Single Port, Compact USB Isolators BB-UH401 Series





PRODUCT FEATURES

- 2 kV or 4kV Isolation Protection for PCs and Equipment
- 15 kV ESD Protection
- Full (12 Mbps) or Low (1.5 Mbps) USB Speed Options
- -40 to +80 °C Wide Operating Temperature
- Ultra-Compact Size with Quick Inline Installation
- High Retention USB Connectors
- USB Bus Powered
- USB Cable Included

At just $4.32 \times 5.08 \times 2.03$ cm (1.7 x 2.0×0.8 in), these litle isolators pack a powerful punch against electrical noise, surges and spikes - up to 4kV isolation. Protect expensive PCs and equipment from damaging electrical storms, power surges and other high EMI/RFI disturbances. This isolation barrier eliminates ground loops which are disruptive in measurement applications.

BB-UH401 and BB-UH401SL provide 4 kV isolation. BB-UH401-2KV and BB-UH401SL-2KV provide 2kV isolation.

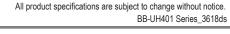
All models are USB bus powered and provide up to 100mA of current to attached downstream devices when they are attached to a full power (500 mA) USB host port.

Data rates are preconfigured at the factory. You should select a model that is appropriate for your USB peripheral (low-speed or full-speed). Note that high speed (480 Mbps) cannot be isolated with existing technology.

Four models are available. Select a low speed version, BB-UH401SL or BB-UH401SL-2KV, if you are using a low speed device. Low speed devices are typically human interface devices such as a mouse or keyboard. Use the full speed version, BB-UH401 or BB-UH401-2KV, for full speed USB devices.

ORDERING INFORMATION

MODEL NUMBER	USB SPEED	ISOLATION
BB-UH401	Full (12 Mbps)	4 kV
BB-UH401SL	Low (1.5 Mbps)	4 kV
BB-UH401-2KV	Full (12 Mbps)	2 kV
BB-UH401SL-2KV	Low (1.5 Mbps)	2 kV





Single Port, Compact USB Isolators

BB-UH401 Series



SPECIFICATIONS

of Edit Ida Hono		
TECHNOLOGY		
Standards	USB 1.1 12 Mbps (BB-UH401 & BB-UH401-2KV) 1.5 Mbps (BB-UH401SL & BB-UH401SL-2KV) Note: These devices are transparent to the operating system, do not require software drivers, and will not be enumerated in device manager.	
INTERFACE		
USB Ports	High retention USB Type B (upstream), High retention USB Type A (downstream), Minimum withdrawal force of 15 Newtons (~3.4 lbs force)	
LED Indicators	Power from USB bus	
POWER		
Input Voltage	Standard USB bus power (5 VDC)	
Downstream Power Provided	Up to 100mA with full-power upstream connection	
Isolation	BB-UH401-2KV = 2KV BB-UH401SL-2KV = 2KV BB-UH401 = 4KV BB-UH401SL = 4KV	

ENVIRON	MENTAL		
Operating Temperature		-40 to +80 °C (-40 to +176 °F)	
MTBF		1049851 hours	
MTBF Calculation		MIL 217F Parts Count Reliability Prediction	
MECHANIC	CAL		
Enclosure		IP30 plastic case	
Dimensions	S	4.32 x 5.08 x 2.03 cm (1.7 x 2.0 x 0.8 in)	
APPROVALS, DIRECTIVES, STANDARDS			
FCC Class A, CISPR Class A (EN55022)			
Directives	2014/30/EU	Electromagnetic Compatibility Directive	
	2011/65/EU – Reduction of Hazardous Substances Directive (RoHS)		
	2012/19/EU	 Waste Electrical and Electronic Equipment Directive (WEEE) 	
Standards	EMC:		
	EN 55032 + AC, Class A – Information Technology Equipment		
	EN 61000-6-4 – Generic Emissions Standard for (Heavy) industrial		
	Environments		
	EN 61000-6-	-2 – Generic Immunity Standard for (Heavy) Industrial	
	Environment	ts	

MECHANICAL DIAGRAM

