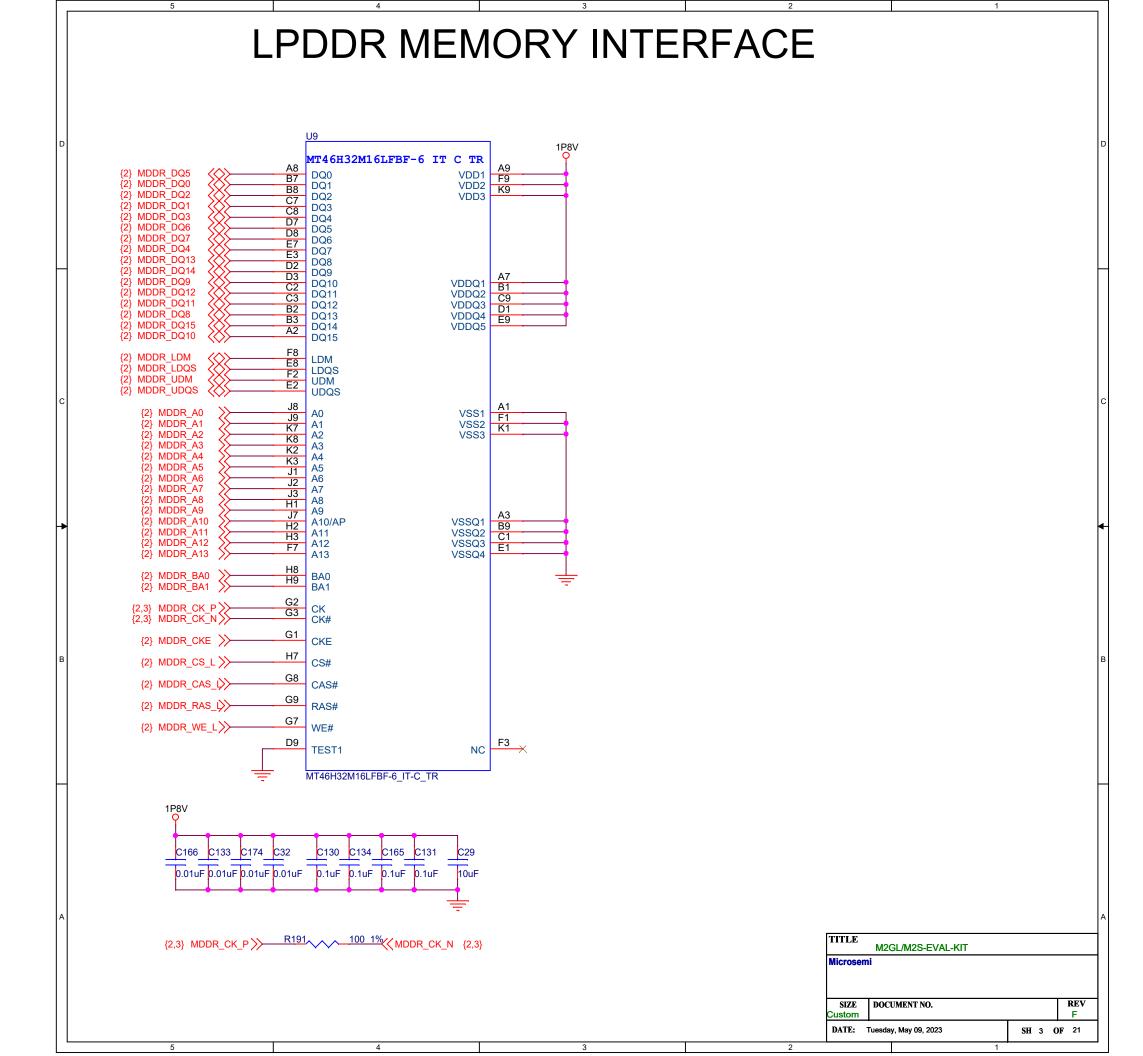
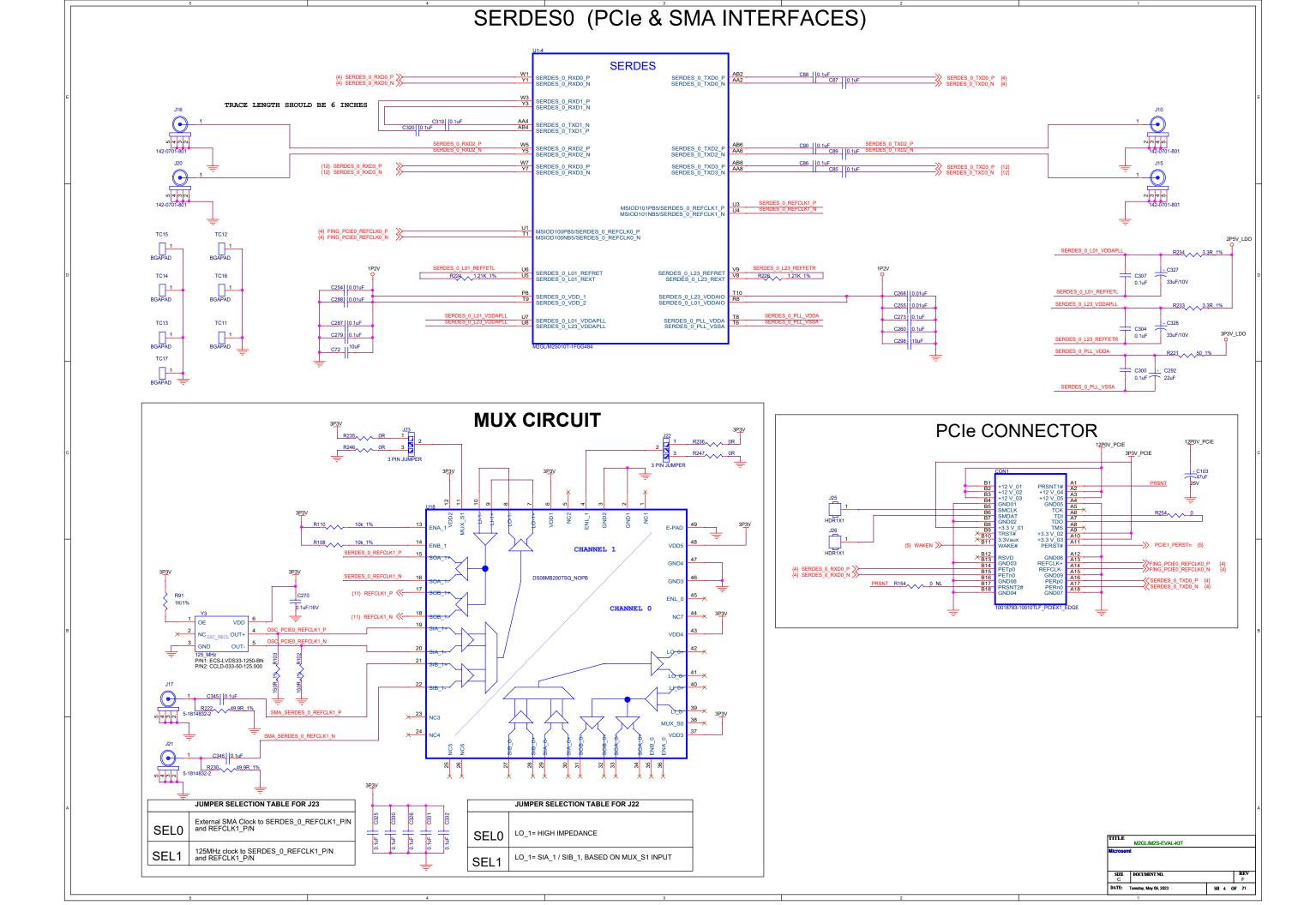
M2GL/M2S-EVAL-KIT DVP-100-000402-002 RevF

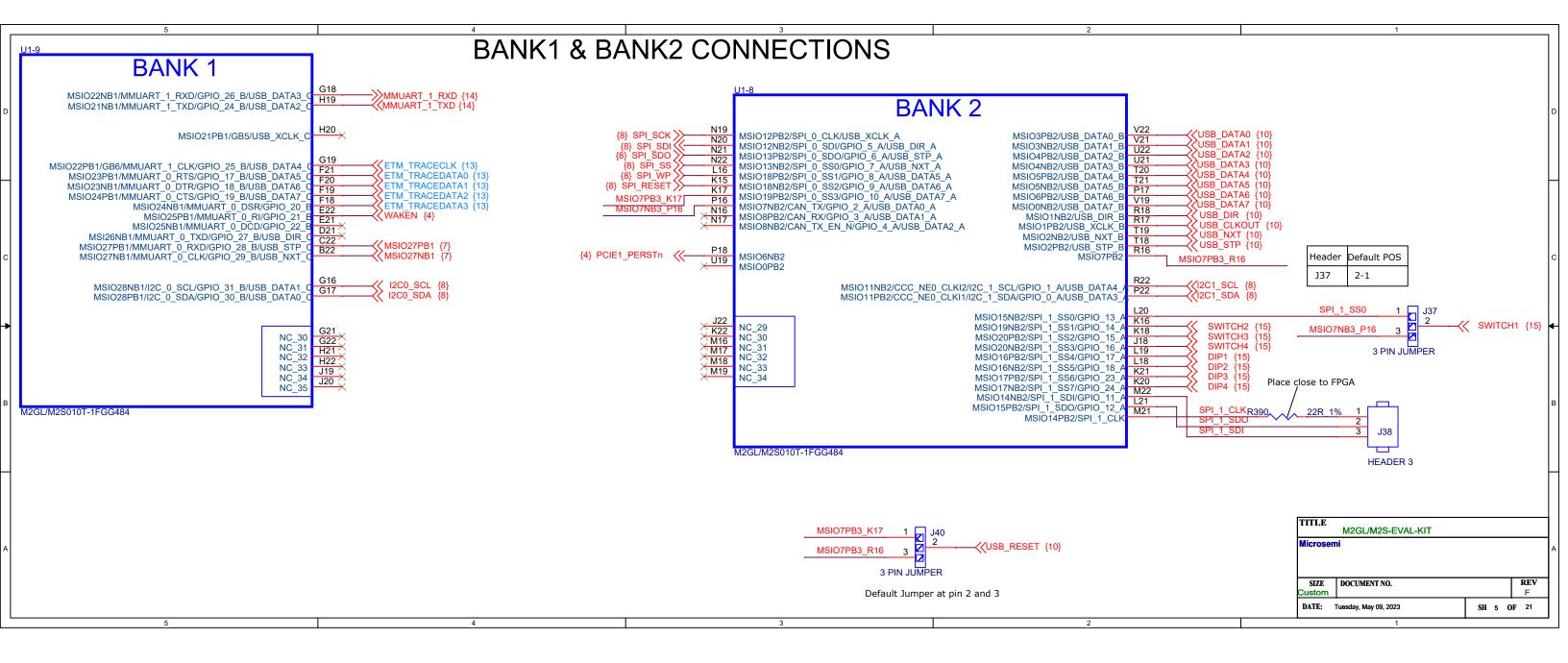
	Microsemi Corporation
Page	Schematic Title
01	TITLE AND INDEX
02	FG484 DDR INTERFACE
03	LPDDR MEMORY INTERFACE
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08	JTAG, I2C & SPI INTERFACE
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11	MARVELL PHY INTERFACE
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TITLE	M2GL/M2S-EVAL-KIT		
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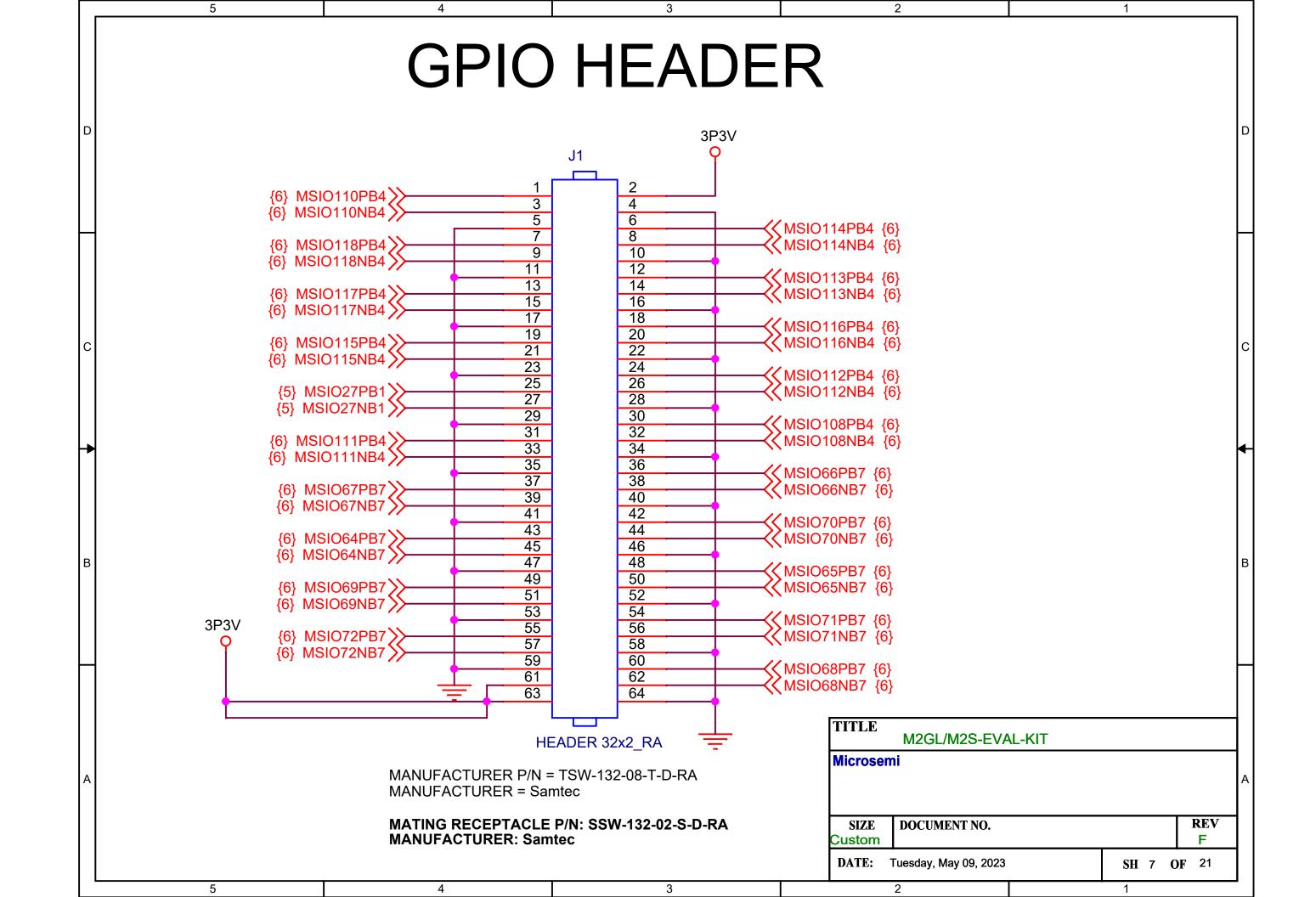
MDDR - BANKO INTERFACES MDDR BANKO DDRIO29NB0/MDDR_ADDR15 DDRIO54PB0/MDDR DQ0 MDDR DQ1 {3} DDRIO29PB0/MDDR ADDR14 DDRIO54NB0/MDDR DQ1 F10 MDDR_DQ2 {3} {3} MDDR A13 DDRIO30NB0/MDDR_ADDR13 DDRIO53PB0/MDDR_DQ2 E10 MDDR_DQ3 {3} (3) MDDR A12 DDRIO30PB0/MDDR ADDR12 DDRIO53NB0/MDDR DQ3 B21 A11 MDDR DQ4 {3} (3) MDDR A11 DDRIO31NB0/MDDR ADDR11 DDRIO51NB0/MDDR DQ4 D10 MDDR_DQ5 {3} 3} MDDR A10 DDRIO31PB0/MDDR ADDR10 DDRIO50PB0/MDDR DQ5 D11 MDDR DQ6 {3} (3) MDDR A9 DDRIO50NB0/MDDR DQ6 DDRIO32NB0/MDDR ADDR9 E12 {3} MDDR A8 DDRIO32PB0/MDDR ADDR8 DDRIO49PB0/MDDR DQ7 MDDR DQ7 {3} C19 {3} MDDR A7 DDRIO33NB0/MDDR ADDR7 A10 (3) MDDR A6 DDRIO34NB0/MDDR ADDR6 DDRIO51PB0/MDDR DM RDQS0 MDDR_LDM {3} {3} MDDR A5 DDRIO34PB0/MDDR ADDR5 (3) MDDR A4 DDRIO35NB0/MDDR ADDR4 DDRIO52PB0/MDDR DQS0 MDDR_LDQS {3} C11 DDRIO52NB0/MDDR DQS0 N {3} MDDR A3 DDRIO35PB0/MDDR ADDR3 {3} MDDR A2 DDRIO36NB0/MDDR ADDR2 MDDR_DQ8 {3} {3} MDDR A1 DDRIO36PB0/MDDR ADDR1 DDRIO48PB0/MDDR DQ8 A13 DDRIO48NB0/MDDR_DQ9 MDDR DQ9 {3} (3) MDDR A0 DDRIO37NB0/MDDR ADDR0 D12 MDDR_DQ10 {3} DDRIO47PB0/MDDR DQ10 C16 D13 DDRIO37PB0/MDDR BA2 DDRIO47NB0/MDDR DQ11 MDDR DQ11 {3} MDDR_DQ12 {3} {3} MDDR BA1 DDRIO38NB0/MDDR BA1 DDRIO44PB0/MDDR DQ12 A18 A15 DDRIO44NB0/MDDR_DQ13 D14 (3) MDDR BA0 DDRIO38PB0/MDDR BA0 MDDR_DQ13 {3} MDDR DQ14 {3} DDRIO43PB0/MDDR DQ14 G14 E13 MDDR_DQ15 {3} {3} MDDR_WE_L DDRIO42NB0/MDDR WE N DDRIO43NB0/MDDR DQ15 (3) MDDR RAS K DDRIO42PB0/MDDR RAS N G13 -⟨⟨⟩⟩ MDDR_UDM {3} DDRIO40NB0/MDDR CAS N (3) MDDR CAS L DDRIO45NB0/MDDR DM RDQS1 B15 DDRIO41PB0/MDDR CKE {3} MDDR CKE << DDRIO46NB0/MDDR_DQS1_N B13 × <⟨⟩⟩ MDDR UDQS {3} DDRIO46PB0/MDDR DQS1 {3} MDDR CK P <<< DDRIO39PB0/MDDR CLK A17 (3) MDDR_CK_N << DDRIO39NB0/MDDR CLK N C15 {3} MDDR CS L <<< DDRIO41NB0/MDDR CS N DDRIO45PB0/MDDR TMATCH 0 IN F12 DDRIO49NB0/MDDR TMATCH_0_OUT × E15 DDRIO40PB0/MDDR RST N × C20 DDRIO33PB0/MDDR ODT DDRIO57PB0/MDDR TMATCH ECC IN E7 DDRIO60PB0/MDDR TMATCH ECC OUT DDRIO56PB0/MDDR DQ ECC1 A8 DDRIO56NB0/MDDR DQ ECC0 DDRIO57NB0/MDDR DM RDQS ECC В7 {11} PHY_SCLK_1P8V >> DDRIO58NB0/MDDR_DQS_ECC_N × C7 DDRIO58PB0/MDDR DQS ECC DDRIO63NB0 DDRIO63PB0 A5 DDRIO62NB0 A6 DDRIO59NB0/GB4 B5 DDRIO62PB0 DDRIO59PB0/GB0 C5 DDRIO61PB0 C9 DDRIO55NB0/QDR1 D6 DDRIO61NB0 D9 DDRIO55PB0/CCC NE0 CLKI3/QDR0 DDRIO60NB0/CCC NE1 CLKI3 M2GL/M2S-EVAL-KIT M2GL/M2S010T-1FGG484 Microsemi REV DOCUMENT NO. Custom DATE: Tuesday, May 09, 2023 SH 2 OF 21

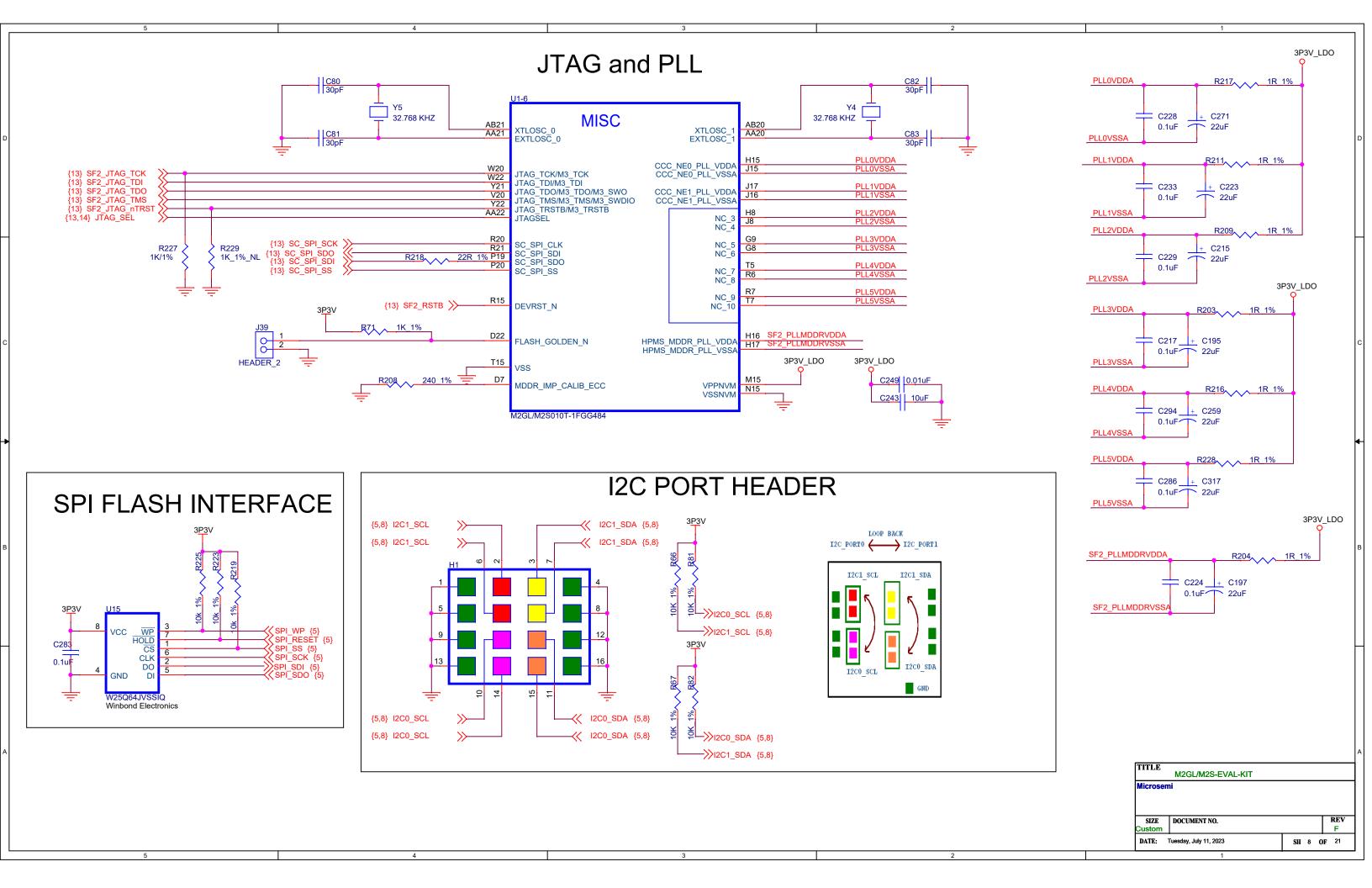


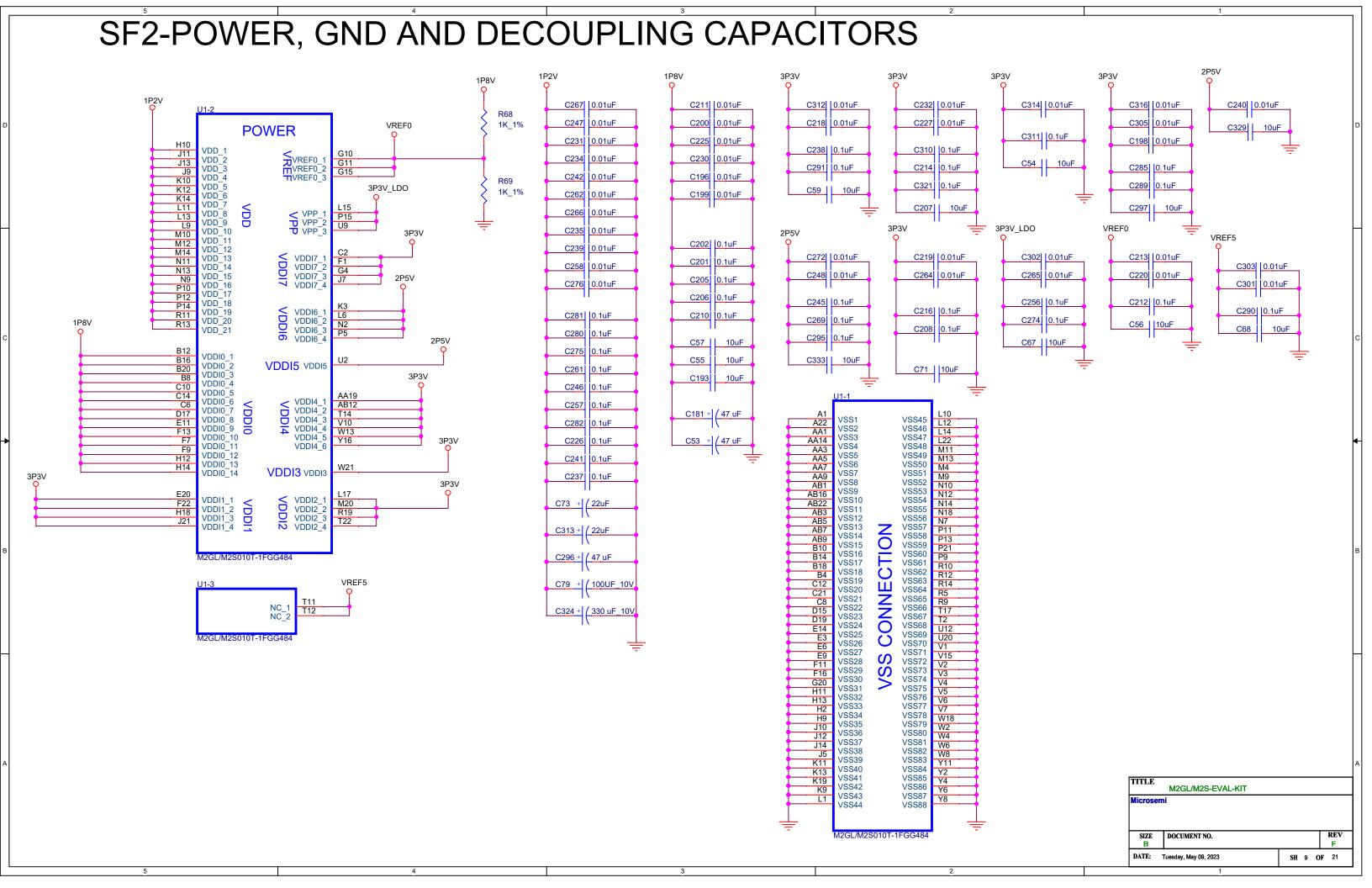


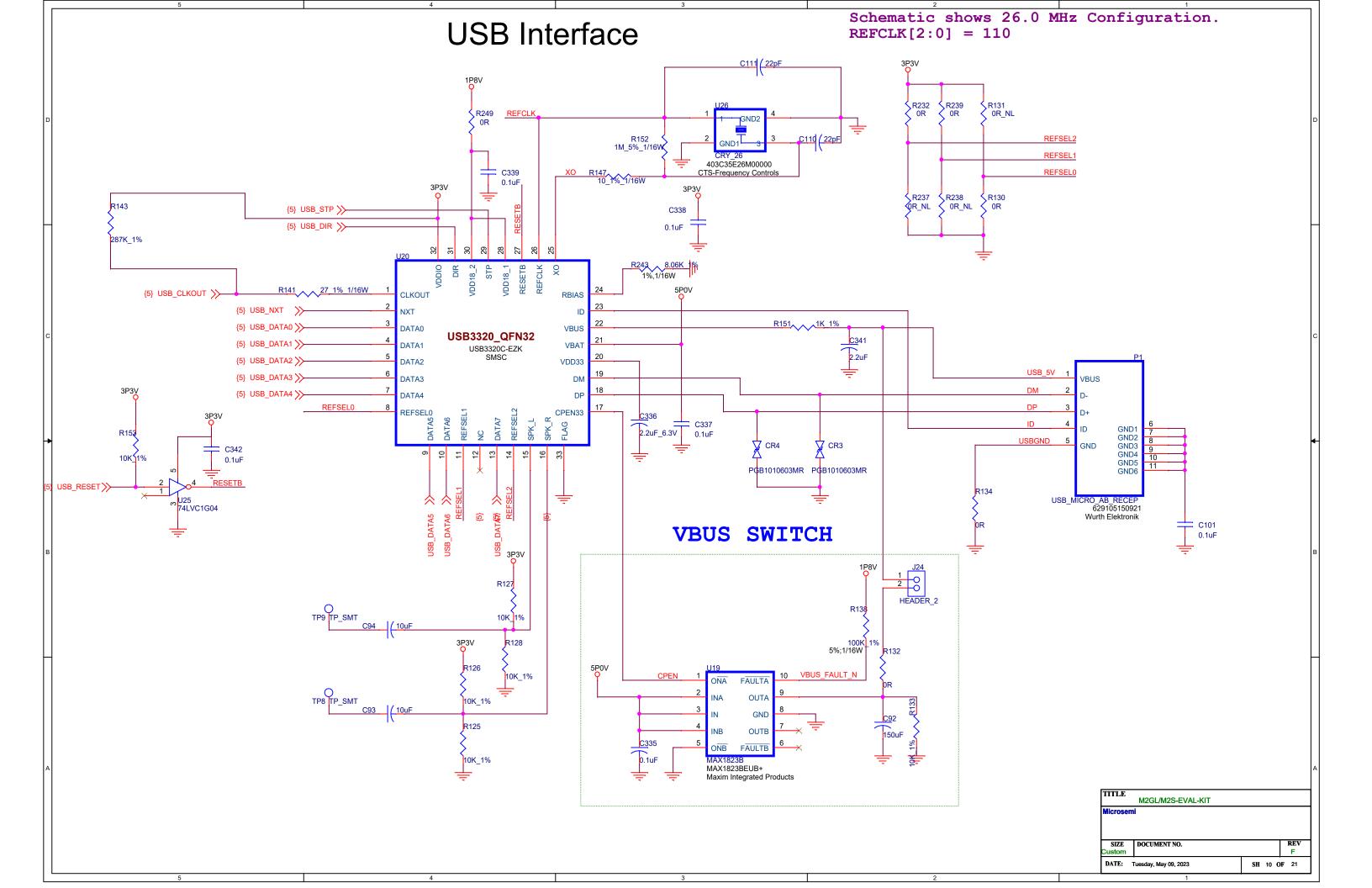


BANK 4, 6 and 7 CONNECTIONS MSIO102NB4/CCC NE1 CLKI0 MSIOD82NB6 K4 **((** MSIO64NB7 {7} MSIO102PB4 MSIO64NB7 MSIOD82PB6 L8 MSIO103NB4/PROBE_B MSIO64PB7 MSIOD83NB6 K8 MSIO65NB7 MSIO103PB4/PROBE A MSIO65NB7 W11. CON2 MSIO65PB7 MSIO104NB4/GB7 MSIO65PB7 MSIOD83PB6 V11 (MSIO66NB7 MSIO104PB4/GB3 MSIOD84NB6 MSIO66NB7 AB14 G5 MSIO66PB7 MSIO105NB4 MSIOD84PB6/CCC NE1 CLKI2 MSIO66PB7 AB13 MSIO67NB7 MSIO105PB4/CCC NE0 CLKIC MSIOD85NB6 MSIO67NB7 MSIOD85PB6/CCC_NE1_CLKI1 L3 >>50MHZ_SECLK_WST_K1 {6} MSIO106NB4 MSIO67PB7 MSIO67PB7 MSIO106PB4 T13 MSIOD86NB6 L2 MSIO68NB7 MSIO68NB7 D3 MSIOD86PB6 L5 MSIO107NB4 U13 MSIO68PB7 MSIO68PB7 MSIO69NB7 MSIO107PB4 MSIOD87NB6 MSIO69NB7 MSIOD87PB6 M6 ✓ MSIO108NB4 {7} MSIO108NB4 MSIO69PB7 MSIO69PB7 MSIOD88NB6 M5 **⟨⟨** MSIO108PB4 {7} MSIO70NB7 MSIO70NB7 MSIO108PB4 W14、 **BANK 6** BANK 7 MSIO70PB7 MSIO109NB4 MSIO70PB7 MSIOD88PB6 MSIOD89NB6 N5 MSIO71NB7 {7} MSIO71PB7 {7} MSIO72NB7 {7} MSIO71NB7 MSIO109PB4 MSIO110NB4 AB15 MSIOD89PB6 M2 \angle MSIO110NB4 $\{7\}$ MSIO71PB7 D2 MSIO110PB4 W15 MSIOD90NB6 M3 MSIO110PB4 {7} MSIO72NB7 D1 MSIOD90PB6 N4 MSIO111NB4 (7) MSIO111NB4 MSIO72PB7 E2 MSIOD91NB6 N3 MSIO111PB4 {7} MSIO111PB4 MSIO73NB7 E1 MSIOD91PB6 M1 MSIO112NB4 {7} LED0 {15} MSIO112NB4 MSIO73PB7 F4 MSIOD92NB6 N1 MSIO112PB4 {7} LED1 {15} MSIO112PB4 MSIO74NB7 MSIOD92PB6 P3 MSIO113NB4 LED2 {15} MSIO113NB4 MSIO74PB7 G7 AB17 MSIOD93NB6 P4 MSIO113PB4 LED3 {15} MSIO113PB4 MSIO75NB7 AA17 H7 MSIO114NB4 AA16 MSIOD93PB6 P2 MSIO114NB4 LED4 {15} MSIO75PB7 J6 MSIO114PB4 MSIOD94NB6 P1 MSIO114PB4 MSIO76NB7 LED5 {15} Н6 **BANK 4** MSIO115NB4 MSIO115NB4 MSIO76PB7 LED6 {15} MSIOD94PB6 MSIO115PB4 {7} MSIO115PB4 LED7 {15} MSIOD95NB6 MSIO77NB7 W17 MSIO116NB4 {7} MSIO116NB4 MSIOD95PB6 MSIO77PB7 G1 PHY RCVRD CLK1 {11} MSIO116PB4 MSIO116PB4 {7} MSIOD96NB6 MSIO78NB7 Y19 H1 MSIO117NB4 PHY_RCVRD_CLK2 MSIO117NB4 MSIOD96PB6 MSIO78PB7/GB2 Y18 J4 PHY MDIO {11} MSIO117PB4 {7} MSIO117PB4 MSIOD97NB6 MSIO79NB7 AB19 J3 (MSIO118NB4 (7) PHY_MDC {11} MSIO118NB4 MSIOD97PB6 MSIO79PB7/GB1 AB18 R4 J2 MSIO118PB4 MSIO118PB4 {7} MSIOD98NB6 MSIO80NB7 PHY INTn {11} MSIOD98PB6 T3 R3 J1 PHY SCLK 3P3V MSIO80PB7 MSIOD99NB6 T4 MSIO81NB7 K6 R215 OR PHY_RST {11} MSIOD99PB6 MSIO81PB7 U10 🔇 NC_12 U11 (M2GL/M2S010T-1FGG484 NC_13 G2 U16 ($NC_32 \xrightarrow{G3}$ NC 14 2P5V U17 NC_15 NC_33 U18 (Н3 NC 16 NC 34 V12 (NC 17 V17 🤇 NC 18 V18 (M2GL/M2S010T-1FGG484 NC_19 0.1uF/16V W12(NC 20 W19(NC_21 Y12 Y20 NC 22 NC_23 AA10 TRISTA VDD NC 24 AA11 BANK 6 NC_25 M2GL/M2S-EVAL-KIT AA12 NC_26 GND R90 OR >>>50MHZ_SECLK_WST_K1 {6} AB10 E-PAD OUTPUT NC 27 AB11 NC_28 Osc 50MHz 2.5V M2GL/M2S010T-1FGG484 DOCUMENT NO. DATE: Tuesday, May 09, 2023 SH 6 OF 21

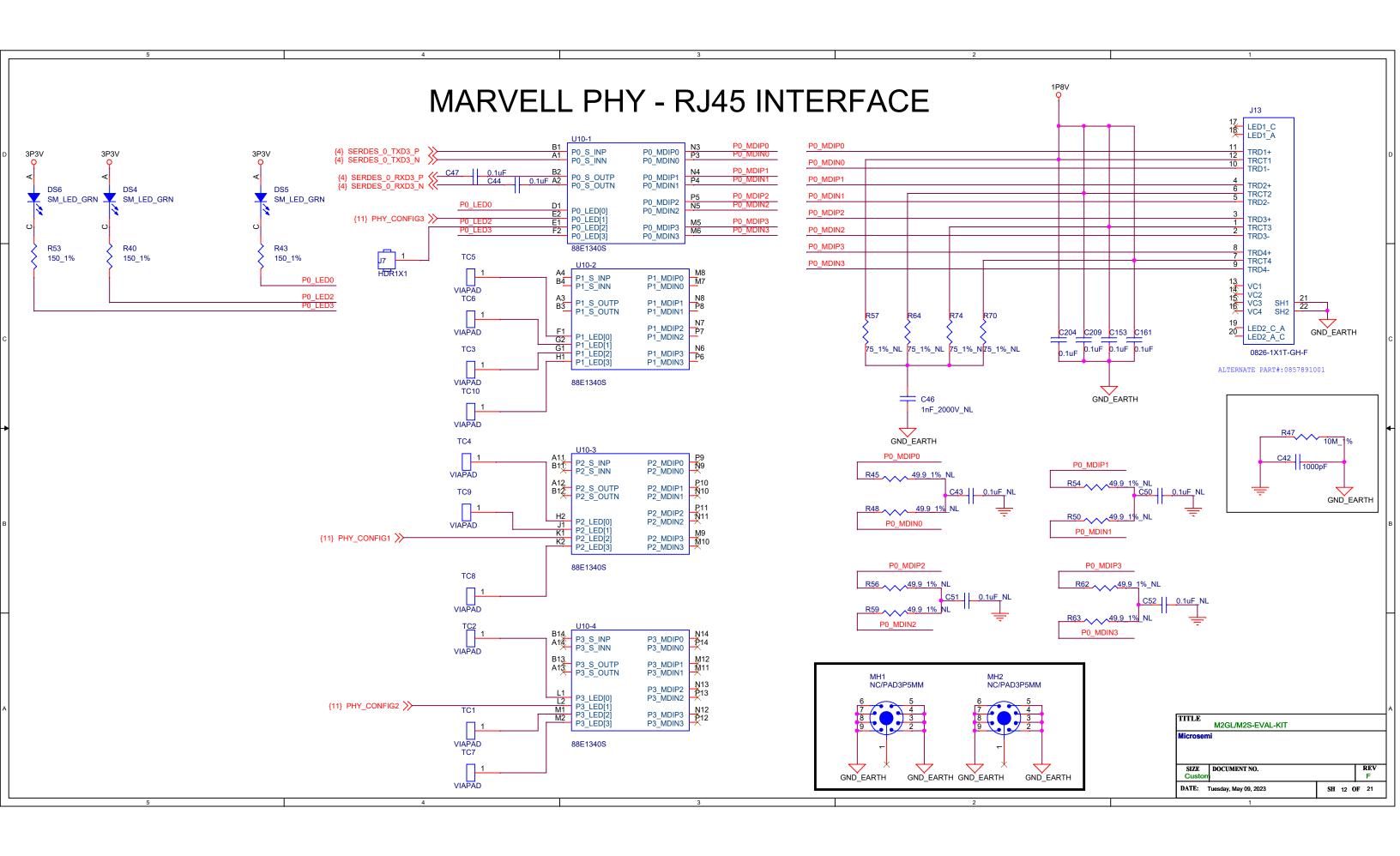


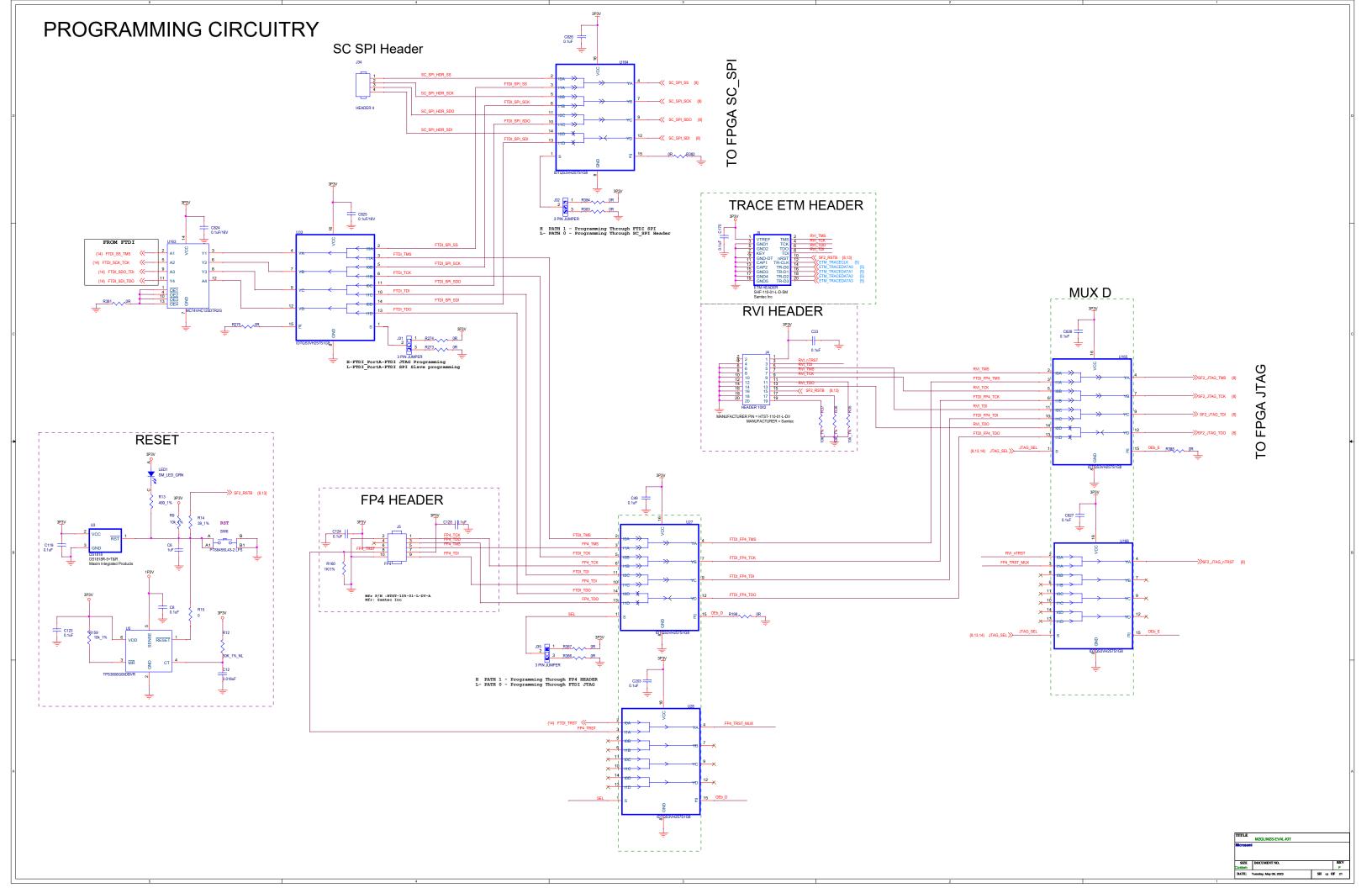


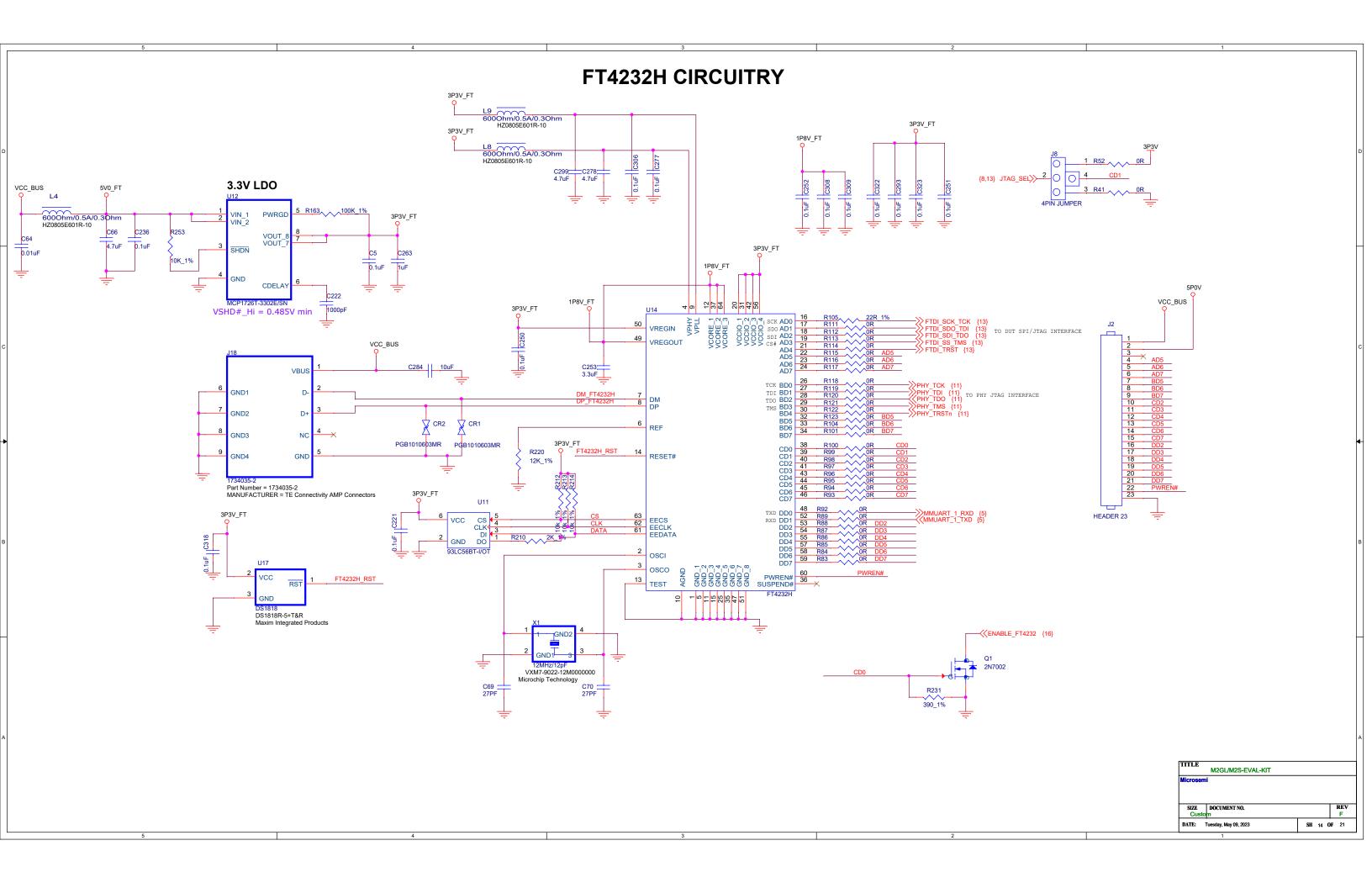


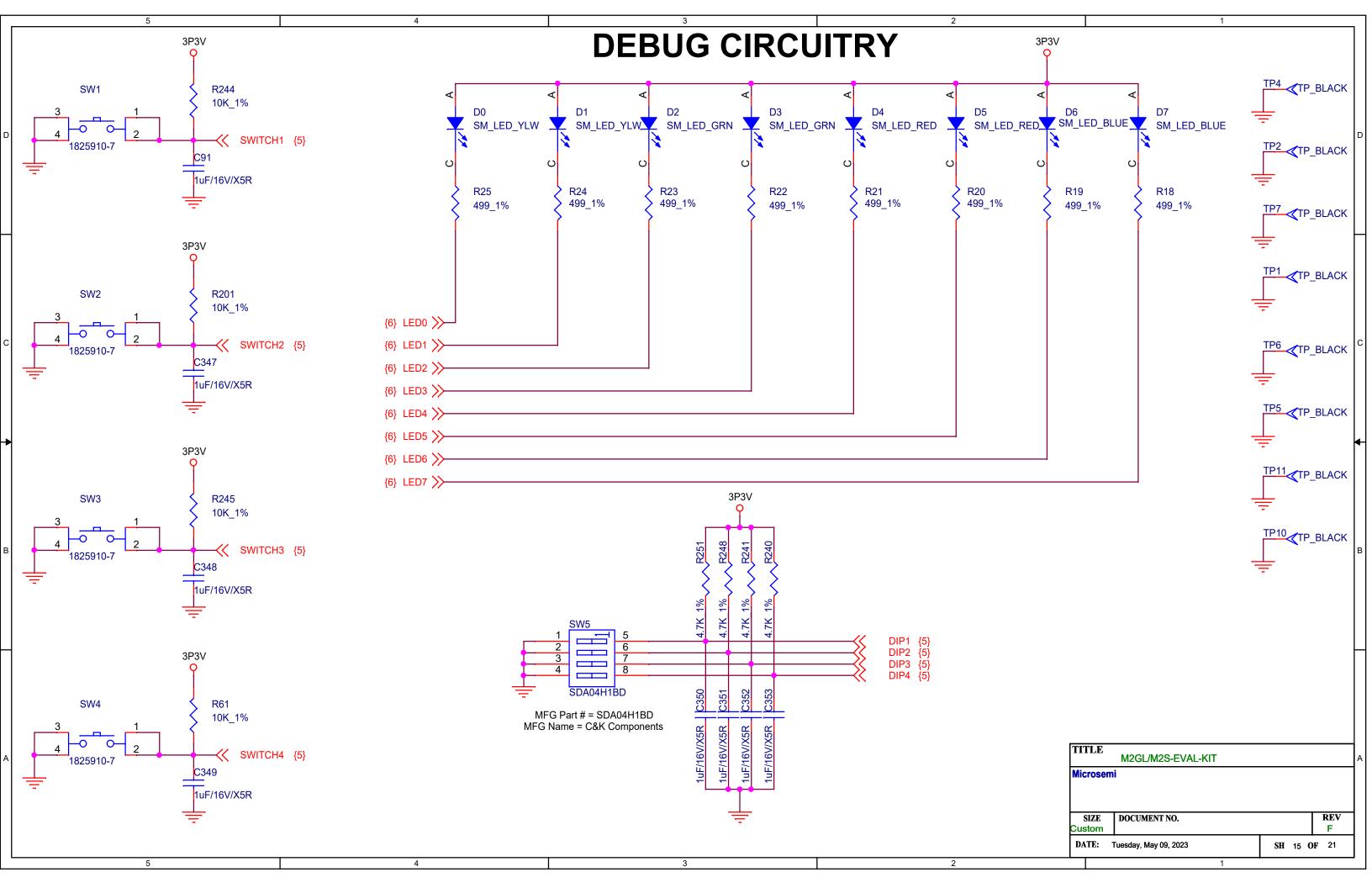


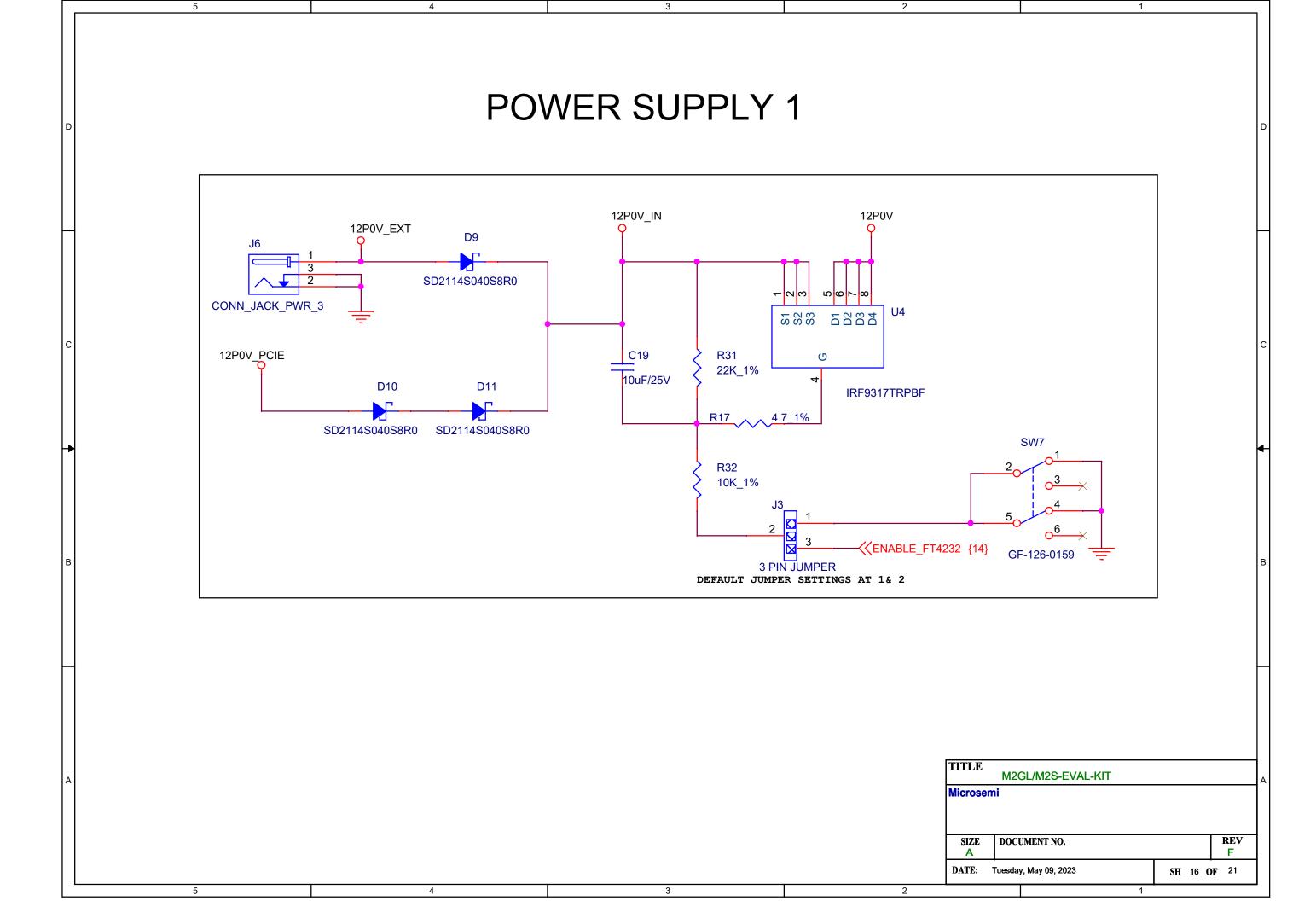
MARVELL PHY INTERFACE need to check voltage swing level R73 2.2K 1% 1P0V_PHY 1P8V {4} REFCLK1_P>> C62 0.1uF U10-6 DVDD1 E4 L4 D5 E5 L5 L6 L7 D8 VSS31 AVDDH2 P2 C3 D3 M3 C4 K4 VSS32 AVDDH3 VSS33 AVDDH4 VSS34 AVDDH5 VSS35 F9 V12 EN AVDDH6 Q_INN VSS36 AVDDH7 {4} REFCLK1_N >> VSS37 AVDDH8 Q_OUTP Q_OUTN VSS9 VSS10 VSS11 VSS12 VSS13 VSS14 VSS15 VSS16 VSS17 VSS20 VSS21 VSS22 VSS23 VSS24 VSS25 VSS26 VSS27 VSS26 VSS27 VSS26 VSS27 VSS27 VSS27 VSS28 VSS38 AVDDH9 L8 D9 L9 M4 C5 F5 G5 H5 J5 K5 C6 F6 G6 H6 J6 K6 A7 B7 F7 G7 DVDD10 DVDD11 V18_L VSS39 AVDDH10 VSS40 AVDDH11 A10 B10 C10 G10 H10 J10 K10 C11 H11 J11 C12 C13 M13 C14 M14 J12 REF CLKP VSS41 D10 E10 L10 D11 E11 K11 L11 AVDDH12 AVDDH12 AVDDH14 AVDDH15 AVDDH16 AVDDH17 AVDDH18 AVDDH19 REF CLKN VSS42 V18_R VSS43 VSS44 E14 F14 F3 G3 H3 J3 {6} PHY_RCVRD_CLK1 {6} PHY_RCVRD_CLK2 CLK_SEL0 CLK_SEL1 VDDOL1 VDDOL2 VDDOL3 VDDOL4 RCLK1 RCLK2 VSS45 VSS46 VSS47 VSS48 CONFIG[0] CONFIG[1] CONFIG[2] CONFIG[3] R180 UK R170 OR PHY_CONFIG1 {12} R182 OR PHY_CONFIG2 {12} R179 OR PHY_CONFIG3 {12} 3P3V 3P3V D6 D7 VSS48 VSS49 VSS50 VSS51 VSS52 VDDOM1 VDDOM2 DPR1 DEFAULT_OPTION = 1&2 0R_0603 {6} PHY_RST >> RESETn XTAL1_25MHZ XTAL2_25MHZ F13 H12 XTAL_IN XTAL_OUT VDDC G12 G14 D12 G13 **VDDOR** TCK TDI TDO VSS53 VSS54 VSS55 88E1340S {14} PHY_TDI << PHY_SCLK_3P3V {6}</pre> HSDACP HSDACN L13 TMS VSS56 PHY TRSTr E12 **TRSTn** VSS57 C8 K13 TSTPTF TSTPT VSS29 VSSC {6} PHY_MDIO{6} PHY_MDC{6} PHY_INTn 88E1340S TEST0 R207 R202 TEST1 49.9 1% 49.9 1% HDR1X1 J12 1P0V_PHY 1P8V HDR1X1 J11 C169 | 0.1uF C144 | 0.1uF C191 0.1uF C184 0.1uF C151 0.1uF C158 0.1uF C180 0.1uF C147 0.1uF 3P3V 3P3V C168 0.1uF C150 0.1uF C186 0.1uF C145 0.1uF C187 0.1uF C176 0.1uF C175 0.1uF R205 R206 C183 0.1uF C171 0.1uF C179 0.1uF C146 0.1uF C156 0.1uF C162 0.1uF 27pF_NL XTAL1 25MHZ C188 0.1uF C159 C173 0.1uF 10uF CLK_SEL0 CLK_SEL1 C58 C190 0.1uF C192 0.1uF C177 0.1uF C182 0.1uF R76 C172 0.1uF C189 0.1uF NL 1K_1% C129 10uF C157 0.1uF 25MHZ_NL C63 27pF_NL C38 10uF C36 10uF M2GL/M2S-EVAL-KIT SIZE DOCUMENT NO. DATE: Tuesday, May 09, 2023 SH 11 OF 21

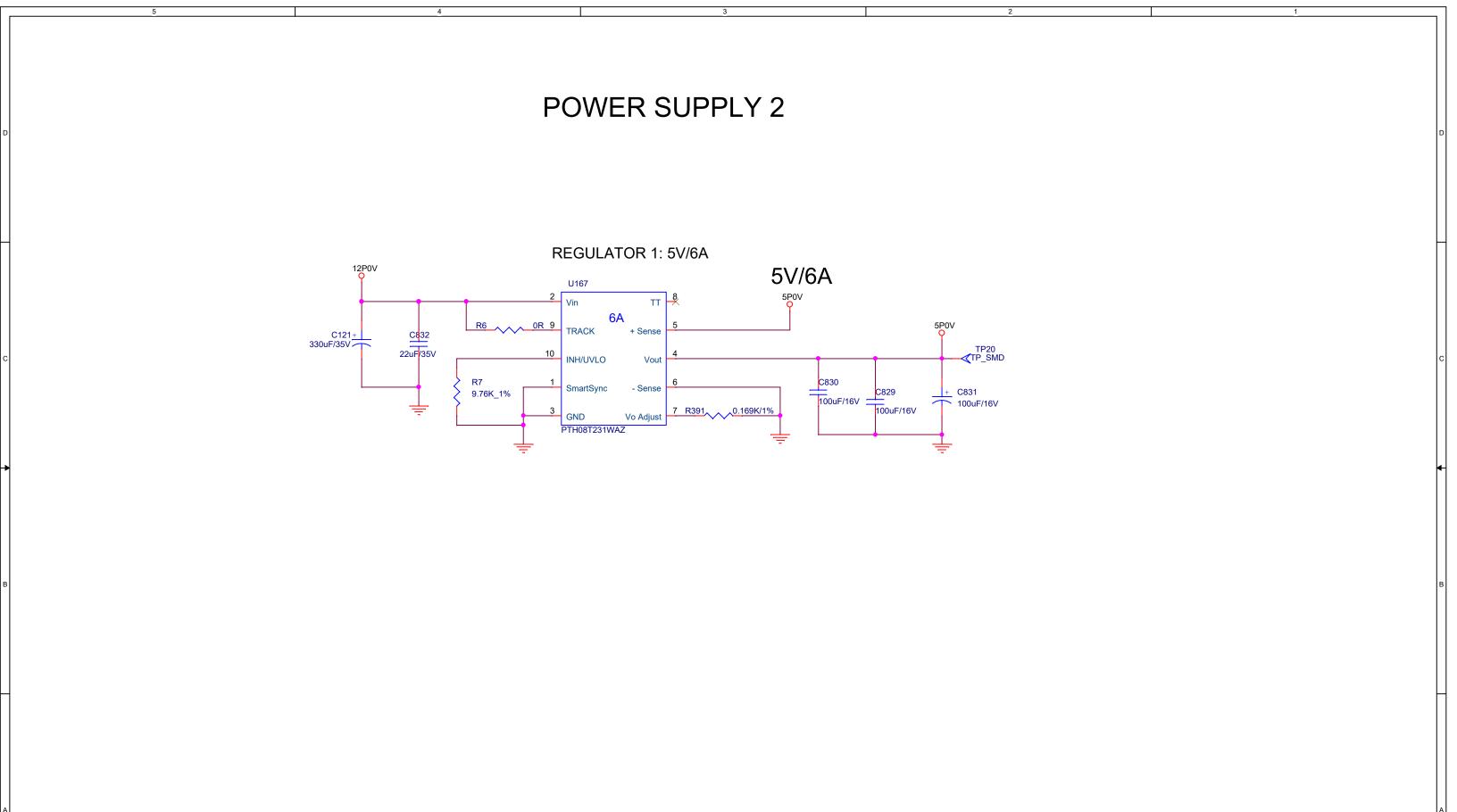












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