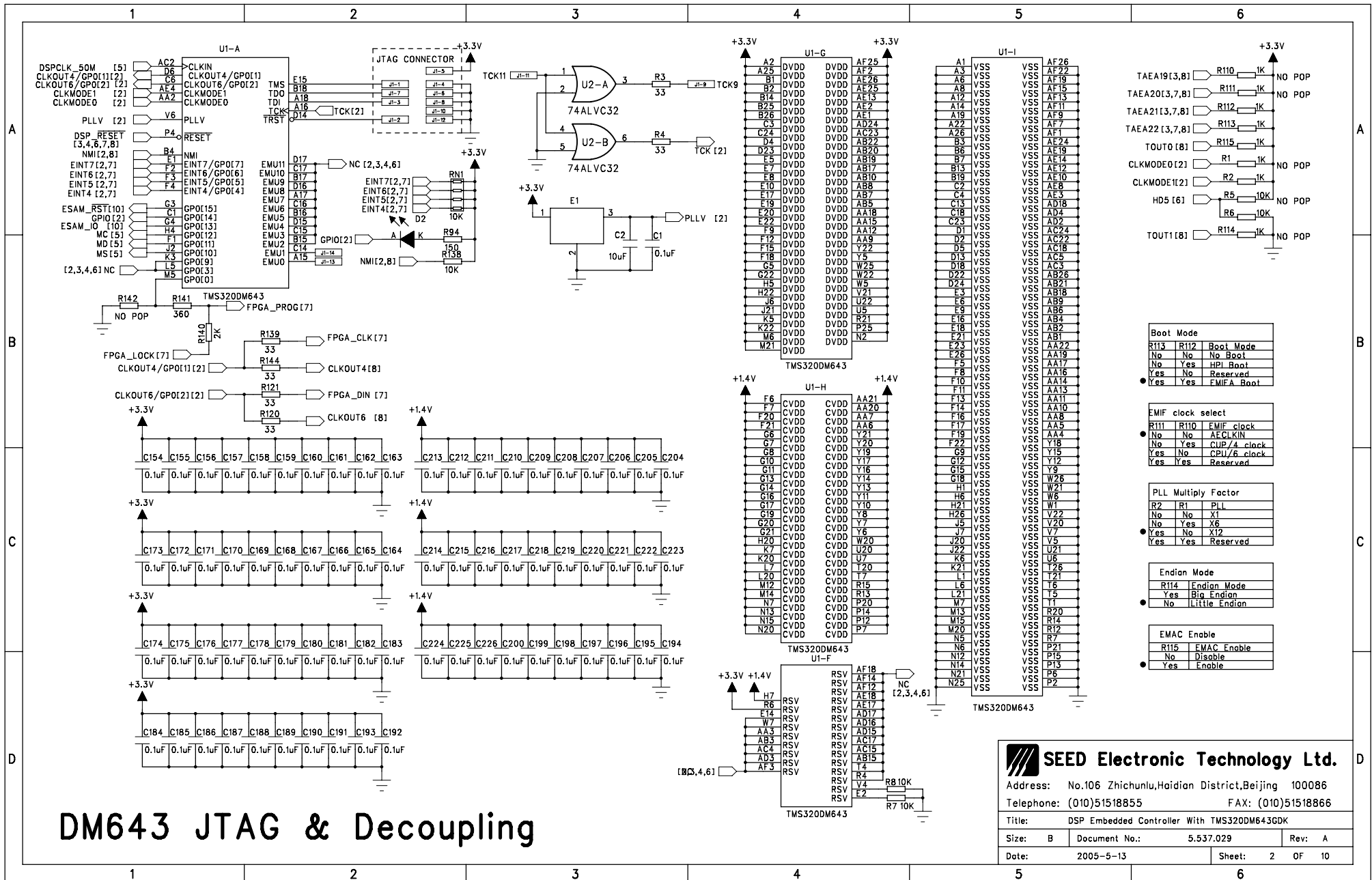


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<p>Notes, Unless Otherwise Specified:</p> <p>1. Resistance Values are in Ohms.</p> <p>2. Capacitance Values are in Microfarads.</p> <p>3. Inductance Values are in Microhenries.</p> <p>4. Highest Reference Designator used:</p> <p style="margin-left: 20px;">A. IC's U36 B. Resistors R144 C. Capacitors C256 D. Indectors L25 E. Transistors Q4 F. LED D5 G. Crystals Y1 H. Connectors/Headers J15 I. Switches SW1 J. Test Points TP4</p> <p>5. The following is the list of uninstalled parts:</p> <p>6. All 0.1uF and 0.01uF caps are decoupling caps unless otherwise noted. They are shown on the page with ICs they should be placed near.</p> <p>7. Board Properties:</p> <p style="margin-left: 20px;">A. Route to within 10% MANHATTAN Distance B. 50 +/-5 Ohm Matched Impedance C. Outer Layers 0.5 OZ Cu /W 0.5 OZ Au Plating D. Inner Layer 1.0 OZ Cu E. FR4 Board Material F. Minimum Trace Width/Spacing 8 Mils G. Minimum Via Size 12/24 Mils H. Approximate Board Size 9 x 9 cm² I. Layer Stackup:</p> <p style="margin-left: 40px;">1. Top - Signal Routing 2. Ground Plane - GND For Digital, +12V 3. Inner 3 - Signal Routing 4. Power Plane - Split Plane: DVDD +3.3V For DSP I/O 5. Power Plane - Split Plane: +1.4V,+1.8V,+4.1V,+5V 6. Inner 6 - Signal Routing 7. Ground Plane - GND For Digital, -12V 8. Bottom - Signal Routing, A0ND</p>			REV	Description	Date	Approved																																																																								
			A	Initial schematic ready for layout.		2003-8-19	Mark Qian																																																																							
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Schematic Index:

1. (Board Name) Notes and Contents
2. DM643 JTAG & Decoupling
3. DM643 EMIF: SDRAM & Flash
4. Video Encoder & Video Decoder
5. Video Port & CLK
6. Audio & EMAC
7. UART & CPLD & FPGA
8. External Bus & Mcbsp
9. External Bus & Video, Audio Interface
- 10 Power & Esam

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DM643 JTAG & Decoupling

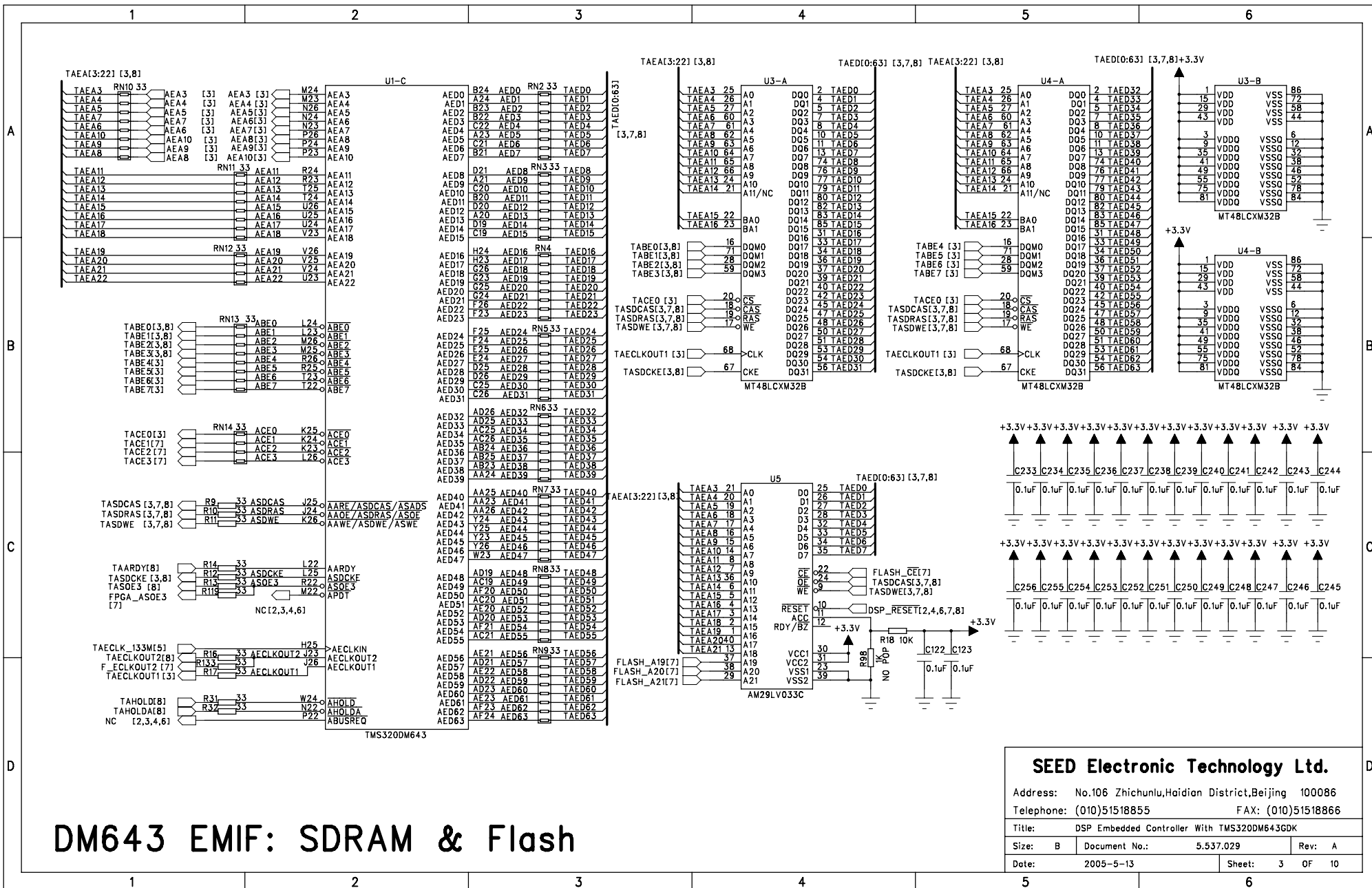
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DM643 EMIF: SDRAM & Flash

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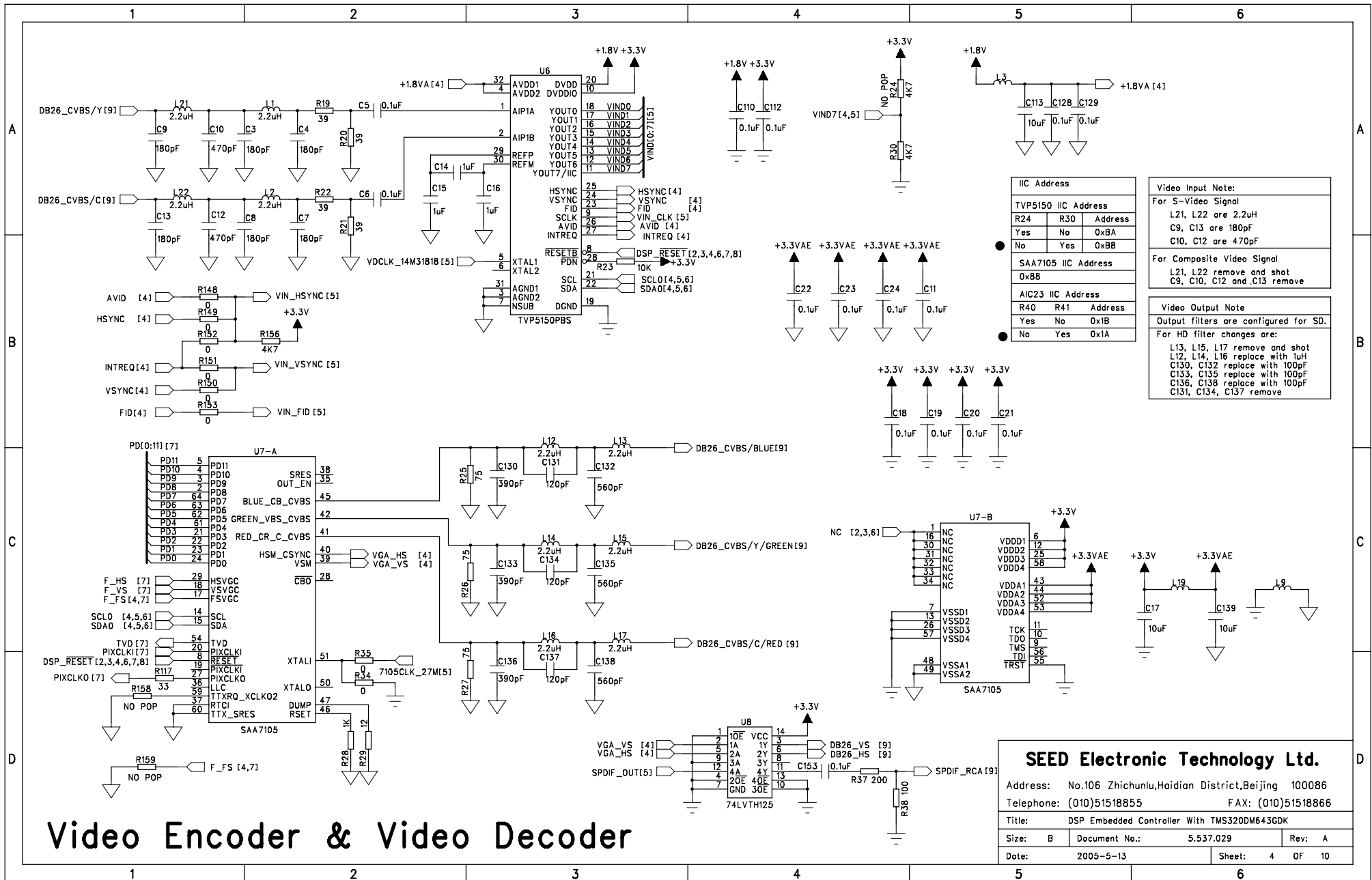
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IIC Address		
TVP5150 IIC Address		
R24	R30	Address
Yes	No	0xBA
No	Yes	0xBB
SAA7105 IIC Address		
0x8B		
AIC23 IIC Address		
R40	R41	Address
Yes	No	0xB
No	Yes	0xA

Video Input Note:
 For S-Video Signal
 L21, L22 are 2.2uH
 C9, C13 are 180pF
 C10, C12 are 470pF

For Composite Video Signal
 L21, L22 remove and shot
 C9, C10, C12 and C13 remove

Video Output Note
 Output filters are configured for SD.
 For HD filter changes are:
 L13, L15, L17 remove and shot
 L12, L14, L16 replace with 1uH
 C130, C132 replace with 100pF
 C133, C135 replace with 100pF
 C136, C138 replace with 100pF
 C131, C134, C137 remove

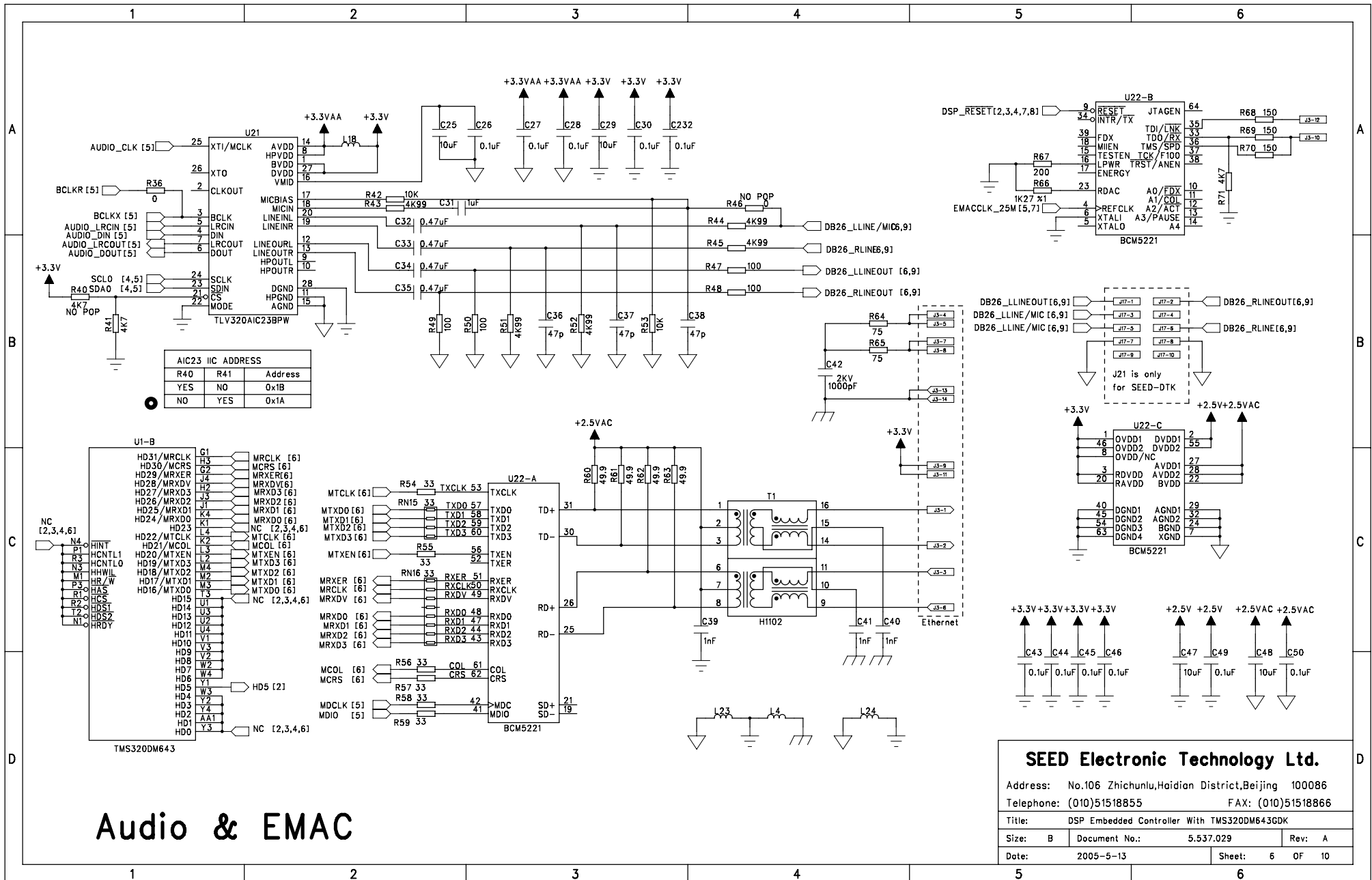
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Video Encoder & Video Decoder



Audio & EMAC

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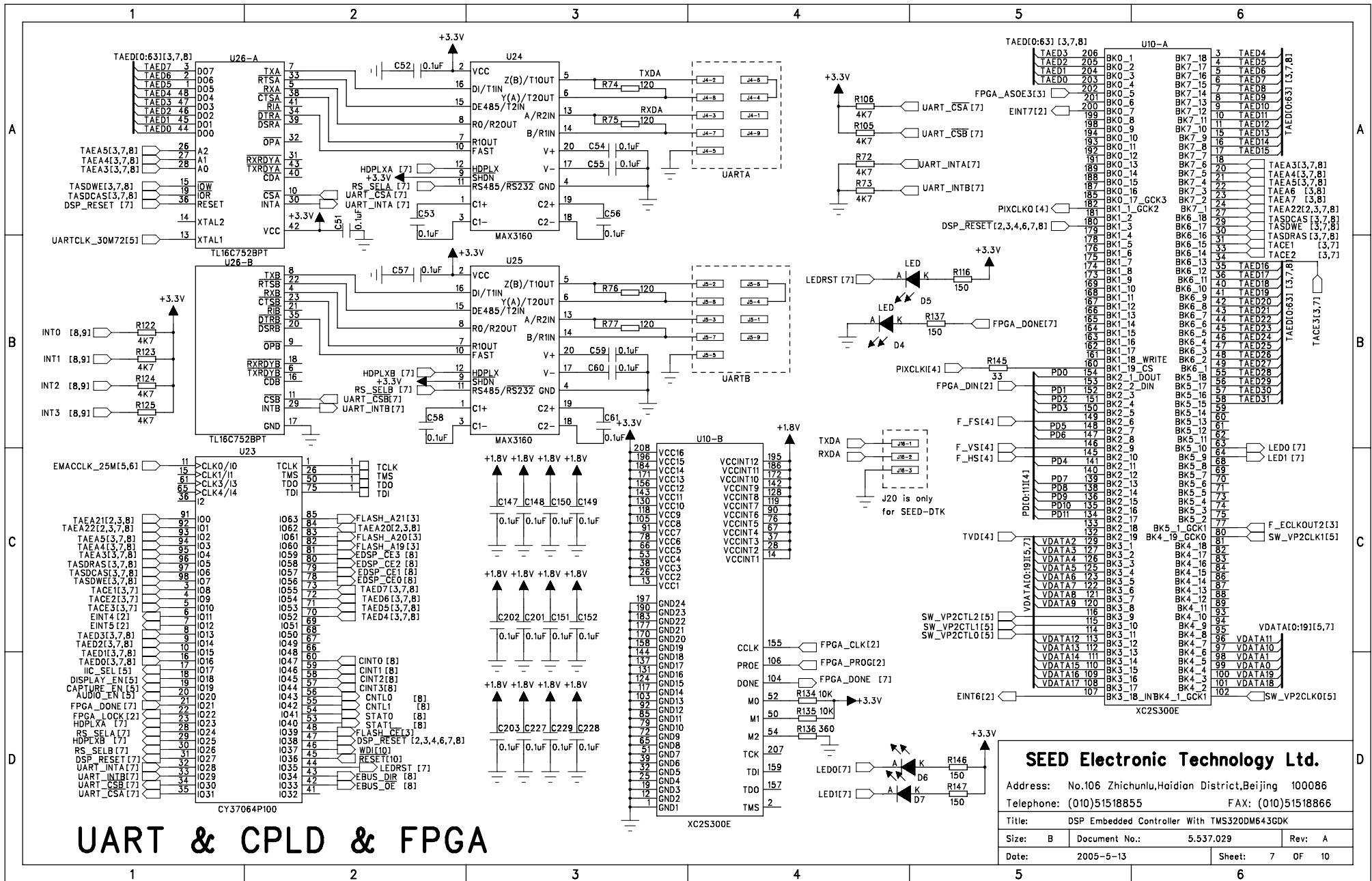
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UART & CPLD & FPGA

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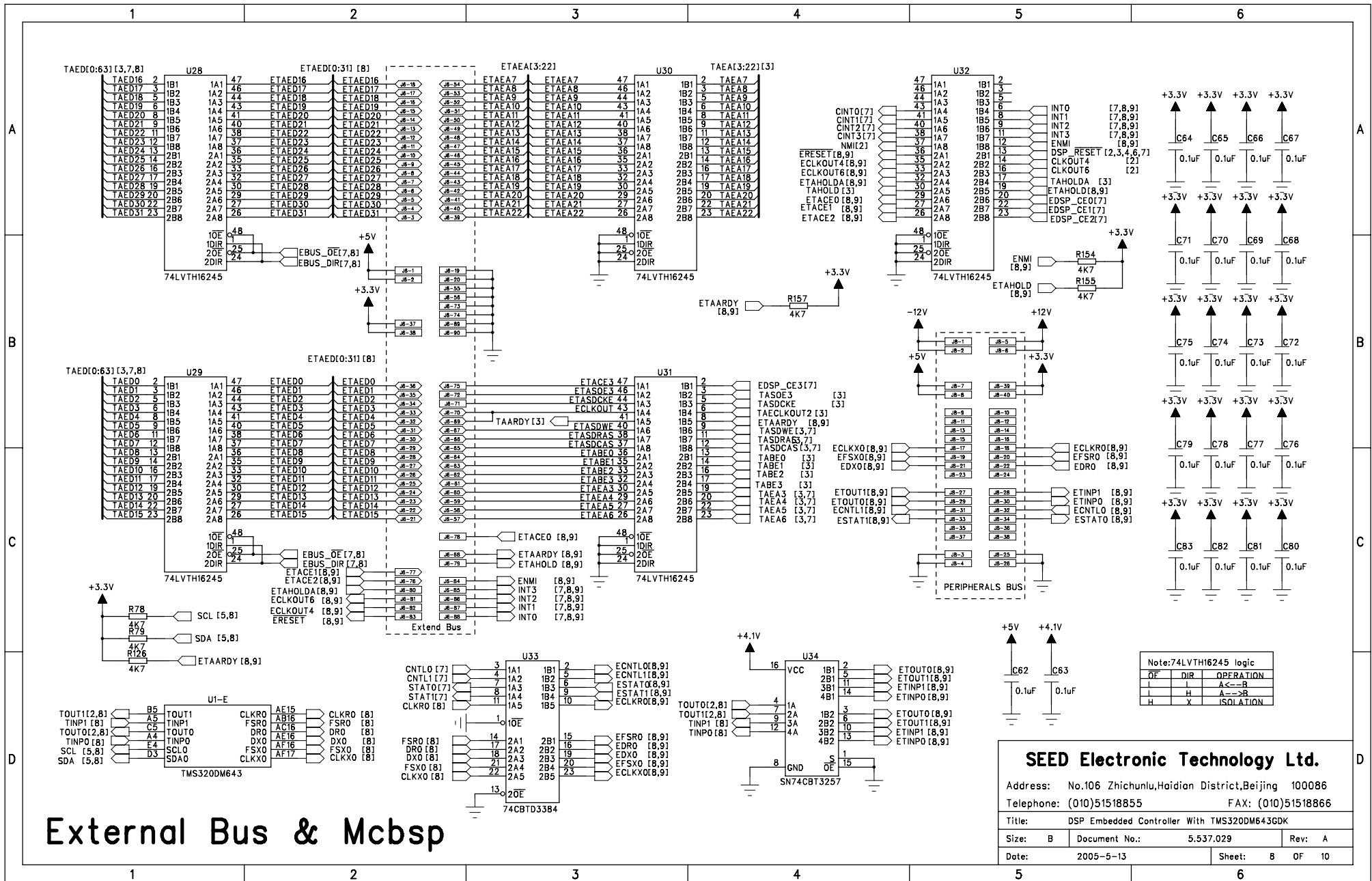
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External Bus & Mcbsp

Note:74LVTH16245 logic

OE	DIR	OPERATION
0	1	A ← B
0	0	A → B
1	0	ISOLATION
1	1	X

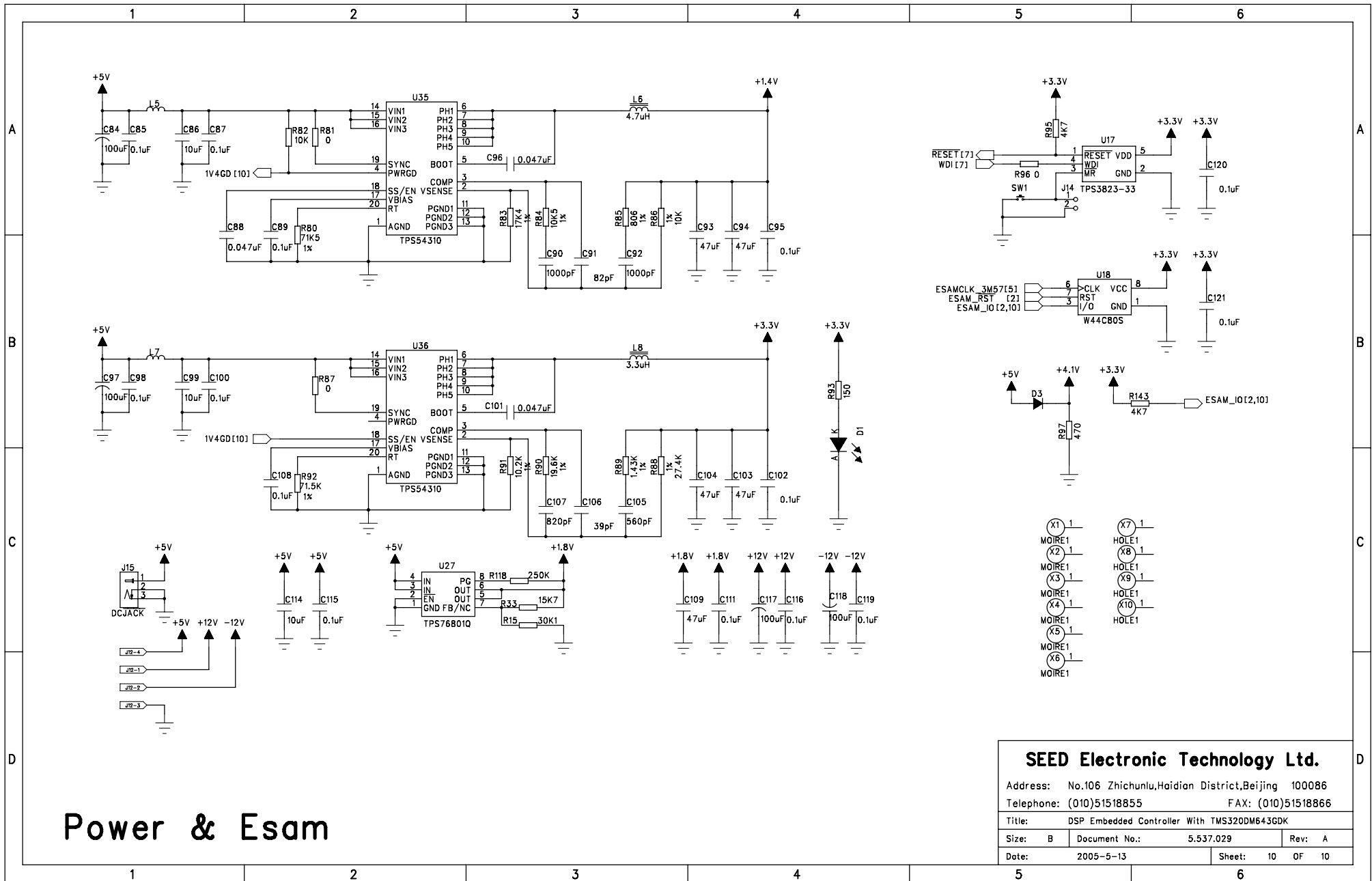
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Power & Esam

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