

M523X Evaluation Board

Table Of Contents:	
HIERARCHICAL INTERCONNECTS	SHEET 2
MRAM MEMORY	SHEET 3
ADDRESS AND DATA BUS BUFFERS	SHEET 4
CAN INTERFACE	SHEET 5
M523X CPU	SHEET 6
DEBUG	SHEET 7
ETHERNET INTERFACE	SHEET 8
ETPU INTERFACE	SHEET 9
EXPANSION CONNECTORS	SHEET 10
FLASH MEMORY	SHEET 11
POWER SUPPLY UNIT	SHEET 12
RESET CONFIGURATION AND CLOCKING CIRCUITRY	SHEET 13
SDRAM MEMORY	SHEET 14
SERIAL I/O INTERFACE	SHEET 15
USB INTERFACE	SHEET 16

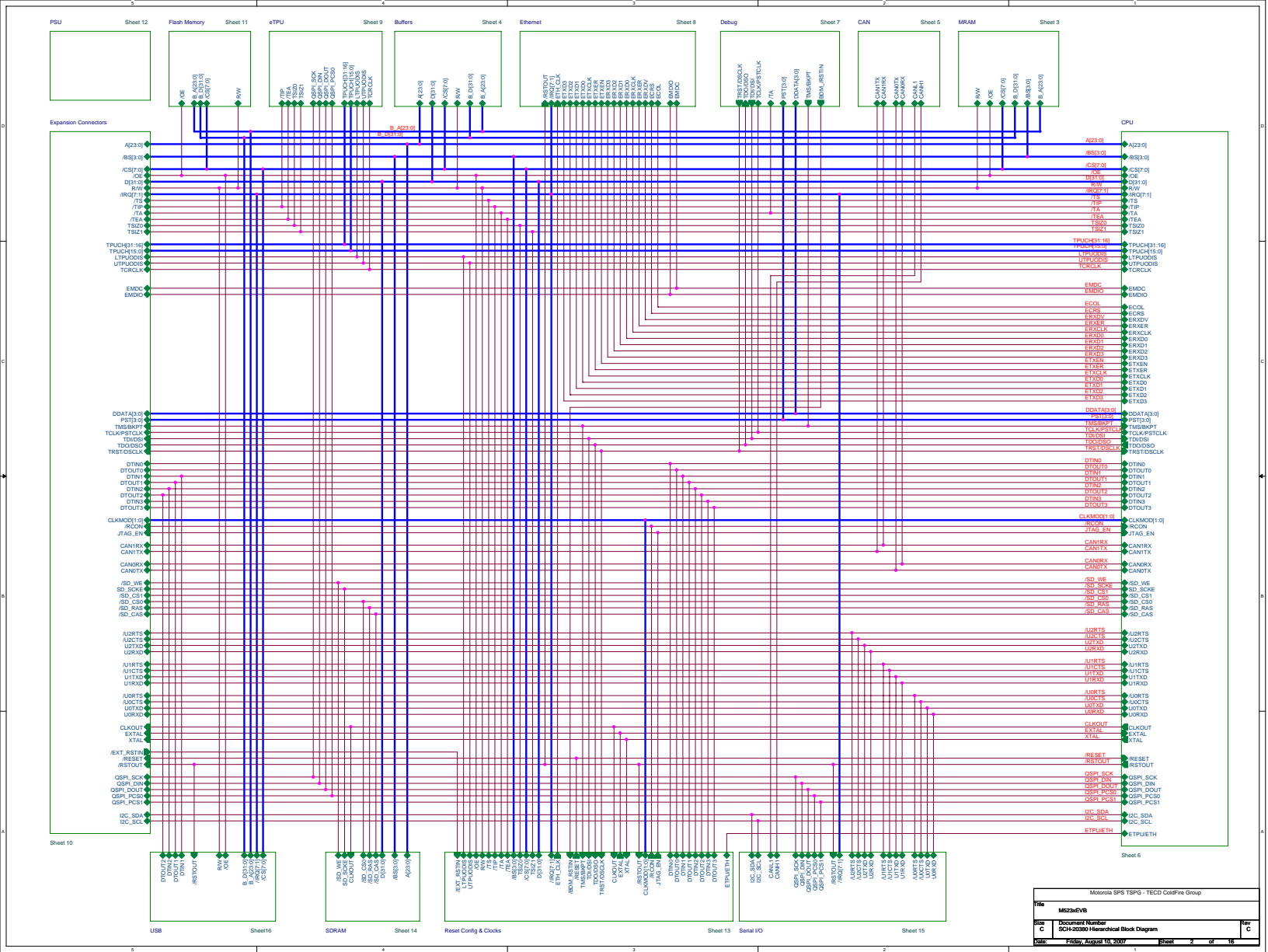
Revision Information

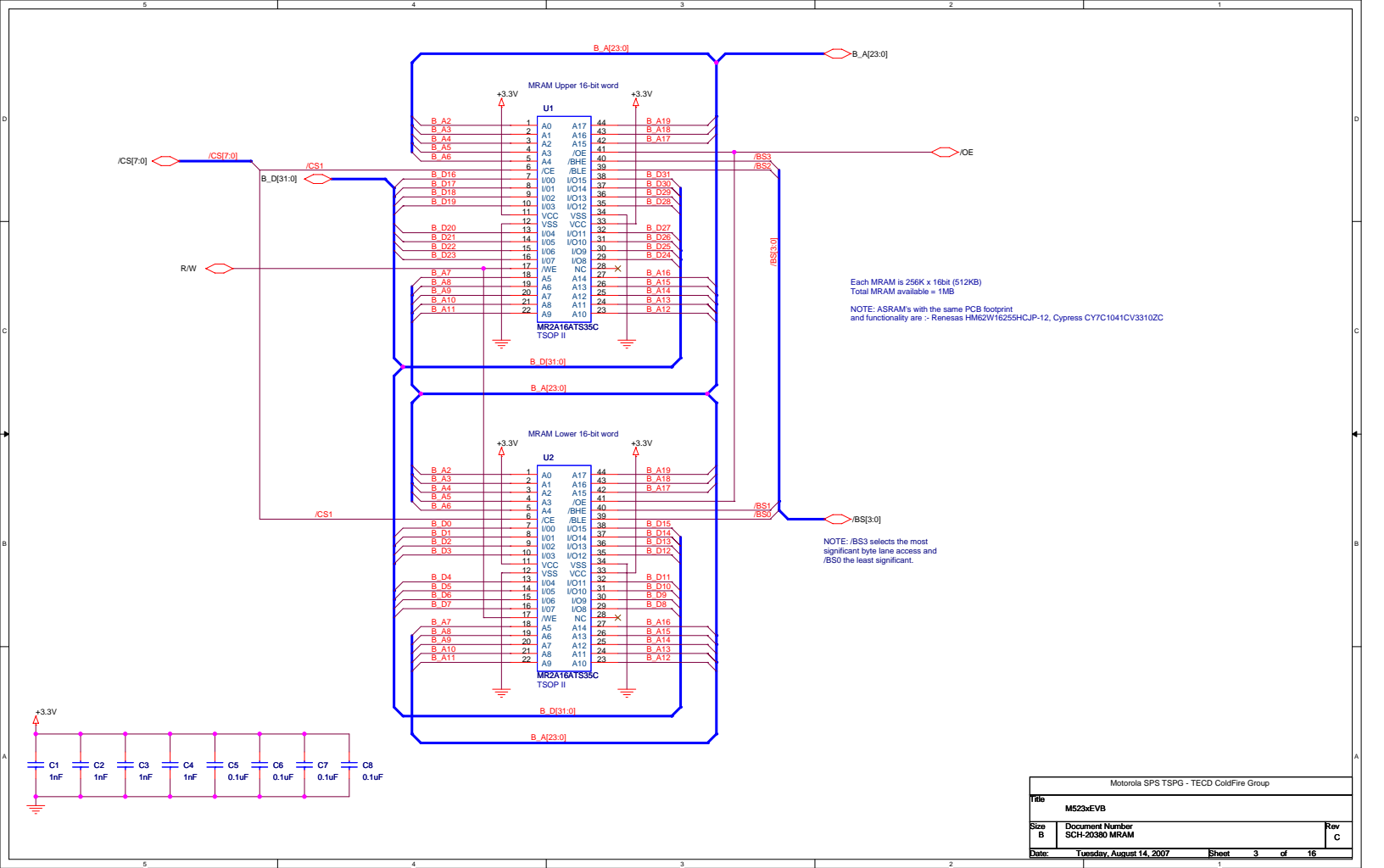
Rev	Date	Designer	Comments
0.0	02 Feb 04	L. Anderson	Provisional release
A	05 Mar 04	P. Highton	Added Metrowerks schematic part number and revision letter.
B	30 Apr 04	L. Anderson	Removed alternative footprint for 90-pin SSOP 32-bit Flash and replaced with 16-bit Flash, corrected RJ45 pinout and added 18Kohm pull-down resistors to U11 (ethernet transceiver).
C	23 Jun 04	L. Anderson & Pete Highton	Final update including silkscreen modifications of the reset configuration tables. Correction of signals on the RJ-45 connector and addition of pull-down resistors on the ethernet signals.
D	27 Jul 05	L. Anderson	Updated USB page. Jumpers 59 to 62 renumbered.
A	11 Nov 05	C. Chavez	Updated Revision Schematics Page to reflect RoHS conversion of EVB.
B	03 Mar 07	C. Chavez	Added termination resistors R28,R29,R72 with 22 Ohm resistors in order to pass FCC. Replaced ASRAM with MRAM U1 and U2.
C	06 Aug 07	C. Chavez	Replaced 1M Ohm with 1K Ohm resistors on R1, R3, R67, R68, R69.

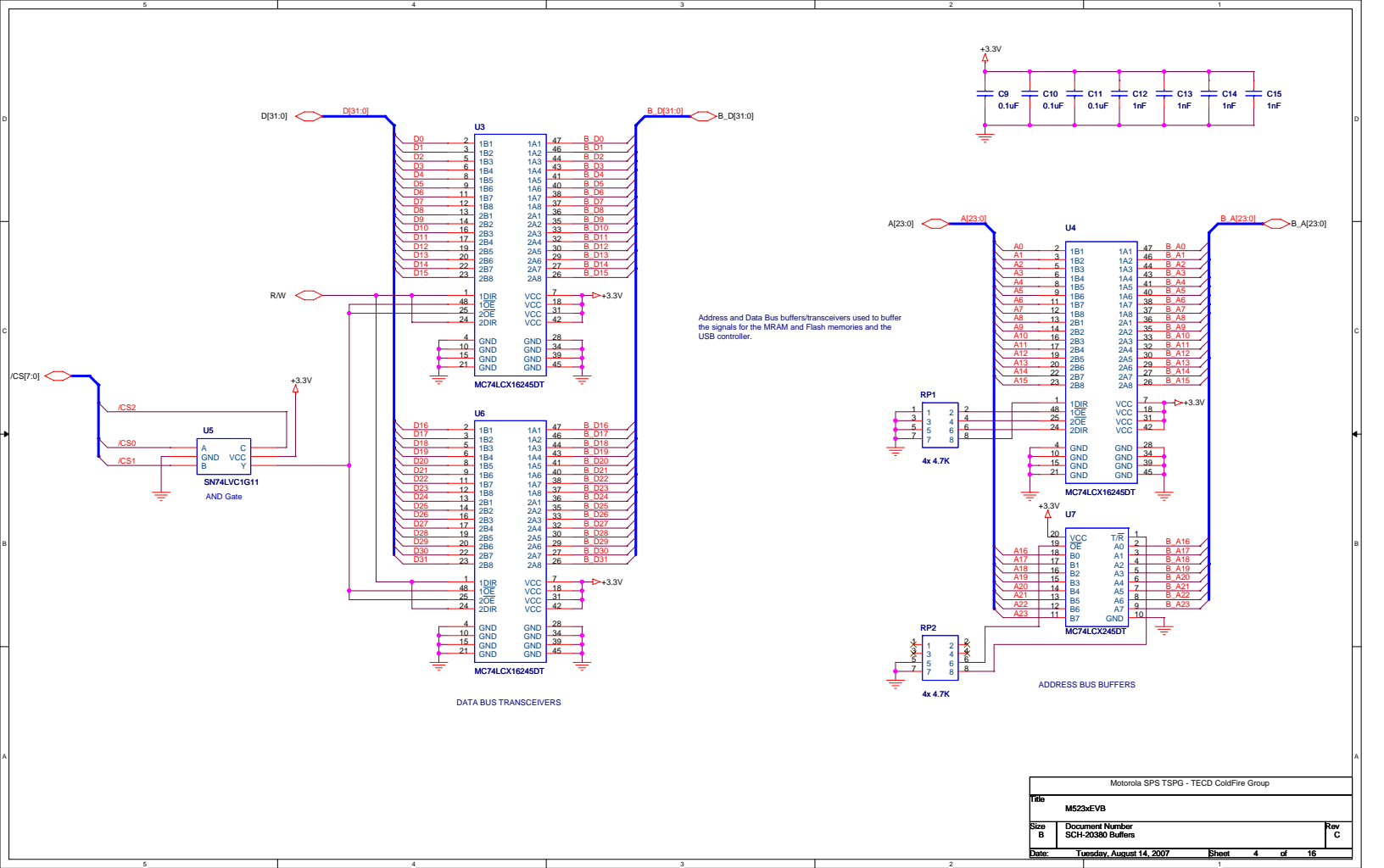
Notes:

- All decoupling caps less than 0.1uF are COG SMD 0805 unless otherwise stated
- All decoupling caps greater than 0.1uF are X7R SMD 0805 unless otherwise stated
- All connectors are denoted Jx
- All jumpers are denoted JPx
- All Switches are denoted SWx
- All test points are denoted TPx

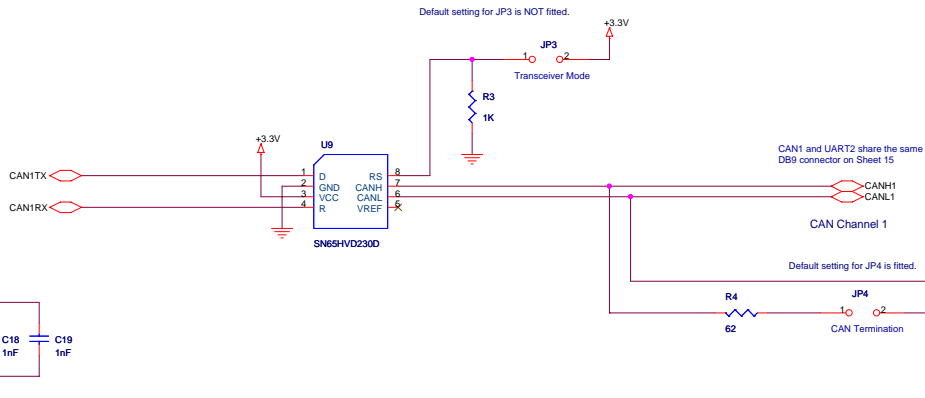
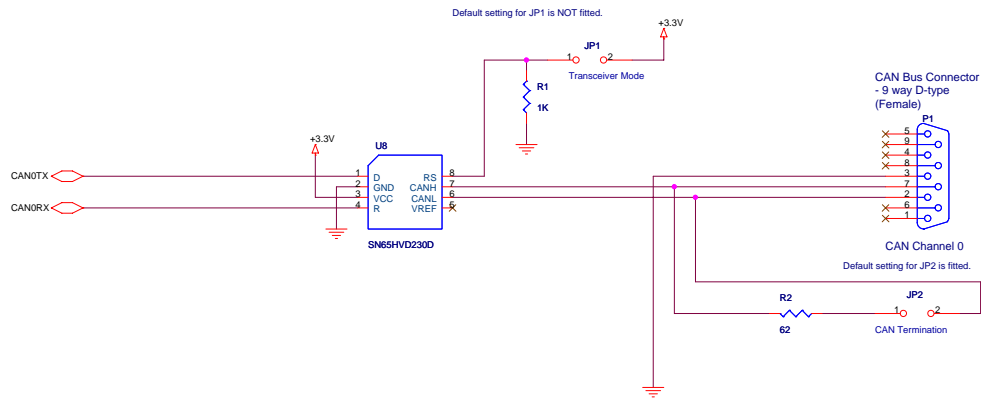
Motorola SPS TSPG - TECD ColdFire Group		
Title M523xEVB		
Size B	Document Number SCH-20380 General Notes and Information	Rev C
Date: Monday, August 13, 2007	Sheet 1	of 16



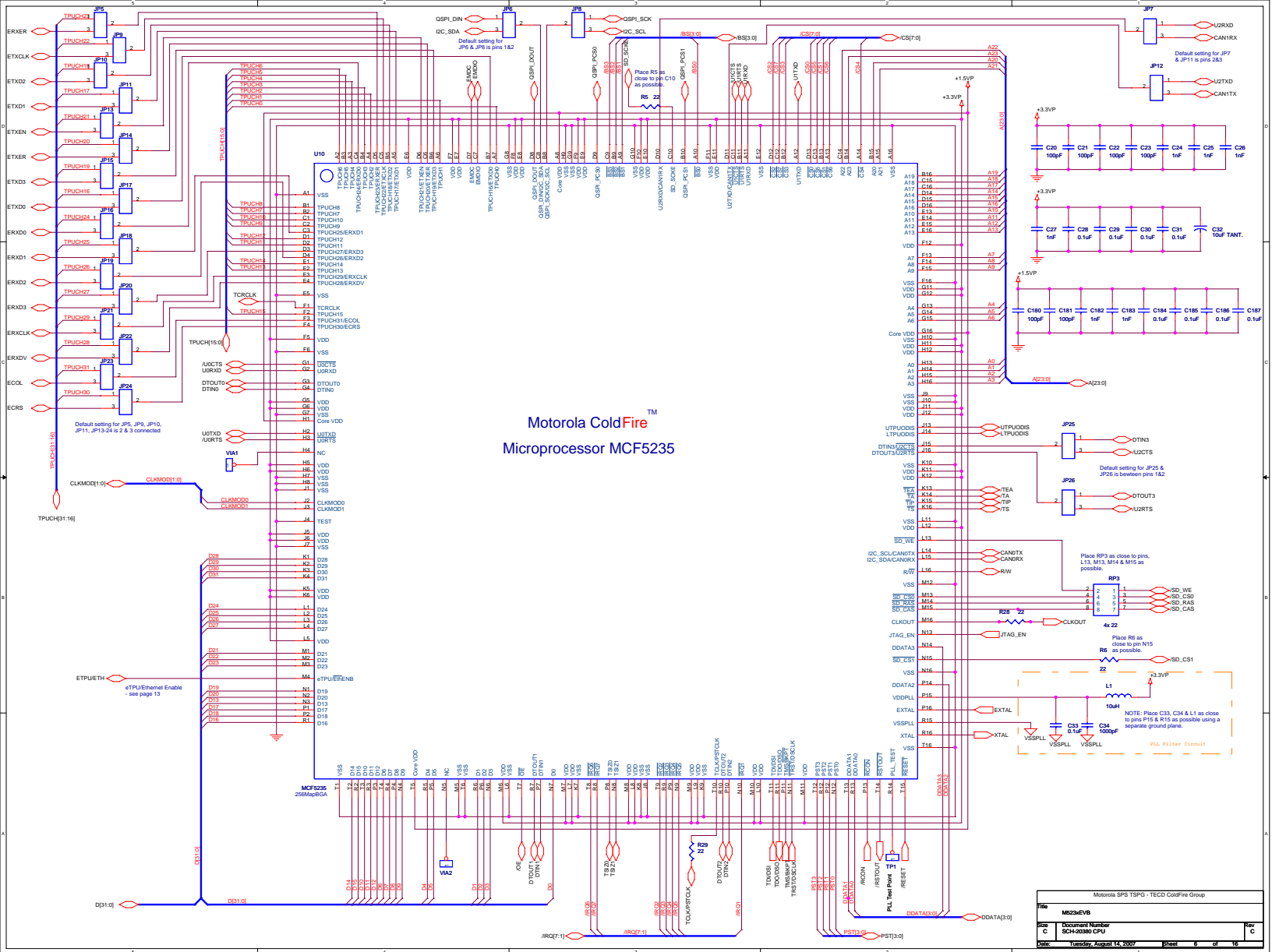


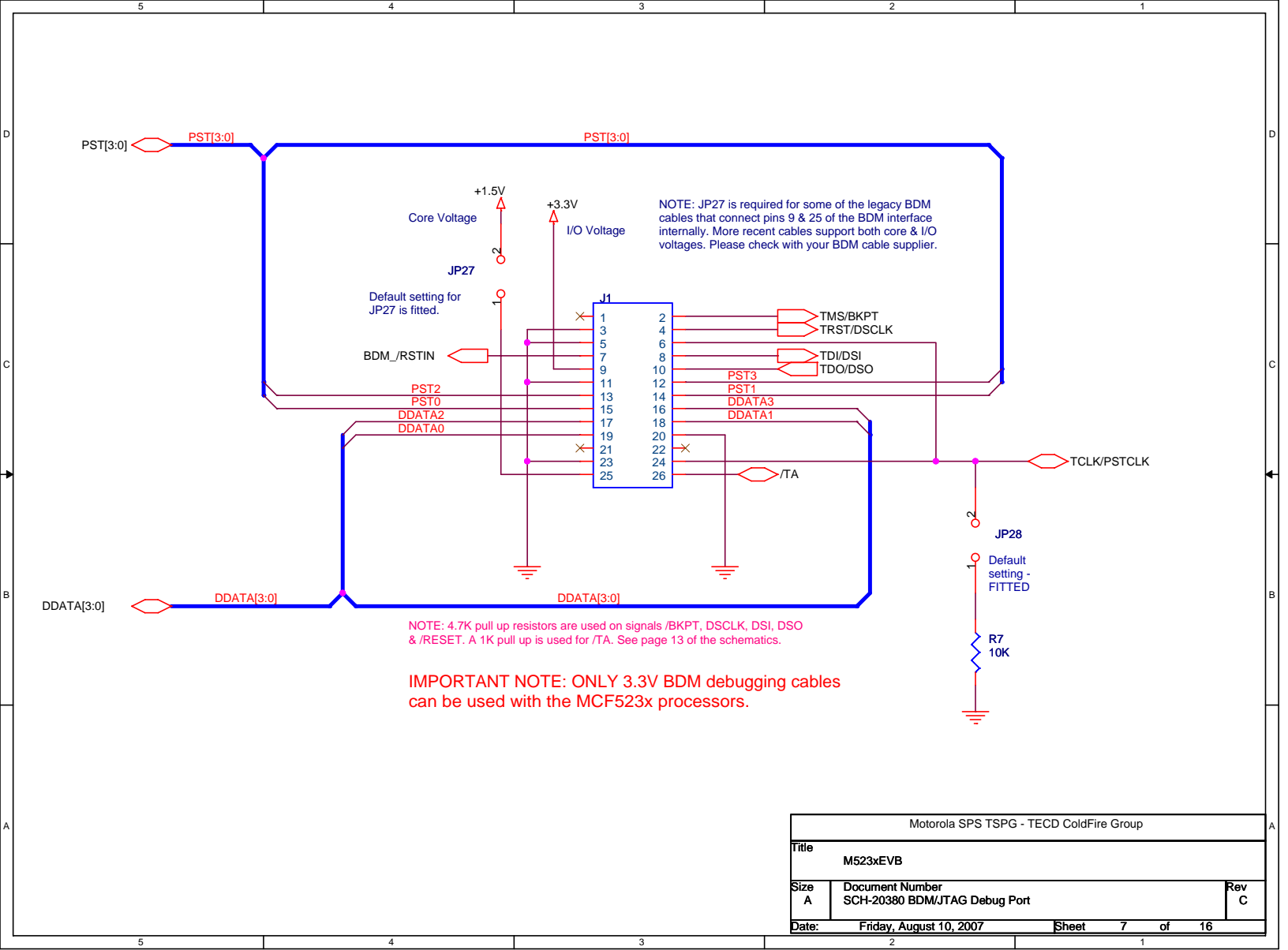


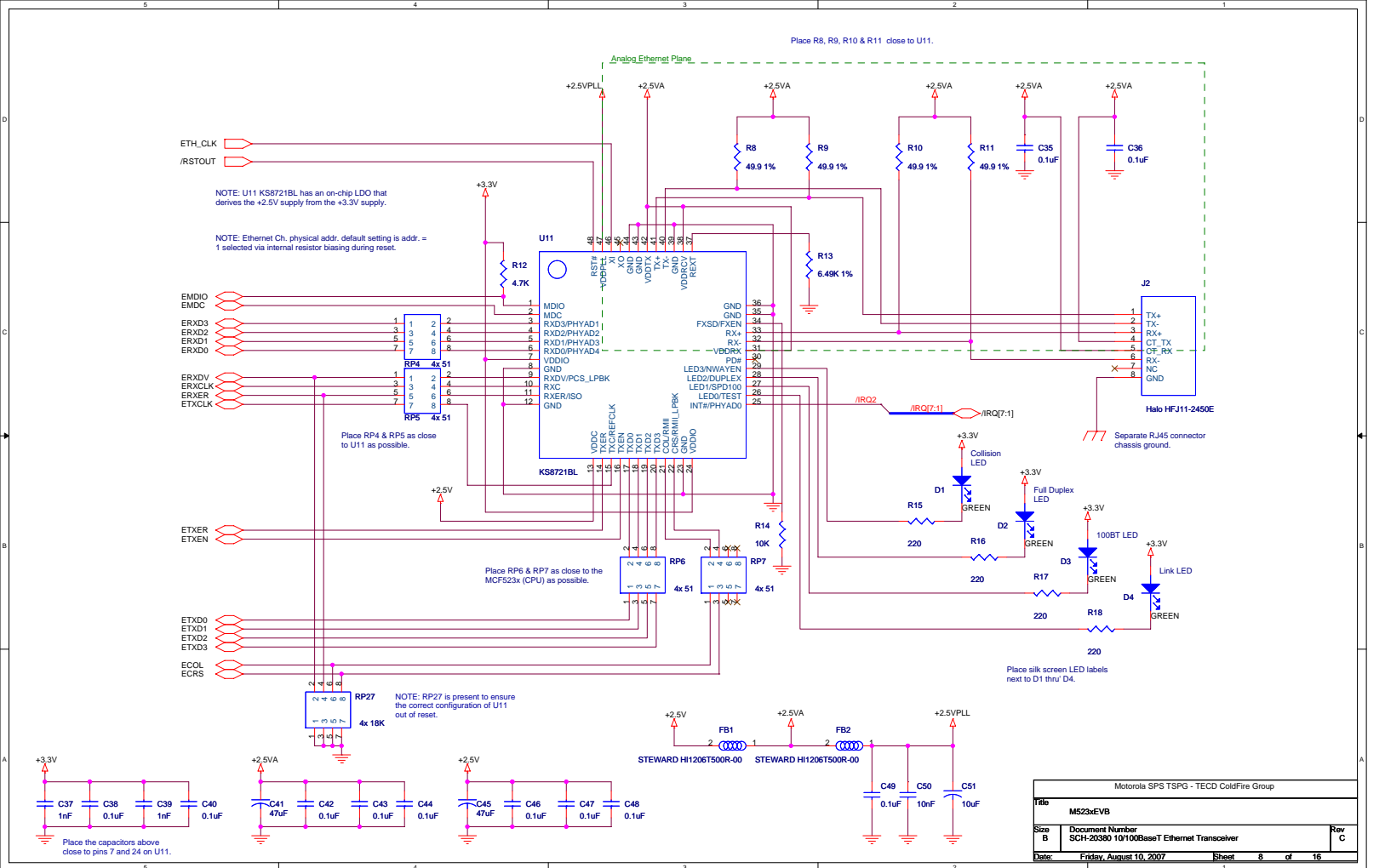
Motorola SPS TSPG - TECD ColdFire Group		
Title		
M523xEVB		
Size	Document Number	Rev
B	SCH-20380 Buffers	C
Date:	Tuesday, August 14, 2007	Sheet 4 of 16

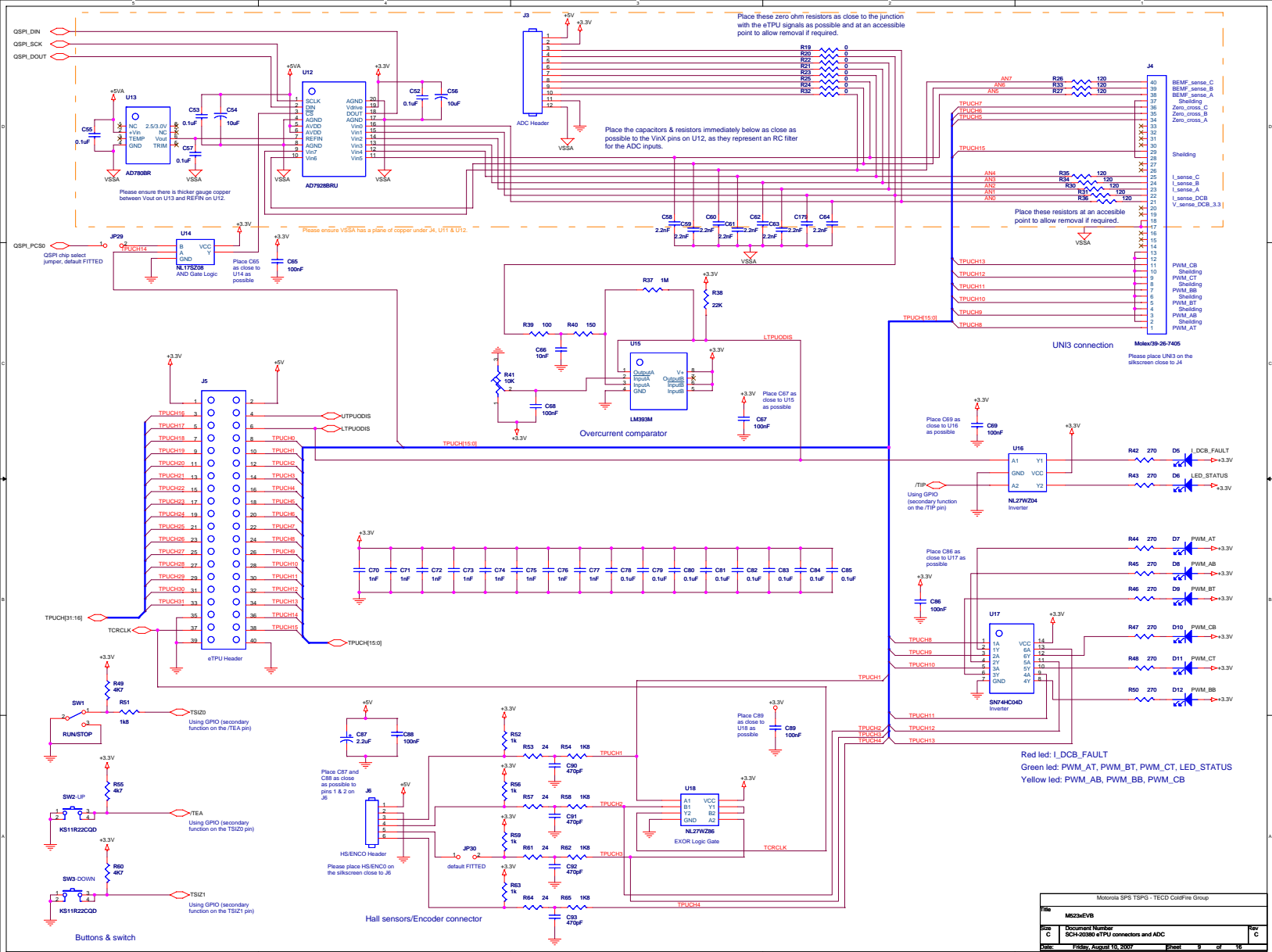


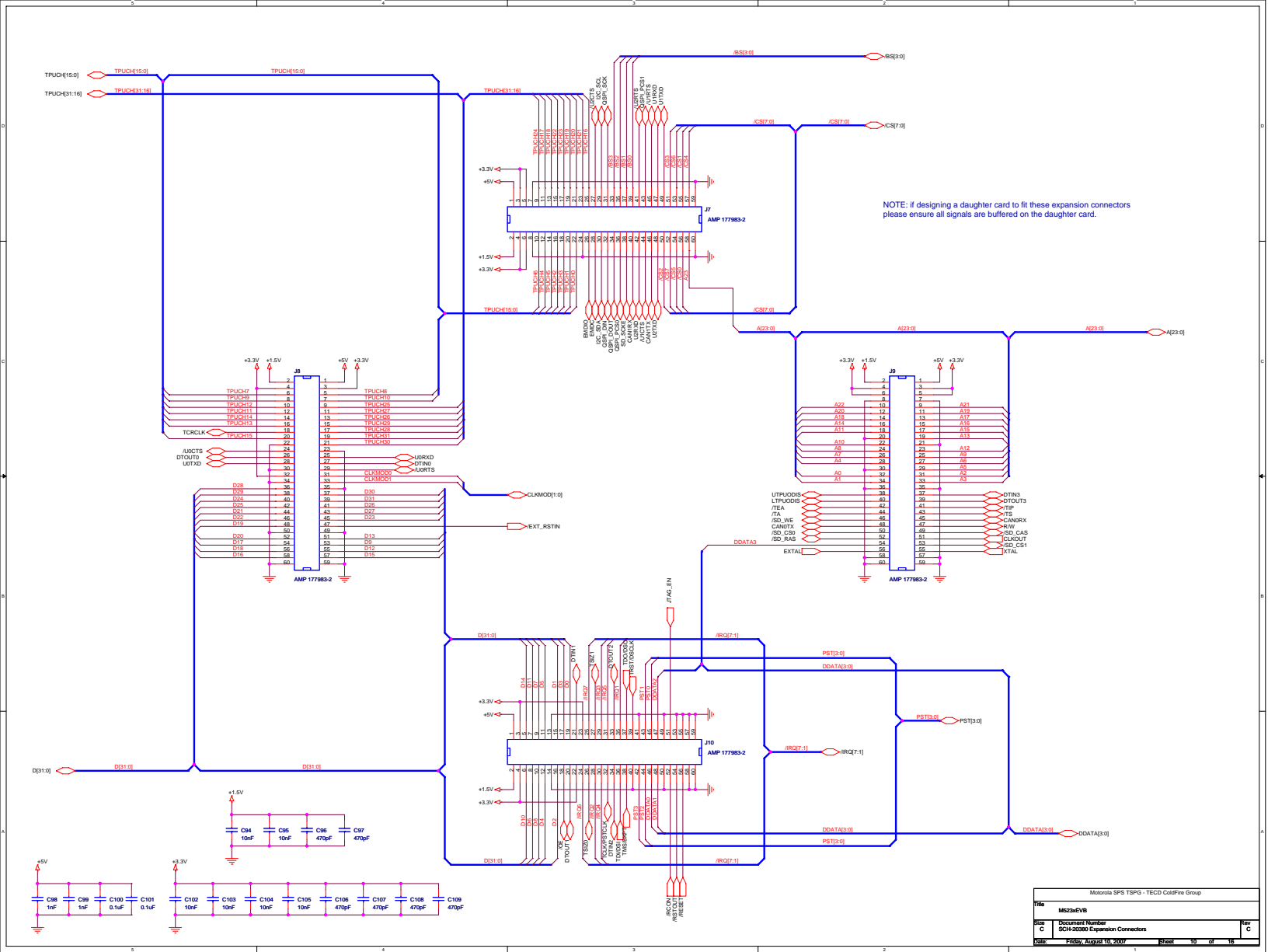
Motorola SPS TSPG - TECO ColdFire Group		
Title		
M523xEVB		
Size		
B Document Number		
SCH-20380 CAN Transceivers		
Date		
Friday, August 10, 2007		
Sheet		
5 of 16		
Rev		
C		

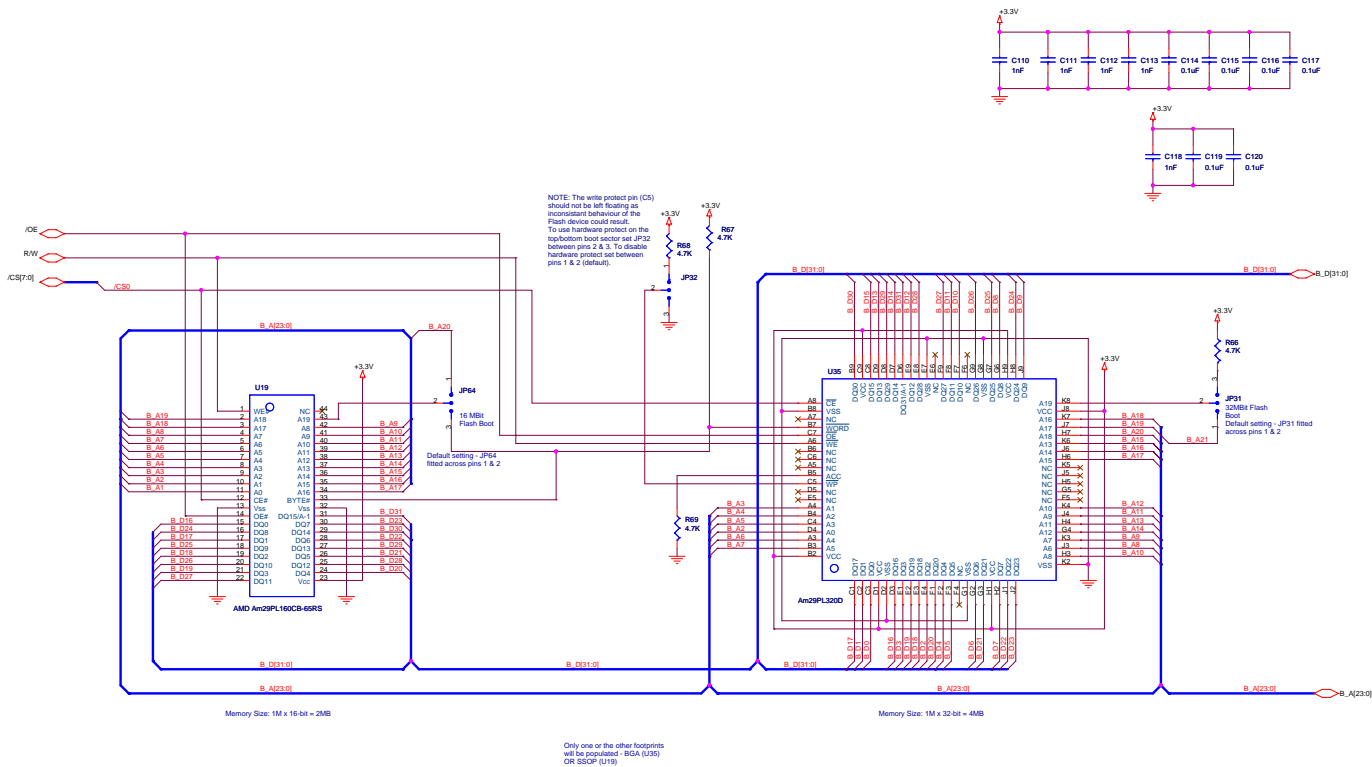












Motorola SPB TSPD - TECCO ColdFire Group			
File	MB23x EVB		
Doc	Document Number		Rev
C	SCM-33389 Flash Memory (F-Pins SSOP OR AMD BGA)		C
Date	Friday, August 10, 2007	Printed	11 of 18

DC voltage input range +7 to +14V

NOTE: the positive terminal of each power connector must be shown on the silkscreen of the PCB

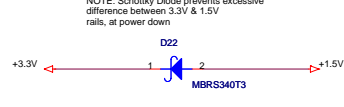
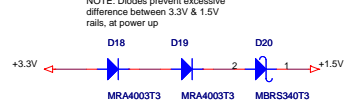
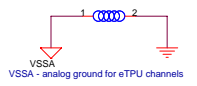
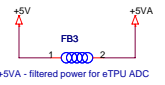
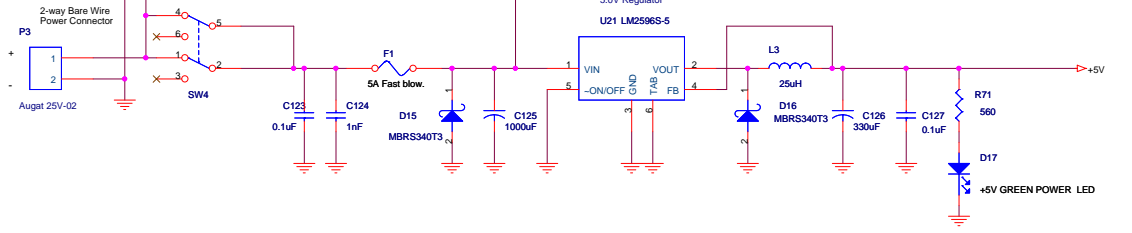
P2 Power Jack Connector - 2.1mm diameter

Switchcraft RAPC712

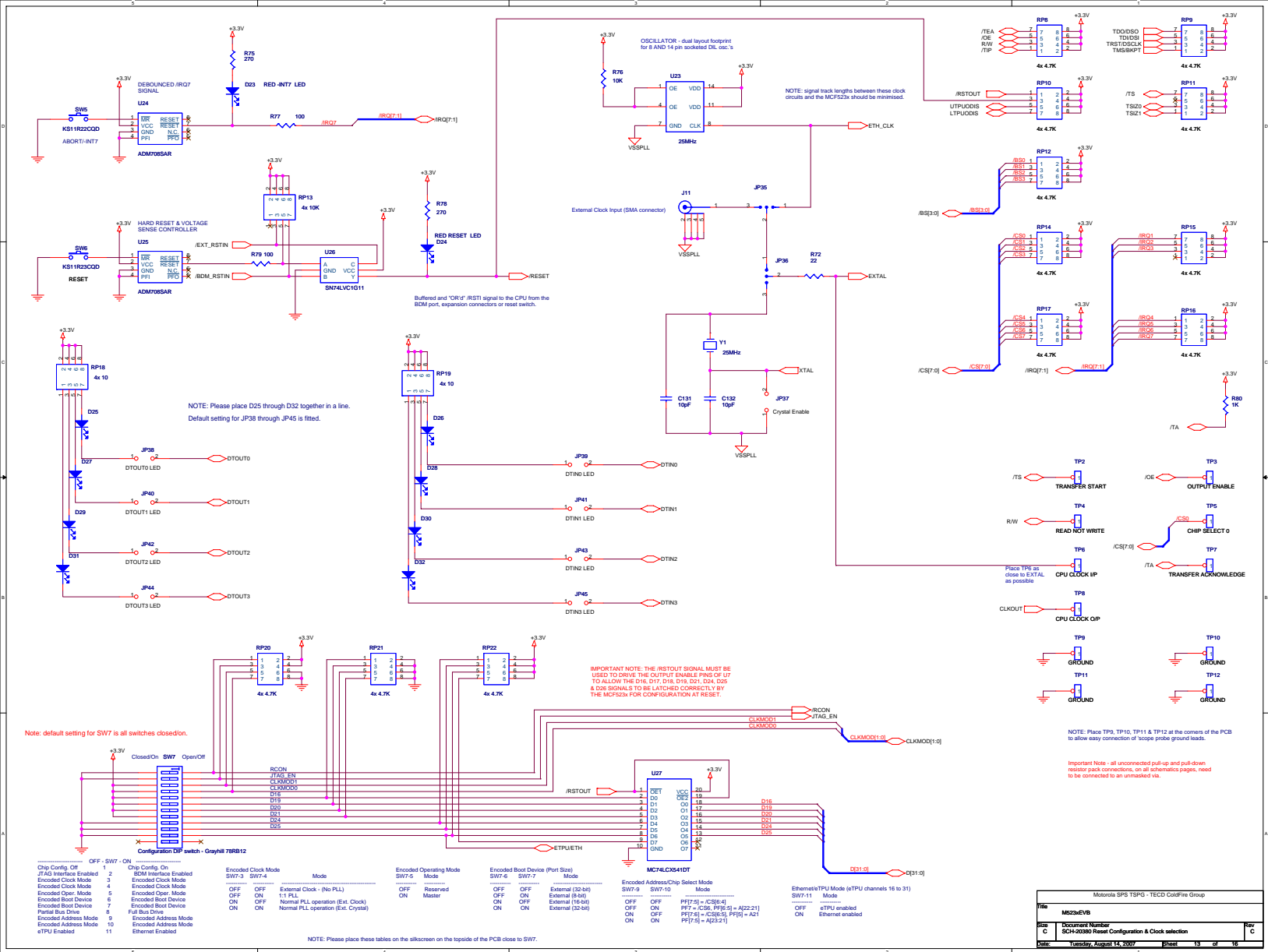
2-way Bare Wire Power Connector

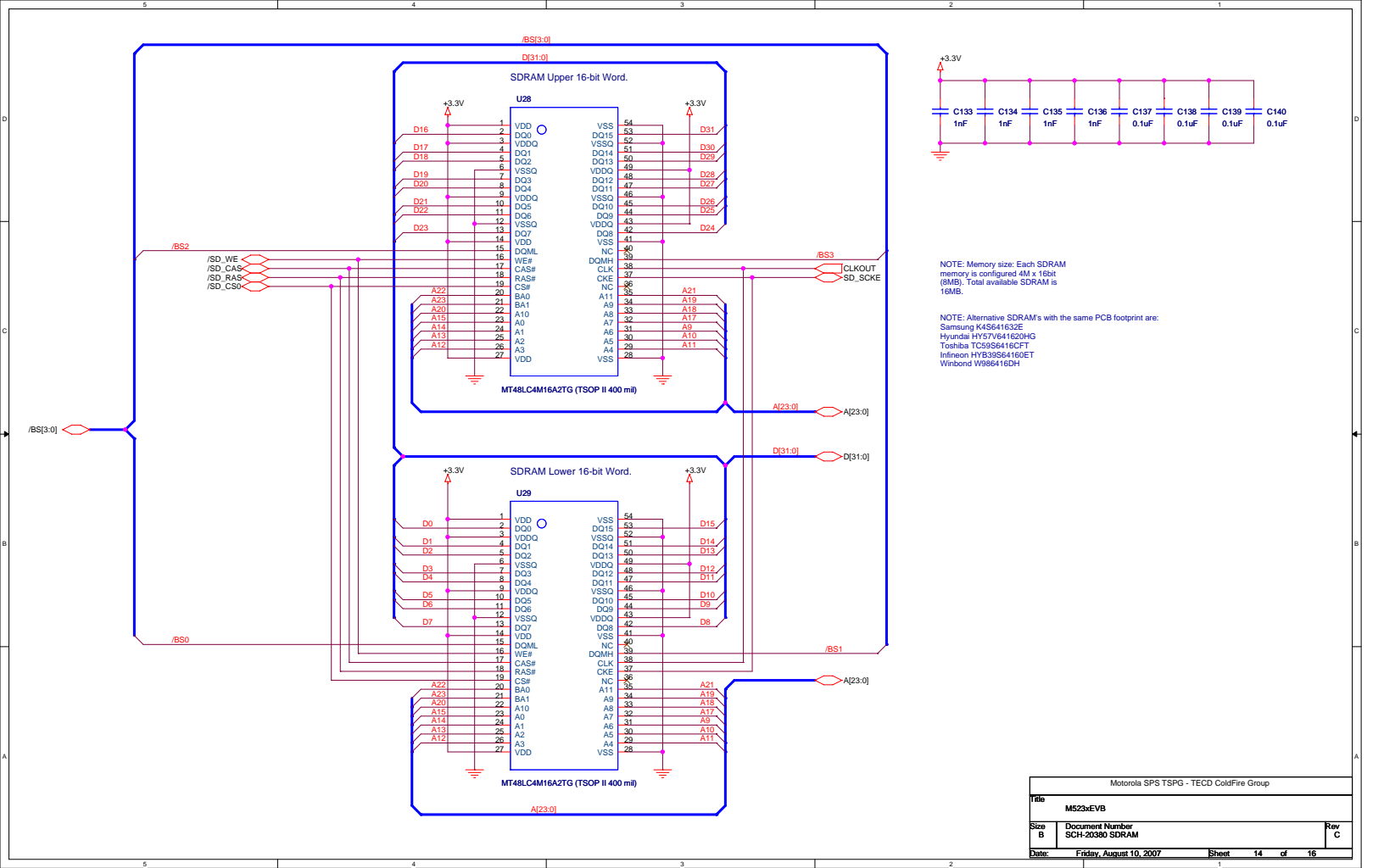
P3 August 25V-02

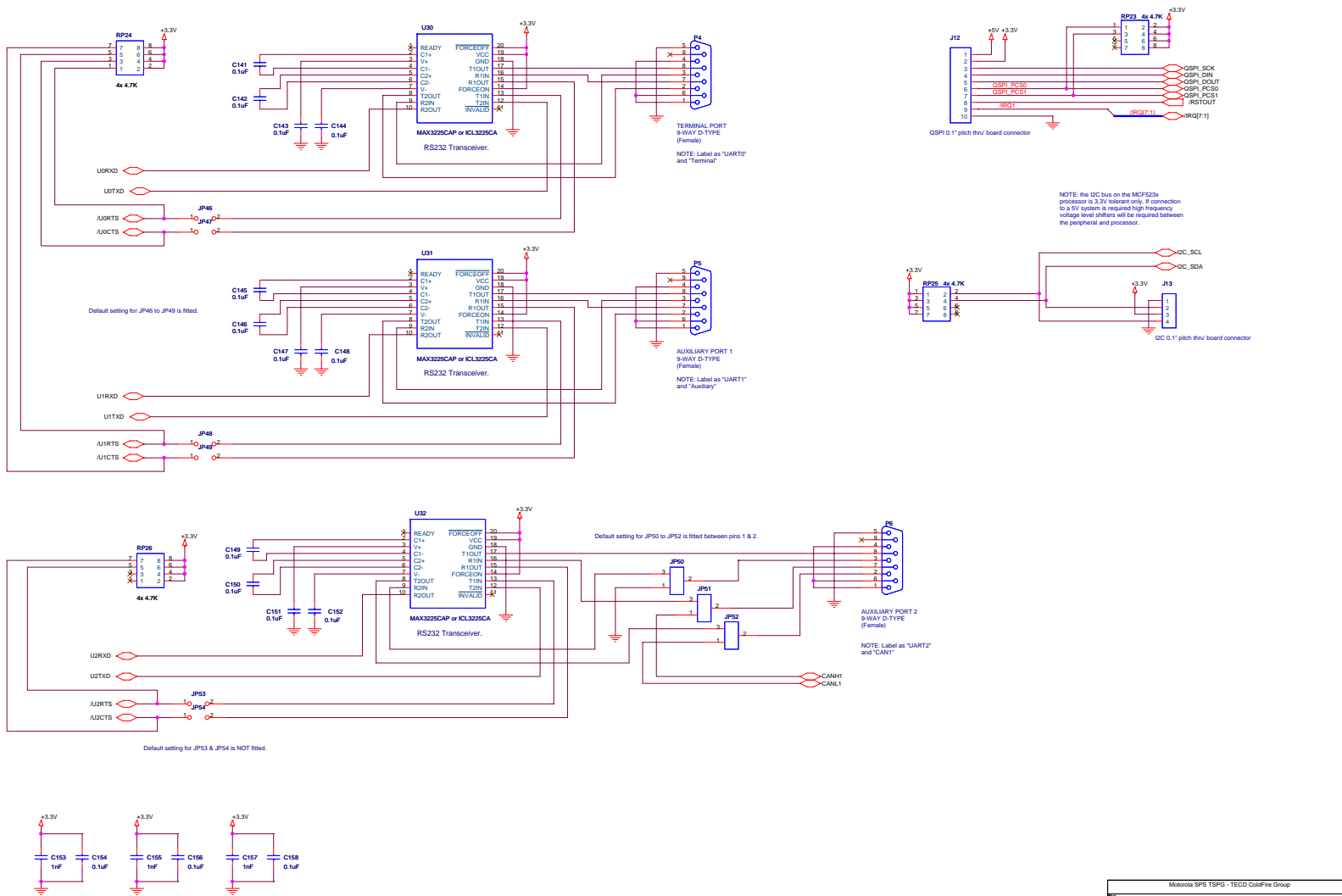
POWER SW SLIDE-SPST(Board Edge)



Motorola SPS TSPG - TECDD ColdFire Group			
Title		M523xEVB	
Size		Document Number	
B		SCH-20380 Power Supply	
Date		Friday, August 10, 2007	
		Sheet 12 of 16	
		Rev C	







Motorola SPB TSPG - TECD ColdFire Group				
File	MB23xEVB			
Doc	Document Number	Rev		
C	SC-10300 Serial IO	C		
Date	Friday, August 10, 2007	Print	15	of 18

