

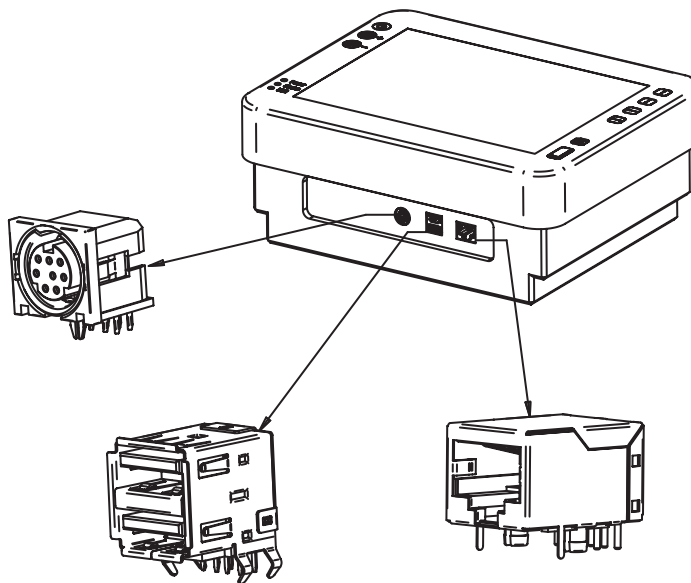
Communication Connector WR-COM



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.



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

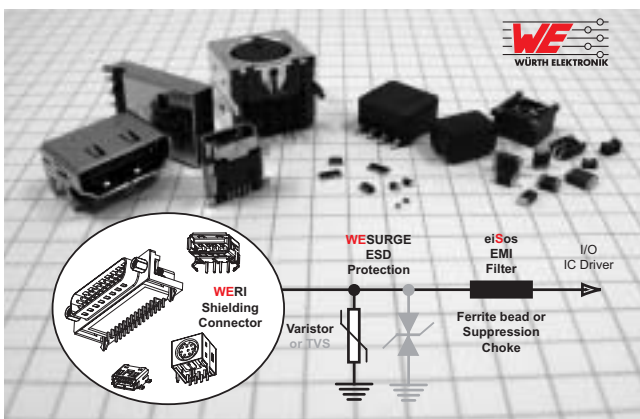
50 mating cycles, no gaz test
250 mating cycles, 4 days 4 mixed gaz test - IEC 60 512
500 mating cycles, 10 days 4 mixed gaz test - IEC 60 512



Communication Connector WR-COM

| | | | |
|------------|--|--------------------------|----------------|
| NEW | | USB, Mini USB, Micro USB | 11-5 to 11-20 |
| NEW | | 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 |
| NEW | | 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 | |
| | | | Horizontal | Dual | THT | | 614 008 235 023 | 11-9 | |
| | | Plug | | Single | SMT | | 629 004 160 21 | 11-10 | |
| | | | SMT | | 629 004 113 921 | | 11-11 | | |
| | | Type B | Receptacle | Horizontal | Single | | THT | 614 004 161 21 | 11-12 |
| | | | | | | | SMT | 629 104 161 21 | 11-13 |
| | | | | Vertical | | | THT | 614 004 133 21 | 11-14 |
| | SMT | | | | | | 629 104 142 721 | 11-15 | |
| | USB | | | Type A B | | | Receptacle | Horizontal | Single |
| | 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 | |
| | Half Shielded | | | Dual | Green & Purple | | 631 012 212 021 | 11-26 | |
| | | | | Single | Black | | 631 0xx 110 21 | 11-27 | |
| HDMI | Shielded | Receptacle | Horizontal | | SMT | With screw | 685 119 134 923 | 11-28 | |
| | | | | | | | 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

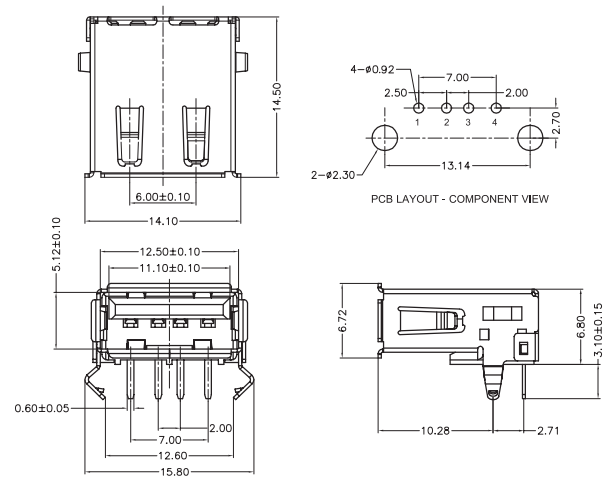
NEW

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

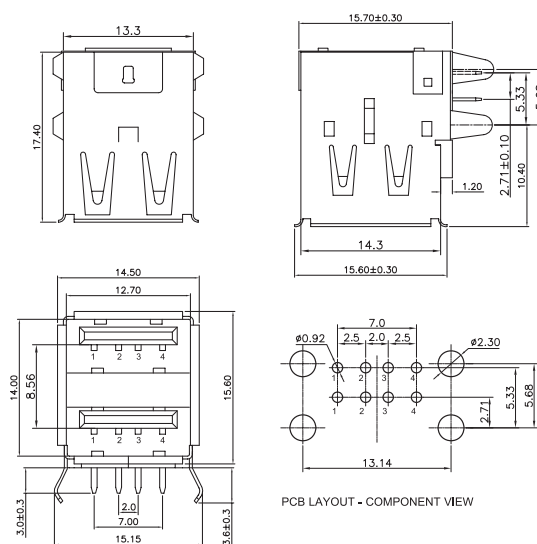
PACKAGING

- 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

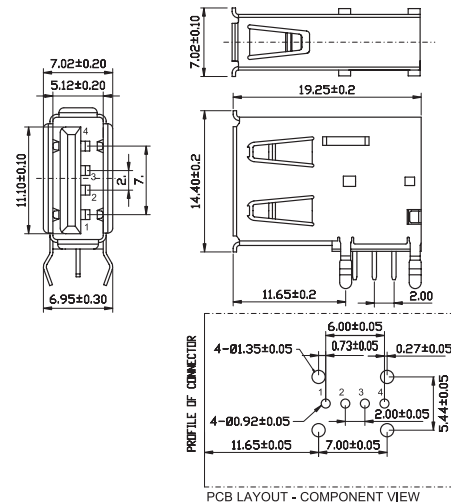
- Solder temperature: JEDEC lead free wave soldering

PACKAGING

- Tray

| 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

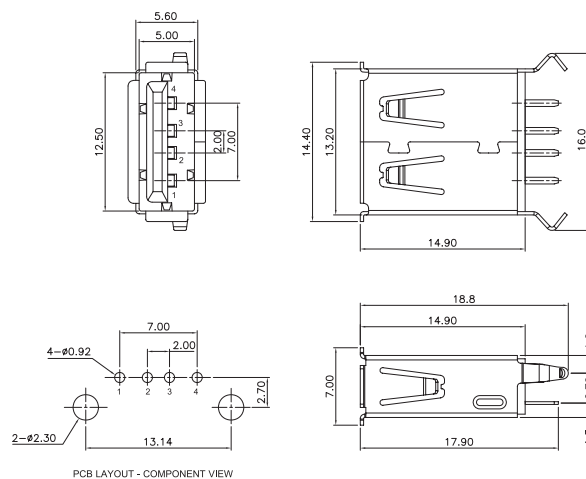
PACKAGING

- Tray

| Order Code | Pins | |
|-----------------|------|---|
| 614 004 134 726 | 4 | - |



Vertical USB Type A WR-COM



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

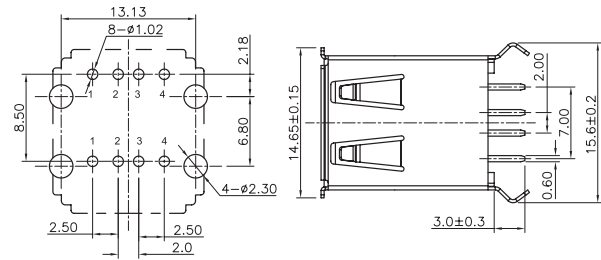
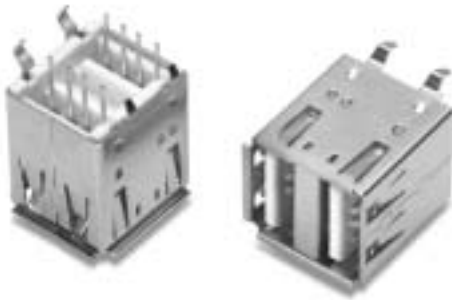
PACKAGING

- Tray

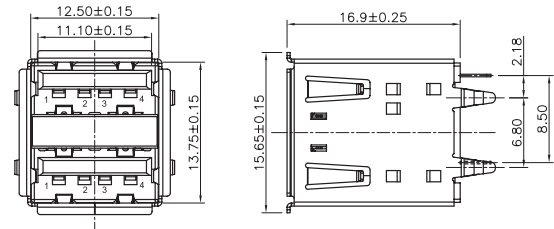
11

| 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

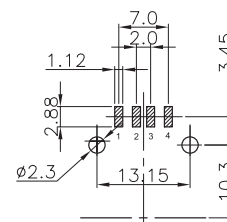
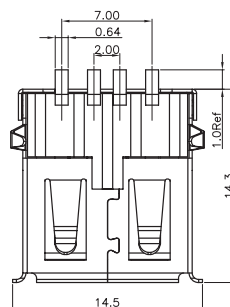
- Tray

| Order Code | Pins | |
|-----------------|-------|---|
| 614 008 235 023 | 2 x 4 | - |

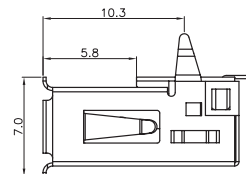
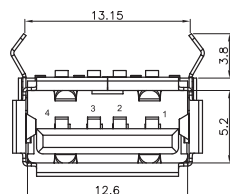
SMT Horizontal USB Type A WR-COM



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

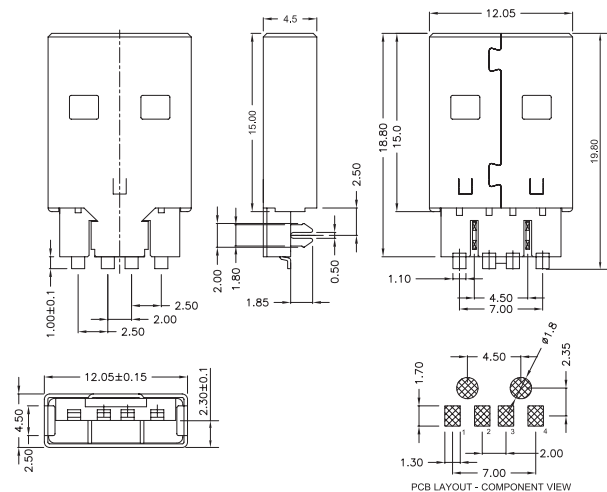
| Order Code | Pins | |
|----------------|------|---|
| 629 004 160 21 | 4 | - |



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

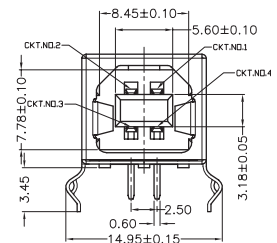
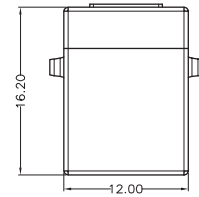
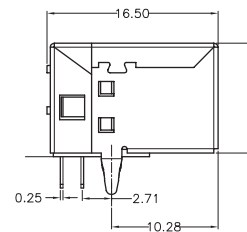
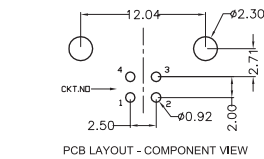
PACKAGING

- Tube

| 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

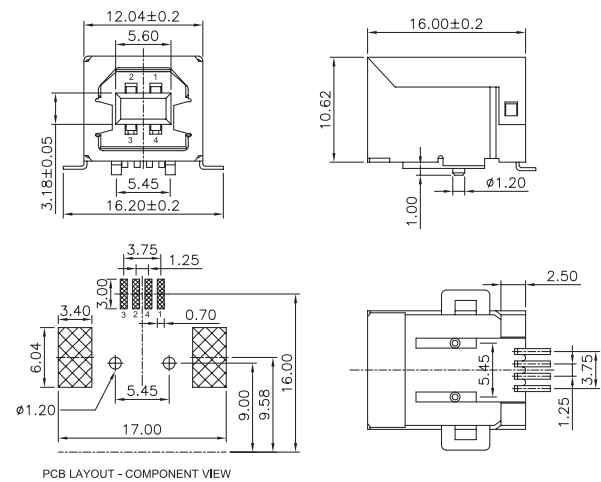
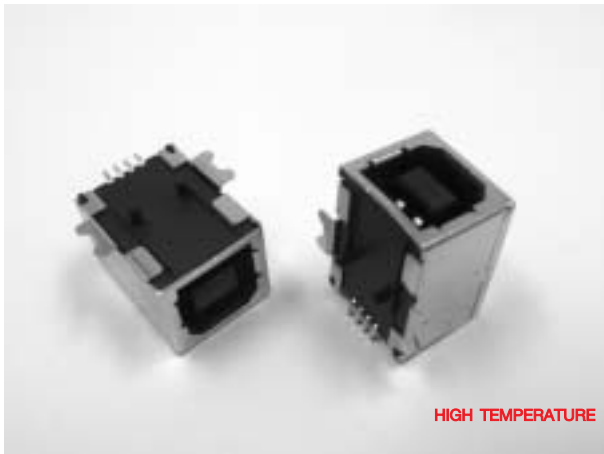
PACKAGING

- Tray

| 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

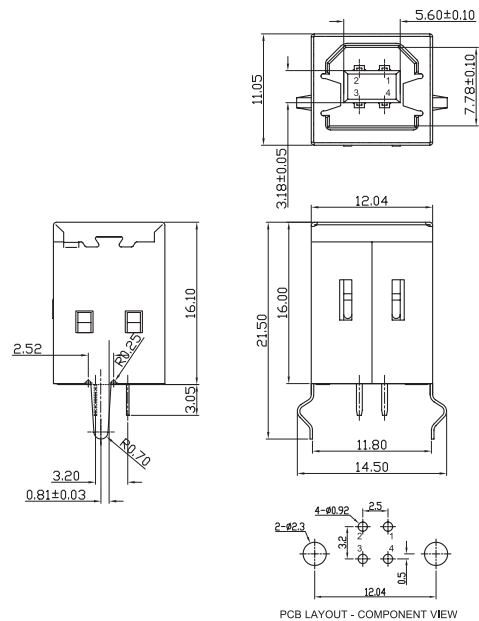
PACKAGING

- Tape & Reel

| 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

PACKAGING

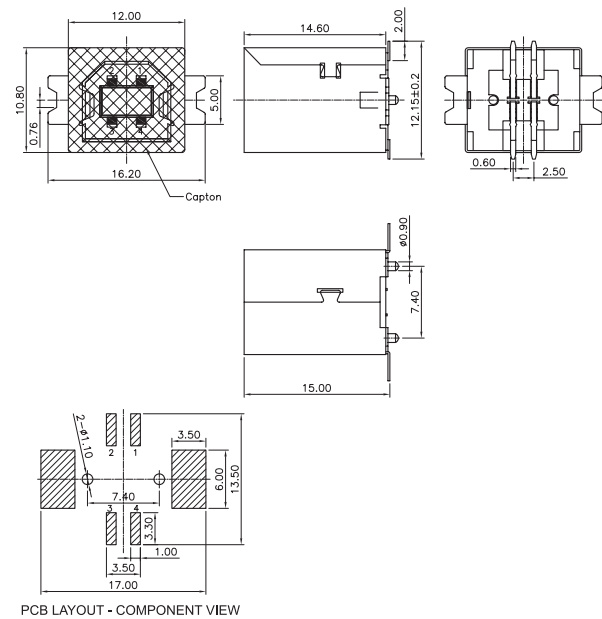
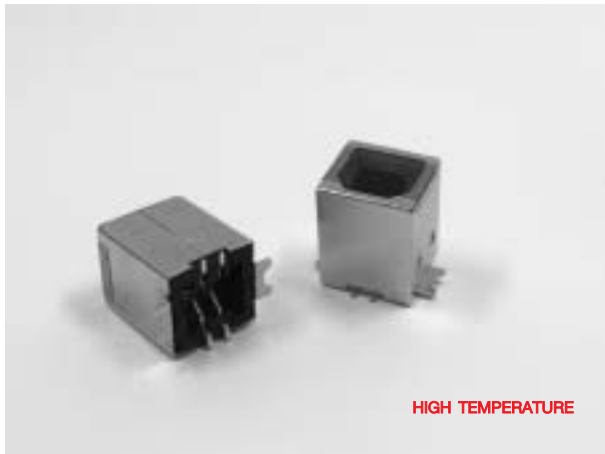
- Tray

11

| Order Code | Pins | |
|----------------|------|---|
| 614 004 133 21 | 4 | - |

NEW

USB SMT Type B Vertical WR-COM



PCB LAYOUT - COMPONENT VIEW



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

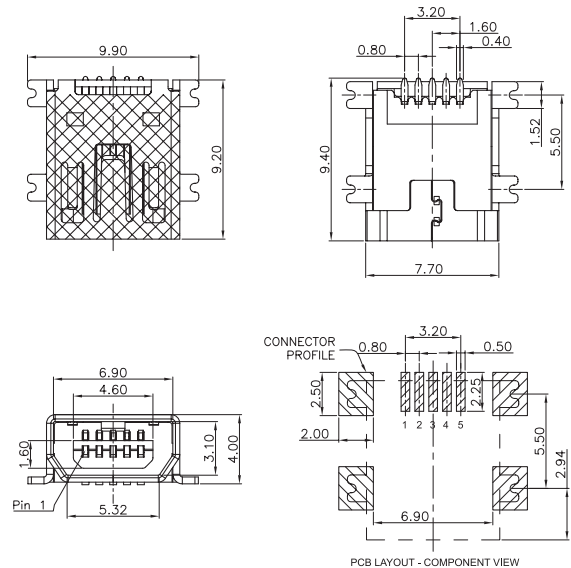
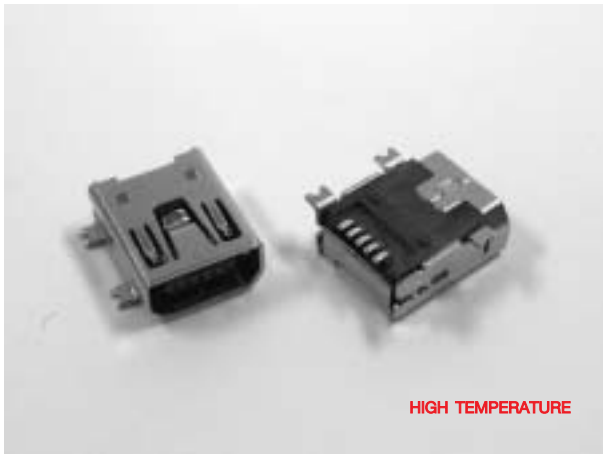
- Tape & Reel with Mylar

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

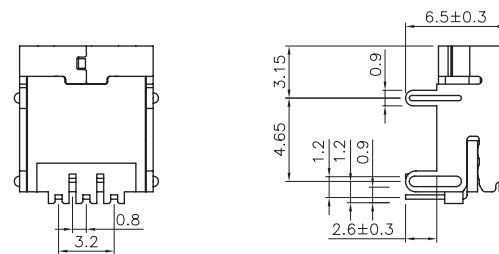
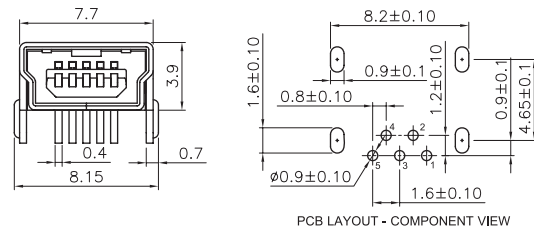
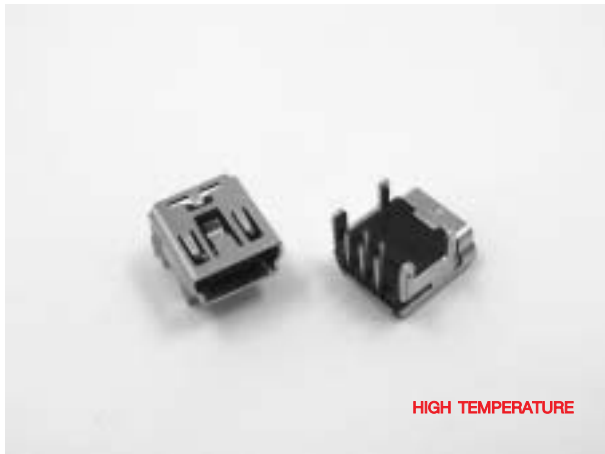
PACKAGING

- 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

PACKAGING

- Tube

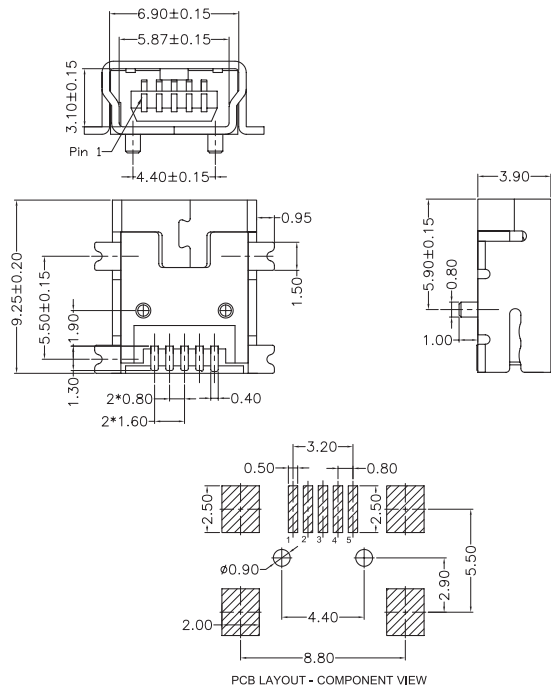
| Order Code | Pins | |
|-----------------|------|---|
| 651 005 136 521 | 5 | - |



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

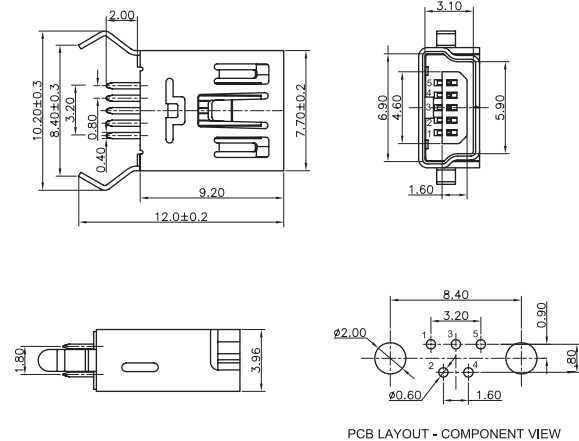
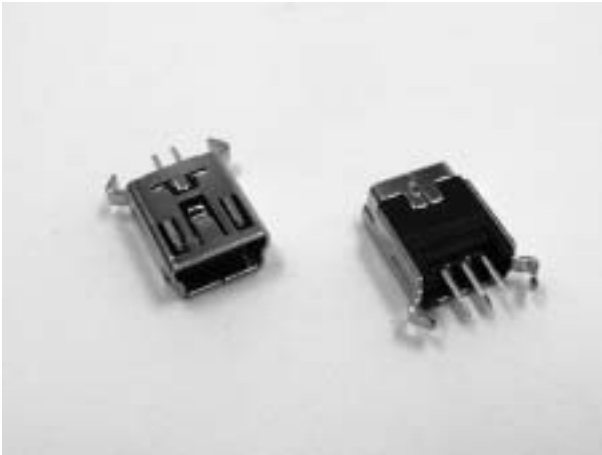
- Tape & Reel with Mylar

11

| Order Code | Pins | |
|----------------|------|---|
| 651 005 161 21 | 5 | - |



Vertical 5 Contacts Mini USB Type B WR-COM



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
- 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

- Tube

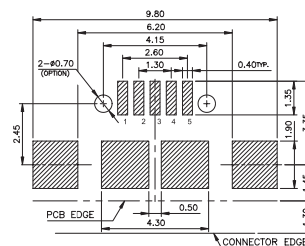
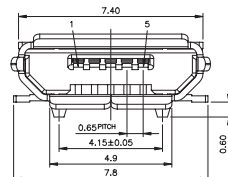
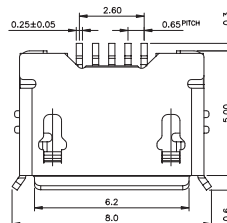
| Order Code | Pins | |
|-----------------|------|---|
| 651 005 136 421 | 5 | - |



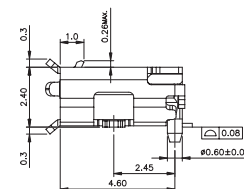
SMT Horizontal 5 Contacts Micro USB Type B WR-COM



HIGH TEMPERATURE



TOLERANCE: ±0.05mm



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

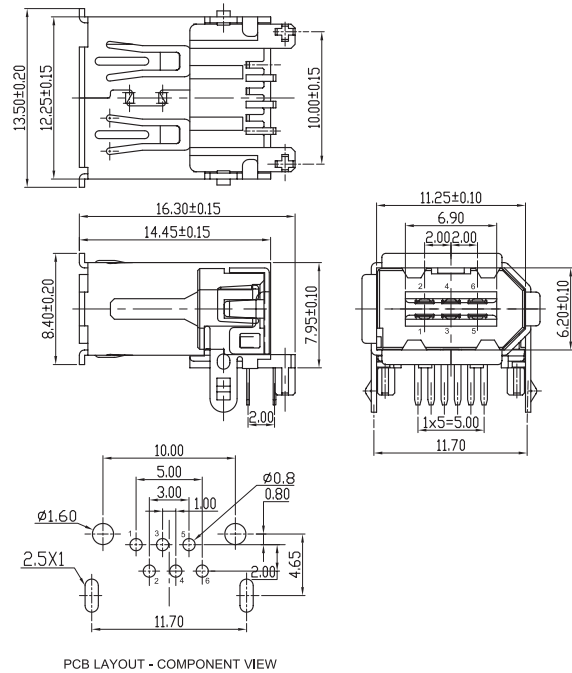
- Tape & Reel

11

| Order Code | Pins | |
|-----------------|------|---|
| 629 105 136 821 | 5 | - |

NEW

Horizontal Receptacle IEEE 1394 WR-COM



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

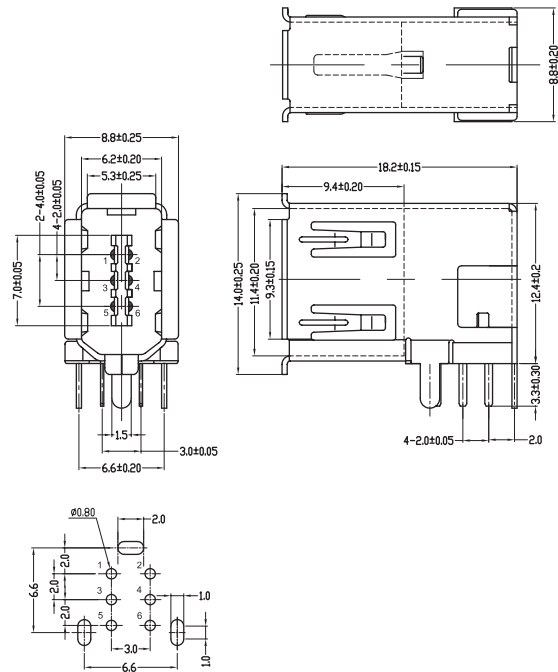
- Tray

11

| Order Code | Pins | |
|-----------------|------|---|
| 677 006 144 521 | 6 | - |

NEW

Up Right Receptacle IEEE 1394 WR-COM



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

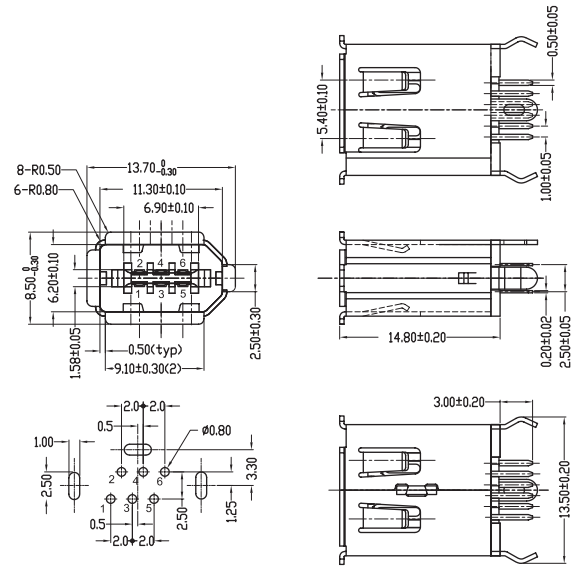
- Tray

11

| Order Code | Pins | |
|-----------------|------|---|
| 677 006 144 321 | 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

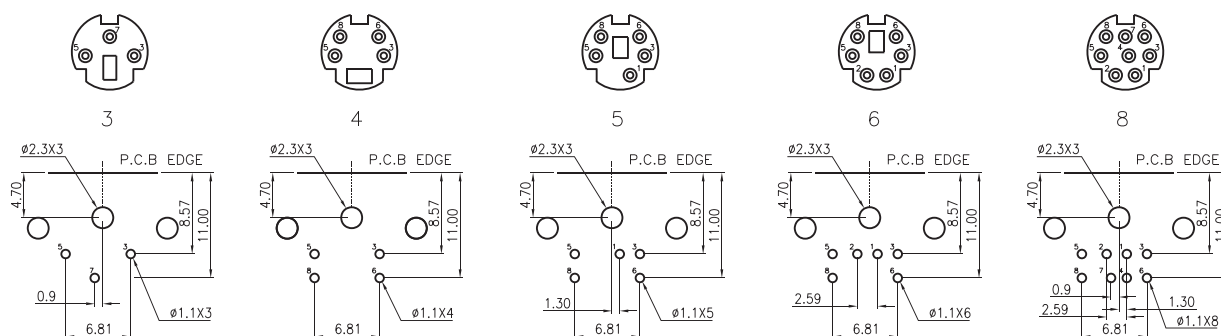
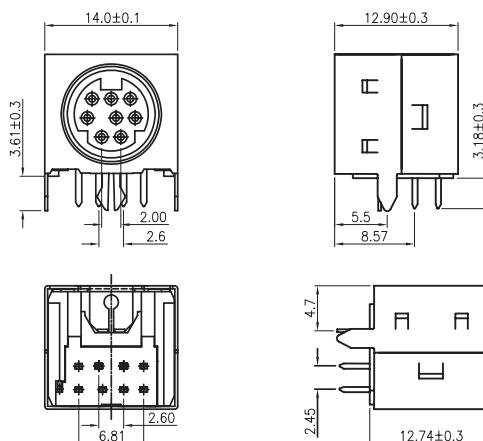
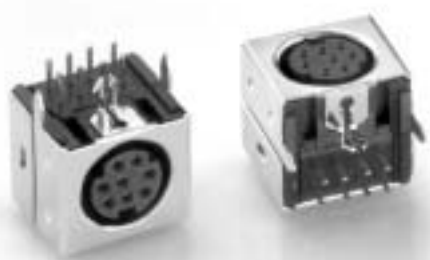
PACKAGING

- Tray

| Order Code | Pins | |
|-----------------|------|---|
| 677 006 144 621 | 6 | - |



Horizontal Shielded Mini DIN 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: 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

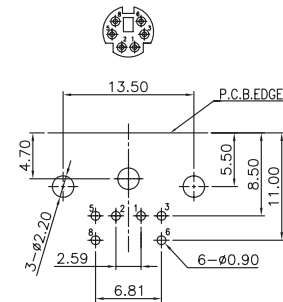
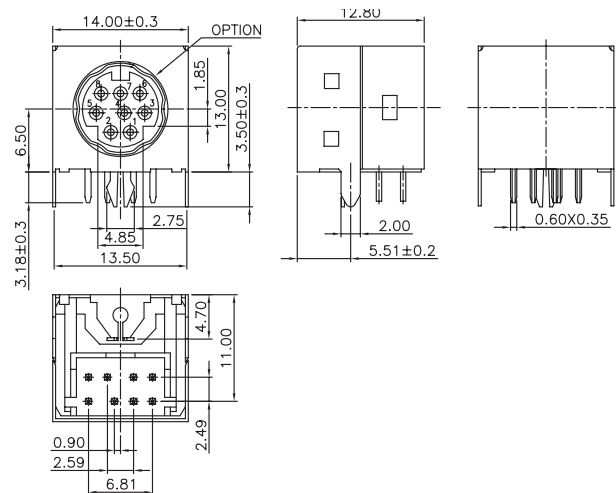
PACKAGING

- 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



P.C.B. RECOMMEND LAYOUT 6P
(BOTTOM VIEW)



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

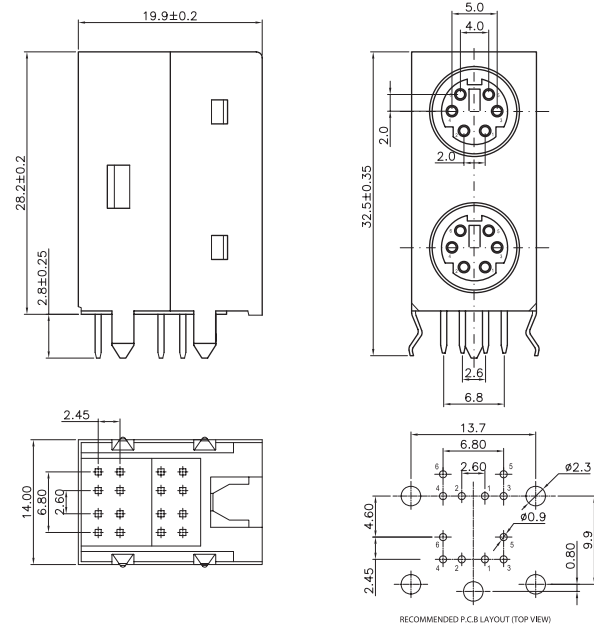
PACKAGING

- Tray

| 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: $>100\text{ MOhm}$
- Dielectric withstanding voltage: 250 Vac/mn
- Contact resistance: 20 mOhm max

SOLDERING

- Solder temperature: JEDEC lead free wave soldering

PACKAGING

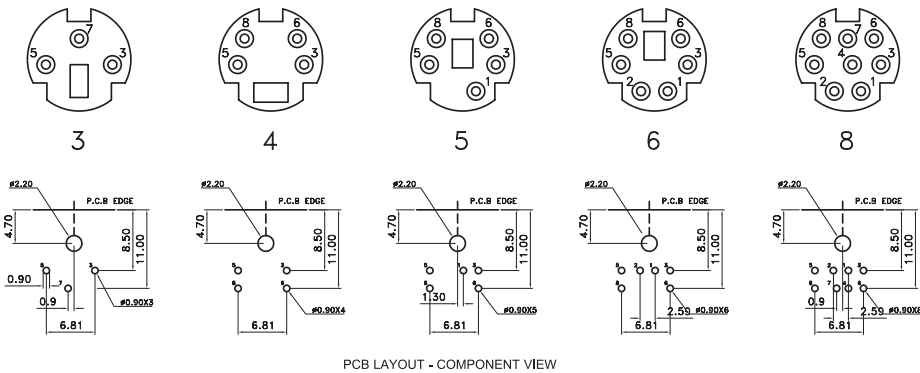
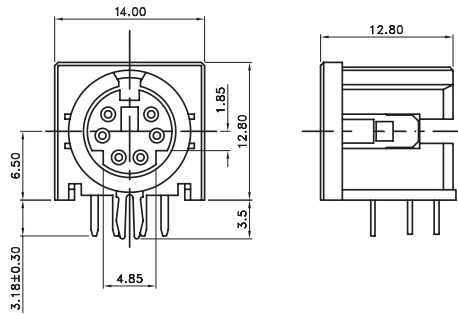
- Tray

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

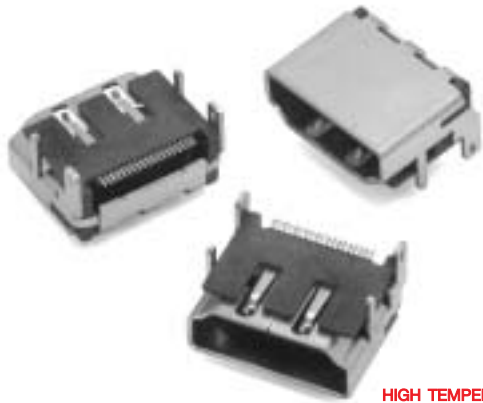
PACKAGING

- Tray

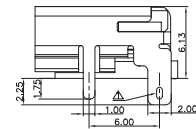
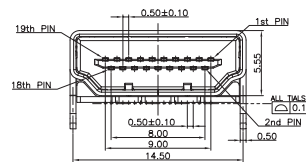
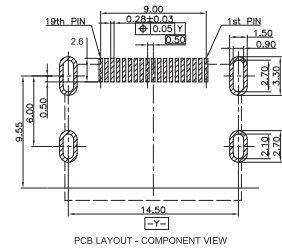
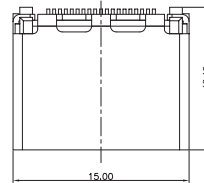
| Order Code | Pins | |
|----------------|------|---|
| 631 003 110 21 | 3 | - |
| 631 004 110 21 | 4 | - |
| 631 005 110 21 | 5 | - |
| 631 006 110 21 | 6 | - |
| 631 008 110 21 | 8 | - |



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

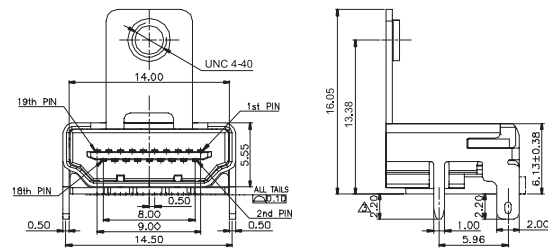
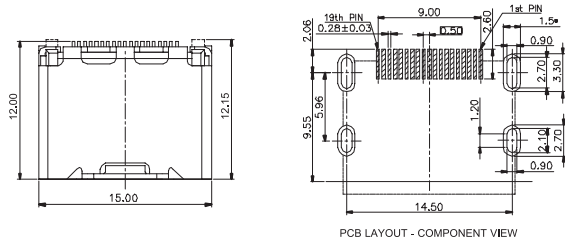
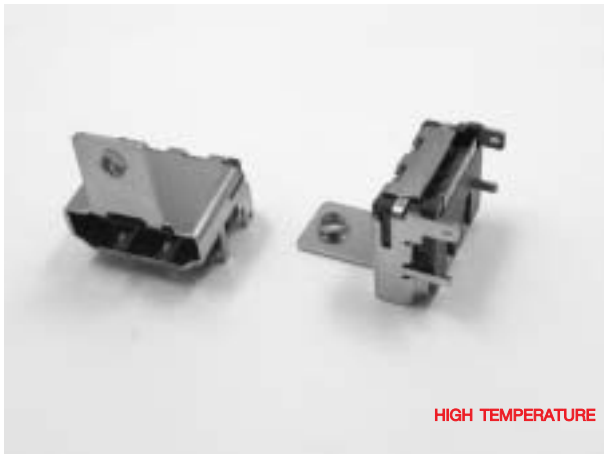
PACKAGING

- 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

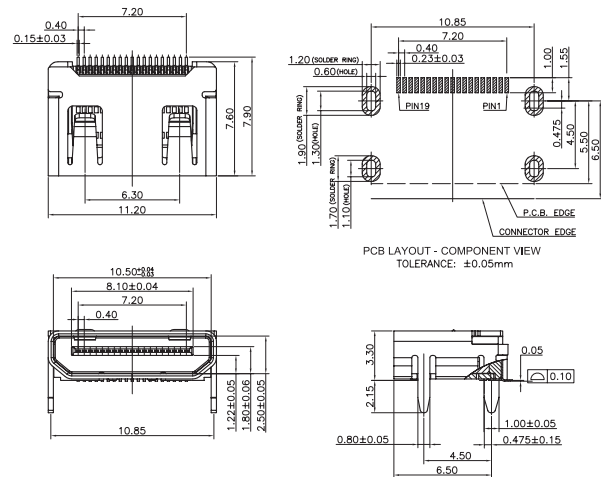
| Order Code | Pins | |
|-----------------|------|---|
| 685 119 135 725 | 19 | - |



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

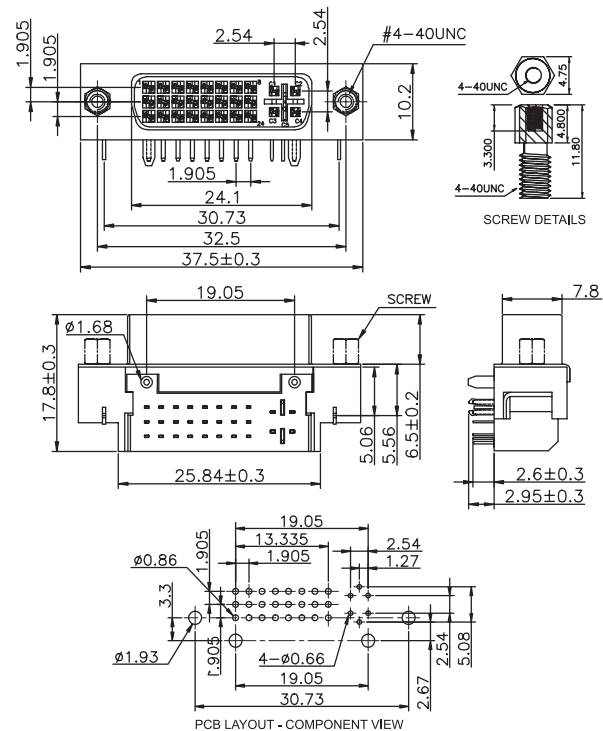
- Solder temperature: JEDEC lead free reflow soldering

PACKAGING

- Tape & Reel

| 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

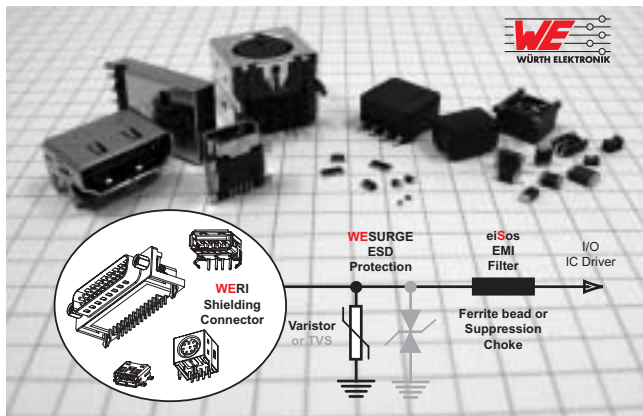
| P/N in the Kit | Pins | Description |
|-----------------|-------------|----------------------------------------------------------------------|
| 614 004 160 21 | 4 | USB Type A Receptacle Horizontal Single THT |
| 614 008 260 21 | 2 x 4 | USB Type A Receptacle Horizontal Dual THT |
| 615 016 338 621 | (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:

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