

**ULI-414LIB**  
**ULI-414LI**  
**ULI-414I**  
**ULI-417I**  
**ULI-414CI**  
**ULI-417CI**  
**ULI-414H**  
**ULI-417H**

**BB-USBHUB40EM**  
**BB-UH104**  
**BB-UHR204**  
**BB-UHR207**  
**BB-UHR304**  
**BB-UHR307**  
**BB-USH204**  
**BB-USH207**

## Industrial USB 2.0 & 3.0 Hubs



### Features (model dependent)

- Expand one USB port to 4 or 7 USB ports
- USB 2.0 & USB 3.0
- ESD protection
- High retention USB connectors grip cables tight
- Wide operating temperature (USB 2.0 hubs)
- USB host port power or external PSU power
- Metal or plastic enclosures – desk, panel, DIN rail mount
- 4 kV isolation between upstream & downstream ports (models ULI-414CI, ULI-417CI)
- Compact, OEM open bare-board hub (model ULI-414LIB)



## Introduction

These Advantech USB 2.0 and 3.0 hubs are more robust than office-grade hubs. Isolation and ESD protections are ideal for electrically harsh environments. "High Retention" USB connectors hold standard USB cables tight – requiring up to 1.54 kg (3.4 lb) force to disconnect them. Model ULI-414LIB is suitable for OEM applications where space is limited and/or external packaging is not required. ULI-414H and ULI-417H feature SuperSpeed USB 3.0 with data rates up to 5 Gbps and 900 mA downstream power to connected peripherals.

## Specifications

### USB Technology

Model #:	Upstream Port:	Downstream Ports:	Data Rate, each port:	Standards:
ULI-414LIB*	(1) High retention, Type B female	(4) High retention, Type A female	1.5, 12, 480 Mbps	2.0, 1.1 (backward compatible)
ULI-414LI		(4) High retention, Type A female		
ULI-414I		(7) High retention, Type A female		
ULI-417I		(4) High retention, Type A female		
ULI-414CI		(7) High retention, Type A female		
ULI-417CI	(1) Type B	(4) Type A	12 Mbps** +	SuperSpeed 3.0 (2.0, 1.1 backward compatible)
ULI-414H <sup>†</sup>		(7) Type A		
ULI-417H <sup>†</sup>				

\* When installed, ULI-414LIB appears as an unbranded USB hub.  
 \*\* Isolation limits speed to 12 Mbps. (ULI, 414CI, ULI417CI)  
 + Multi-transaction translator, 1 per port. (ULI, 414CI, ULI417CI)  
 † Supports xHCI USB controller. (ULI-414H, ULI-417H)

### Isolation & ESD Protections

Model #:	Isolation:	ESD Protection:	Surge Protection:
ULI-414LIB	4 kV	15 kV air, 8kV contact	± 0.5 kV DC ports, ± 1 kV signal ports
ULI-414LI			
ULI-414I			
ULI-417I			
ULI-414CI			
ULI-417CI			
ULI-414H			
ULI-417H	8 kV air	600 W	

### Environmental

Model #:	Operating Temperature:	Storage Temperature:	Relative Humidity:
ULI-414LIB	-40 to +80 °C	-40 to +85 °C	0 to +95%, non-condensing
ULI-414LI			
ULI-414I			
ULI-417I	-40 to +80 °C (0 to +40 °C using wall plug PSU)	-20 to +50 °C	0 to +85%, non-condensing
ULI-414CI			
ULI-417CI	0 to +40 °C		
ULI-414H			
ULI-417H			

### Power

Model #:	Source:	Input Voltage:	Connection:	Consumption:	Downstream, per port:
ULI-414LIB	USB port <sup>†</sup>	5 Vdc	—	2.5 W, max.	100 mA
ULI-414LI					
ULI-414I	USB port <sup>†</sup> OR external PSU	UBS port: 5 Vdc External PSU: 10-30 Vdc	Terminal Block (3 pos., 5.08 mm spacing, 28-12 AWG, solid wire) OR Barrel Jack (locking, threaded, 5.5mm, center positive)	16 W	500 mA
ULI-417I				30 W	
ULI-414CI				16 W	
ULI-417CI				30 W	900 mA
ULI-414H <sup>‡</sup>				24 W	
ULI-417H <sup>‡</sup>	36 W				

<sup>†</sup> Check device to ensure USB bus power is adequate. If more power is required, Advantech offers external powered hubs.  
<sup>‡</sup> Power LED indicator.

### Mechanical

Model #:	Enclosure:	Mounting:	Dimensions, mm:	Weight, gm:	USB Cable:
ULI-414LIB	Open board	OEM	34 x 60 x 17	22.7	Not included <sup>§</sup>
ULI-414LI	IP30 Plastic	Panel *	65 x 61 x 27 <sup>§</sup>	49.9	
ULI-414I	IP30 metal (LEDs for Power, Port Ready)	Desk, DIN rail, panel *	168.2 x 86.3 x 35.1 <sup>§</sup>	64.0	Included, 1.8m
ULI-417I			233.2 x 119.4 x 35.1 <sup>§</sup>		
ULI-414CI			168.2 x 86.3 x 35.1 <sup>§</sup>		
ULI-417CI			233.2 x 119.4 x 35.1 <sup>§</sup>		
ULI-414H	Industrial grade, metal	DIN rail, panel	138.8 x 68.5 x 25	600	Included, 2.0 m
ULI-417H				620	

<sup>§</sup> Mounting kit included.  
<sup>¶</sup> Enclosure with brackets.  
<sup>†</sup> A standard USB cable is required to connect to PC.

### Meantime Between Failures (MTBF)

- Calculation Method: MIL217F Parts Count Reliability Prediction

Model #:	Hours:	Model #:	Hours:
ULI-414LIB	552747	ULI-414CI	143330
ULI-414LI		ULI-417CI	151173
ULI-414I	190999	ULI-414H	588858
ULI-417I	211773	ULI-417H	935103