



## Communication Connector WR-COM

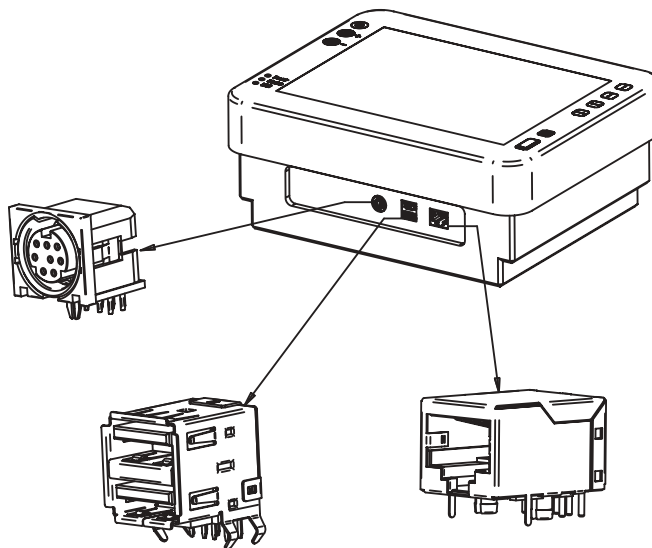




## Communication Connector WR-COM

Würth Elektronik offers a wide range of communication connectors like: USB, Firewire, Mini DIN, DVI and HDMI connectors.

Coming from the computer market, all these connectors can now be found everywhere, in the consumer market like digital camera, mobile phone (Mini USB) flat screen (HDMI) as well as in a lot of the industrial applications.







**11**

Performance level 3  
Performance level 2 as per CECC 75 301-802  
Performance level 1 as per CECC 75 301-802

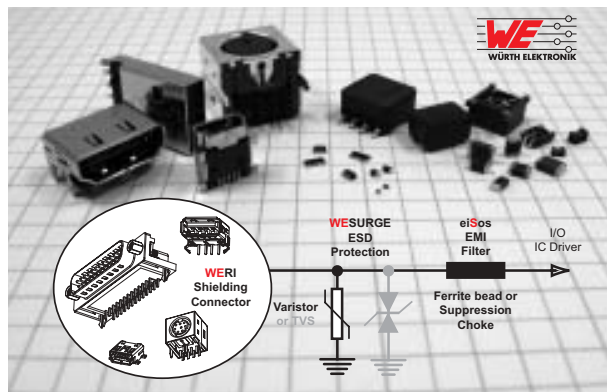
50 mating cycles, no gaz test  
250 mating cycles, 4 days 4 mixed gaz test - IEC 60 512  
500 mating cycles, 10 days 4 mixed gaz test - IEC 60 512



## Communication Connector WR-COM

<b>NEW</b>		USB, Mini USB, Micro USB	11-5 to 11-20
<b>NEW</b>		IEEE 1394	11-21 to 11-23
		Mini DIN	11-24 to 11-27
		HDMI, Mini HDMI	11-28 to 11-30
		DVI	11-31
<b>NEW</b>		Design Kit	11-32 & 11-33

**Würth Elektronik** has understood the requirements of design engineers offering also ESD and EMI suppression parts for its communication connectors. In the EMC labs customers are often faced with unsatisfied protection of its designs due to the rigorous tests against ESD and EMI.



### Related Products

- Recommended parts for LAN transforming  
LAN Transformer 10/100 BaseT WE-LAN e.g. 749 010 012  
LAN Transformer Gigabit WE-LAN e.g. 749 020 010
- Recommended parts for EMI suppression  
Chip Bead Ferrites WE-CBF e.g. 742 792 040 with 600Ohm in size 0805  
Common Mode Chokes WE-CNSW e.g. 744 232 222 with 2200Ohm
- Recommended parts for ESD suppression  
ESD Suppressor WE-VE "ULC" e.g. 823 07 050 029 with 0.2pF in size 0402  
TVS Diodes WE-TVS e.g. 824 015 with 4 I/O lines + VDD protection



## Communication Connector WR-COM

Sub-family	Shielding or USB type	Gender	Type	Rows	Construction	Option	Order Code	Page
USB	Type A	Receptacle	Horizontal	Single	THT		614 004 160 21	11-5
				Dual	THT		614 008 260 21	11-6
			Up right	Single	THT		614 004 134 726	11-7
			Vertical		THT		614 004 135 023	11-8
			Vertical	Dual	THT		614 008 235 023	11-9
		Horizontal		Single	SMT		629 004 160 21	11-10
		Type B	Receptacle		Horizontal		THT	614 004 161 21
				SMT			629 104 161 21	11-13
				Vertical	THT		614 004 133 21	11-14
					SMT		629 104 142 721	11-15
	Horizontal				Single	SMT	651 305 142 821	11-16
	USB	Type A B	Receptacle	Horizontal	Single	SMT		
	Mini USB	Type B	Receptacle	Horizontal	Single	THT	651 005 136 521	11-17
						SMT	651 005 161 21	11-18
				Vertical		THT	651 005 136 421	11-19
Micro USB	Type B	Receptacle	Horizontal	Single	SMT	With peg	629 105 136 821	11-20
IEEE 1394		Receptacle	Horizontal	Single	THT	With peg	677 006 144 521	11-21
			Up right				677 006 144 321	11-22
			Vertical				677 006 144 621	11-23
Mini DIN	Shielded	Receptacle	Horizontal	Single	Black		631 0xx 112 021	11-24
				Single	Green or Purple		631 006 136 x21	11-25
				Dual	Green & Purple		631 012 212 021	11-26
	Half Shielded			Single	Black		631 0xx 110 21	11-27
HDMI	Shielded	Receptacle	Horizontal		SMT		685 119 134 923	11-28
						With screw	685 119 135 725	11-29
Mini HDMI	Shielded	Receptacle	Horizontal		SMT		685 119 136 923	11-30
DVI	Shielded	Receptacle	Horizontal	Digital	THT	With screw	675 024 321 221	11-31
				Analogic & Digital	THT	With screw	675 024 321 321	
Design Kit							615 001	11-32

NEW

NEW

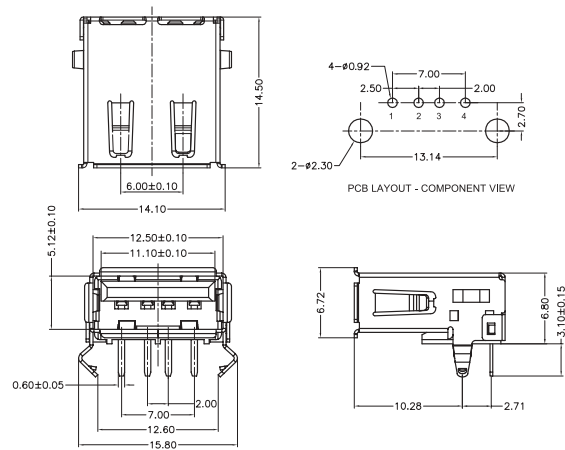
NEW

NEW

NEW



## Horizontal USB Type A WR-COM



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: White
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

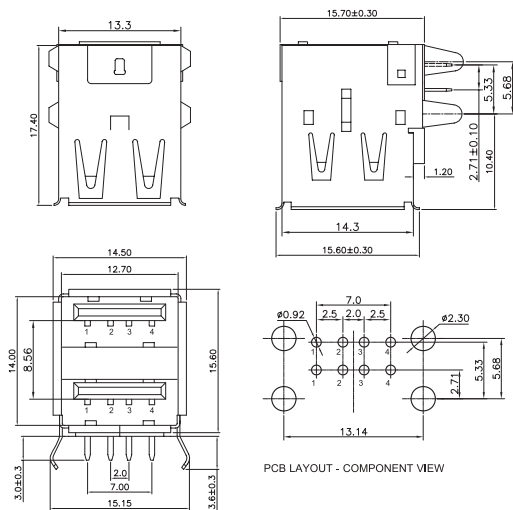
### PACKAGING

- Tray

Order Code	Pins	
614 004 160 21	4	-



## Horizontal Dual Stacked USB Type A WR-COM



### MATERIAL

- |                        |                    |
|------------------------|--------------------|
| • Insulator material:  | PBT                |
| • Flammability rating: | UL94-V0            |
| • Colour:              | White              |
| • Contact material:    | Copper alloy       |
| • Contact type:        | Stamped            |
| • Contact plating:     | Selective gold     |
| • Shielding:           | Brass Ni plated    |
| • Quality class:       | 1500 mating cycles |

### ENVIRONMENTAL

- |                          |                     |
|--------------------------|---------------------|
| • Operating temperature: | -40 °C up to 105 °C |
| • Compliance:            | Lead free and RoHS  |

### ELECTRICAL

- |                                    |             |
|------------------------------------|-------------|
| • Current rating:                  | 1 A         |
| • Working voltage:                 | 30 V        |
| • Insulation resistance:           | >1000 MOhm  |
| • Dielectric withstanding voltage: | 750 Vac/mn  |
| • Contact resistance:              | 20 mOhm max |

### SOLDERING

- |                       |                                |
|-----------------------|--------------------------------|
| • Solder temperature: | JEDEC lead free wave soldering |
|-----------------------|--------------------------------|

### PACKAGING

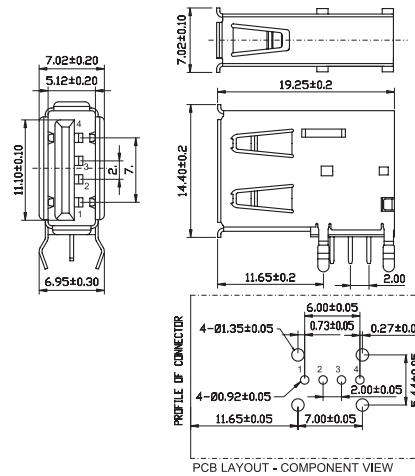
- Tray

11

Order Code	Pins	
614 008 260 21	2 x 4	-



## Up Right USB Type A WR-COM



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: White
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

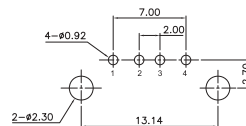
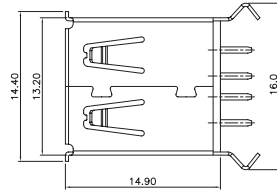
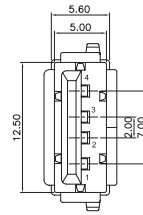
### PACKAGING

- Tray

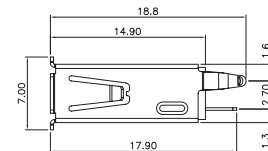
Order Code	Pins	
614 004 134 726	4	-



## Vertical USB Type A WR-COM



PCB LAYOUT - COMPONENT VIEW



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: White
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

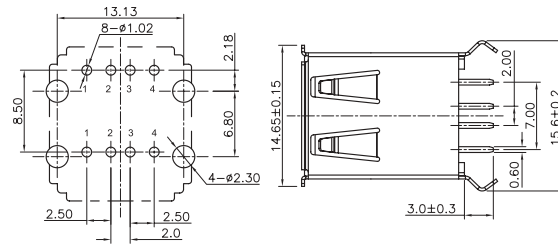
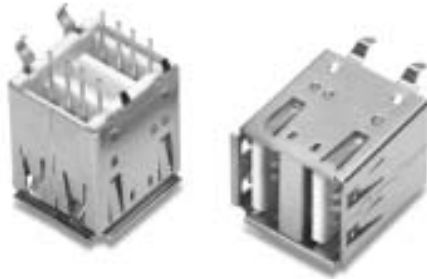
11

Order Code	Pins	
614 004 135 023	4	-

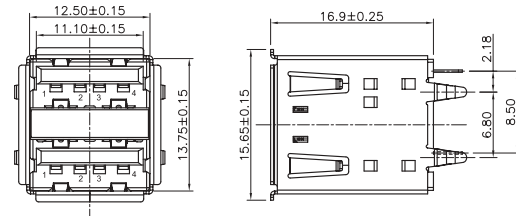




## Vertical Dual USB Type A WR-COM



PCB LAYOUT - COMPONENT VIEW



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: White
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

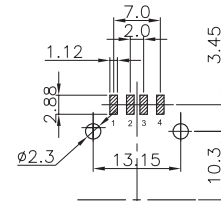
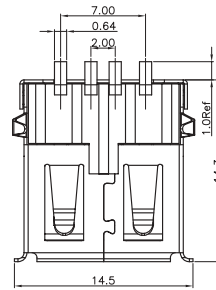
Order Code	Pins	
614 008 235 023	2 x 4	-



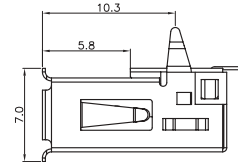
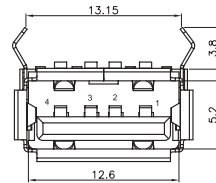
## SMT Horizontal USB Type A WR-COM



HIGH TEMPERATURE



PCB LAYOUT - COMPONENT VIEW



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

- Tube

11

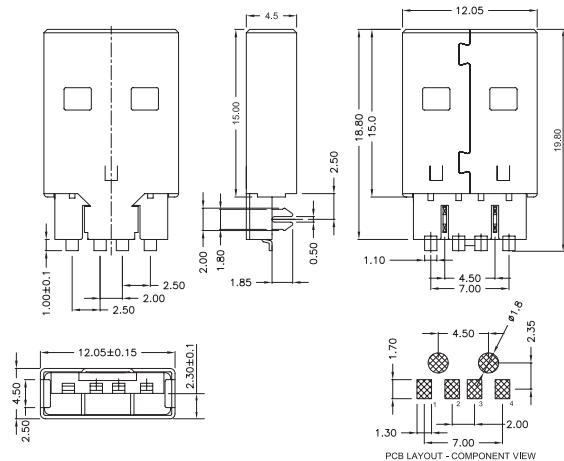
Order Code	Pins	
629 004 160 21	4	-



## Plug SMT with Clip USB Type A WR-COM



HIGH TEMPERATURE



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

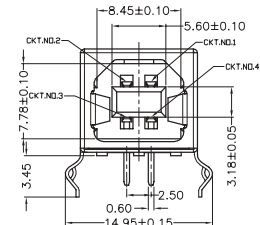
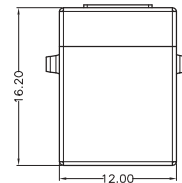
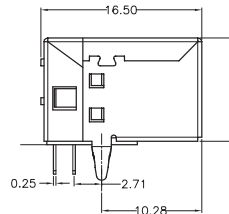
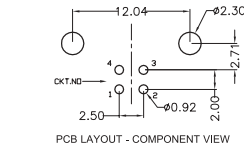
- Tube

11

Order Code	Pins	
629 004 113 921	4	-



## Horizontal USB Type B WR-COM



### MATERIAL

- |                       |                    |
|-----------------------|--------------------|
| • Insulator material: | PBT                |
| • Flammability rating | UL94-V0            |
| • Colour:             | White              |
| • Contact material:   | Copper alloy       |
| • Contact type:       | Stamped            |
| • Contact plating:    | Selective gold     |
| • Shielding:          | Brass Ni plated    |
| • Quality class:      | 1500 mating cycles |

### ENVIRONMENTAL

- |                          |                     |
|--------------------------|---------------------|
| • Operating temperature: | -40 °C up to 105 °C |
| • Compliance:            | Lead free and RoHS  |

### ELECTRICAL

- |                                    |             |
|------------------------------------|-------------|
| • Current rating:                  | 1 A         |
| • Working voltage:                 | 30 V        |
| • Insulation resistance:           | >1000 MOhm  |
| • Dielectric withstanding voltage: | 750 Vac/mn  |
| • Contact resistance:              | 20 mOhm max |

### SOLDERING

- |                       |                                |
|-----------------------|--------------------------------|
| • Solder temperature: | JEDEC lead free wave soldering |
|-----------------------|--------------------------------|

### PACKAGING

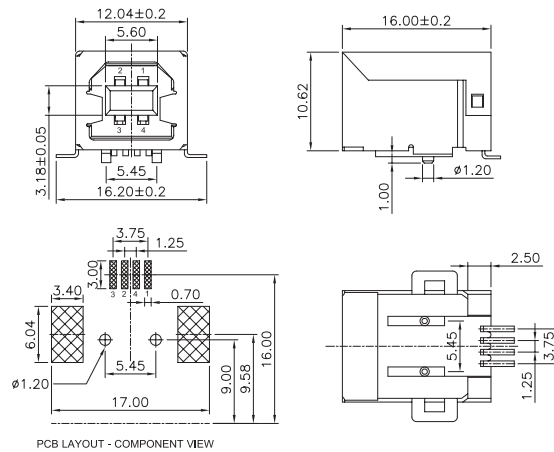
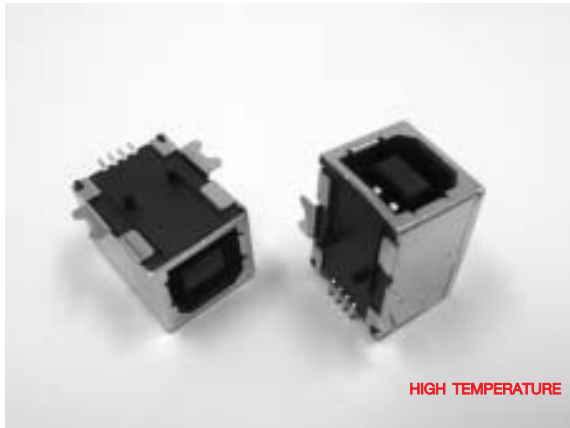
- Tray

11

Order Code	Pins	
614 004 161 21	4	-



## SMT Horizontal USB Type B WR-COM



### MATERIAL

• Insulator material:	LCP
• Flammability rating	UL94-V0
• Colour:	Black
• Contact material:	Copper alloy
• Contact type:	Stamped
• Contact plating:	Selective gold
• Shielding:	Brass Ni plated
• Quality class:	1500 mating cycles

### ENVIRONMENTAL

• Operating temperature:	-40 °C up to 105 °C
• Compliance:	Lead free and RoHS

### ELECTRICAL

• Current rating:	1 A
• Working voltage:	30 V
• Insulation resistance:	>1000 MOhm
• Dielectric withstanding voltage:	750 Vac/mn
• Contact resistance:	20 mOhm max

### SOLDERING

• Solder temperature:	JEDEC lead free reflow soldering
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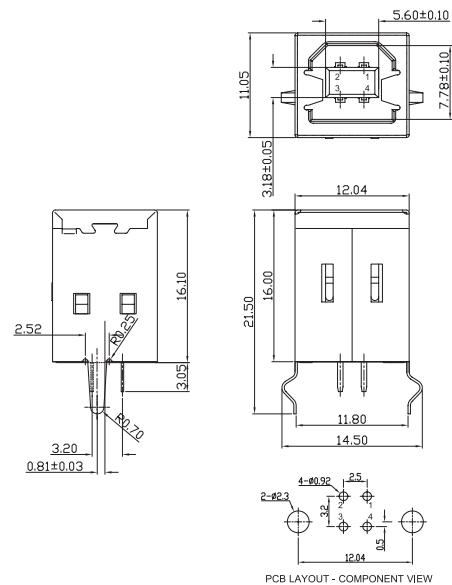
### PACKAGING

• Tape & Reel
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Order Code	Pins	
629 104 161 21	4	-



## Vertical USB Type B WR-COM



### MATERIAL

• Insulator material:	PBT
• Flammability rating	UL94-V0
• Colour:	White
• Contact material:	Copper alloy
• Contact type:	Stamped
• Contact plating:	Selective gold
• Shielding:	Brass Ni plated
• Quality class:	1500 mating cycles

### ENVIRONMENTAL

• Operating temperature:	-40 °C up to 105 °C
• Compliance:	Lead free and RoHS

### ELECTRICAL

• Current rating:	1 A
• Working voltage:	30 V
• Insulation resistance:	>1000 MOhm
• Dielectric withstanding voltage:	750 Vac/mn
• Contact resistance:	20 mOhm max

### SOLDERING

• Solder temperature:	JEDEC lead free wave soldering
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### PACKAGING

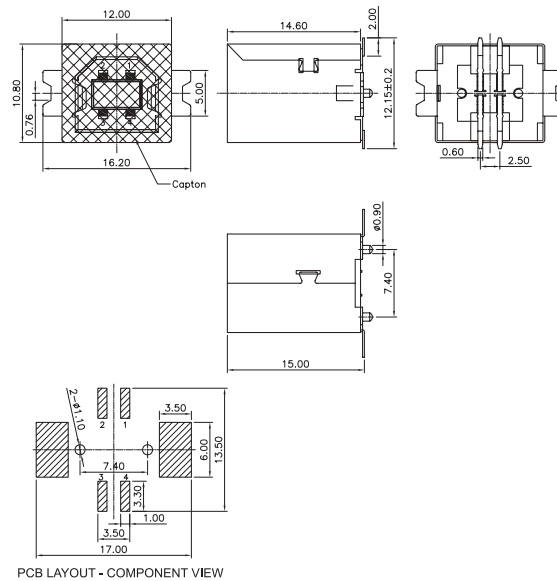
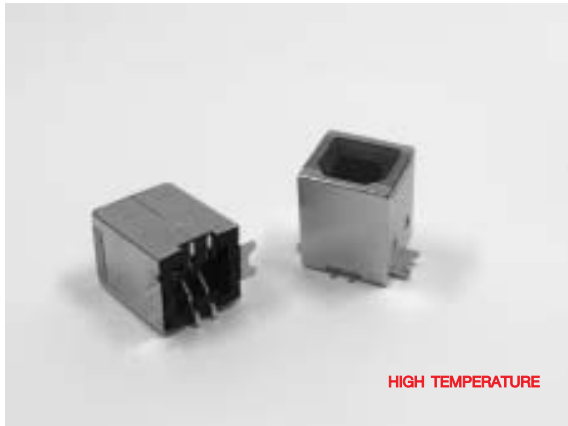
- Tray

11

Order Code	Pins	
614 004 133 21	4	-

NEW

## USB SMT Type B Vertical WR-COM



### MATERIAL

- Insulator material: PA 9T
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

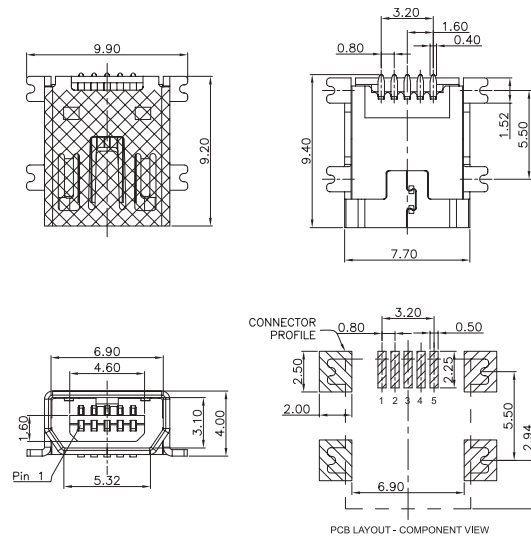
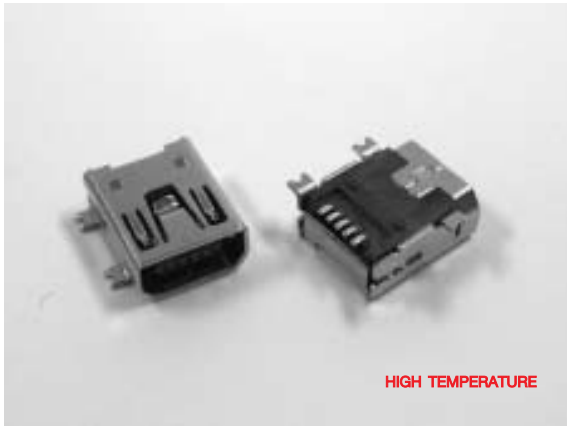
- Tape & Reel with Mylar

11

Order Code	Pins	
629 104 142 721	4	-

NEW

## SMT Horizontal 5 Contacts USB Type AB WR-COM



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

- Tape & Reel

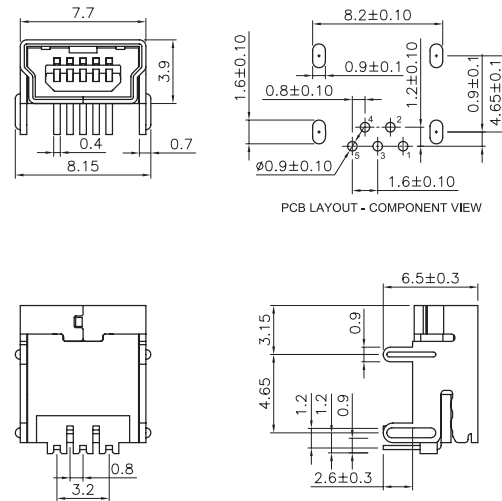
11

Order Code	Pins	
651 305 142 821	5	-





## Horizontal 5 Contacts Mini USB Type B WR-COM



### MATERIAL

• Insulator material:	PBT
• Flammability rating	UL94-V0
• Colour:	Black
• Contact material:	Copper alloy
• Contact type:	Stamped
• Contact plating:	Selective gold
• Shielding:	Brass Ni plated
• Quality class:	1500 mating cycles

### ENVIRONMENTAL

• Operating temperature:	-40 °C up to 105 °C
• Compliance:	Lead free and RoHS

### ELECTRICAL

• Current rating:	1 A
• Working voltage:	30 V
• Insulation resistance:	>1000 MOhm
• Dielectric withstanding voltage:	750 Vac/mn
• Contact resistance:	20 mOhm max

### SOLDERING

• Solder temperature:	JEDEC lead free wave soldering
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### PACKAGING

- Tube

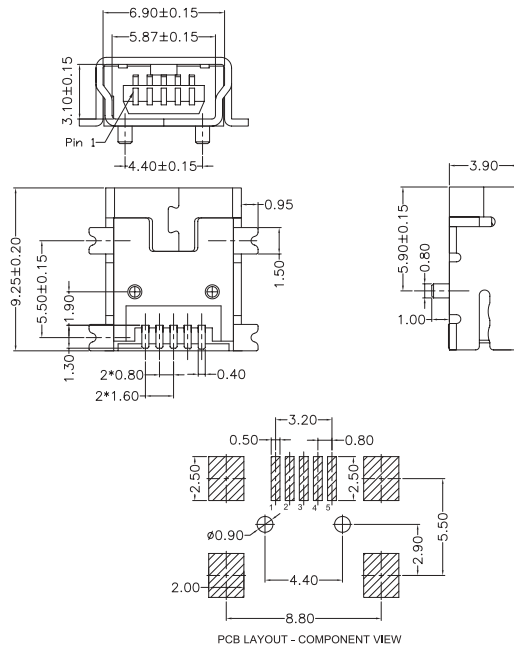
Order Code	Pins	
651 005 136 521	5	-



## SMT Horizontal 5 Contacts Mini USB Type B WR-COM



HIGH TEMPERATURE



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

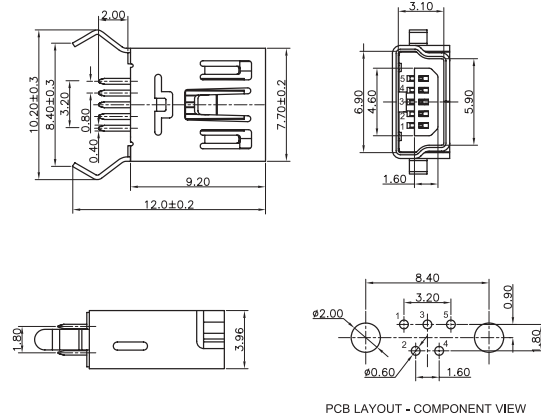
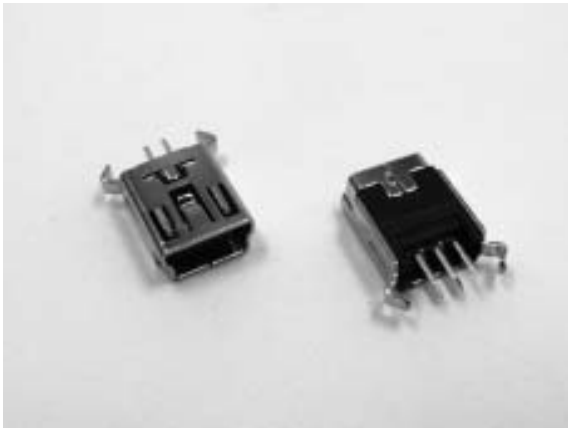
- Tape & Reel with Mylar

11

Order Code	Pins	
651 005 161 21	5	-



## Vertical 5 Contacts Mini USB Type B WR-COM



### MATERIAL

• Insulator material:	PBT
• Flammability rating	UL94-V0
• Colour:	Black
• Contact material:	Copper alloy
• Contact type:	Stamped
• Contact plating:	Selective gold
• Shielding:	Brass Ni plated
• Quality class:	1500 mating cycles

### ENVIRONMENTAL

• Operating temperature:	-40 °C up to 105 °C
• Compliance:	Lead free and RoHS

### ELECTRICAL

• Current rating:	1 A
• Working voltage:	30 V
• Insulation resistance:	>1000 MOhm
• Dielectric withstanding voltage:	750 Vac/mn
• Contact resistance:	20 mOhm max

### SOLDERING

• Solder temperature:	JEDEC lead free wave soldering
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### PACKAGING

- Tube

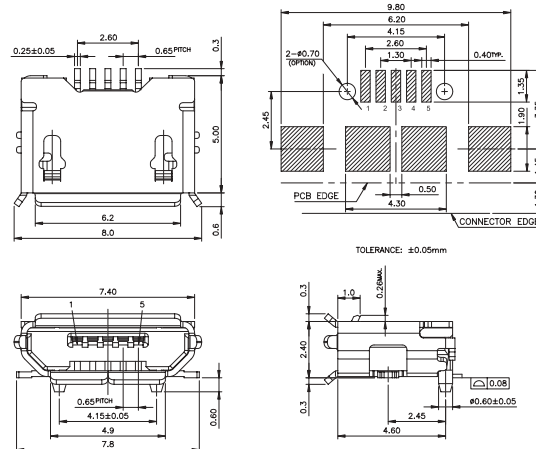
Order Code	Pins	
651 005 136 421	5	-



## SMT Horizontal 5 Contacts Micro USB Type B WR-COM



HIGH TEMPERATURE



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 750 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

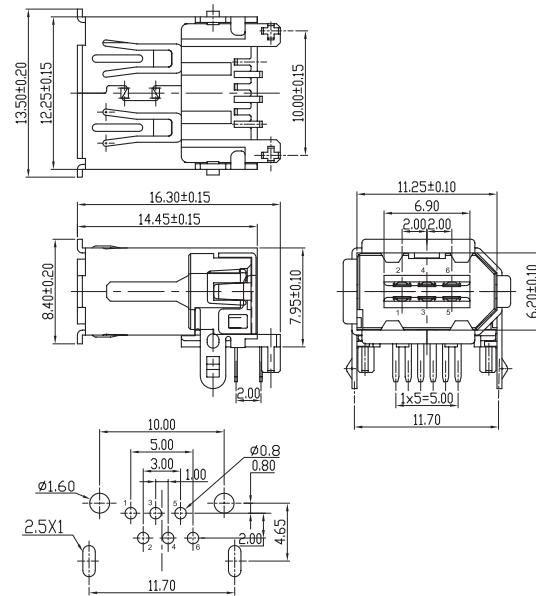
- Tape & Reel

11

Order Code	Pins	
629 105 136 821	5	-

NEW

## Horizontal Receptacle IEEE 1394 WR-COM



PCB LAYOUT - COMPONENT VIEW



### MATERIAL

- Insulator material: PA66
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -20 °C up to 85 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 500 Vac/mn
- Contact resistance: 30 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

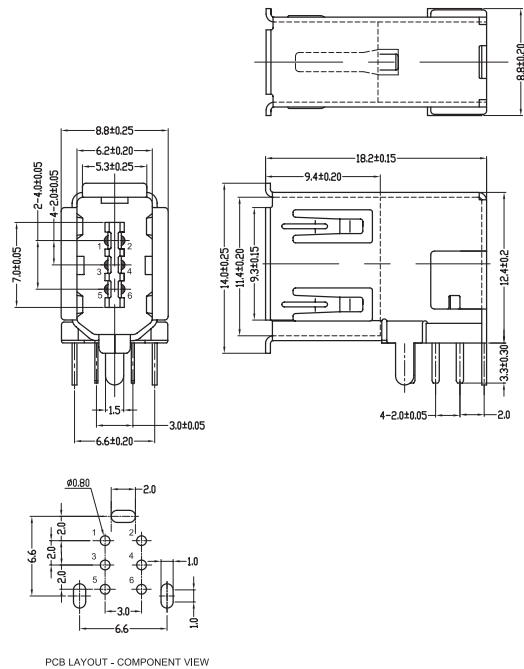
11

Order Code	Pins	
677 006 144 521	6	-



NEW

## Up Right Receptacle IEEE 1394 WR-COM



### MATERIAL

- Insulator material: PA66
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -20 °C up to 85 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 500 Vac/mn
- Contact resistance: 30 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

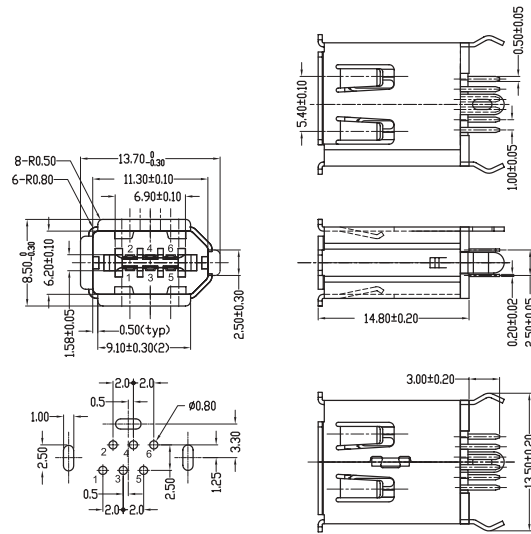
11

Order Code	Pins	
677 006 144 321	6	-



NEW

## Vertical Receptacle IEEE 1394 WR-COM



PCB LAYOUT - COMPONENT VIEW



### MATERIAL

- Insulator material: PA66
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 1500 mating cycles

### ENVIRONMENTAL

- Operating temperature: -20 °C up to 85 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 30 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 500 Vac/mn
- Contact resistance: 30 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

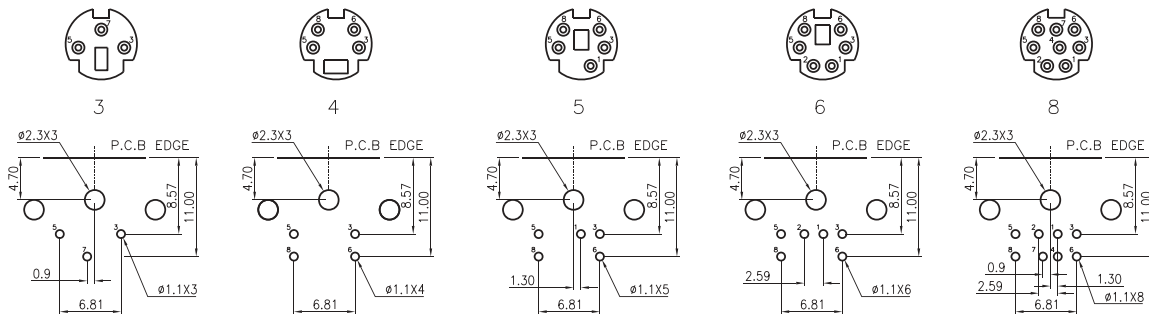
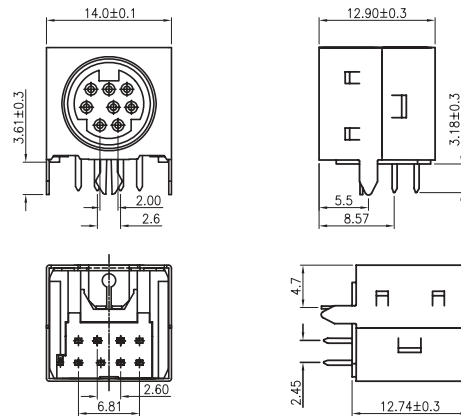
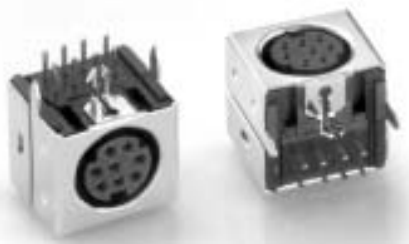
- Tray

11

Order Code	Pins	
677 006 144 621	6	-



## Horizontal Shielded Mini DIN WR-COM



PCB LAYOUT - COMPONENT VIEW



11

### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 3 as per IEC 60 603-13

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 12 V
- Insulation resistance: >100 MOhm
- Dielectric withstanding voltage: 250 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

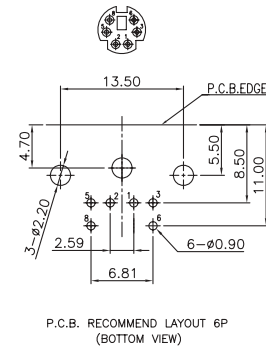
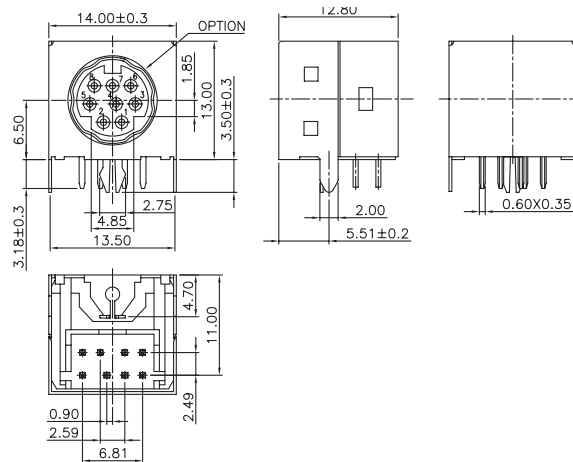
- Tray

Order Code	Pins	
631 003 112 021	3	-
631 004 112 021	4	-
631 005 112 021	5	-
631 006 112 021	6	-
631 008 112 021	8	-





## Horizontal Shielded Colored Mini DIN WR-COM



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Purple or Green
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 3 as per IEC 60 603-13

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 12 V
- Insulation resistance: >100 MOhm
- Dielectric withstanding voltage: 250 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

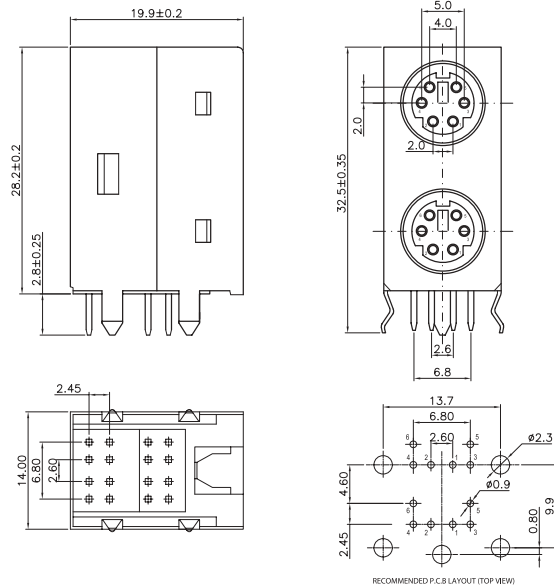
- Tray

11

Order Code	Pins	Color
631 006 136 221	6	Purple
631 006 136 321	6	Green



## Horizontal Shielded Colored Dual Mini DIN WR-COM



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Purple and Green
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass Ni plated
- Quality class: 3 as per IEC 60 603-13

### ENVIRONMENTAL

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 1 A
- Working voltage: 12 V
- Insulation resistance: >100 MOhm
- Dielectric withstanding voltage: 250 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

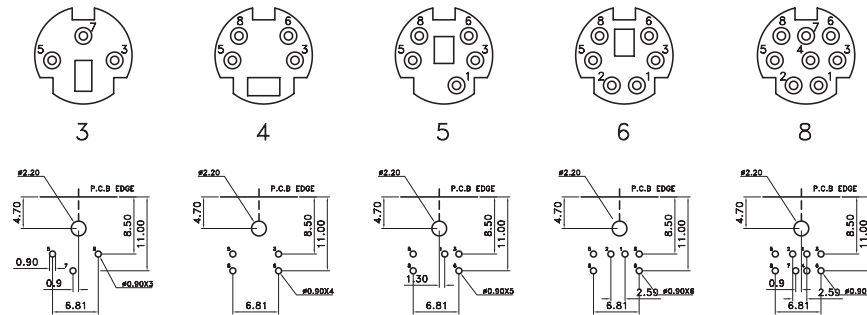
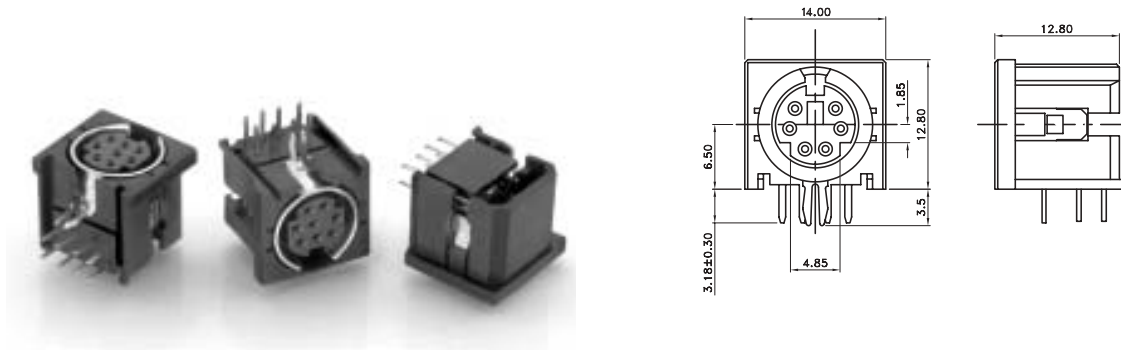
- Tray

11

Order Code	Pins	Description
631 012 212 021	2 x 6	Up Green / Down Purple



# Horizontal Half Shielded Mini DIN WR-COM



PCB LAYOUT - COMPONENT VIEW



**MATERIAL**

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 3 as per IEC 60 603-13

**ENVIRONMENTAL**

- Operating temperature: -40 °C up to 105 °C
- Compliance: Lead free and RoHS

**ELECTRICAL**

- Current rating: 1 A
- Working voltage: 12 V
- Insulation resistance: >100 MOhm
- Dielectric withstanding voltage: 250 Vac/mn
- Contact resistance: 20 mOhm max

**SOLDERING**

- Solder temperature: JEDEC lead free wave soldering

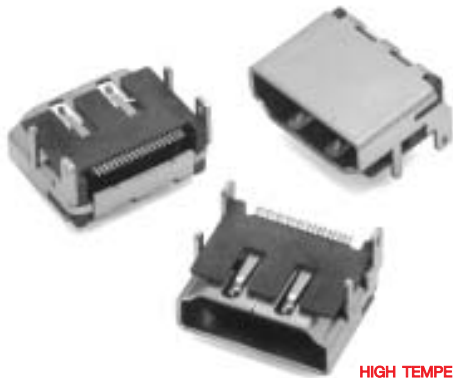
**PACKAGING**

- Tray

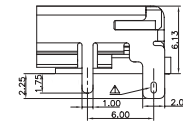
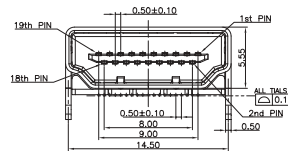
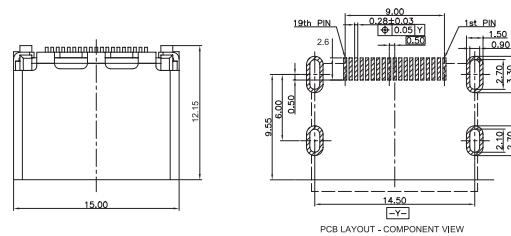
Order Code	Pins	
631 003 110 21	3	-
631 004 110 21	4	-
631 005 110 21	5	-
631 006 110 21	6	-
631 008 110 21	8	-



## SMT Horizontal HDMI WR-COM



HIGH TEMPERATURE



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Phosphore bronze
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass tin plated
- Quality class: 3 as per IEC60 603-13

### ENVIRONMENTAL

- Operating temperature: -25 °C up to 85 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 0.5 A
- Working voltage: 40 V
- Insulation resistance: >100 MOhm
- Dielectric withstanding voltage: 500 Vac/mn
- Contact resistance: 30 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

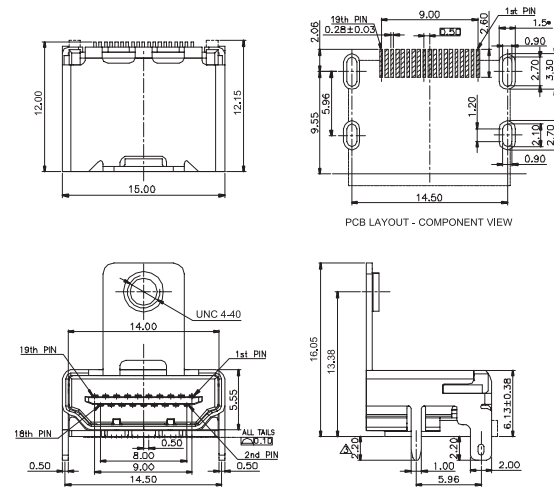
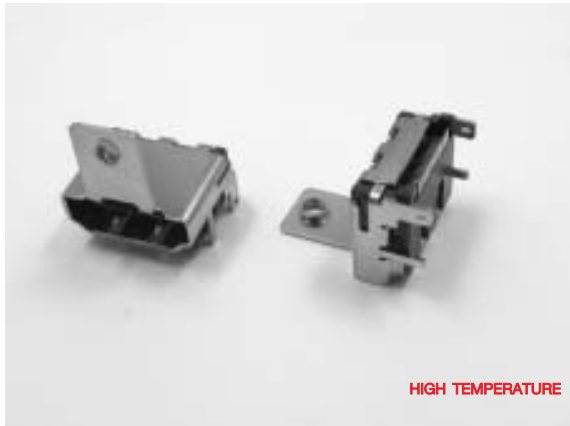
- Tape & Reel

11

Order Code	Pins	
685 119 134 923	19	-



## SMT Horizontal HDMI with UNC 4-40 Screw WR-COM



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Phosphore bronze
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass tin plated
- Quality class: 3 as per IEC60 603-13

### ENVIRONMENTAL

- Operating temperature: -25 °C up to 85 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 0.5 A
- Working voltage: 40 V
- Insulation resistance: >100 MOhm
- Dielectric withstanding voltage: 500 Vac/mn
- Contact resistance: 30 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

- Tape & Reel

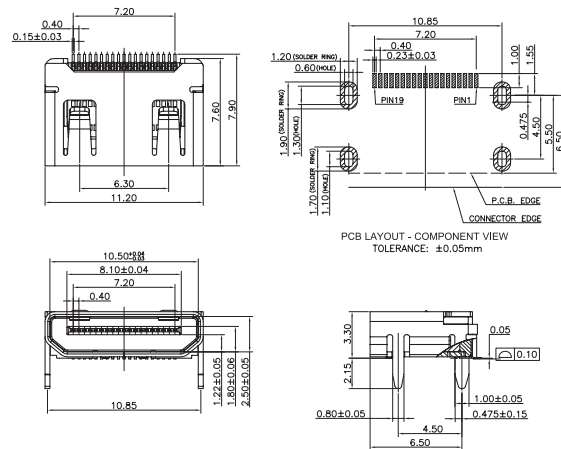
Order Code	Pins	
685 119 135 725	19	-



## SMT Horizontal Mini HDMI WR-COM



HIGH TEMPERATURE



### MATERIAL

- Insulator material: LCP
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Phosphore bronze
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Brass tin plated
- Quality class: 3 as per IEC60 603-13

### ENVIRONMENTAL

- Operating temperature: -25 °C up to 85 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 0.5 A
- Working voltage: 40 V
- Insulation resistance: >100 MOhm
- Dielectric withstanding voltage: 500 Vac/mn
- Contact resistance: 30 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

### PACKAGING

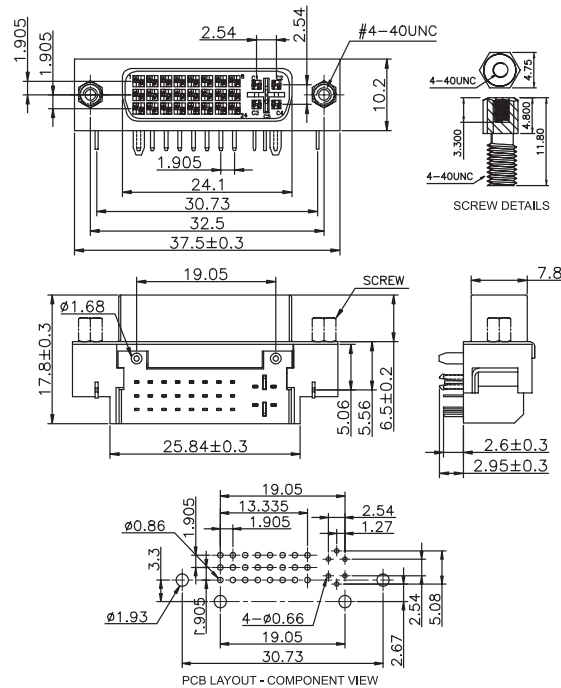
- Tape & Reel

11

Order Code	Pins	
685 119 136 923	19	-



## Horizontal DVI with UNC 4-40 Screw WR-COM



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: White
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Steel tin plated
- Quality class: 3 as per IEC60 603-13

### ENVIRONMENTAL

- Operating temperature: -25 °C up to 85 °C
- Compliance: Lead free and RoHS

### ELECTRICAL

- Current rating: 3 A
- Working voltage: 40 V
- Insulation resistance: >1000 MOhm
- Dielectric withstanding voltage: 500 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

Order Code	Pins	Type
675 024 321 221	24+1	Digital
675 024 321 321	24+5	Analogic & Digital

**NEW**

## Communication Connector & Modular Jack Design Kit



**Order Code 615 001**

Design Kit WR-COM

All the parts of the assortment are detailed on the next page

Note: Modular Jack see chapter 12





## Communication Connector & Modular Jack Design Kit

P/N in the Kit	Pins	Description
614 004 160 21	4	USB Type A Receptacle Horizontal Single THT
614 008 260 21	2 x 4	USB Type A Receptacle Horizontal Dual THT
615 016 338 621	(2 x 4) + 8	USB Type A Shielded Receptacle Horizontal Triple THT + RJ45 With LED
614 004 134 726	4	USB Type A Receptacle Up right Single THT
614 004 135 023	4	USB Type A Receptacle Vertical Single THT
614 008 235 023	2 x 4	USB Type A Receptacle Vertical Dual THT
629 004 160 21	4	USB Type A Receptacle Horizontal Single SMT
629 004 113 921	4	USB Type A Plug Horizontal Single SMT
614 004 161 21	4	USB Type B Receptacle Horizontal Single THT
629 104 161 21	4	USB Type B Receptacle Horizontal Single SMT
614 004 133 21	4	USB Type B Receptacle Vertical Single THT
651 005 136 521	5	Mini USB Type B Receptacle Horizontal Single THT
651 005 161 21	5	Mini USB Type B Receptacle Horizontal Single SMT
651 005 136 421	5	Mini USB Type B Receptacle Vertical Single THT
629 105 136 821	5	Micro USB Type B Receptacle Horizontal Single SMT With peg
631 0xx 112 021	3 to 8	Mini DIN Shielded Receptacle Horizontal Single Black
631 006 136 x21	6	Mini DIN Shielded Receptacle Horizontal Single Green or Purple
631 012 212 021	2 x 5	Mini DIN Shielded Receptacle Horizontal Dual Green & Purple
631 0xx 110 21	3 to 8	Mini DIN Unshielded Receptacle Horizontal Single Black
685 119 134 923	19	HDMI Shielded Receptacle Horizontal SMT
685 119 135 725	19	HDMI Shielded Receptacle Horizontal SMT With screw
685 119 136 923	19	Mini HDMI Shielded Receptacle Horizontal SMT
675 024 321 221	24 + 1	DVI Shielded Receptacle Horizontal Digital THT With screw
675 024 321 321	24 +5	DVI Shielded Receptacle Horizontal Analogic & digital THT With screw

11

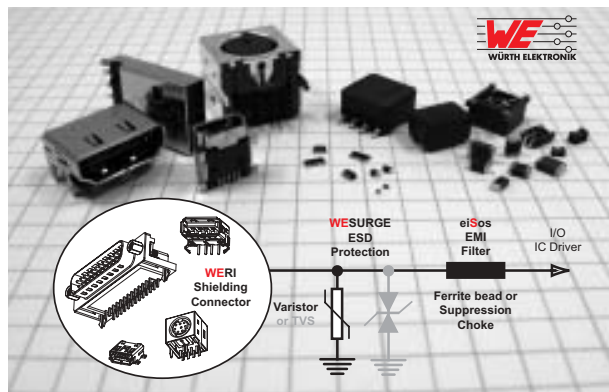
P/N in the Kit	Pins	Description
615 008 137 121	8	RJ45 Unshielded Receptacle Horizontal Single THT
634 008 137 221	8	RJ45 Unshielded Receptacle Horizontal Single SMT
615 008 142 21	8	RJ45 Shielded Receptacle Horizontal Single THT
615 008 137 421	8	RJ45 Shielded Receptacle Horizontal Single THT EMI + LED
634 008 137 521	8	RJ45 Shielded Receptacle Horizontal Single SMT EMI + LED
615 016 137 621	2 x 8	RJ45 Shielded Receptacle Horizontal Double THT
615 016 137 721	2 x 8	RJ45 Shielded Receptacle Horizontal Double THT EMI + LED
615 032 137 821	4 x 8	RJ45 Shielded Receptacle Horizontal Four THT
615 032 137 921	4 x 8	RJ45 Shielded Receptacle Horizontal Four THT EMI + LED
615 008 138 021	8	RJ45 Unshielded Receptacle Vertical Single THT
634 008 138 121	8	RJ45 Unshielded Receptacle Vertical Single SMT
615 008 138 221	8	RJ45 Shielded Receptacle Vertical Single THT
615 008 138 321	8	RJ45 Shielded Receptacle Vertical Single THT LED
615 006 138 421	6	RJ11 Unshielded Receptacle Horizontal Single THT Tab Up
615 006 138 521	6	RJ11 Unshielded Receptacle Vertical Single THT



## Notes:

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**Würth Elektronik** has understood the requirements of design engineers offering also ESD and EMI suppression parts for its communication connectors. In the EMC labs customers are often faced with unsatisfied protection of its designs due to the rigorous tests against ESD and EMI.



### Related Products

- Recommended parts for LAN transforming  
LAN Transformer 10/100 BaseT WE-LAN e.g. 749 010 012  
LAN Transformer Gigabit WE-LAN e.g. 749 020 010
- Recommended parts for EMI suppression  
Chip Bead Ferrites WE-CBF e.g. 742 792 040 with 600Ohm in size 0805  
Common Mode Chokes WE-CNSW e.g. 744 232 222 with 2200Ohm
- Recommended parts for ESD suppression  
ESD Suppressor WE-VE "ULC" e.g. 823 07 050 029 with 0.2pF in size 0402  
TVS Diodes WE-TVS e.g. 824 015 with 4 I/O lines + VDD protection