

**WURTH ELECTRONICS**  
**Product Line**  
for  
**USB 3.0**

Presented by  
**Mouser Electronics**

**“The Design Fulfillment Distributor”**

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# Würth Electronics USB 3.0 Bundle

-Advantages of new USB 3.0 standard

-WR-COM Connectors and Cable Solutions

-EMI Protection: WE-CNSW Common Mode Chokes

-ESD Protection: WE-TVS Diodes



**more  
than you  
expect**

## Advantages of the new USB 3.0 (superspeed) standard

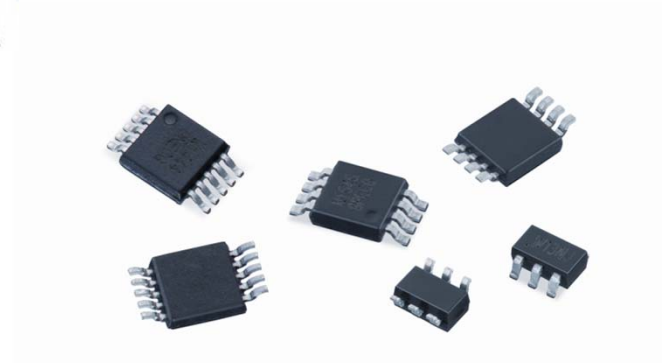
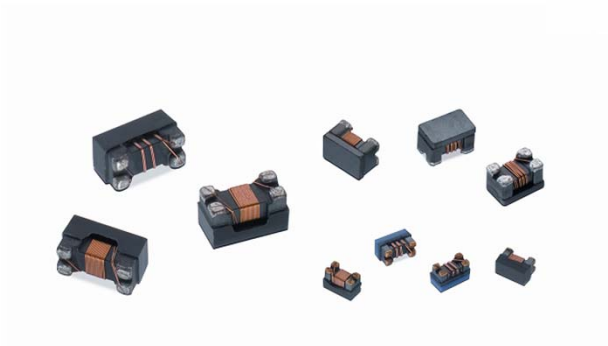


- Up to 10x higher data rate than USB 2.0 (4.8Gbps vs. 480Mbps)
- Separate data lanes for upload and download allow to read and store files at the same time
- Due to higher current capability, quicker charge through USB of mobile devices
- Better power efficiency due to interrupt-driven protocol
- Backwards-compatible to USB 2.0 standard

# Würth Electronics line-up for USB 3.0 applications



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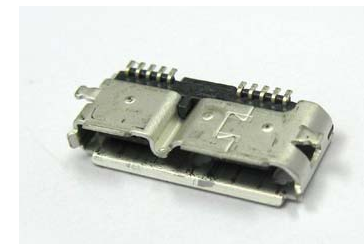
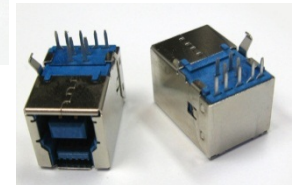


# WR-COM USB Connectors and Cable Assemblies

Connectors and Cable Assemblies compatible to new USB 3.0 standard

## Characteristics:

- Full offering of connectors compatible to all requirements of USB 3.0 (superspeed) in all common configurations
- Blue color (superspeed standard)
- High temp LCP plastic used in all Connectors
- RoHS, REACH & Halogen-Free
- Selective gold plating of contacts for up to 5000 mating cycles
- Connectors: reflow and wave solderable!

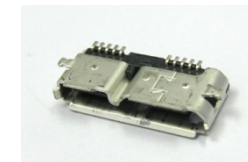
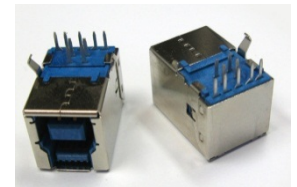


# WR-COM USB Connectors and Cable Assemblies

Connectors and Cable Assemblies compatible to new USB 3.0 standards

## Family Overview:

Würth Part Number	Mouser Part Number	Type	Configuration	Mounting Style	Feature
692121030100	710-692121030100	Receptable	1x1 A Type	THT	Standard
692121130100	710-692121130100	Receptable	1x1 A Type	THT	Reverse Offset 0.14mm
692121230100	710-692121230100	Receptable	1x1 A Type	THT	Reverse Offset 1.04mm
692121330100	710-692121330100	Receptable	1x1 A Type	THT	Reverse Offset 1.75mm
692122030100	710-692122030100	Receptable	1x1 A Type	SMD	Standard
692112030100	710-692112030100	Plug	1x1 A Type	SMD	Standard
692141030100	710-692141030100	Receptable	2x1 A-Type	THT	Standard
692221030100	710-692221030100	Receptable	1x1 B Type	THT	Standard
692622030100	710-692622030100	Receptable	1x1 microB Type	SMD	Standard



Würth Part Number	Mouser Part Number	Connection 1	Connection 2	Length
692901100000	710-692901100000	A Plug	A Plug	1m
692902100000	710-692902100000	A Plug	A Socket	1m
692903100000	710-692903100000	A Plug	B Plug	1m
692904100000	710-692904100000	A Plug	Micro B Plug	1m



# WE-CNSW HF Series



## Common Mode Noise Filter for High Speed Data Lines

### Characteristics:

- Current compensated data line filter
- High common mode noise suppression at high frequencies
- Small influence on high speed signals through winding symmetry
- Operating temperature:  $-40\text{ }^{\circ}\text{C}$  to  $+125\text{ }^{\circ}\text{C}$
- Small 0805 package size



### Applications:

- USB 3.0
- LVDS
- HDMI
- Other high speed data lines



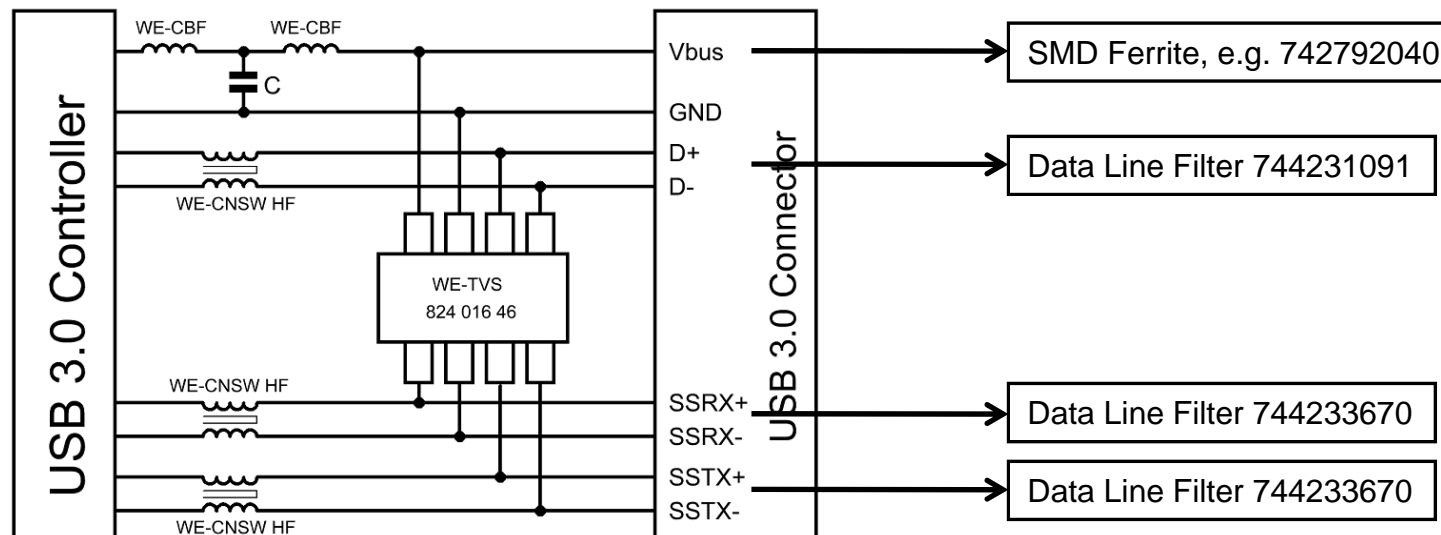


# WE-CNSW HF Series

Würth Part Number	Mouser Part Number	Impedence @ 100MHz	Rated Current	Typical Application
744231091	710-744231091	90Ohm	370mA	USB 2.0
744233670	710-744233670	67Ohm	320mA	USB 3.0
744233900	710-744233900	90Ohm	280mA	HDMI
744233121	710-744233121	120Ohm	280mA	LVDS / USB 2.0



## Robust USB Port EMI Protection:





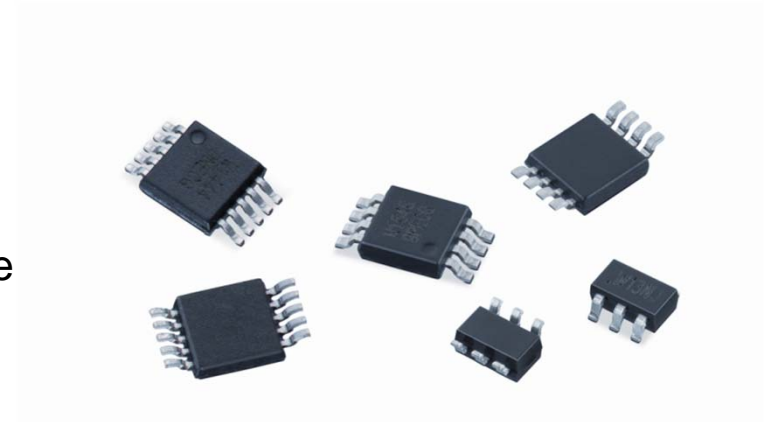
# WE-TVS Super Speed Series



## TVS Diode Array for High Speed Data Lines

### Characteristics:

- Industry's lowest clamping voltage and ultra low capacitance
- Rail-to-Rail protection
- Standard SOT and MSOP package sizes
- Epoxy UL94 V-0 listed
- RoHS, REACH and halogen free
- Operating temperature:  $-40\text{C}^{\circ}$  to  $+85\text{C}^{\circ}$



### Applications:

- USB 3.0
- Display Port
- HDMI 1.3/1.4
- SATA
- Gbit LAN
- DVI

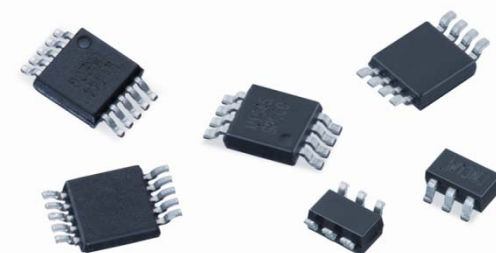




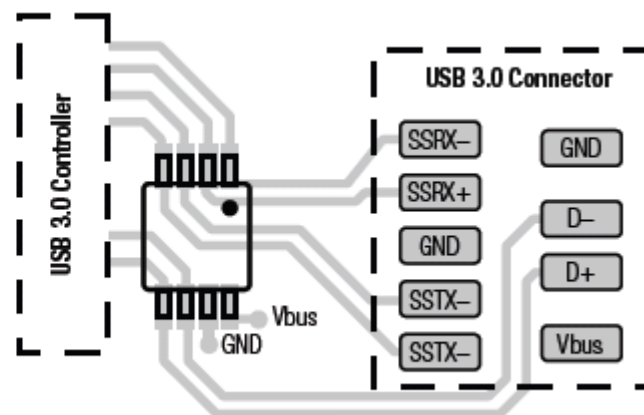
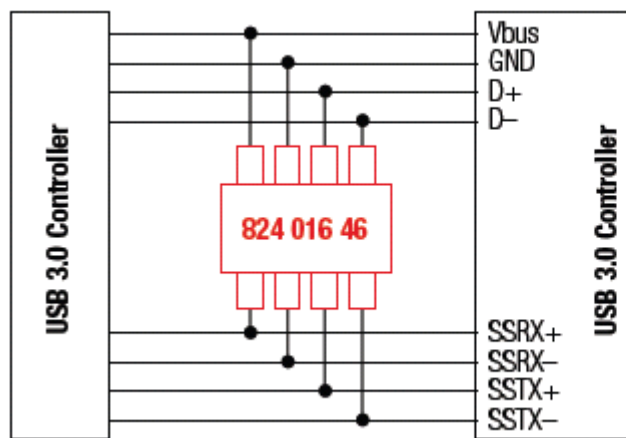
# WE-TVS Super Speed Series

## Family Overview:

Wurth Part Number	Mouser Part Number	Size	Rev Stand-off Voltage	Rev Breakdown Voltage	I/O	Channel Input Capacitance	Channel to Channel Input Capacitance	Typical Application
82401646	TBD	MSOP-8L	5V	6V	6+1	0.2pF	0.05pF	USB 3.0 HDMI 1.4
82401444	TBD	MSOP-10L	5V	6V	4+1	0.6pF	0.10pF	HDMI 1.3 DVI Display Port
824014	TBD	SOT23-6L	5V	6V	4+1	0.6pF	0.10pF	



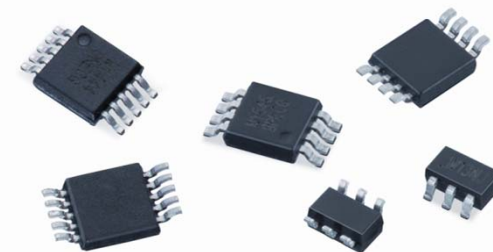
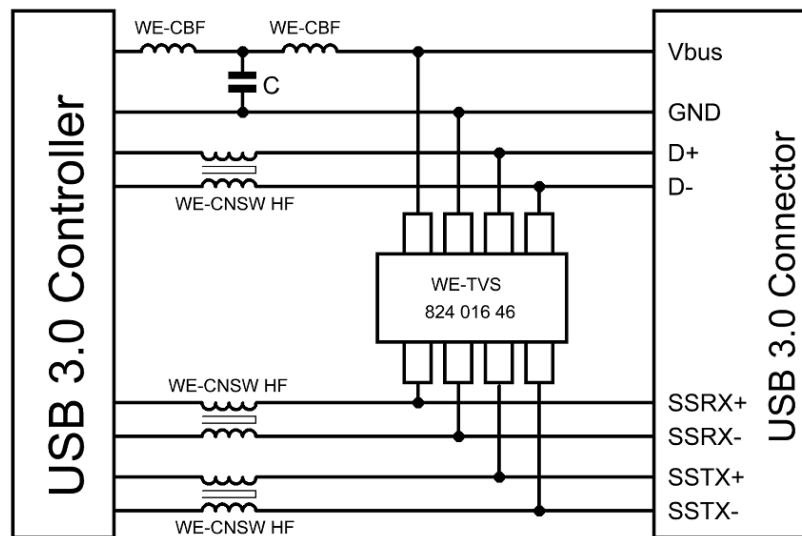
## Schematic of a typical USB 3.0 application:



# In Summary



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## This ends the product presentation

For more information, or to purchase Würth Electronics products, please visit

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