.0V	Regulator
U19	7852	52.0V	Regulator
U20	7855	55.0V	Regulator
U21	7858	58.0V	Regulator
U22	7860	60.0V	Regulator
U23	7862	62.0V	Regulator
U24	7865	65.0V	Regulator
U25	7868	68.0V	Regulator
U26	7870	70.0V	Regulator
U27	7872	72.0V	Regulator
U28	7875	75.0V	Regulator
U29	7878	78.0V	Regulator
U30	7880	80.0V	Regulator
U31	7882	82.0V	Regulator
U32	7885	85.0V	Regulator
U33	7888	88.0V	Regulator
U34	7890	90.0V	Regulator
U35	7892	92.0V	Regulator
U36	7895	95.0V	Regulator
U37	7898	98.0V	Regulator
U38	7900	100.0V	Regulator
U39	7902	102.0V	Regulator
U40	7905	105.0V	Regulator
U41	7908	108.0V	Regulator
U42	7910	110.0V	Regulator
U43	7912	112.0V	Regulator
U44	7915	115.0V	Regulator
U45	7918	118.0V	Regulator
U46	7920	120.0V	Regulator
U47	7922	122.0V	Regulator
U48	7925	125.0V	Regulator
U49	7928	128.0V	Regulator
U50	7930	130.0V	Regulator
U51	7932	132.0V	Regulator
U52	7935	135.0V	Regulator
U53	7938	138.0V	Regulator
U54	7940	140.0V	Regulator
U55	7942	142.0V	Regulator
U56	7945	145.0V	Regulator
U57	7948	148.0V	Regulator
U58	7950	150.0V	Regulator
U59	7952	152.0V	Regulator
U60	7955	155.0V	Regulator
U61	7958	158.0V	Regulator
U62	7960	160.0V	Regulator
U63	7962	162.0V	Regulator
U64	7965	165.0V	Regulator
U65	7968	168.0V	Regulator
U66	7970	170.0V	Regulator
U67	7972	172.0V	Regulator
U68	7975	175.0V	Regulator
U69	7978	178.0V	Regulator
U70	7980	180.0V	Regulator
U71	7982	182.0V	Regulator
U72	7985	185.0V	Regulator
U73	7988	188.0V	Regulator
U74	7990	190.0V	Regulator
U75	7992	192.0V	Regulator
U76	7995	195.0V	Regulator
U77	7998	198.0V	Regulator
U78	8000	200.0V	Regulator

POV Stream Electrical Schematic



1 2 3 4 5

A B C D

Figure 1 shows the pin connections for the Liquid Logic Extreme Tech. Stream DDR2 memory module. The module is a 24-pin DIMM, and the pin connections are as follows:

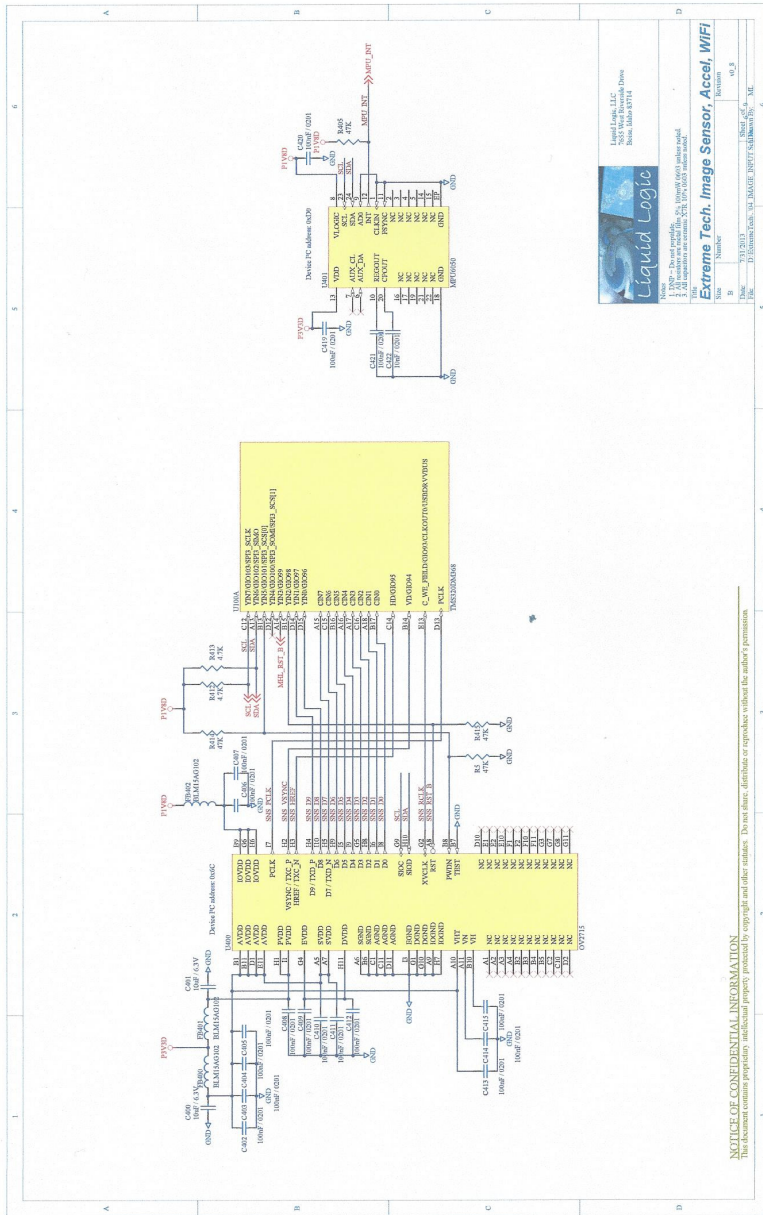
Pin	Signal	Pin	Signal
1	VB	13	VB
2	VB	14	VB
3	VB	15	VB
4	VB	16	VB
5	VB	17	VB
6	VB	18	VB
7	VB	19	VB
8	VB	20	VB
9	VB	21	VB
10	VB	22	VB
11	VB	23	VB
12	VB	24	VB

The module is connected to a system with the following components:

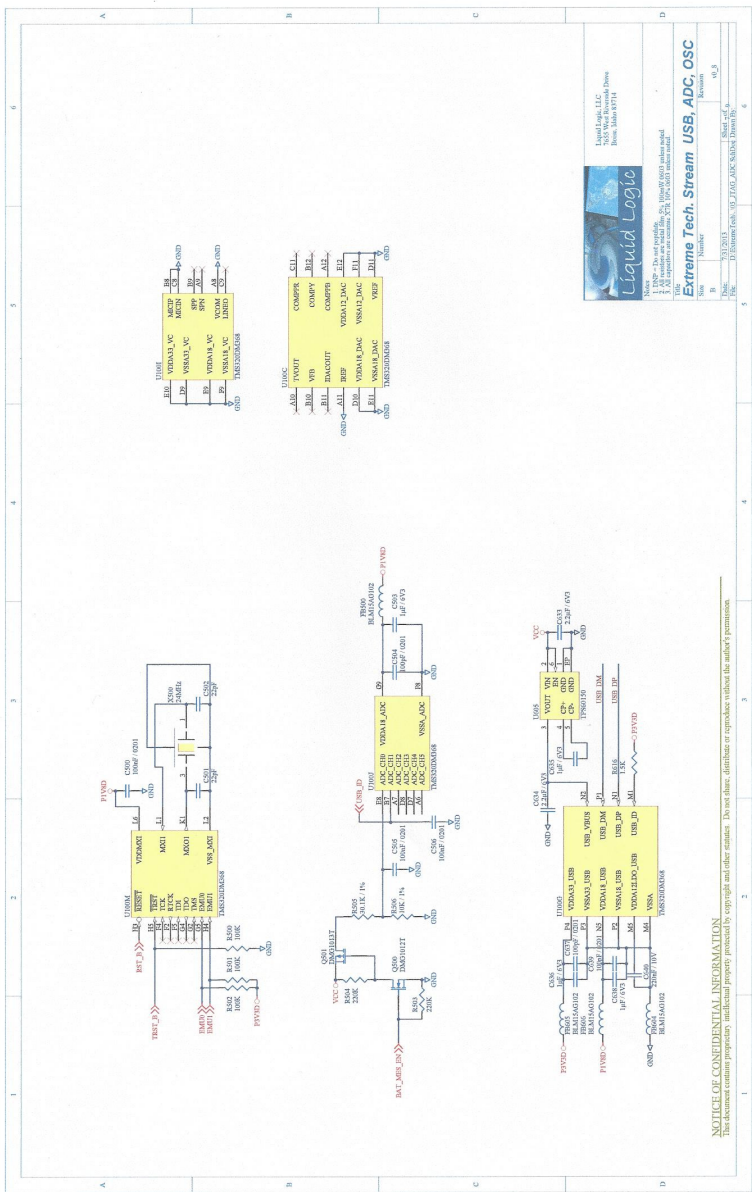
- System Power (VDD) connected to Pin 1.
- System Ground (GND) connected to Pin 2.
- System Power (VDD) connected to Pin 3.
- System Ground (GND) connected to Pin 4.
- System Power (VDD) connected to Pin 5.
- System Ground (GND) connected to Pin 6.
- System Power (VDD) connected to Pin 7.
- System Ground (GND) connected to Pin 8.
- System Power (VDD) connected to Pin 9.
- System Ground (GND) connected to Pin 10.
- System Power (VDD) connected to Pin 11.
- System Ground (GND) connected to Pin 12.
- System Power (VDD) connected to Pin 13.
- System Ground (GND) connected to Pin 14.
- System Power (VDD) connected to Pin 15.
- System Ground (GND) connected to Pin 16.
- System Power (VDD) connected to Pin 17.
- System Ground (GND) connected to Pin 18.
- System Power (VDD) connected to Pin 19.
- System Ground (GND) connected to Pin 20.
- System Power (VDD) connected to Pin 21.
- System Ground (GND) connected to Pin 22.
- System Power (VDD) connected to Pin 23.
- System Ground (GND) connected to Pin 24.

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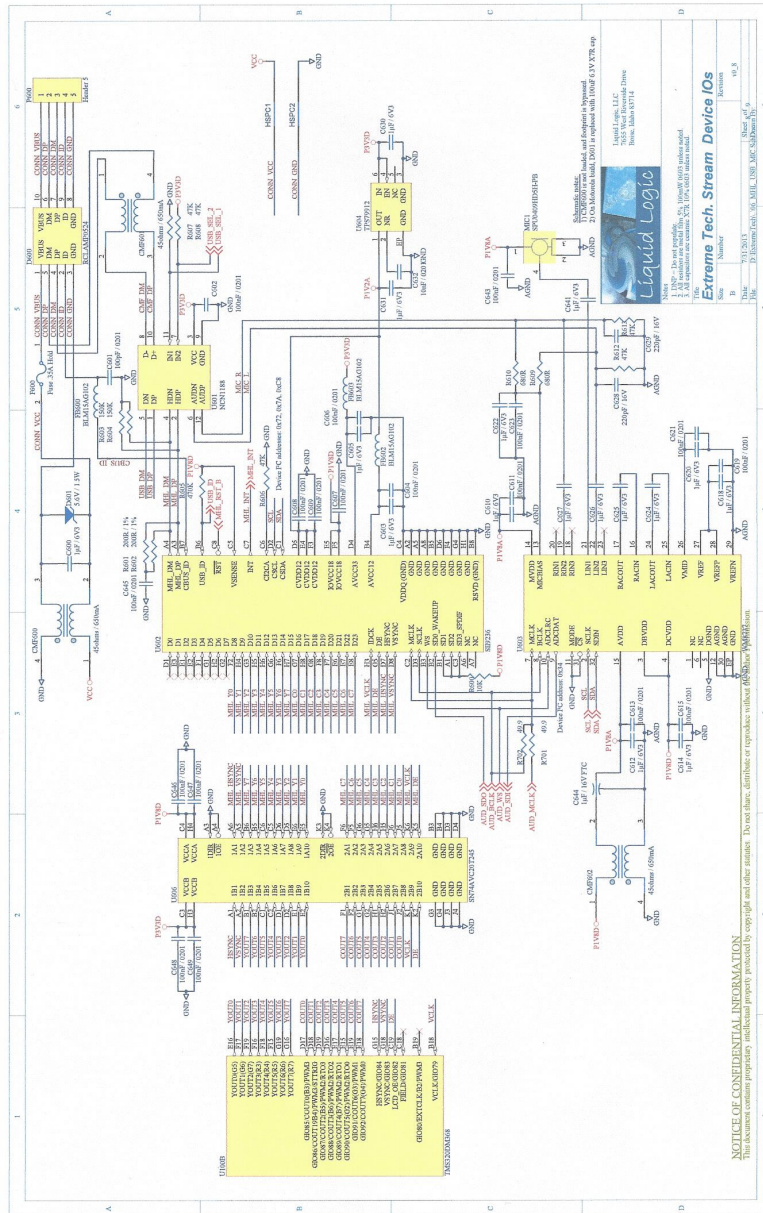
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