

## USB 3.1 Connector

Function	Description
<b>Location</b>	P3
<b>Type</b>	Tiger Eye 20 Pin Connector, 0.05mm Pitch
<b>Carrier Connector</b>	Part Number: TFM-110-02-L-D-WT Manufacturer: Samtec
<b>Mating Cables</b>	CBG615 (USB 2.0 only), CBG686 (USB3.0), XBG023
<b>Pinout</b>	
<b>Pin 1</b>	GND
<b>Pin 2</b>	USB1_D_P
<b>Pin 3</b>	USB0_D_P
<b>Pin 4</b>	USB1_D_N
<b>Pin 5</b>	USB0_D_N
<b>Pin 6</b>	GND
<b>Pin 7</b>	GND
<b>Pin 8</b>	USB3_P1_TX_P
<b>Pin 9</b>	USB3_P0_TX_P
<b>Pin 10</b>	USB3_P1_TX_N
<b>Pin 11</b>	USB3_P0_TX_N
<b>Pin 12</b>	GND
<b>Pin 13</b>	GND
<b>Pin 14</b>	USB3_P1_RX_P
<b>Pin 15</b>	USB3_P0_RX_P
<b>Pin 16</b>	USB3_P1_RX_N
<b>Pin 17</b>	USB3_P0_RX_N
<b>Pin 18</b>	USB1 VBUS
<b>Pin 19</b>	USB0 VBUS
<b>Pin 20</b>	GND
<b>Notes</b>	<p>Both ports will only be USB 3.1 capable when using Jetson Orin™ NX. Only Port 0 will be USB 3.1 capable when using Jetson Xavier™ NX.</p> <p>Maximum power available on each individual port is as below:  Hadron Rev A, Rev B = 1A per port  Hadron Rev C and onwards = 2A per port</p>



## I/O Header

### Description

The Hadron Carrier implements a TFM-120-02-L-D-WT Connector to allow access for additional GPIO and interfaces.

Function		Description			
Location		P4			
Type		Samtec 40Pin Connector, 1.27mm Pitch			
Carrier Connector		Part Number: TFM-120-02-L-D-WT Manufacturer: Samtec			
Mating Cable/Connector		CBG629 / SFSD-20-28C-G-12.00-SR Manufacturer: Samtec			
Pinout					
Description	Signal Name	Pins		Signal Name	Description
Signal Ground	GND	1	2	GND	Signal Ground
GPIO10	GPIO10	3	4	GPIO13	GPIO13 (PWM)
GPIO11	GPIO11	5	6	GPIO12	GPIO12 (PWM)
Signal Ground	GND	7	8	GND	Signal Ground
+5V Power Out <sup>1</sup>	+5V_IO	9	10	+3.3V_IO	+3.3V Power Out <sup>1</sup>
+5V Power Out <sup>1</sup>	+5V_IO	11	12	+3.3V_IO	+3.3V Power Out <sup>1</sup>
Signal Ground	GND	13	14	GND	Signal Ground
SPI0 Transmit	SPI0 MOSI	15	16	SPI0 SCK	SPI0 Clock
SPI0 Receive	SPI0 MISO	17	18	SPI0 CS0	SPI0 Chip Select
Signal Ground	GND	19	20	GND	Signal Ground
RS-232_0 Request to Send	RS-232_0_RTS	21	22	RS-232_0_TX	RS-232_0 Transmit
RS-232_0 Clear to Send	RS-232_0_CTS	23	24	RS-232_0_RX	RS-232_0 Receive
Signal Ground	GND	25	26	GND	Signal Ground
RS-232_1 Transmit	RS-232_1_TX	27	28	RS-232_1_RTS	RS-232_1 Request to Send
RS-232_1 Receive	RS-232_1_RX	29	30	RS-232_1_CTS	RS-232_1 Clear to Send
Signal Ground	GND	31	32	GND	Signal Ground
I2C0 Clock	I2C 0 SCL	33	34	I2C 0 SDA	I2C0 Data
Signal Ground	GND	35	36	GND	Signal Ground
Debug UART RX	UART2_RX	37	38	UART2_TX	Debug UART TX
Signal Ground	GND	39	40	GND	Signal Ground

