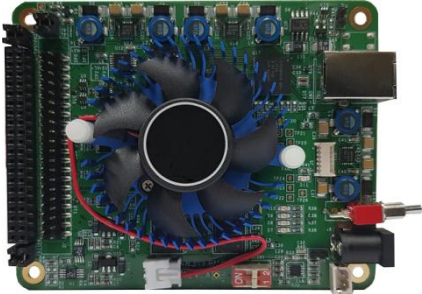


USB3-FRM02

USB3.0 Interface Base Board



INTRODUCTION

The USB3-FRM02 is a board already transmitting a frame to PC through USB3.0 Super Speed(5Gbps) methods. Max. 1.2Gbps MIPI (Mobile Industry Processor Interface) signals are received as input a video signals or parallel signals.

GENERAL DESCRIPTION

- ◆ USB 3.0 Specification
- ◆ Super Speed Device 5Gbps
- ◆ MIPI CSI D-PHY 4Lane
(Up to 1.2Gbps per Lane)
- ◆ 512MByte Image Memory

APPLICATION

- ◆ Image Acquisition (Pattern, Particle etc)
- ◆ Inspection Equipment (Sensor, Semiconductor, Device etc)
- ◆ Medical Image Capture (X-ray, Supersonic)

SOFTWARE

■ Operating System

- Windows 2000/XP/7/8/10 (32/64bit)

■ API

- Interface with Application through client DLL

SPECIFICATION

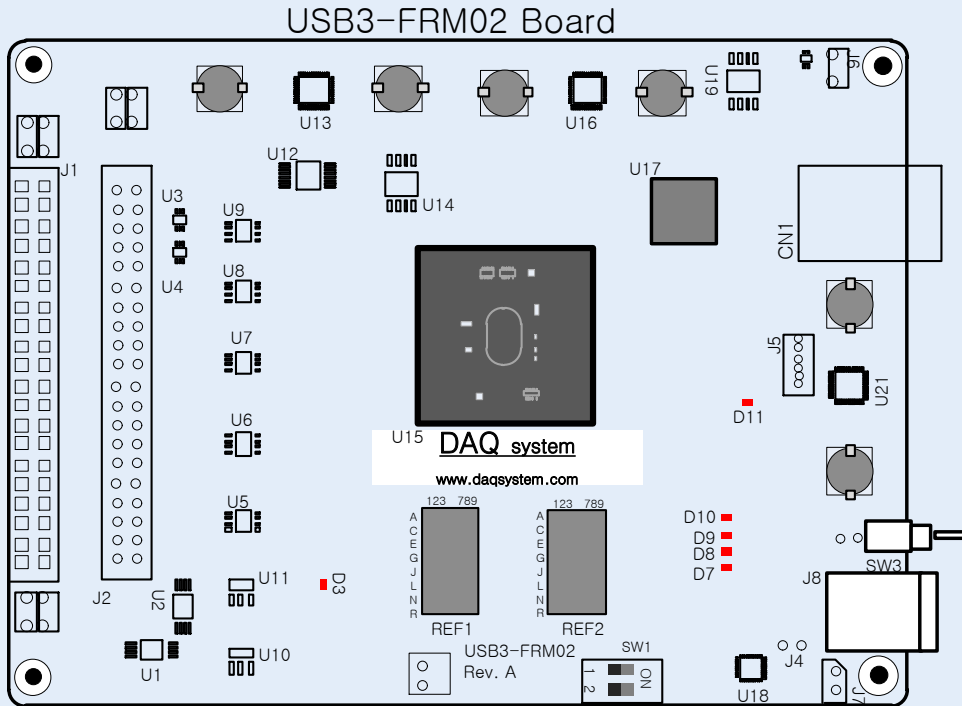
■ Features

- USB 3.0 Specification with type-B Connector
- Super Speed Device 5Gbps
- Support Max. 1.2Gbps MIPI
- MIPI CSI2 D-PHY 4Lane
- Parallel Image Signal(16bit BT 601/656)
- I2C/SPI Communication
- 8bit 3.3V GPIO

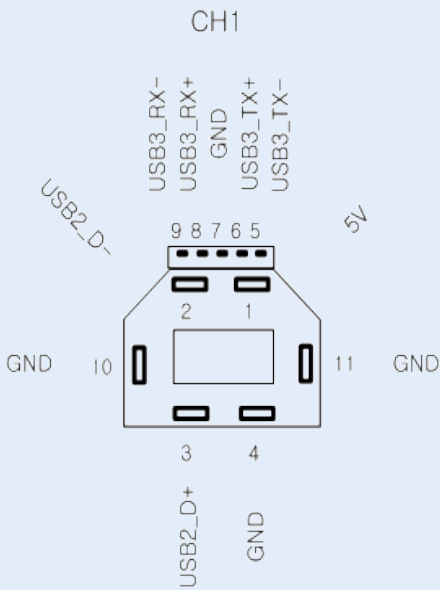
■ Function

- External 12V or USB Power
- USB-B type Operation
- Supports Fully Plug-and-Play

Board Feature



Connector Map



SP0	①	②	SP1	P_data0	1	2	P_data1
SP2	③	④	SP3	P_data2	3	4	P_data3
GND	⑤	⑥	GND	P_data4	5	6	P_data5
SCL	⑦	⑧	DATAP_0	P_data6	7	8	P_data7
SDA	⑨	⑩	DATAN_0	GND	9	10	GND
GND	⑪	⑫	GND	P_data8	11	12	P_data9
ENB	⑬	⑭	DATAP_1	P_data10	13	14	P_data11
RESET	⑮	⑯	DATAN_1	P_data12	15	16	P_data13
GND	⑰	⑱	GND	P_data14	17	18	P_data15
CNT0	⑲	⑳	DATAP_2	GND	19	20	GND
CNT1	㉑	㉒	DATAN_2	C_PCLK	21	22	C_VSYNC
GND	㉓	㉔	GND	C_HSYNC	23	24	C_DE
CNT2	㉕	㉖	DATAP_3	GND	25	26	GND
CNT3	㉗	㉘	DATAN_3	GPIO0	27	28	GPIO1
GND	㉙	㉚	GND	GPIO2	29	30	GPIO3
GND	㉛	㉜	CLKP	GPIO4	31	32	GPIO5
GND	㉝	㉞	CLKN	GPIO6	33	34	GPIO7
MCLK	㉟	㊱	GND	GND	35	36	GND
GND	㊲	㊳	GND	C_SPI_CLK	37	38	C_SPI_MISO
SP4	㊴	㊵	SP5	C_SPI_SSN	39	40	C_SPI_MOSI

MIPI Connector (J1)

Parallel Connector (J2)

PHYSICAL/ENVIRONMENTAL

▣ **From Factor**

- USB3.0

▣ **Dimension**

- Host I/O : USB3.0 B-type connector
- External I/O Signal : 40pin Header connector
- Dimension (not including connectors) : 100mm x 80 mm

▣ **Temperature**

- 0 to 60°C, Operating
- -20 to 80°C Storage

▣ **Relative Humidity**

- 5 to 95%, Non-considering

▣ **Power Requirement**

- Power Supply : 12V DC Power Jack or USB-B type Power

BLOCK DIAGRAM

