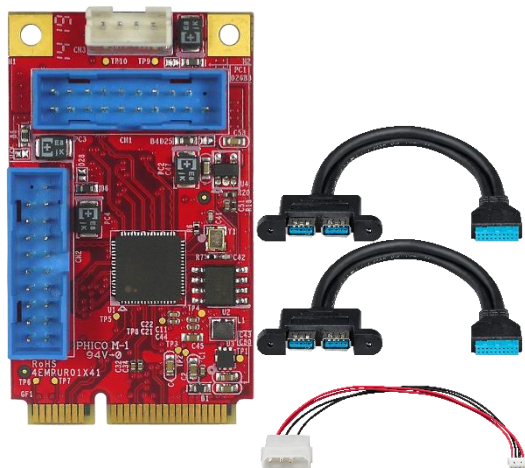


EMPU-3401

mPCIe to Four USB 3.0 Module



HIGHLIGHT FEATURES

- Supports 4 x USB 3.0 ports, provides up to SuperSpeed (5Gbps) data rate (share PCIe Gen2 x1 bandwidth)
- Independent 1.5A overcurrent protection (OCP) for each port
- Compliant with xHCI 1.0, USB 3.0 Rev 1.0
- 2 x USB ports from CN1 provides limited power natively
- 2 x USB ports from CN2 needs external power
- Supports USB Battery Charging Specification Revision 1.2
- Optional Industrial Temperature (-40°C to 85°C) support

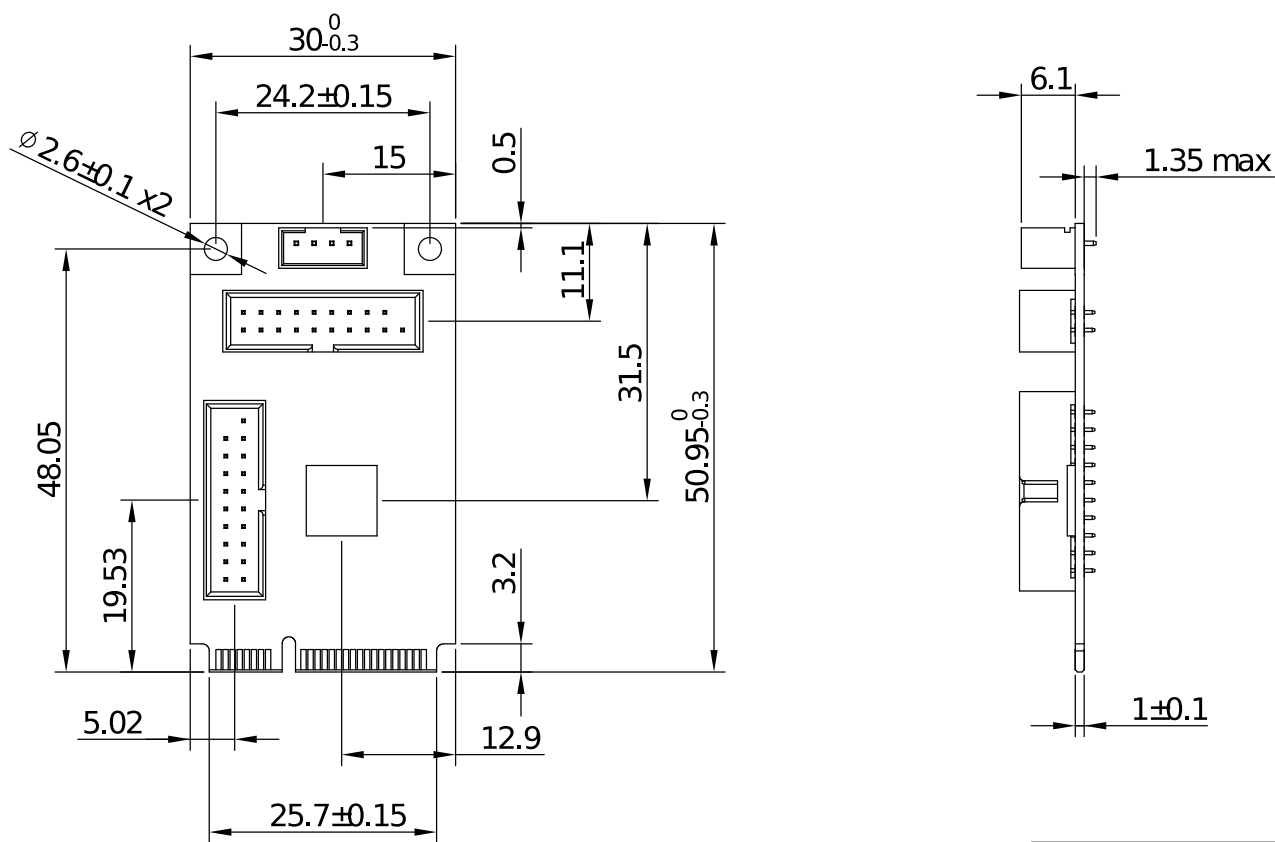
SPECIFICATIONS

Model Name	EMPU-3401
Module Type	mPCIe to Four USB 3.0 Module
Form Factor	mPCIe
Function	USB 3.0
Input I/F	PCI Express 2.0 x1
Output I/F	USB 3.0
Output Port	4
Output Connector	19-pin header
Max. Power Consumption	1.12W (3.3V, 340mA)
Dimension (W x L x H/mm)	30.0 x 50.9 x 8.45
Temperature	Operation : S/T 0°C ~ 70°C ; W/T -40°C ~ 85°C (Ta) Storage : -55°C ~ 95°C (Ta)
Vibration	5G@[7~2000Hz]
Shock	50G@0.5ms
OS Support	Windows : XP (32 bit), 7 (32 / 64bit), Vista Linux : Kernel v2.6.0, v2.6.8
Warranty	3 Years
Notes	After Win8 and Linux Kernel v2.6.31 supports built-in xHCI 1.0.

ORDER INFO.

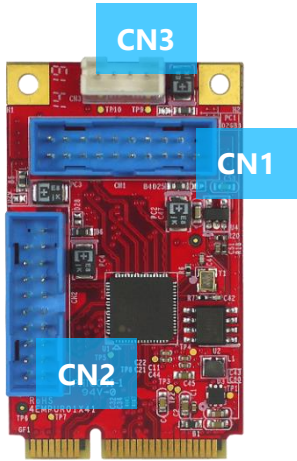
P/N	Description
EMPU-3401-C1	mPCIe to Four USB 3.0 Module / Standard Temperature
EMPU-3401-W1	mPCIe to Four USB 3.0 Module / Wide Temperature

MECHANICAL DRAWING



TOLERANCE: ±0.25 mm

PIN DEFINE



4 Pin Header (CN3) Pin Define	
Pin	Signal
1	5V
2	GND
3	GND
4	5V

SMD 2 x 10P (cut 1 pin) Connector (CN1 & CN2) USB 3.0 Pin Define			
Signal	Pin	Pin	Signal
NC	10	11	IntA_P2_D+
IntA_P1_D+	9	12	IntA_P2_D
IntA_P1_D-	8	13	GND
GND	7	14	IntA_P2_SSTX+
IntA_P1_SSTX+	6	15	IntA_P2_SSTX
IntA_P1_SSTX-	5	16	GND
GND	4	17	IntA_P2_SSRX+
IntA_P1_SSRX+	3	18	IntA_P1_SSRX
IntA_P1_SSRX-	2	19	Vbus
Vbus	1		