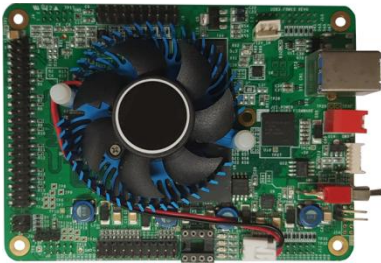


USB3-FRM20

USB3.0 Host Interface Base Board for MIPI



INTRODUCTION

The USB3-FRM20 is a board already transmitting a frame to PC through USB3.0 Super Speed(5Gbps) methods. Max. 2.5Gbps MIPI (Mobile Industry Processor Interface) C-PHY or D-PHY signals are received as input a video signals.

GENERAL DESCRIPTION

- ◆ USB 3.0 Specification
- ◆ Super Speed Device 5Gbps
- ◆ MIPI CSI C-PHY 3Lane
(Up to 2.5Gbps per Lane)
- ◆ MIPI CSI D-PHY 4Lane
(Up to 2.5Gbps 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

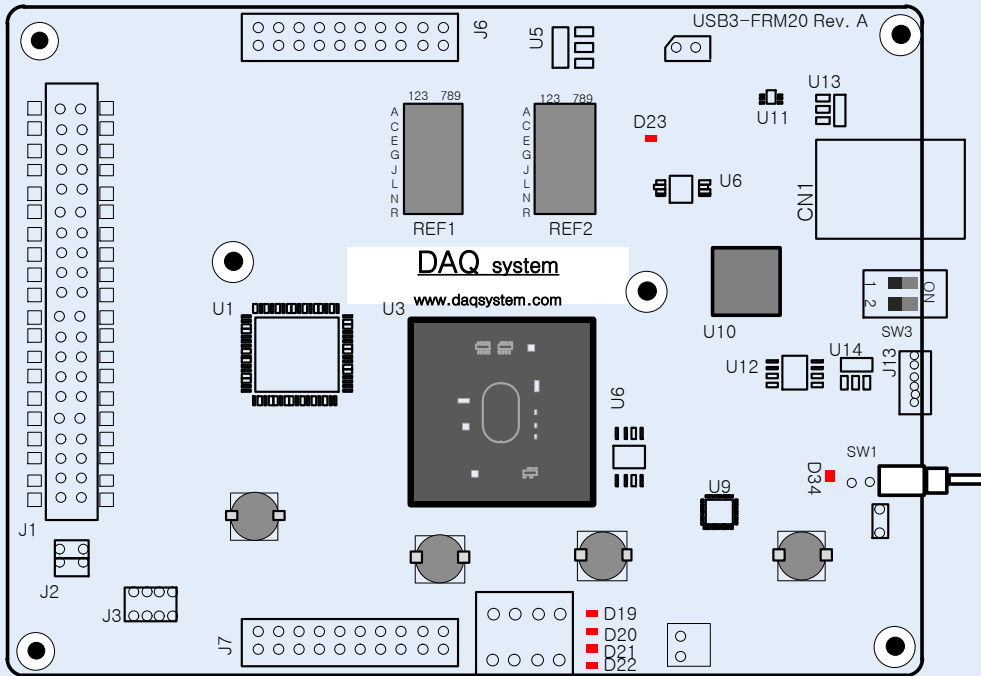
- USB 3.0 Specification with type-B Connector
- Super Speed Device 5Gbps
- MIPI CSI2 C-PHY 3Lane
- MIPI CSI2 D-PHY 4Lane
- I2C/SPI Communication

▣ Function

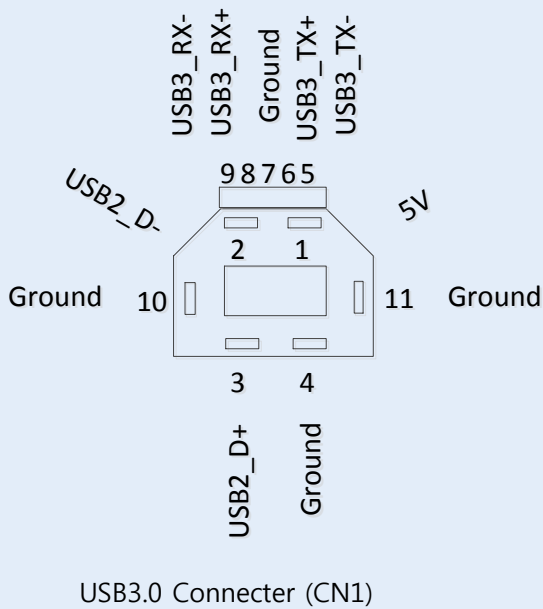
- External 12V or USB Power
- USB-B type Operation
- Supports Fully Plug-and-Play

■ Board Feature

USB3-FRM20 Board



■ Connector Map



SP0	1	2	SP1
SP2	3	4	SP3
GND	5	6	GND
SCL	7	8	EX_L0_RXA
SDA	9	10	EX_L0_RXB
GND	11	12	GND
ENB	13	14	EX_L0_RXC
RESET	15	16	EX_L1_RXD
GND	17	18	GND
CNT0	19	20	EX_L2_RXA
CNT1	21	22	EX_L2_RXB
GND	23	24	GND
CNT2	25	26	EX_L2_RXC
CNT3	27	28	EX_L2_RXD
GND	29	30	GND
GND	31	32	EX_L1_RXA
GND	33	34	EX_L1_RXB
MCLK	35	36	EX_L1_RXC
GND	37	38	GND
SP4	39	40	SP5

MIPI Connector (J1)

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) : 110mm 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

