

TB-FMCL-USB30 Hardware User Manual

Rev.1.00

Revision History

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Table of Contents

1. Related Documents and Accessories	8
2. Overview	8
3. Feature	8
4. Block Diagram	9
5. External View of the Board	10
6. Board Specifications	11
7. Description of Components	12
7.1. Power supply	12
7.1.1. Power supply circuit structure	12
7.1.2. VBUS power supply circuit	12
7.1.3. FMC power supply circuit	13
7.2. FMC connector for platform board (J1)	14
7.3. USB3.0 TYPE-B connector (CN1)	19
7.4. I2S Pin Header (CN2)	19
7.5. SPI Pin Header (CN5) and SPI Flash (U9)	20
7.6. I2C Pin Header (CN6)	21
7.7. RS-232 Pin Header (CN7)	22
7.8. LEDs and Push Switch	23
7.8.1. LED(D1, D3, D4 and D6)	23
7.8.2. Push Switch (SW1)	23
7.9. Jumper	24
7.9.1. PMODE (JP2-4)	24
7.9.2. IFSEL (JP5-8)	24
7.9.3. CLK (JP11)	25
8. Default Settings	26

List of Figures

Figure 4-1 Block Diagram	9
Figure 5-1 Component Side	10
Figure 5-2 Solder Side	10
Figure 6-1 Board Dimension (Top)	11
Figure 6-2 Board Dimension (Bottom)	11
Figure 7-1 Power Supply Circuit Structure	12
Figure 7-2 VBUS power supply circuit	12
Figure 7-3 FMC power supply circuit	13
Figure 7-4 FMC Connector Standard Pin Assign	14
Figure 7-5 USB3.0 TYPE-B Connector	19
Figure 7-6 I2S Pin header	19
Figure 7-7 SPI Pin header (CN5)	20
Figure 7-8 SPI Flash Memory (U9)	20
Figure 7-9 I2C pin header (CN6)	21
Figure 7-10 RS-232C Transceiver (U10) and pin header (CN7)	22
Figure 7-11 Push Switch (SW1)	23
Figure 7-12 PMODE jumper (JP2-4)	24
Figure 7-13 IFSEL (JP5-8)	24
Figure 7-14 Clock Select (JP11)	25
Figure 8-1 Default Settings	26

List of Tables

Table 7-1 FMC pin assign - Colum C -	15
Table 7-2 FMC pin assign - Colum D -	16
Table 7-3 FMC pin assign - Colum G -	17
Table 7-4 FMC pin assign - Colum H -	18
Table 7-5 I2S Pin header connector	19
Table 7-6 SPI pin header assign	20
Table 7-7 I2C pin header for external devices	21
Table 7-8 I2C access from FPGA	21
Table 7-9 RS-232C pin header (CN7)	22
Table 7-10 LED Status	23
Table 7-11 PMODE setting (JP2-4)	24
Table 7-12 IFSEL (JP5-8)	24
Table 7-13 Clock Select (JP11)	25
Table 8-1 Default Settings	26

Introduction

Thank you for purchasing the **TB-FMCL-USB30** board. Before using the product, be sure to carefully read this user manual and fully understand how to correctly use the product. First read through this manual, then always keep it handy.




SAFETY PRECAUTIONS

Be sure to observe these precautions




Observe the precautions listed below to prevent injuries to you or other personnel or damage to property.

- Before using the product, read these safety precautions carefully to assure correct use.
- These precautions contain serious safety instructions that must be observed.
- After reading through this manual, be sure to always keep it handy.

The following conventions are used to indicate the possibility of injury/damage and classify precautions if the product is handled incorrectly.

 Danger	Indicates the high possibility of serious injury or death if the product is handled incorrectly.
 Warning	Indicates the possibility of serious injury or death if the product is handled incorrectly.
 Caution	Indicates the possibility of injury or physical damage in connection with houses or household goods if the product is handled incorrectly.

The following graphical symbols are used to indicate and classify precautions in this manual.
(Examples)

	Turn off the power switch.
	Do not disassemble the product.
	Do not attempt this.



Warning

	<p>In the event of a failure, disconnect the power supply. If the product is used as is, a fire or electric shock may occur. Disconnect the power supply immediately and contact our sales personnel for repair.</p>
	<p>If an unpleasant smell or smoking occurs, disconnect the power supply. If the product is used as is, a fire or electric shock may occur. Disconnect the power supply immediately. After verifying that no smoking is observed, contact our sales personnel for repair.</p>
	<p>Do not disassemble, repair or modify the product. Otherwise, a fire or electric shock may occur due to a short circuit or heat generation. For inspection, modification or repair, contact our sales personnel.</p>
	<p>Do not touch a cooling fan. As a cooling fan rotates in high speed, do not put your hand close to it. Otherwise, it may cause injury to persons. Never touch a rotating cooling fan.</p>
	<p>Do not place the product on unstable locations. Otherwise, it may drop or fall, resulting in injury to persons or failure.</p>
	<p>If the product is dropped or damaged, do not use it as is. Otherwise, a fire or electric shock may occur.</p>
	<p>Do not touch the product with a metallic object. Otherwise, a fire or electric shock may occur.</p>
	<p>Do not place the product in dusty or humid locations or where water may splash. Otherwise, a fire or electric shock may occur.</p>
	<p>Do not get the product wet or touch it with a wet hand. Otherwise, the product may break down or it may cause a fire, smoking or electric shock.</p>
	<p>Do not touch a connector on the product (gold-plated portion). Otherwise, the surface of a connector may be contaminated with sweat or skin oil, resulting in contact failure of a connector or it may cause a malfunction, fire or electric shock due to static electricity.</p>

**Caution**

	<p>Do not use or place the product in the following locations.</p> <ul style="list-style-type: none"> • Humid and dusty locations • Airless locations such as closet or bookshelf • Locations which receive oily smoke or steam • Locations exposed to direct sunlight • Locations close to heating equipment • Closed inside of a car where the temperature becomes high • Sticky locations • Locations close to water or chemicals <p>Otherwise, a fire, electric shock, accident or deformation may occur due to a short circuit or heat generation.</p>
	<p>Do not place heavy things on the product.</p> <p>Otherwise, the product may be damaged.</p>

Disclaimer

This product is a board intended for **USB3.0 interface** function. Tokyo Electron Device Limited assumes no responsibility for any damages resulting from the use of this product for purposes other than those stated.

Even if the product is used properly, Tokyo Electron Device Limited assumes no responsibility for any damages caused by:

- (1) Earthquake, thunder, natural disaster or fire resulting from the use beyond our responsibility, acts by a third party or other accidents, the customer's willful or accidental misuse or use under other abnormal conditions.
- (2) Secondary impact arising from use of this product or its unusable state (business interruption or others)
- (3) Use of this product against the instructions given in this manual.
- (4) Malfunctions due to connection to other devices.

Tokyo Electron Device Limited assumes no responsibility or liability for:

- (1) Erasure or corruption of data arising from use of this product.
- (2) Any consequences or other abnormalities arising from use of this product, or
- (3) Damage of this product not due to our responsibility or failure due to modification

This product has been developed by assuming its use for research, testing or evaluation. It is not authorized for use in any system or application that requires high reliability.

Repair of this product is carried out by replacing it on a chargeable basis, not repairing the faulty devices. However, non-chargeable replacement is offered for initial failure if such notification is received within two weeks after delivery of the product.

The specification of this product is subject to change without prior notice.

The product is subject to discontinuation without prior notice.

1. Related Documents and Accessories

Related documents:

All documents relating to this board can be downloaded from our website. Please see attached paper on the products.

Board accessories:

- FMC spacer set

2. Overview

TB-FMCL-USB30 is mounted Cypress's CYUSB3014 device which is supporting USB Super Speed Peripheral. It has a USB3.0 Type-B connector and FMC Low pin count for FPGA evaluation boards.

Notice: This board is not administered certification test of USB logo.

With regard to confirmed operation PC information, please refer to the relevant documents "TBFMCL-USB30_Checked__PC_information_xxx.pdf".

3. Feature

USB Super Speed Peripheral device:	Cypress, CYUSB3014
FMC:	SAMTEC, ASP-134604-01
USB 3.0 TYPE-B Connector:	SMATEC, USB3-B-S-S-TH
JTAG for CYUSB3014:	3M, N2520-6002-RB (Not Mounted)
SPI Flash for CYUSB3014:	Numonyx, M25P128
RS-232 Transceiver:	MAXIM, MAX3232ECAE+

4. Block Diagram

Following Figure shows a block diagram of TB-FMCL-USB30.

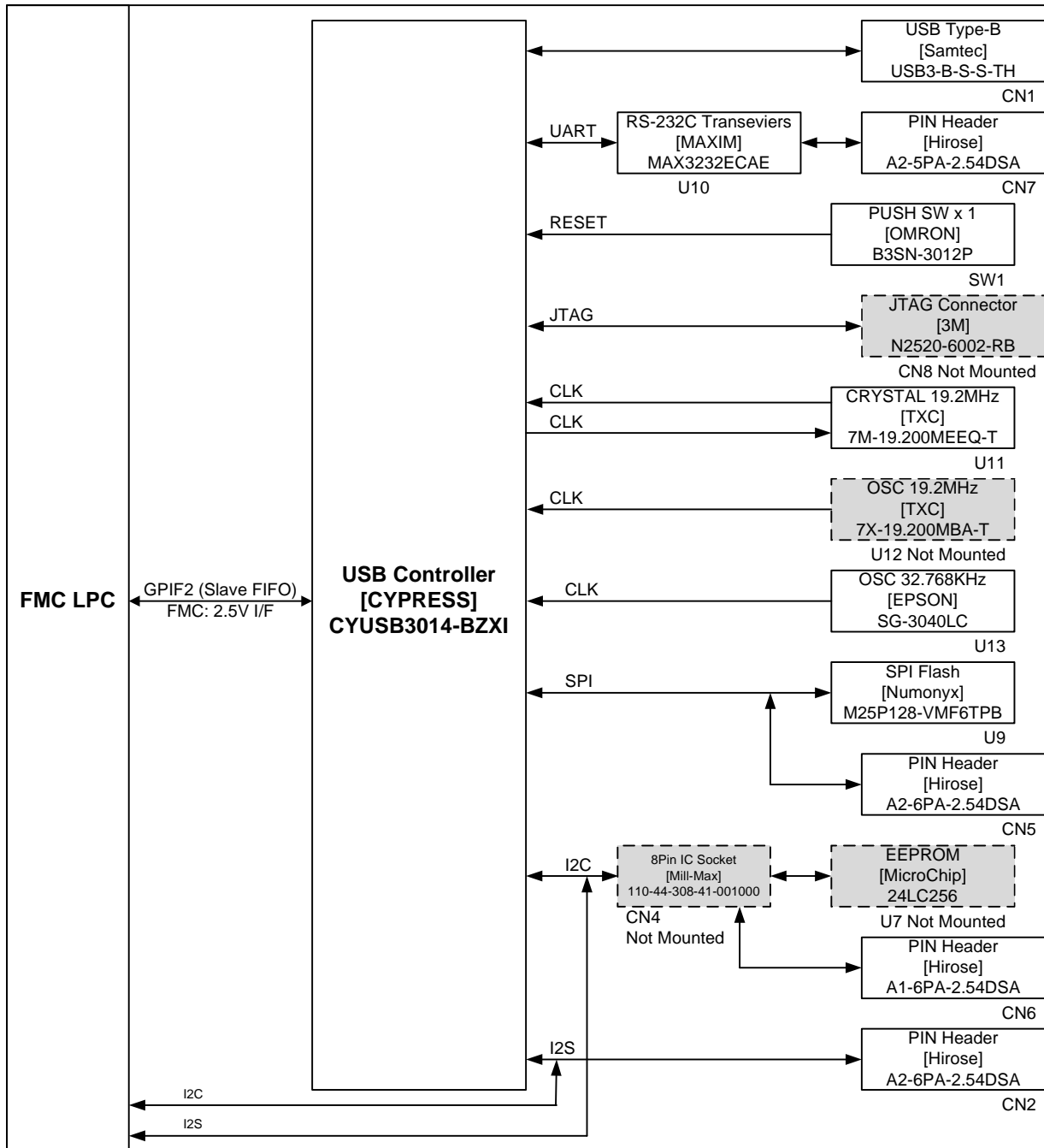


Figure 4-1 Block Diagram

5. External View of the Board

Following Figures show external view of the board.

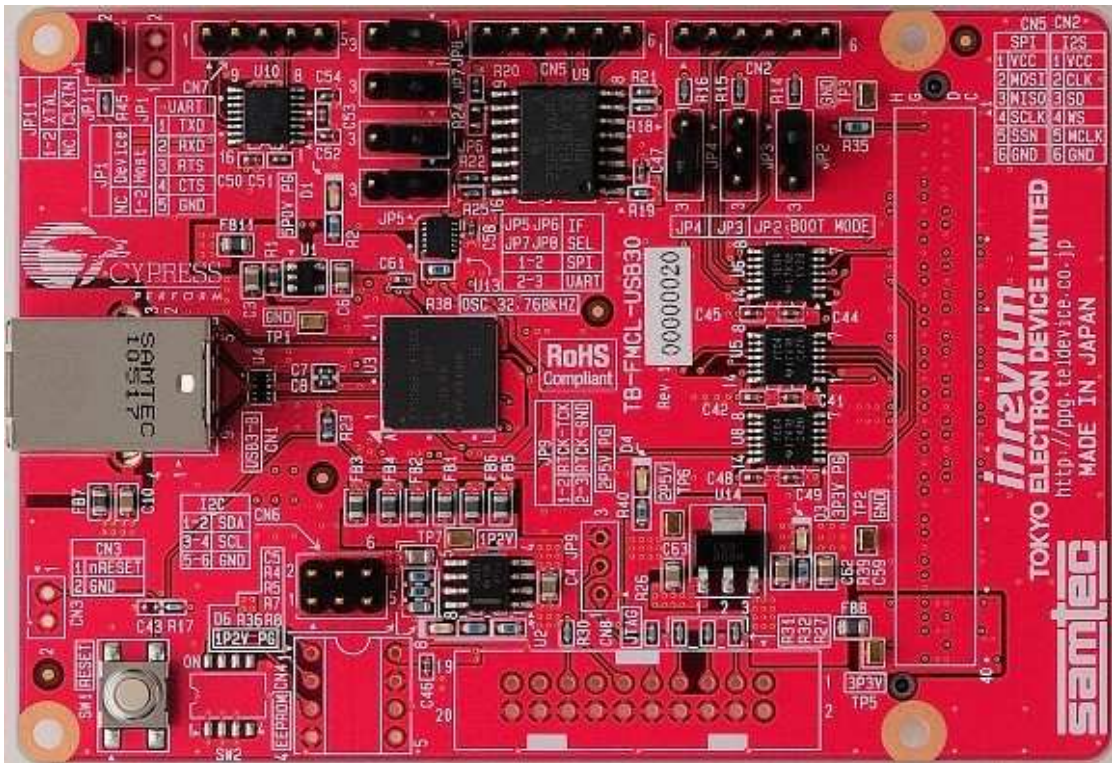


Figure 5-1 Component Side

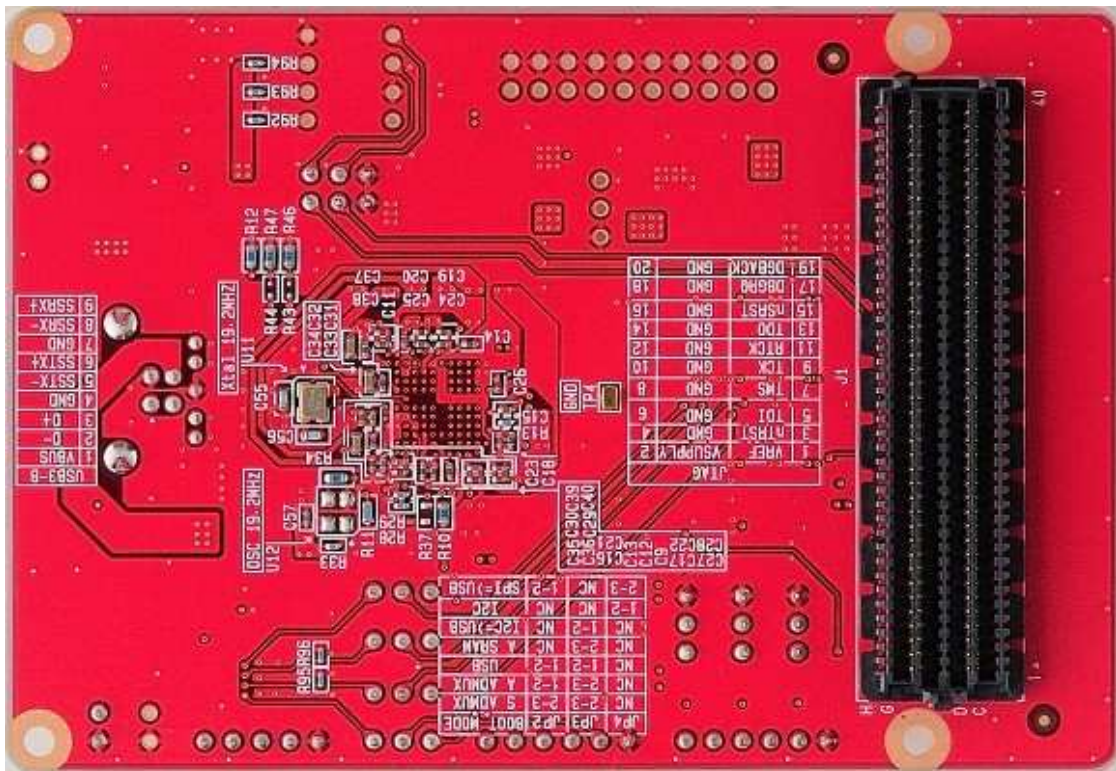


Figure 5-2 Solder Side

6. Board Specifications

Figure 6-1 shows the board specifications.

External Dimensions: 130.0 mm (W) x 69.0 mm (H)
 Number of Layers: 8 layers
 Board Thickness: 1.6 mm
 Material: FR-4

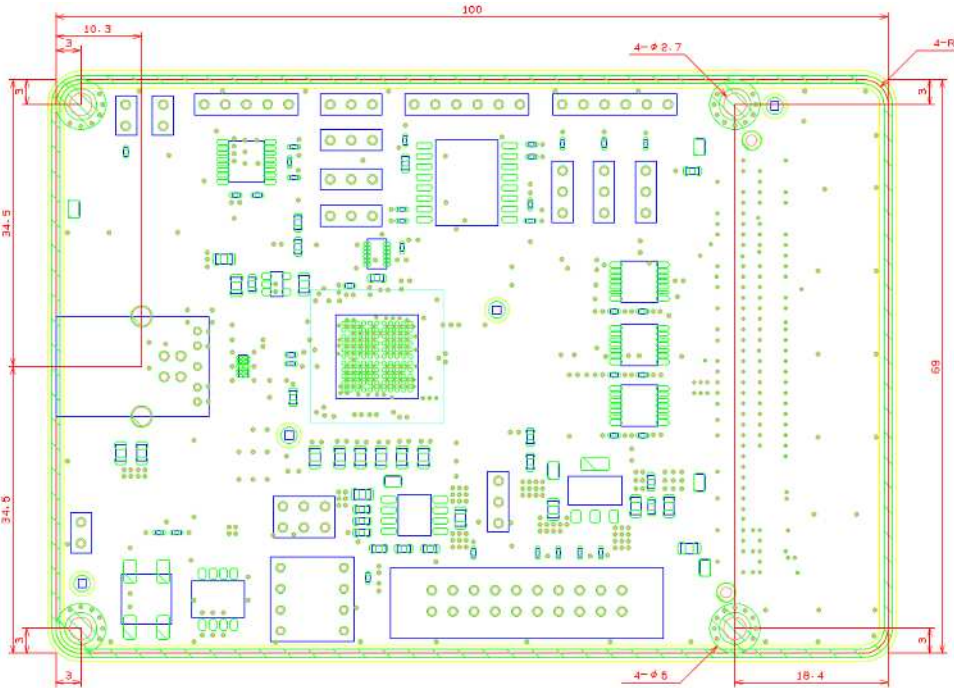


Figure 6-1 Board Dimension (Top)

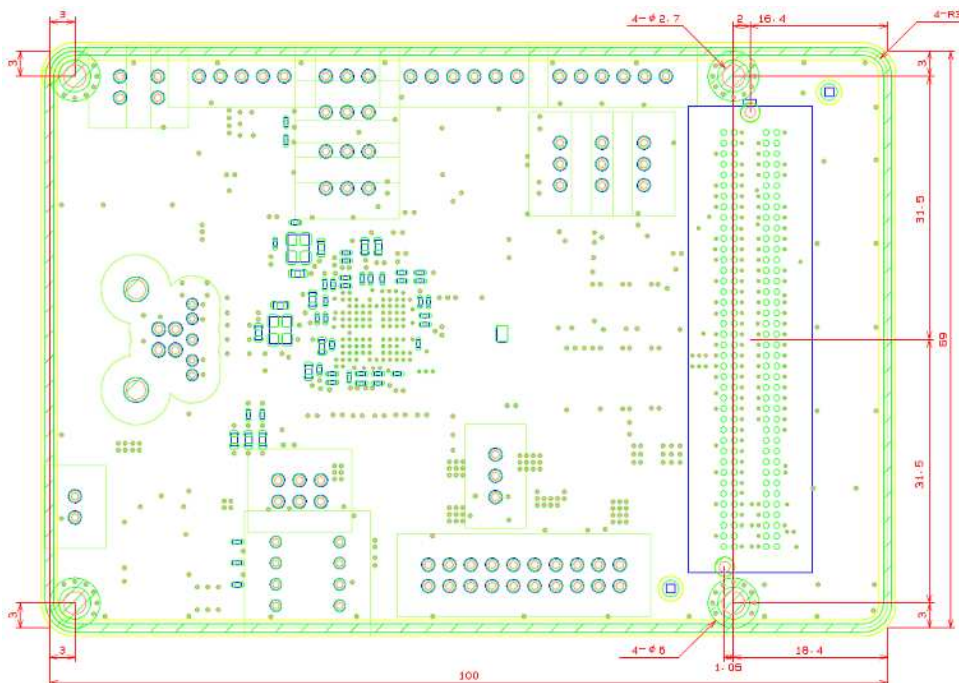


Figure 6-2 Board Dimension (Bottom)

7. Description of Components

7.1. Power supply

7.1.1. Power supply circuit structure

Following figure shows internal power supply circuit.

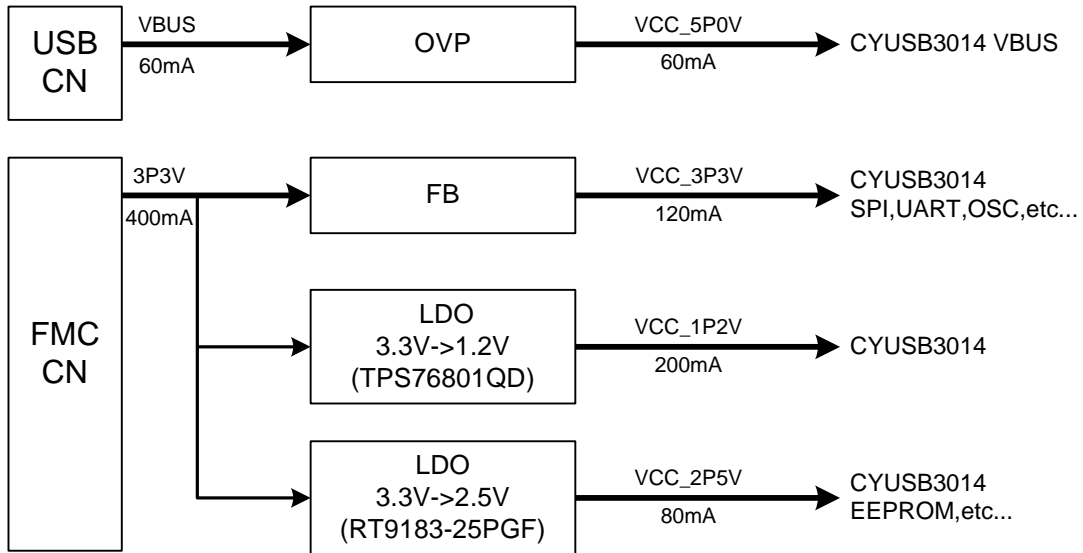


Figure 7-1 Power Supply Circuit Structure

7.1.2. VBUS power supply circuit

VBUS power is provided from USB connector.

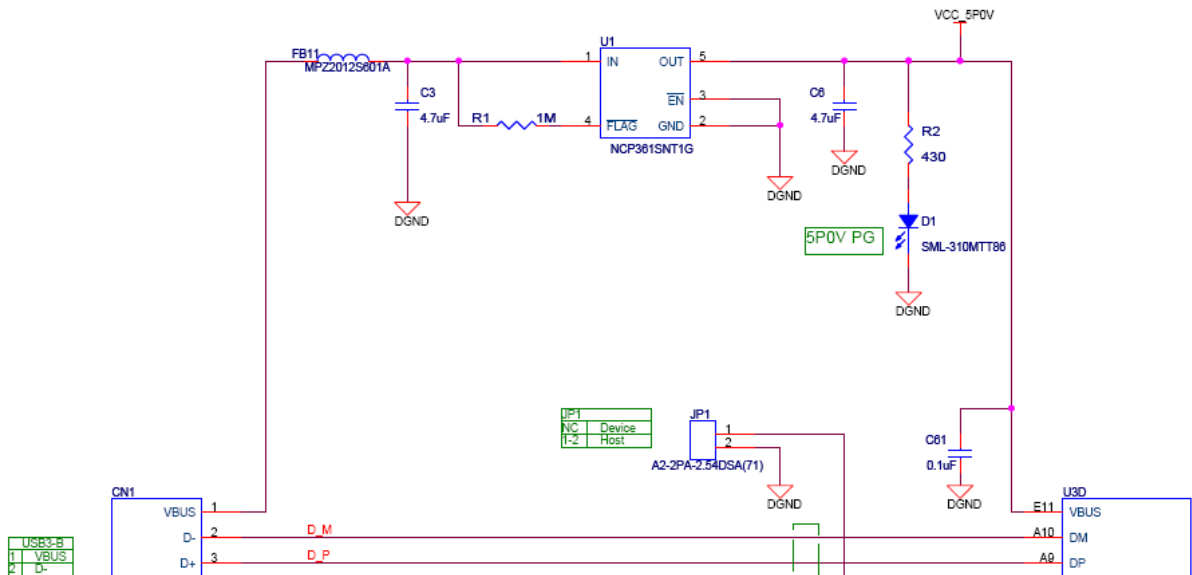


Figure 7-2 VBUS power supply circuit

7.1.3. FMC power supply circuit

Main power is provided from FMC connector.

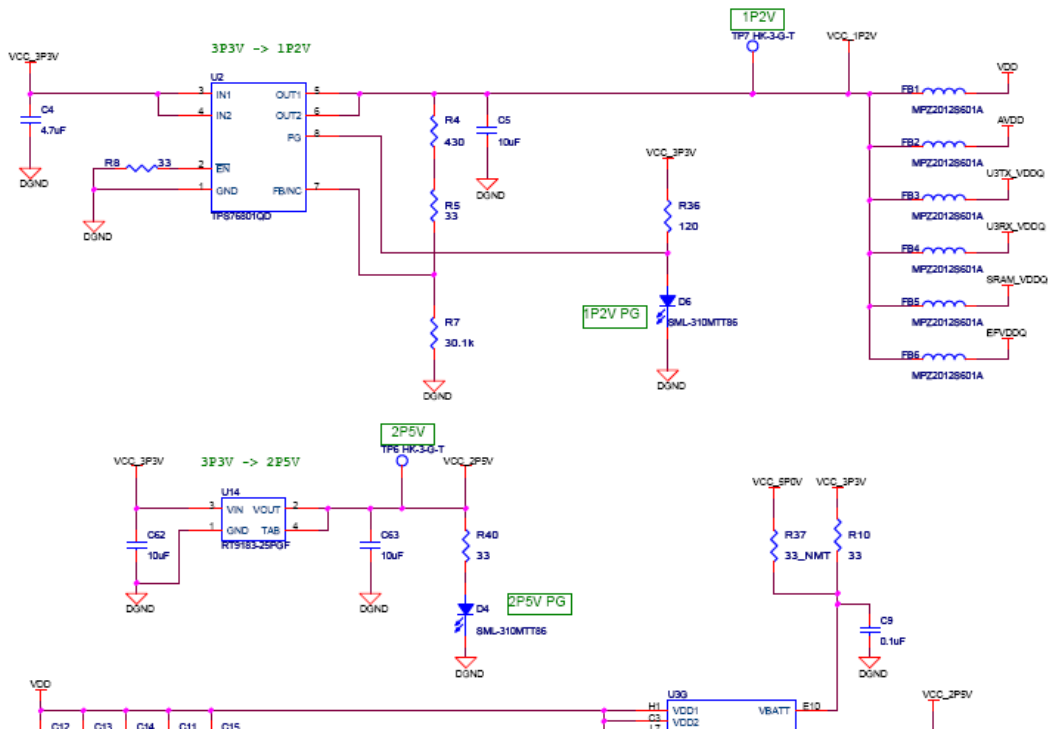


Figure 7-3 FMC power supply circuit

7.2. FMC connector for platform board (J1)

TB-FMCL-USB30 has a FMC Low pin count connector.

Following figure is FMC Standard pin assign. Low pin count is using column C, D, G and H.

	K	J	H	G	F	E	D	C	B	A
1	NC	NC	VREF A M2C	GND	NC	NC	PG C2M	GND	NC	NC
2	NC	NC	PPRSNT M2C L	CLK1 M2C P	NC	NC	GND	DP0 C2M P	NC	NC
3	NC	NC	GND	CLK1 M2C N	NC	NC	GND	DP0 C2M N	NC	NC
4	NC	NC	CLK0 M2C P	GND	NC	NC	GBTCLK0 M2C P	GND	NC	NC
5	NC	NC	CLK0 M2C N	GND	NC	NC	GBTCLK0 M2C N	GND	NC	NC
6	NC	NC	GND	LA00 P CC	NC	NC	GND	DP0 M2C P	NC	NC
7	NC	NC	LA02 P	LA00 N CC	NC	NC	GND	DP0 M2C N	NC	NC
8	NC	NC	LA02 N	GND	NC	NC	LA01 P CC	GND	NC	NC
9	NC	NC	GND	LA03 P	NC	NC	LA01 N CC	GND	NC	NC
10	NC	NC	LA04 P	LA03 N	NC	NC	GND	LA06 P	NC	NC
11	NC	NC	LA04 N	GND	NC	NC	LA05 P	LA06 N	NC	NC
12	NC	NC	GND	LA08 P	NC	NC	LA05 N	GND	NC	NC
13	NC	NC	LA07 P	LA08 N	NC	NC	GND	GND	NC	NC
14	NC	NC	LA07 N	GND	NC	NC	LA09 P	LA10 P	NC	NC
15	NC	NC	GND	LA12 P	NC	NC	LA09 N	LA10 N	NC	NC
16	NC	NC	LA11 P	LA12 N	NC	NC	GND	GND	NC	NC
17	NC	NC	LA11 N	GND	NC	NC	LA13 P	GND	NC	NC
18	NC	NC	GND	LA16 P	NC	NC	LA13 N	LA14 P	NC	NC
19	NC	NC	LA15 P	LA16 N	NC	NC	GND	LA14 N	NC	NC
20	NC	NC	LA15 N	GND	NC	NC	LA17 P CC	GND	NC	NC
21	NC	NC	GND	LA20 P	NC	NC	LA17 N CC	GND	NC	NC
22	NC	NC	LA19 P	LA20 N	NC	NC	GND	LA18 P CC	NC	NC
23	NC	NC	LA19 N	GND	NC	NC	LA23 P	LA18 N CC	NC	NC
24	NC	NC	GND	LA22 P	NC	NC	LA23 N	GND	NC	NC
25	NC	NC	LA21 P	LA22 N	NC	NC	GND	GND	NC	NC
26	NC	NC	LA21 N	GND	NC	NC	LA26 P	LA27 P	NC	NC
27	NC	NC	GND	LA25 P	NC	NC	LA26 N	LA27 N	NC	NC
28	NC	NC	LA24 P	LA25 N	NC	NC	GND	GND	NC	NC
29	NC	NC	LA24 N	GND	NC	NC	TCK	GND	NC	NC
30	NC	NC	GND	LA29 P	NC	NC	TDI	SCL	NC	NC
31	NC	NC	LA28 P	LA29 N	NC	NC	TDO	SDA	NC	NC
32	NC	NC	LA28 N	GND	NC	NC	3P3VAUX	GND	NC	NC
33	NC	NC	GND	LA31 P	NC	NC	TMS	GND	NC	NC
34	NC	NC	LA30 P	LA31 N	NC	NC	TRST L	GA0	NC	NC
35	NC	NC	LA30 N	GND	NC	NC	GA1	12P0V	NC	NC
36	NC	NC	GND	LA33 P	NC	NC	3P3V	GND	NC	NC
37	NC	NC	LA32 P	LA33 N	NC	NC	GND	12P0V	NC	NC
38	NC	NC	LA32 N	GND	NC	NC	3P3V	GND	NC	NC
39	NC	NC	GND	3P3V	NC	NC	GND	3P3V	NC	NC
40	NC	NC	3P3V	GND	NC	NC	3P3V	GND	NC	NC

LPC Connector
LPC Connector
LPC Connector
LPC Connector

Figure 7-4 FMC Connector Standard Pin Assign

Following table shows FMC signals pin assignment.

Table 7-1 FMC pin assign - Colum C -

Colum C (J1)				
#	FMC Standard	I/O	Signal Name	Detail information
1	GND	-	-	-
2	DP0_C2M_P	-	N/C	-
3	DP0_C2M_N	-	N/C	-
4	GND	-	-	-
5	GND	-	-	-
6	DP0_M2C_P	-	N/C	-
7	DP0_M2C_N	-	N/C	-
8	GND	-	-	-
9	GND	-	-	-
10	LA06_P	I/O	DATA3	Data bit 3 (LVCMOS 2.5V)
11	LA06_N	I/O	DATA6	Data bit 6 (LVCMOS 2.5V)
12	GND	-	-	-
13	GND	-	-	-
14	LA10_P	I/O	DATA11	Data bit 11 (LVCMOS 2.5V)
15	LA10_N	I/O	DATA14	Data bit 14 (LVCMOS 2.5V)
16	GND	-	-	-
17	GND	-	-	-
18	LA14_P	O	INT_N	Interrupt Signal, Low Active (LVCMOS 2.5V)
19	LA14_N	I/O	CTL4	Control Signal bit 4 (LVCMOS 2.5V)
20	GND	-	-	-
21	GND	-	-	-
22	LA18_P_CC	I/O	CTL12	Control Signal bit 12 (LVCMOS 2.5V)
23	LA18_N_CC	I/O	CTL8	Control Signal bit 8 (LVCMOS 2.5V)
24	GND	-	-	-
25	GND	-	-	-
26	LA27_P	I/O	DATA18	Data bit 18 (LVCMOS 2.5V)
27	LA27_N	I/O	DATA23	Data bit 23 (LVCMOS 2.5V)
28	GND	-	-	-
29	GND	-	-	-
30	SCL	-	N/C	-
31	SDA	-	N/C	-
32	GND	-	-	-
33	GND	-	-	-
34	GA0	-	N/C	-
35	12P0V	-	N/C	-
36	GND	-	-	-
37	12P0V	-	N/C	-
38	GND	-	-	-
39	3P3V	-	+3.3V	+3.3V Power
40	GND	-	-	-

Table 7-2 FMC pin assign - Colum D -

Colum D (J1)				
#	FMC Standard	I/O	Signal Name	Detail information
1	PG_C2M	-	N/C	-
2	GND	-	-	-
3	GND	-	-	-
4	GBTCLK0_M2C_P	-	N/C	-
5	GBTCLK0_M2C_N	-	N/C	-
6	GND	-	-	-
7	GND	-	-	-
8	LA01_P_CC	I/O	DATA1	Data bit 1 (LVCMOS 2.5V)
9	LA01_N_CC	I/O	DATA0	Data bit 0 (LVCMOS 2.5V)
10	GND	-	-	-
11	LA05_P	I/O	DATA4	Data bit 4 (LVCMOS 2.5V)
12	LA05_N	I/O	DATA10	Data bit 10 (LVCMOS 2.5V)
13	GND	-	-	-
14	LA09_P	I/O	DATA12	Data bit 12 (LVCMOS 2.5V)
15	LA09_N	I/O	DATA13	Data bit 13 (LVCMOS 2.5V)
16	GND	-	-	-
17	LA13_P	I/O	CTL1	Control Signal bit 1 (LVCMOS 2.5V)
18	LA13_N	I/O	CTL6	Control Signal bit 6 (LVCMOS 2.5V)
19	GND	-	-	-
20	LA17_P_CC	I/O	CTL9	Control Signal bit 9 (LVCMOS 2.5V)
21	LA17_N_CC	I/O	CTL11	Control Signal bit 11 (LVCMOS 2.5V)
22	GND	-	-	-
23	LA23_P	I/O	DATA17	Data bit 17 (LVCMOS 2.5V)
24	LA23_N	I/O	DATA16	Data bit 16 (LVCMOS 2.5V)
25	GND	-	-	-
26	LA26_P	I/O	DATA21	Data bit 21 (LVCMOS 2.5V)
27	LA26_N	I/O	DATA22	Data bit 22 (LVCMOS 2.5V)
28	GND	-	-	-
29	TCK	-	N/C	-
30	TDI	-	N/C	-
31	TDO	-	N/C	-
32	3P3VAUX	-	N/C	-
33	TMS	-	N/C	-
34	TRST_L	-	N/C	-
35	GA1	-	N/C	-
36	3P3V	-	+3.3V	+3.3V Power
37	GND	-	-	-
38	3P3V	-	+3.3V	+3.3V Power
39	GND	-	-	-
40	3P3V	-	+3.3V	+3.3V Power

Table 7-3 FMC pin assign - Colum G -

Colum G (J1)				
#	FMC Standard	I/O	Signal Name	Detail information
1	GND	-	-	-
2	CLK0_M2C_P	I/O	PCLK	Clock Signal
3	CLK0_M2C_N	-	N/C	-
4	GND	-	-	-
5	GND	-	-	-
6	LA00_P_CC	O	I2C_CHARAGER_DETECT	USB Power Charge Detect (LVCMOS 2.5V)
7	LA00_N_CC	I/O	DATA5	Data bit 5 (LVCMOS 2.5V)
8	GND	-	-	-
9	LA03_P	I/O	DATA2	Data bit 2 (LVCMOS 2.5V)
10	LA03_N	I/O	DATA15	Data bit 15 (LVCMOS 2.5V)
11	GND	-	-	-
12	LA08_P	I/O	DATA7	Data bit 7 (LVCMOS 2.5V)
13	LA08_N	I/O	DATA8	Data bit 8 (LVCMOS 2.5V)
14	GND	-	-	-
15	LA12_P	I/O	DATA9	Data bit 9 (LVCMOS 2.5V)
16	LA12_N	I/O	CTL7	Control Signal bit 7 (LVCMOS 2.5V)
17	GND	-	-	-
18	LA16_P	I/O	CTL2	Control Signal bit 2 (LVCMOS 2.5V)
19	LA16_N	I/O	CTL3	Control Signal bit 3 (LVCMOS 2.5V)
20	GND	-	-	-
21	LA20_P	I/O	CTL5	Control Signal bit 5 (LVCMOS 2.5V)
22	LA20_N	I/O	CTL10	Control Signal bit 10 (LVCMOS 2.5V)
23	GND	-	-	-
24	LA22_P	I/O	DATA20	Data bit 20 (LVCMOS 2.5V)
25	LA22_N	I/O	DATA19	Data bit 19 (LVCMOS 2.5V)
26	GND	-	-	-
27	LA25_P	I/O	DATA26	Data bit 26 (LVCMOS 2.5V)
28	LA25_N	I/O	DATA25	Data bit 25 (LVCMOS 2.5V)
29	GND	-	-	-
30	LA29_P	I/O	DATA28	Data bit 28 (LVCMOS 2.5V)
31	LA29_N	I/O	DATA24	Data bit 24 (LVCMOS 2.5V)
32	GND	-	-	-
33	LA31_P	I/O	DATA29	Data bit 29 (LVCMOS 2.5V)
34	LA31_N	I/O	DATA27	Data bit 27 (LVCMOS 2.5V)
35	GND	-	-	-
36	LA33_P	I/O	DATA31	Data bit 31 (LVCMOS 2.5V)
37	LA33_N	I/O	DATA30	Data bit 30 (LVCMOS 2.5V)
38	GND	-	-	-
39	VADJ	-	N/C	-
40	GND	-	-	-

Table 7-4 FMC pin assign - Colum H -

Colum H (J1)				
#	FMC Standard	I/O	Signal Name	Detail information
1	VREF_A_M2C	-	N/C	-
2	PRSNT_M2C_L	-	N/C	-
3	GND	-	-	-
4	CLK0_M2C_P	-	N/C	-
5	CLK0_M2C_N	-	N/C	-
6	GND	-	-	-
7	LA02_P	I/O	I2S_SD_FMC	I2S Data Signal (LVCMOS 2.5V)
8	LA02_N	I/O	I2S_CLK_FMC	I2S Clock Signal (LVCMOS 2.5V)
9	GND	-	-	-
10	LA04_P	I/O	I2S_WS_FMC	I2S Word Select Signal (LVCMOS 2.5V)
11	LA04_N	I/O	I2S_MCLK_FMC	I2S Master Clock Signal (LVCMOS 2.5V)
12	GND	-	-	-
13	LA07_P	I/O	RSET_N_FMC	Reset Signal, Low Active (LVCMOS 2.5V)
14	LA07_N	-	N/C	-
15	GND	-	-	-
16	LA11_P	I/O	GPIO_45	General purpose IO signal bit 45 (LVCMOS 2.5V)
17	LA11_N	I/O	CTL0	Control signal bit 0 (LVCMOS 2.5V)
18	GND	-	-	-
19	LA15_P	I/O	SPI_SCK_UART_RTS_FMC	SP Clock Signal / UART RTS Signal (LVCMOS 2.5V)
20	LA15_N	I/O	SPI_SSN_UART_CTS_FMC	SPI SSN Signal / UART CTS Signal (LVCMOS 2.5V)
21	GND	-	-	-
22	LA19_P	I/O	SPI_MISO_UART_TX_FMC	SPI MISO Signal / UART TX Signal (LVCMOS 2.5V)
23	LA19_N	I/O	SPI_MOSI_UART_RX_FMC	SPI MOSI Signal / UART RX Signal (LVCMOS 2.5V)
24	GND	-	-	-
25	LA21_P	I/O	I2C_SCL	I2C Clock Signal (LVCMOS 2.5V)
26	LA21_N	I/O	I2C_SDA	I2C Data Signal (LVCMOS 2.5V)
27	GND	-	-	-
28	LA24_P	-	N/C	-
29	LA24_N	-	N/C	-
30	GND	-	-	-
31	LA28_P	-	N/C	-
32	LA28_N	-	N/C	-
33	GND	-	-	-
34	LA30_P	-	N/C	-
35	LA30_N	-	N/C	-
36	GND	-	-	-
37	LA32_P	-	N/C	-
38	LA32_N	-	N/C	-
39	GND	-	-	-
40	VADJ	-	N/C	-

7.3. USB3.0 TYPE-B connector (CN1)

This board has a SAMTEC USB3.0 TYPE-B connector.

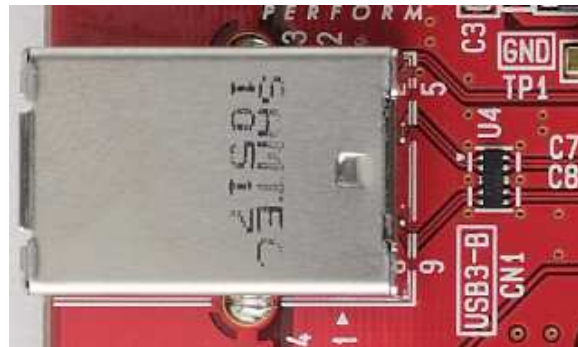


Figure 7-5 USB3.0 TYPE-B Connector

7.4. I2S Pin Header (CN2)

CYUSB3014 has an I2S interface and this board provide pin header for I2S.

Table 7-5 I2S Pin header connector

I2S (CN2)	
Pin No.	Signal Name
1	VCC
2	CLK
3	SD
4	WS
5	MCLK
6	GND



Figure 7-6 I2S Pin header

7.5. SPI Pin Header (CN5) and SPI Flash (U9)

This board has a pin header(CN5) for SPI interface to connected CYUSB3014. pin header is 2.54mm pitch. Also, SPI Flash memory (Numonyx, M25P128-VMF6TPB) for storing firmware is connected pin header.

Notice: SPI and RS-232C are exclusion consist functions. Please refer to IFSEL jumper setting.

Table 7-6 SPI pin header assign

SPI (CN5)	
Pin No.	Signal Name
1	VCC
2	MOSI
3	MISO
4	SCLK
5	SSN
6	GND



Figure 7-7 SPI Pin header (CN5)

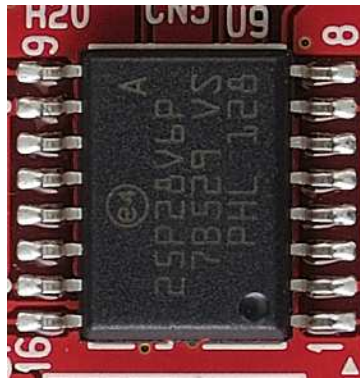


Figure 7-8 SPI Flash Memory (U9)

7.6. I2C Pin Header (CN6)

This board provides an external I2C interface for CYUSB3014. I2C signals are connected FMC also.

Table 7-7 I2C pin header for external devices

I2C(CN6)	
Pin No.	Signal Name
1	SDA
3	SCL
5	GND
6	GND

If control from FPGA via FMC, Please set jumper as below.

Table 7-8 I2C access from FPGA

I2C(CN6)	
Pin No.	Signal Name
1-2	SDA
3-4	SCL

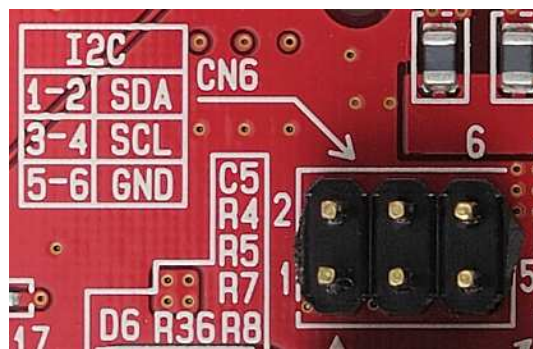


Figure 7-9 I2C pin header (CN6)

7.7. RS-232 Pin Header (CN7)

This board has a RS-232C interface for control CYUSB3014 from external devices.

RS-232C Transceiver device: MAXIM MAX3232ECUE+

Pin header is 2.54mm pitch.

Notice: RS-232C and SPI are exclusion consist functions. Please refer to IFSEL jumper setting.

Table 7-9 RS-232C pin header (CN7)

RS-232C (CN7)	
Pin No.	Signal Name
1	TXD
2	RXD
3	RTS
4	CTS
5	GND

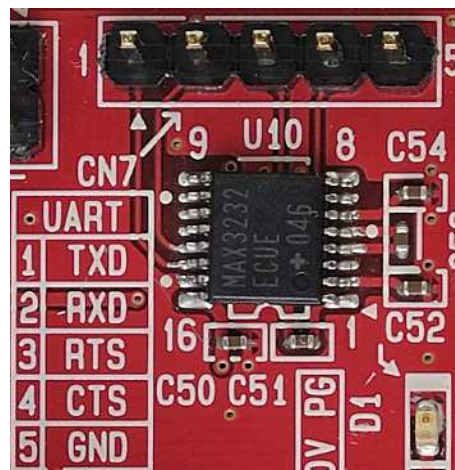


Figure 7-10 RS-232C Transceiver (U10) and pin header (CN7)

7.8. LEDs and Push Switch

7.8.1. LED(D1, D3, D4 and D6)

4 LDEs are status of power supply voltage.

Table 7-10 LED Status

LED	
SILK	Description
D1	5V Power Good
D3	3.3V Power Good
D4	2.5V Power Good
D6	1.2V Power Good

7.8.2. Push Switch (SW1)

Push switch for reset to CYUSB3014. When pushed SW1, Reset signal is Low.



Figure 7-11 Push Switch (SW1)

7.9. Jumper

7.9.1. PMODE (JP2-4)

JP2 to 4 are setting for PMODE of CYUSB3014.

Table 7-11 PMODE setting (JP2-4)

JP4	JP3	JP2	PMODE	TB-FMCL-USB30
NC	2-3	2-3	Sync ADMUX(16bit)	Not Supported
NC	2-3	1-2	Async ADMUX(16bit)	Not Supported
NC	1-2	1-2	USB	Supported
NC	2-3	NC	Async SRAM(16bit)	Not Supported
NC	1-2	NC	I2C => USB	Supported
1-2	NC	NC	I2C	Supported
2-3	NC	1-2	SPI => USB	Supported

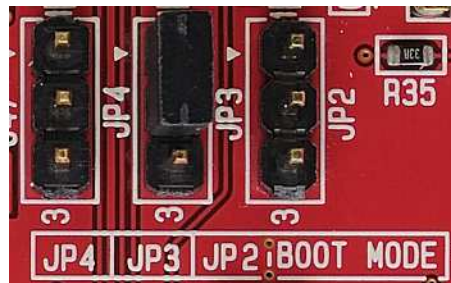


Figure 7-12 PMODE jumper (JP2-4)

7.9.2. IFSEL (JP5-8)

JP5 to 8 are interface selection (SPI or UART) of CYUSB3014.

Table 7-12 IFSEL (JP5-8)

JP5,JP6,JP7,JP8	IF SEL
1-2	SPI
2-3	UART

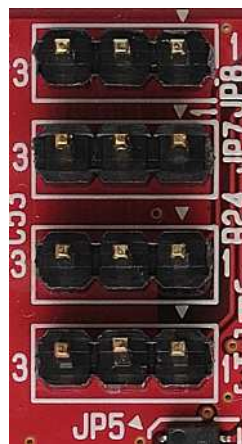


Figure 7-13 IFSEL (JP5-8)

7.9.3. CLK (JP11)

JP11 is setting of clock source for CYUSB3014.

JP11 must be shorted for using.

Table 7-13 Clock Select (JP11)

JP11	
1-2	XTAL
NC	CLKIN(Non Mounted)

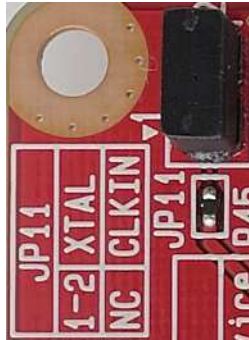


Figure 7-14 Clock Select (JP11)

8. Default Settings

Following Figure shows default settings.

Table 8-1 Default Settings

PMODE	JP2	1-2 Short	SPI to USB
	JP3	NC	
	JP4	2-3 Short	
IFSEL	JP5	1-2 Short	Enable SPI
	JP6	1-2 Short	
	JP7	1-2 Short	
	JP8	1-2 Short	
CLK	JP11	1-2 Short	Use on board XTAL

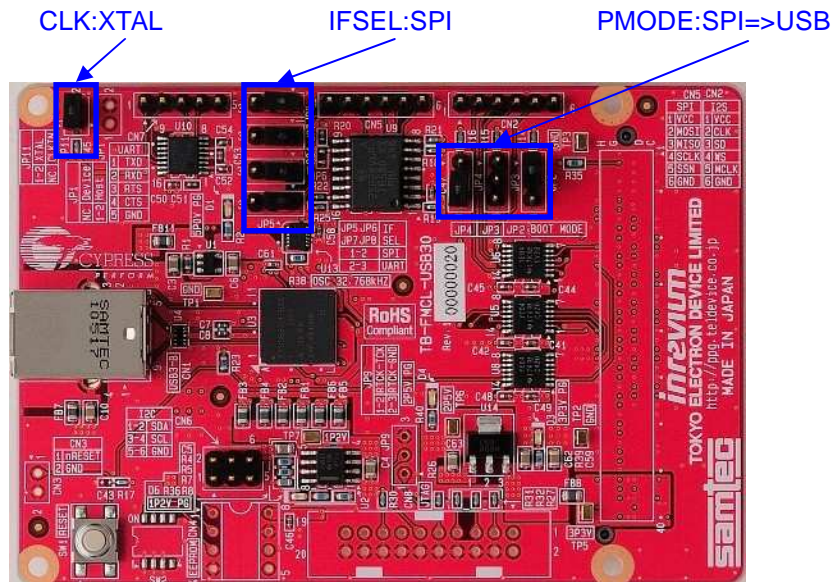


Figure 8-1 Default Settings



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