



## Modular Jack Connector WR-MJ



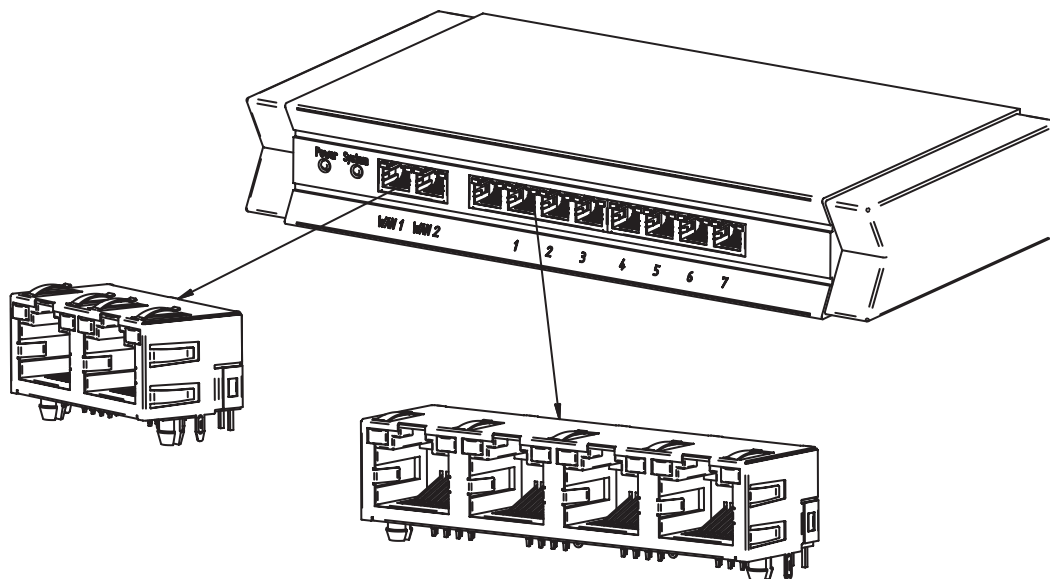


## Modular Jack Connector WR-MJ

Würth Elektronik is a leader for filtered connectivity solutions thanks to WE Midcom Inc. USA it's US branch office, well known for Modular Jack with transformer.

After primarily focused on RJ with magnetic Würth Elektronik decided to offer a wide range of non filtered Modular Jack too.

This range consists in single or multi-port jacks, stacked or not, with possible LEDs (eventually bipolar), in surface mount or through hole pc board mount, shielded or unshielded.










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

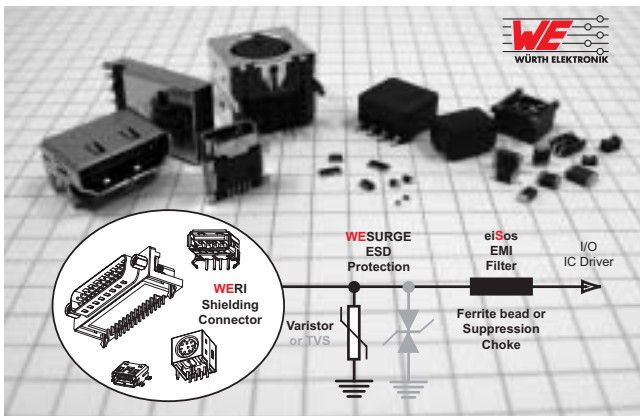
**xPyC means x Poles/y Contacts**  
 ex: 6P4C means 6Poles/4Contacts



## Modular Jack Connector WR-MJ

<b>NEW</b>		Horizontal Shielded Modular Jack	12-5 to 12-18
<b>NEW</b>		Horizontal Half Shielded Modular Jack	12-19 & 12-20
<b>NEW</b>		Horizontal Plastic Modular Jack	12-21 to 12-29
<b>NEW</b>		Vertical Shielded Modular Jack	12-30 to 12-32
<b>NEW</b>		Vertical Plastic Modular Jack	12-33 to 12-38
<b>NEW</b>		45° Plastic Modular Jack	12-39
<b>NEW</b>		Design Kit	12-40

**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

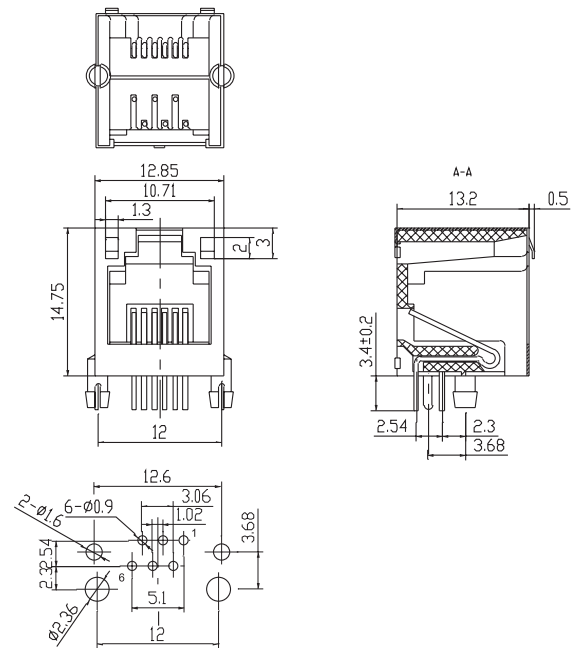


# Modular Jack Connector WR-MJ

Entrance	Shielding	Port	TH/SMT	LED	EMI	xPxC	Tab	Order Code	Page									
Horizontal	Shielded	1x1	THT	No	No	6P6C	Up	615 006 143 221	12-5	NEW								
						8P8C	Down	615 008 140 121	12-6	NEW								
						8P8C	Down	615 008 142 21	12-7									
						8P8C	Down	615 008 142 621	12-8	NEW								
					Yes	8P8C	Up	615 008 140 621	12-9	NEW								
		Yellow/Green	Yes	8P8C	Up	615 008 137 421	12-10	NEW										
		2x Bipolar G/Y	Yes	8P8C	Up	615 008 141 321		NEW										
								8P8C	Up	615 008 142 121		NEW						
					SMT	Yellow/Green	Yes	8P8C	Up	634 008 137 521	12-11							
				1x2	THT	No	No	8P8C	Down	615 016 137 621	12-12							
								Yellow/Green	Yes	8P8C	Up	615 016 137 721	12-13					
								No	No	8P8C	Down	615 032 137 821	12-14					
								Yellow/Green	Yes	8P8C	Up	615 032 137 921	12-15					
				2x1	THT	No	Yes	8P8C	Down & Up	615 016 240 521	12-16	NEW						
				2x2				8P8C	Down & Up	615 032 243 321	12-17	NEW						
			2x4	8P8C				Down & Up	615 064 243 321	12-18	NEW							
		Half-shielded	1x1	THT	No	No	6P6C	Down	615 006 143 421	12-19	NEW							
								8P8C	Down	615 008 143 521	12-20	NEW						
		Plastic	1x1	THT	No	Nc	6P6C	Down	615 006 143 621	12-21	NEW							
								8P8C	Down	615 008 143 721	12-22	NEW						
								6P4C	Down	615 004 141 121	12-23	NEW						
								6P6C	Down	615 006 141 121		NEW						
								6P2C	Up	615 002 138 421	12-24	NEW						
								6P4C	Up	615 004 138 421		NEW						
							6P6C	Up	615 006 138 421	NEW								
									4P4C	Up	615 004 143 821	12-25	NEW					
									8P8C	Down	615 008 137 121	12-26						
								SMT			8P8C	Down	634 008 137 221	12-27				
							1x2	THT			6P6C	Up	615 012 143 921	12-28	NEW			
				1x4			6P6C		Up	615 024 143 921	12-29	NEW						
Vertical	Shielded			1x1			THT	No	No	8P8C	-	615 008 138 221	12-30	NEW				
		8P8C	615 008 140 421		12-31													
		Yellow/Green	8P8C		615 008 138 321	12-32												
		Plastic	1x1	THT	No	No	6P6C	-	615 006 138 521	12-33	NEW							
	4P4C						615 004 144 021		12-34									
	6P4C						615 004 144 121		12-35									
	6P6C						615 006 144 121											
	8P8C						615 008 144 221		12-36									
	8P8C						615 008 138 021		12-37									
									1x1	SMT		No	No	8P8C		634 008 138 121	12-38	
	45°						Plastic		1x1	THT		No	No	8P8C		615 008 142 521	12-39	NEW
	Design Kit								615 001	12-40	NEW							

NEW

## Horizontal Shielded 6P6C Modular Jack Tab Up WR-MJ



PCB LAYOUT - COMPONENT VIEW



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

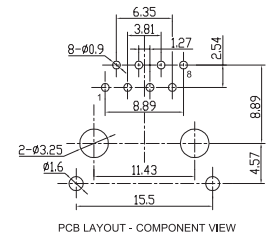
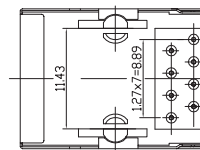
- Tray

Order Code	Pins	Description
615 006 143 221	6P6C	Modular Jack Horizontal Shielded Tab Up

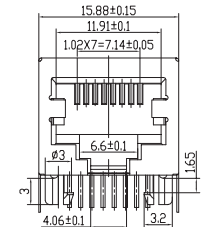
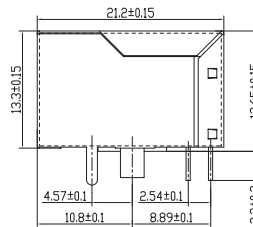




# Horizontal Shielded 8P8C Modular Jack Tab Down WR-MJ



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: Bronze Ni Plated
- Quality class: 500 mating cycles

## ENVIRONMENTAL

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

## ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

## SOLDERING

- Solder temperature: JEDEC lead free wave soldering

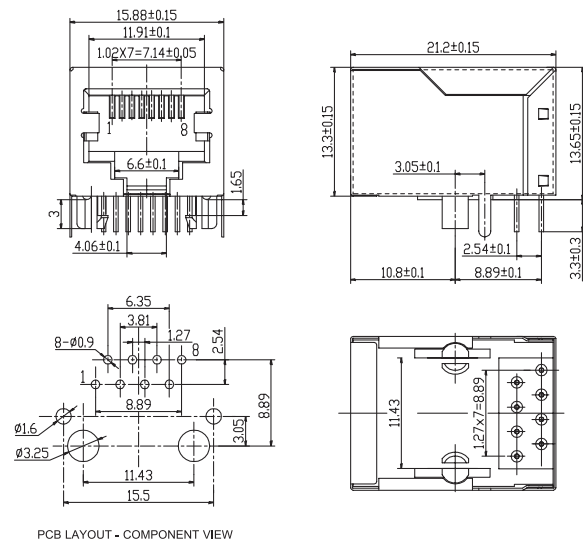
## PACKAGING

- Tray

Order Code	Pins	Description
615 008 142 21	8P8C	Modular Jack Horizontal Shielded Tab Down

NEW

## Horizontal Shielded 3.05mm Rear Grounding Post 8P8C Modular Jack Tab Down WR-MJ



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: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

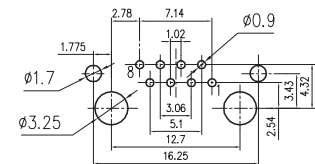
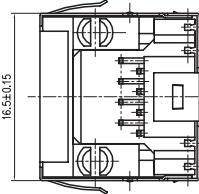
- Tray

Order Code	Pins	Description
615 008 142 621	8P8C	Modular Jack Horizontal Shielded 3.05 mm Rear Grounding Post Tab Down

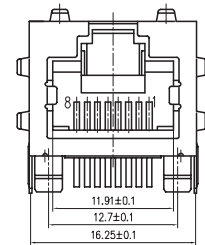
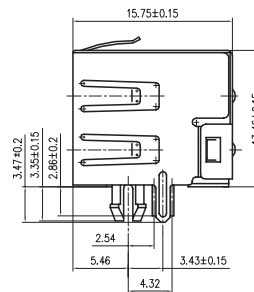


NEW

## Horizontal Shielded with EMI Panel Finger 8P8C Modular Jack Tab Up WR-MJ



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: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

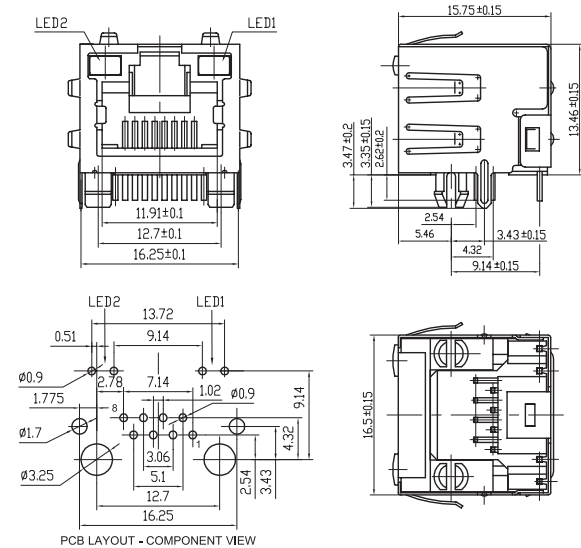
### PACKAGING

- Tray

Order Code	Pins	Description
615 008 140 621	8P8C	Modular Jack Horizontal Shielded With EMI Panel Finger Tab Up



## Horizontal Shielded with LED and EMI Panel Finger 8P8C Modular Jack Tab Up WR-MJ



615 008 141 321 = (YELLOW)  
(GREEN)

615 008 142 121 = (GREEN)  
(YELLOW)



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

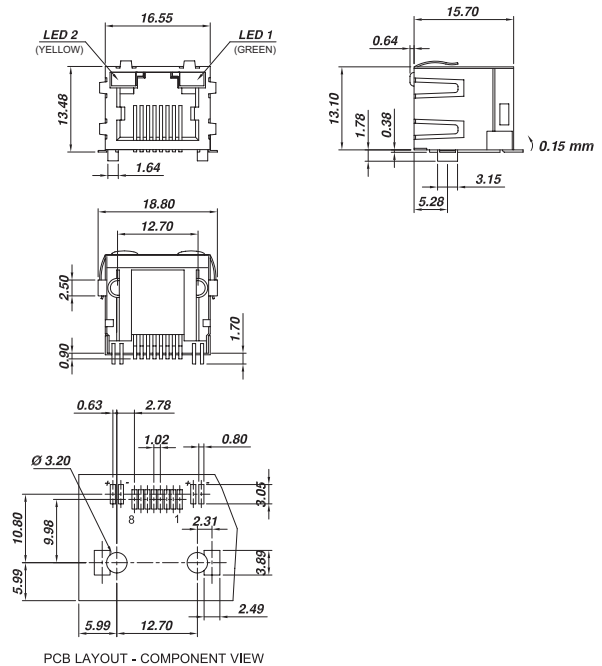
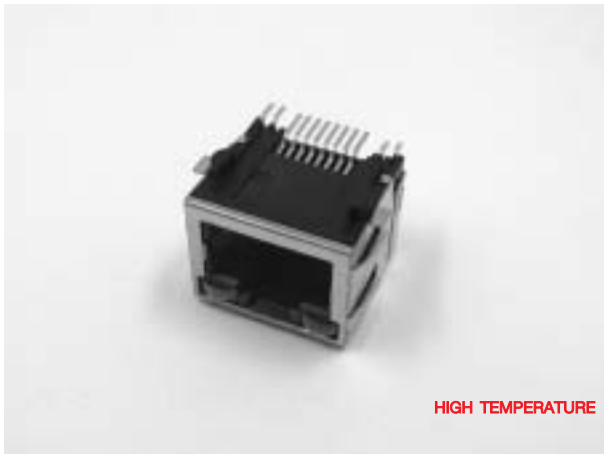
### PACKAGING

- Tray

Order Code	Pins	LED 1	LED 2	LED Colour Status	Description
615 008 137 421	8P8C	Green	Yellow	-	Modular Jack Horizontal Shielded with LED & EMI Panel Finger
615 008 141 321	8P8C	Bipolar G/Y	Bipolar G/Y	See Drawing	MJ Horizontal Shielded with Bipolar LED & EMI Panel Finger
615 008 142 121	8P8C	Bipolar Y/G	Bipolar Y/G	See Drawing	MJ Horizontal Shielded with Bipolar LED & Panel EMI Finger



## Horizontal Shielded SMT with LED and EMI Panel Finger 8P8C Modular Jack Tab Up WR-MJ



### MATERIAL

- Insulator material: Nylon 6T
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

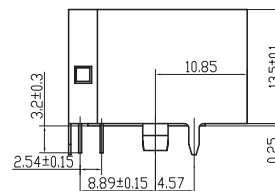
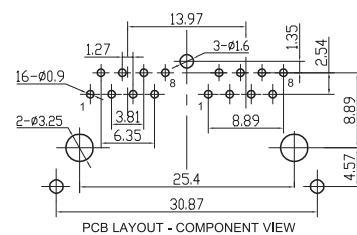
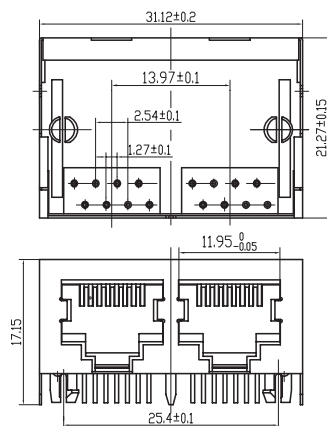
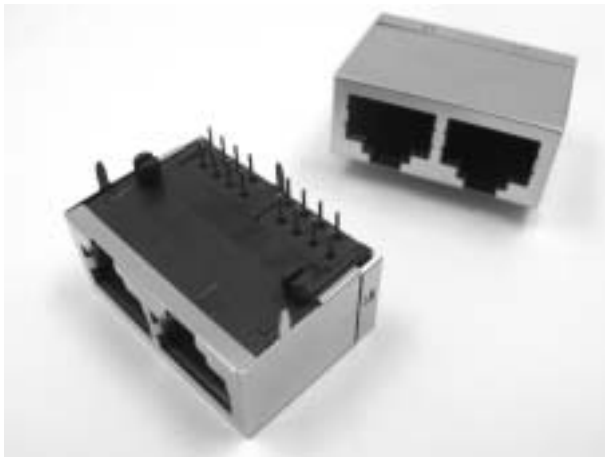
### PACKAGING

- Tape & Reel

Order Code	Pins	LED 1	LED 2	LED Colour Status	Description
634 008 137 521	8P8C	Green	Yellow	-	Modular Jack Horizontal Shielded with LED & EMI Panel Finger



# Horizontal Shielded Dual Port 8P8C Modular Jack Tab Down WR-MJ



## MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

## ENVIRONMENTAL

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

## ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

## SOLDERING

- Solder temperature: JEDEC lead free wave soldering

## PACKAGING

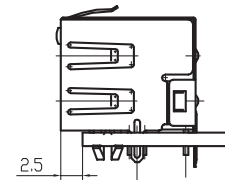
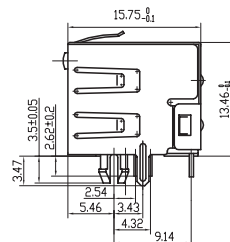
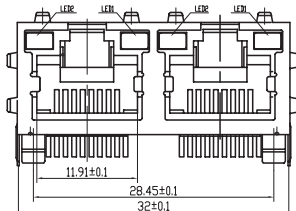
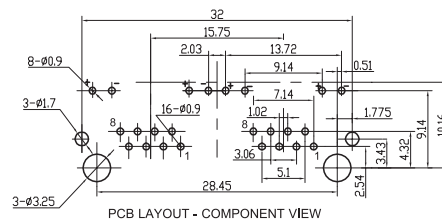
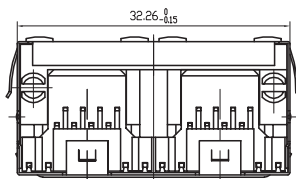
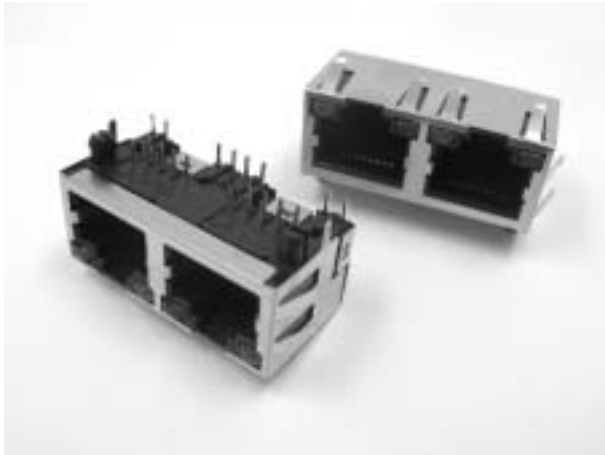
- Tray

12

Order Code	Pins	Description
615 016 137 621	2 x 8P8C	2 x Modular Jack Horizontal Dual Port Shielded Tab Down



## Horizontal Shielded Dual Port with LED and EMI Panel Finger 8P8C Modular Jack Tab Up WR-MJ



### MATERIAL

- Insulator material:
- Flammability rating
- Colour:
- Contact material:
- Contact type:
- Contact plating:
- Shielding:
- Quality class:

PBT  
UL94-V0  
Black  
Copper alloy  
Stamped  
Selective gold  
Bronze Ni Plated  
500 mating cycles

### ENVIRONMENTAL

- Operating temperature:
- Compliance:

-25 °C up to 85 °C  
Lead free and RoHS

### ELECTRICAL

- Current rating:
- Working voltage:
- Insulation resistance:
- Dielectric withstanding voltage:
- Contact resistance:
- System application:

1.5 A  
120 Vac  
>500 MOhm  
1 000 Vac/mn  
20 mOhm max  
CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

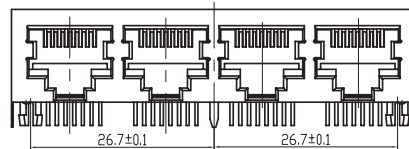
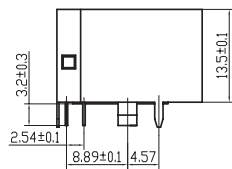
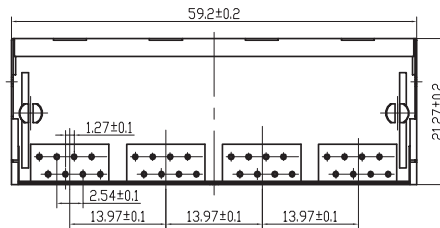
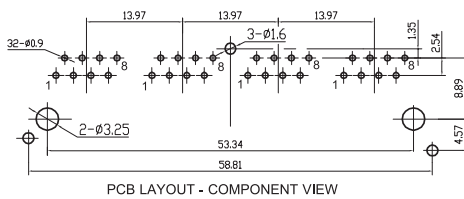
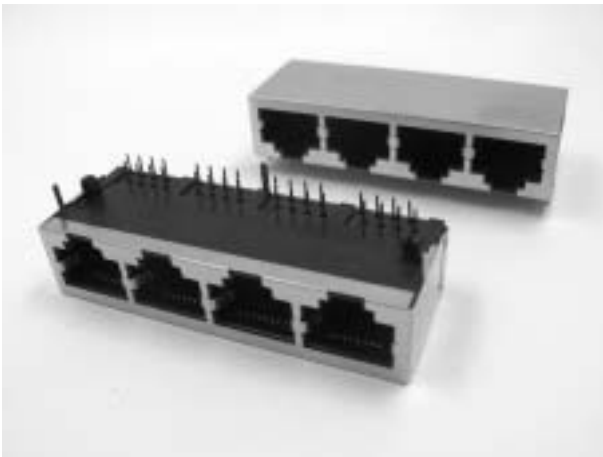
### PACKAGING

- Tray

Order Code	Pins	Description
615 016 137 721	2 x 8P8C	2 x Modular Jack Horizontal Shielded with LED 1 (Green) / LED 2 (Yellow) & EMI Panel Fingers



# Horizontal Shielded Ganged 4 Ports 8P8C Modular Jack Tab Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

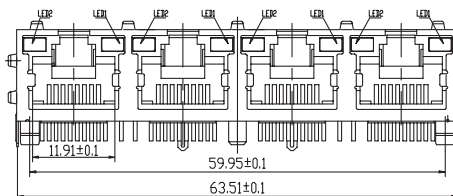
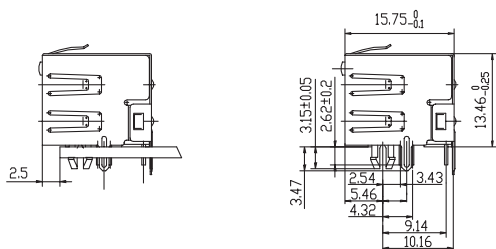
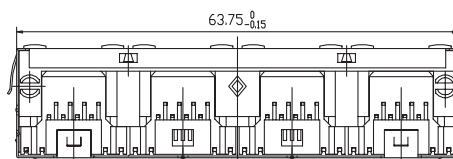
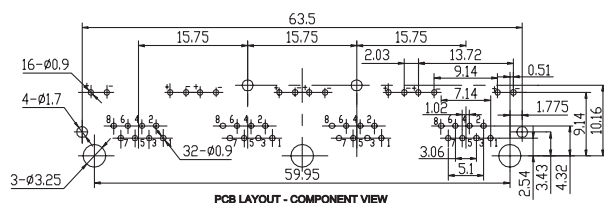
### PACKAGING

- Tray

12

Order Code	Pins	Description
615 032 137 821	4 x 8P8C	4 x Modular Jack Horizontal Shielded Tab Down

## Horizontal Shielded Ganged 4 Ports with LED & EMI Panel Finger 8P8C Modular Jack Tab Up WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

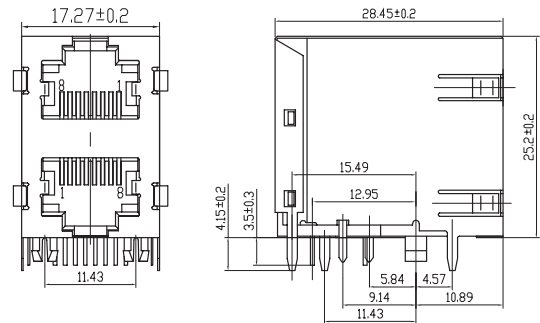
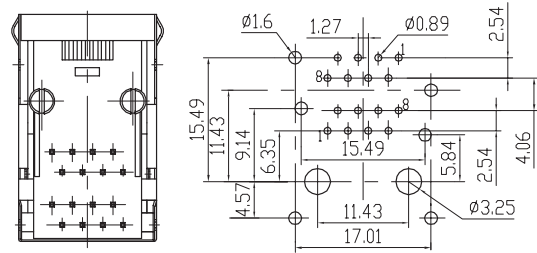
### PACKAGING

- Tray

Order Code	Pins	LED 1	LED 2	LED Colour Status	Description
615 032 137 921	4 x 8P8C	Green	Yellow	-	4 x M.Jack Horizontal Shielded with LED & EMI Panel Finger

NEW

## Horizontal Shielded Dual Stacked Port with EMI Panel Finger 8P8C Modular Jack Tab Up & Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

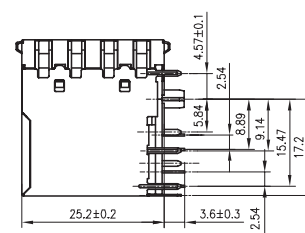
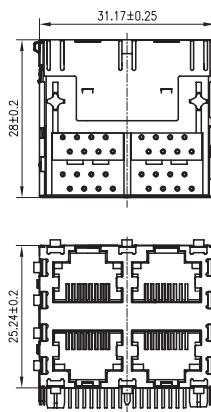
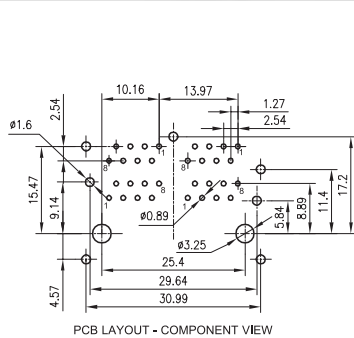
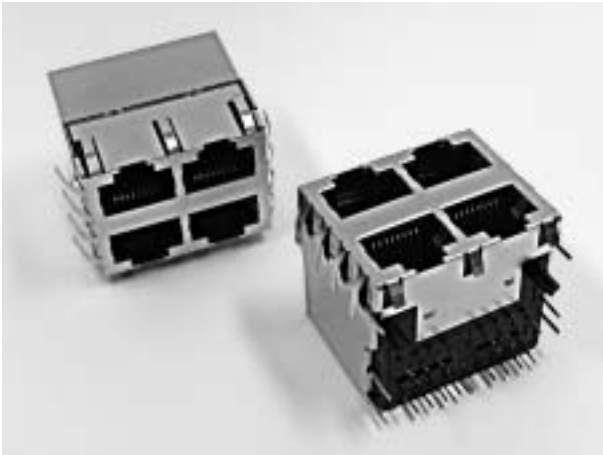
12

Order Code	Pins	Description
615 016 240 521	2 x 8P8C	Modular Jack Horizontal Dual Stacked Port Shielded with EMI Panel Finger Tab Up & Down



NEW

## Horizontal Shielded 2 x Dual Stacked Port with EMI Panel Finger 8P8C M. Jack Tab Up & Down WR-MJ



### MATERIAL

- Insulator material:
- Flammability rating
- Colour:
- Contact material:
- Contact type:
- Contact plating:
- Shielding:
- Quality class:

PBT / PA66  
UL94-V0  
Black  
Copper alloy  
Stamped  
Gold  
Bronze Ni Plated  
500 mating cycles

### ENVIRONMENTAL

- Operating temperature:
- Compliance:

-25 °C up to 85 °C  
Lead free and RoHS

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

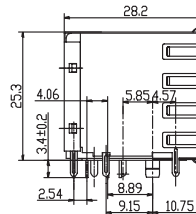
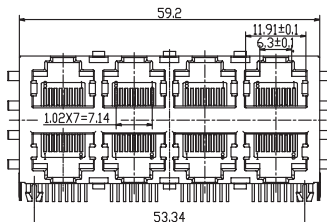
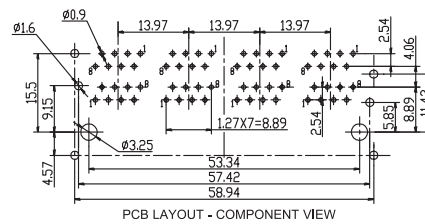
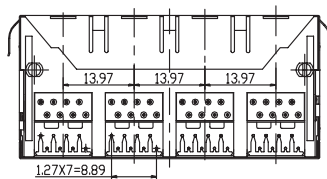
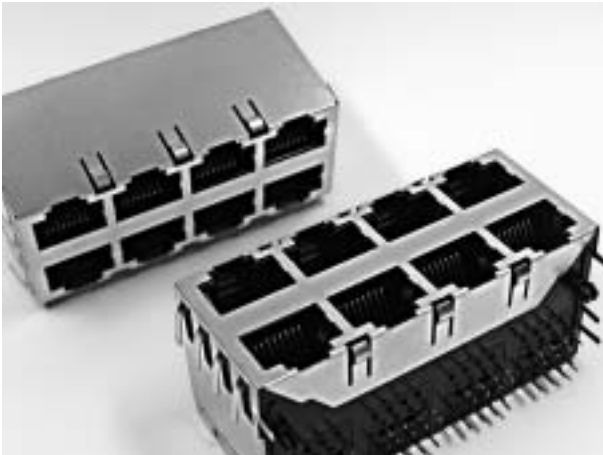
12

Order Code	Pins	Description
615 032 243 321	2 x 2 x 8P8C	Modular Jack Horizontal 2 x Dual Stacked Port Shielded with EMI Panel Finger Tab Up & Down



NEW

## Horizontal Shielded 2 x 4 Stacked Port with EMI Panel Finger 8P8C Modular Jack Tab Up & Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

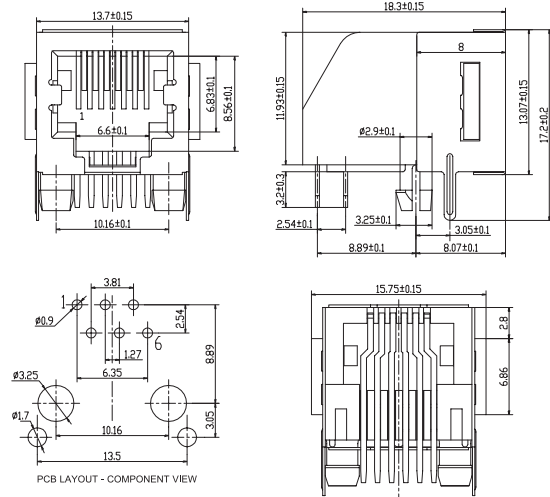
- Tray

12

Order Code	Pins	Description
615 064 243 321	2 x 4 x 8P8C	Modular Jack Horizontal 2 x Four Stacked Port Shielded with EMI Panel Finger Tab Up & Down

NEW

## Horizontal 6P6C Half Shielded Modular Jack Tab Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

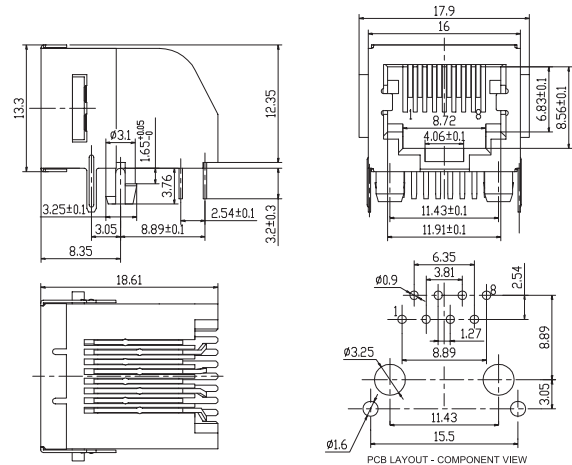
### PACKAGING

- Tray

Order Code	Pins	Description
615 006 143 421	6P6C	Modular Jack Horizontal Half Shielded Tab Down

NEW

## Horizontal Half Shielded 8P8C Modular Jack Tab Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

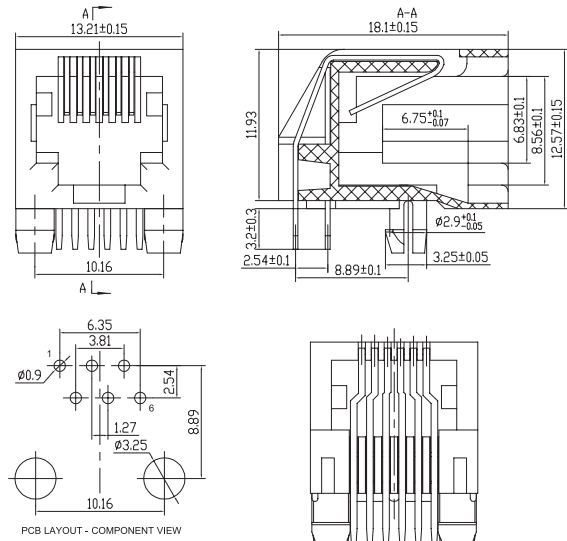
### PACKAGING

- Tray

Order Code	Pins	Description
615 008 143 521	8P8C	Modular Jack Horizontal Half Shielded Tab Down

NEW

## Horizontal Plastic 6P6C Modular Jack Tab Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

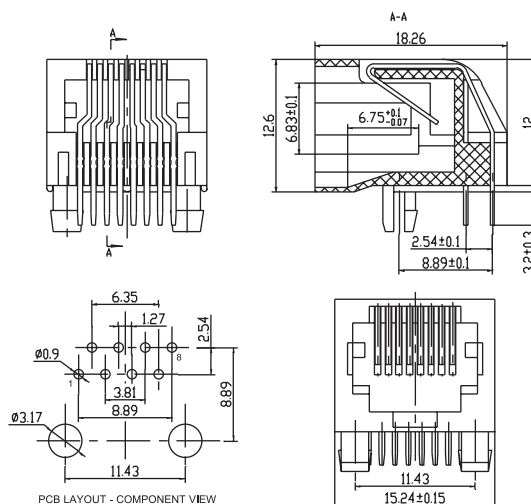
### PACKAGING

- Tray

Order Code	Pins	Description
615 006 143 621	6P6C	Modular Jack Horizontal Plastic Tab Down

NEW

## Horizontal Plastic 8P8C Modular Jack Tab Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

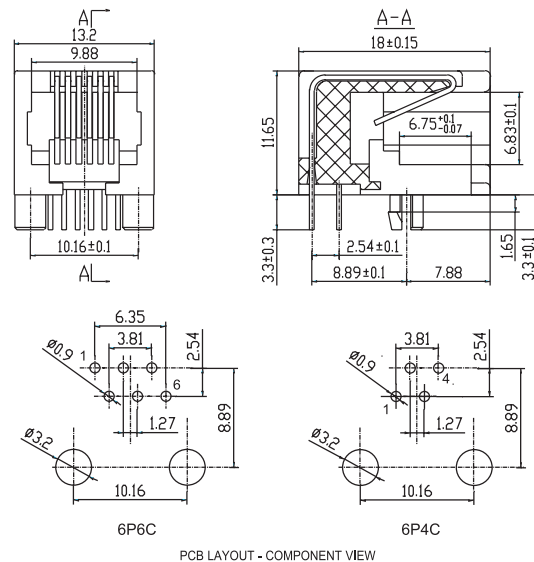
### PACKAGING

- Tray

Order Code	Pins	Description
615 008 143 721	8P8C	Modular Jack Horizontal Plastic Tab Down

NEW

## Horizontal Plastic 6PxC Modular Jack Tab Down WR-MJ



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: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

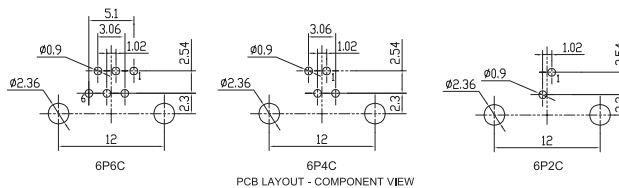
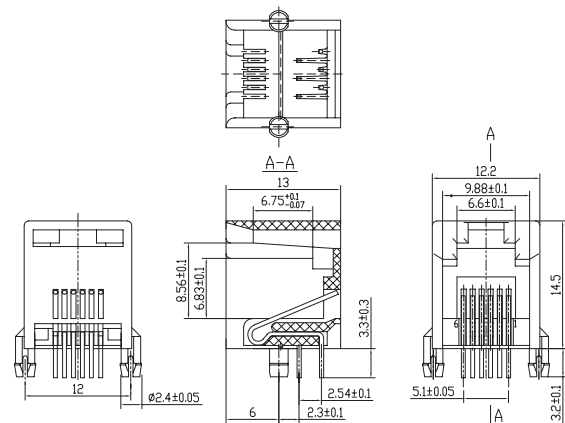
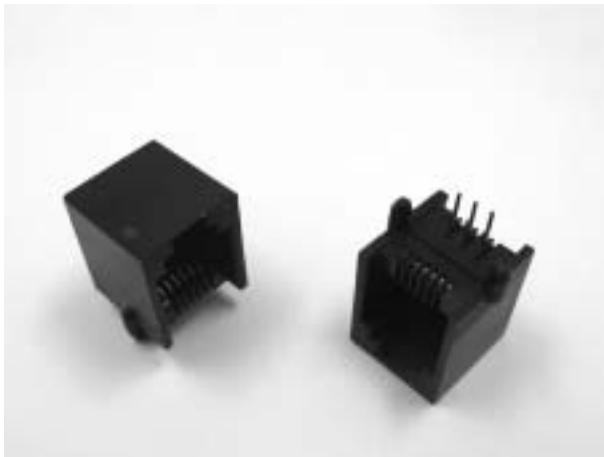
### PACKAGING

- Tray

Order Code	Pins	Description
615 004 141 121	6P4C	Modular Jack Horizontal Plastic Tab Down
615 006 141 121	6P6C	Modular Jack Horizontal Plastic Tab Down



## Horizontal Plastic 6PxC Modular Jack Tab Up WR-MJ



### MATERIAL

- Insulator material:
- Flammability rating
- Colour:
- Contact material:
- Contact type:
- Contact plating:
- Quality class:

PBT  
UL94-V0  
Black  
Copper alloy  
Stamped  
Selective gold  
500 mating cycles

### ENVIRONMENTAL

- Operating temperature:
- Compliance:

-25 °C up to 85 °C  
Lead free and RoHS

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

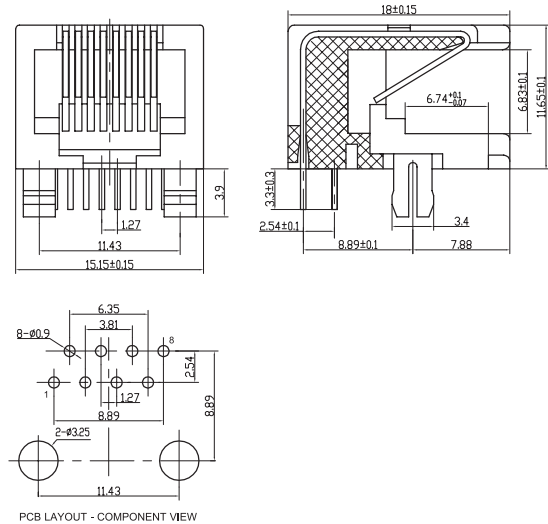
Order Code	Pins	Description
615 002 138 421	6P2C	Modular Jack Horizontal Plastic Tab Up
615 004 138 421	6P4C	Modular Jack Horizontal Plastic Tab Up
615 006 138 421	6P6C	Modular Jack Horizontal Plastic Tab Up







## Horizontal Plastic 8P8C Modular Jack Tab Down WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

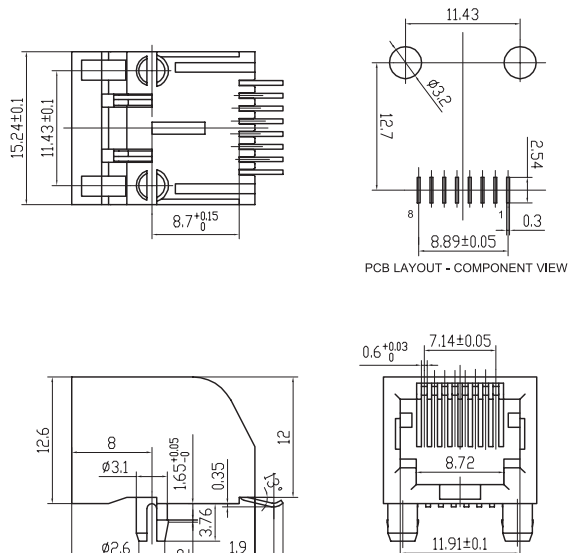
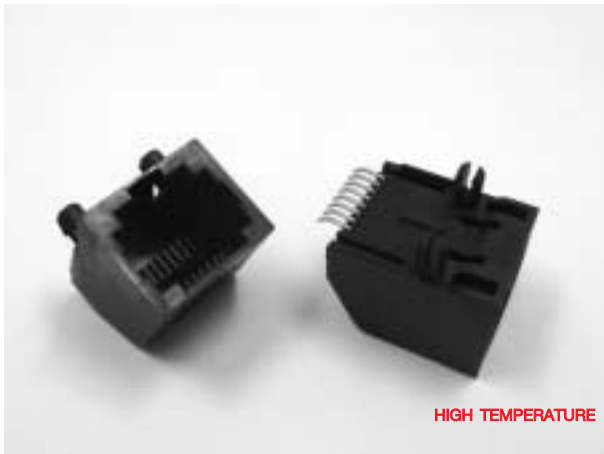
- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

Order Code	Pins	Description
615 008 137 121	8P8C	Horizontal Plastic Modular Jack Tab Down

## Horizontal Plastic SMT 8P8C Modular Jack Tab Down WR-MJ



### MATERIAL

- Insulator material: PA46
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

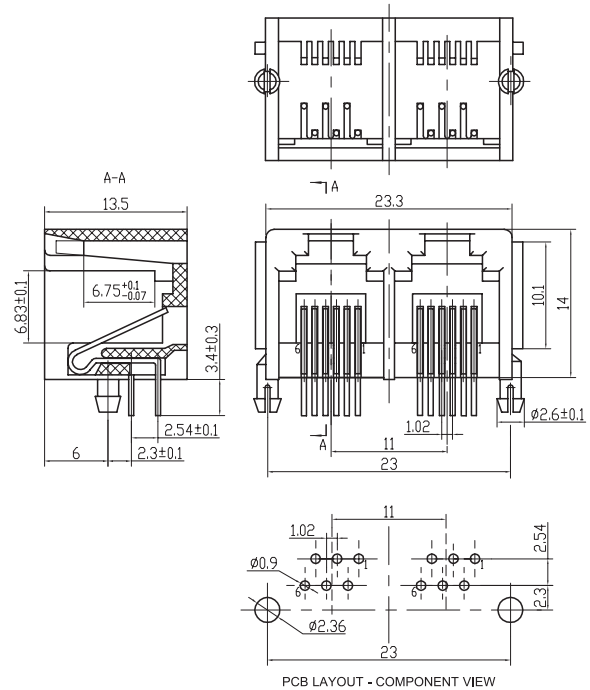
### PACKAGING

- Tray

Order Code	Pins	Description
634 008 137 221	8P8C	SMT Horizontal Plastic Modular Jack Tab Down

NEW

## Horizontal Plastic Dual Port 6P6C Modular Jack Tab Up WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

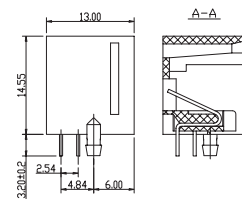
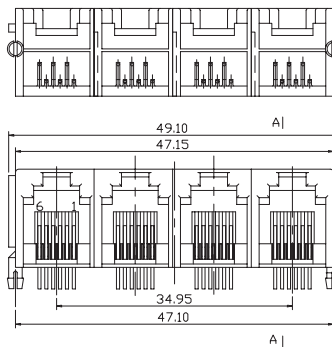
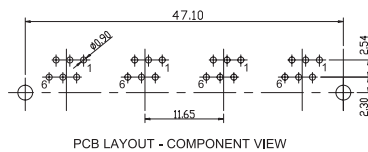
### PACKAGING

- Tray

Order Code	Pins	Description
615 012 143 921	2 x 6P6C	Plastic Horizontal Dual Port Modular Jack Tab Up

NEW

# Horizontal Plastic 4 Port 6P6C Modular Jack Tab Up WR-MJ



## MATERIAL

- Insulator material:
- Flammability rating
- Colour:
- Contact material:
- Contact type:
- Contact plating:
- Quality class:

PBT  
UL94-V0  
Black  
Copper alloy  
Stamped  
Selective gold  
500 mating cycles

## ENVIRONMENTAL

- Operating temperature:
- Compliance:

-25 °C up to 85 °C  
Lead free and RoHS

## ELECTRICAL

- Current rating:
- Working voltage:
- Insulation resistance:
- Dielectric withstanding voltage:
- Contact resistance:

1.5 A  
120 Vac  
>500 MOhm  
1 000 Vac/mn  
20 mOhm max

## SOLDERING

- Solder temperature:

JEDEC lead free wave soldering

## PACKAGING

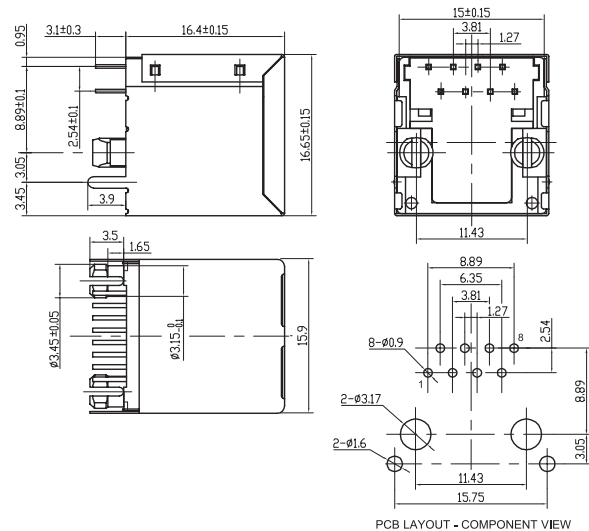
- Tray

12

Order Code	Pins	Description
615 024 143 921	4 x 6P6C	Plastic Horizontal Four Port Modular Jack Tab Up



## Vertical Shielded 8P8C Front Post Modular Jack WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

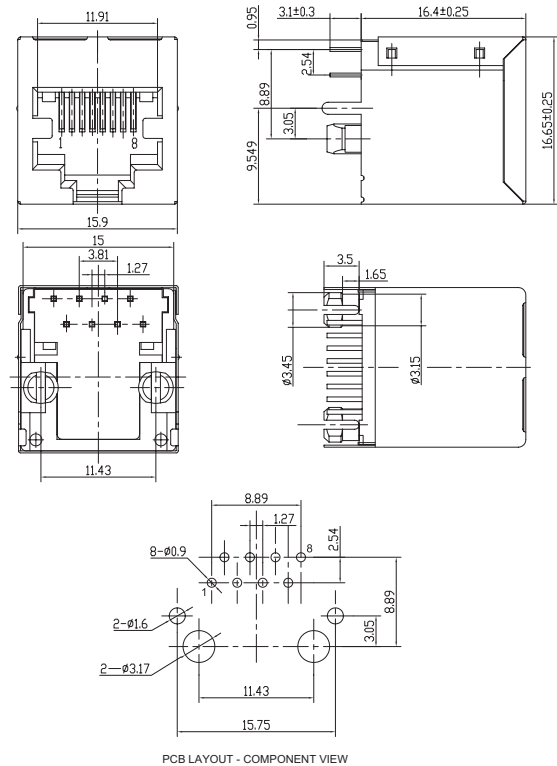
### PACKAGING

- Tray

Order Code	Pins	Description
615 008 138 221	8P8C	Shielded Vertical Modular Jack

NEW

## Vertical Shielded 8P8C Rear Post Modular Jack WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

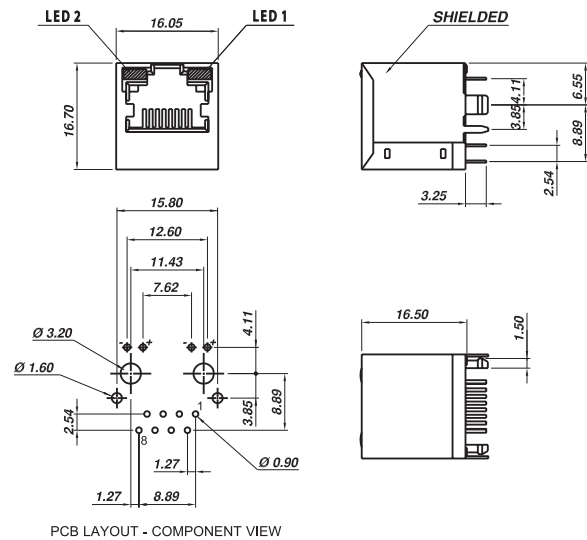
### PACKAGING

- Tray

Order Code	Pins	Description
615 008 140 421	8P8C	Shielded Vertical Modular Jack



## Vertical Shielded with LED 8P8C Modular Jack WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Shielding: Bronze Ni Plated
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max
- System application: CAT 5 Compatible

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

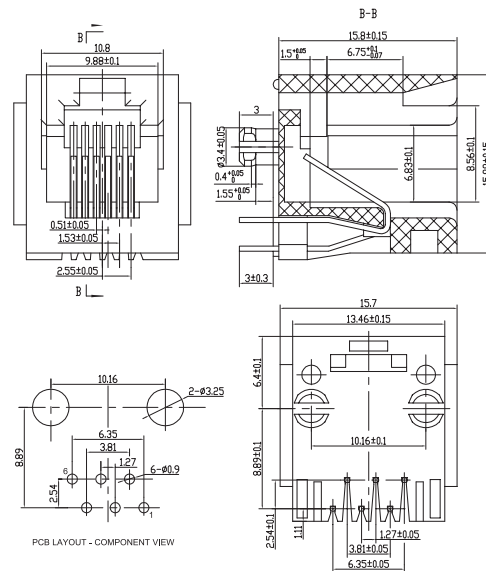
- Tray

Order Code	Pins	LED 1	LED 2	LED Colour Status	Description
615 008 138 321	8P8C	Green	Yellow	-	Vertical Shielded Modular Jack





## Vertical Plastic 6P6C Modular Jack with Ears WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

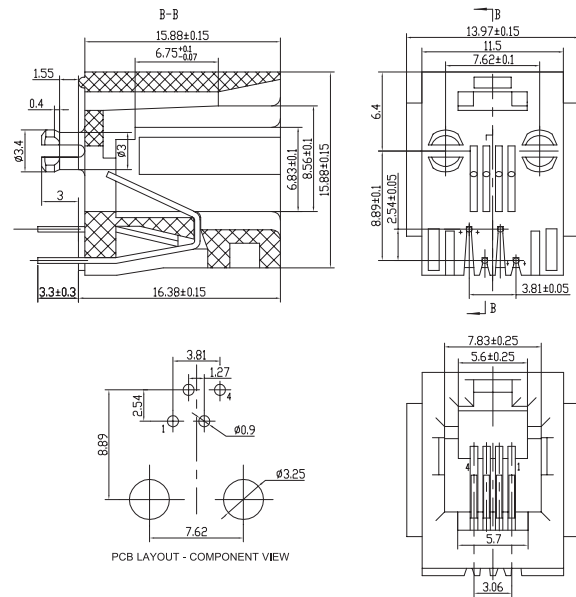
### PACKAGING

- Tray

Order Code	Pins	Description
615 006 138 521	6P6C	Vertical Plastic Modular Jack

NEW

## Vertical Plastic 4P4C Modular Jack with Ears WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

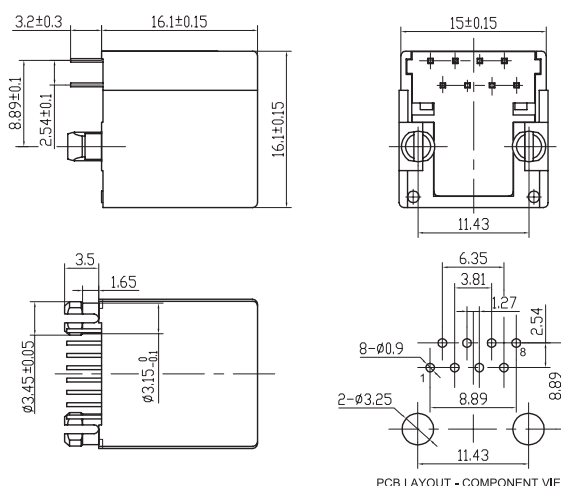
- Tray

Order Code	Pins	Description
615 004 144 021	4P4C	Vertical Plastic Modular Jack





## Vertical Plastic 8P8C Modular Jack WR-MJ



### MATERIAL

- Insulator material: PBT
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

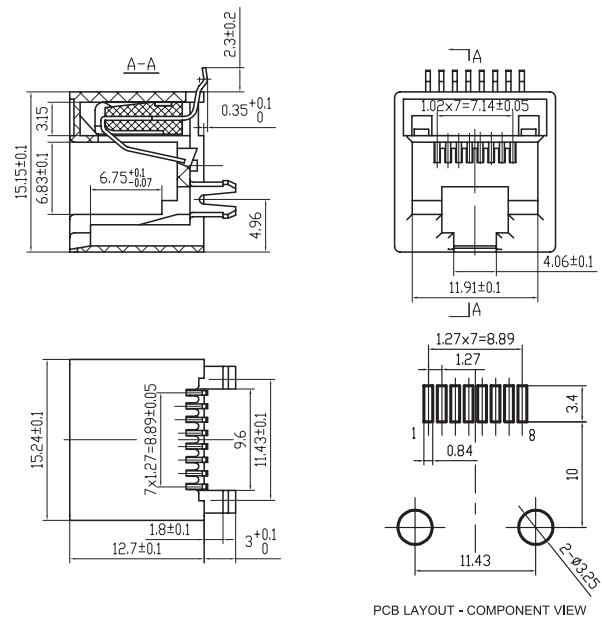
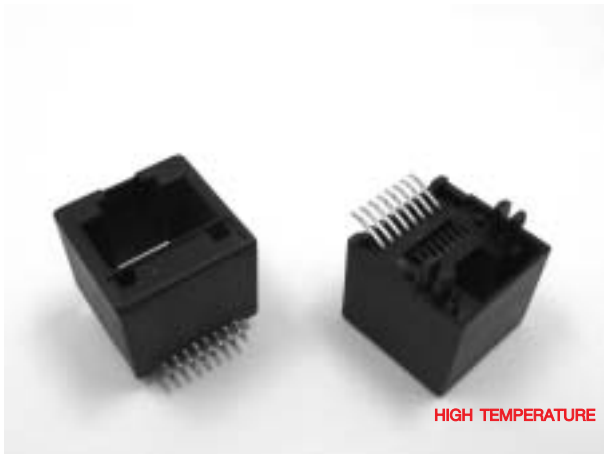
### PACKAGING

- Tray

Order Code	Pins	Description
615 008 138 021	8P8C	Vertical Plastic Modular Jack



## Vertical Plastic 8P8C SMT Modular Jack WR-MJ



PCB LAYOUT - COMPONENT VIEW



### MATERIAL

- Insulator material: PA46
- Flammability rating: UL94-V0
- Colour: Black
- Contact material: Copper alloy
- Contact type: Stamped
- Contact plating: Selective gold
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free reflow soldering

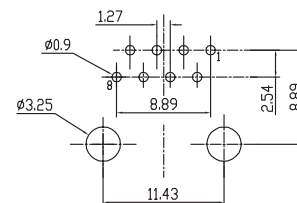
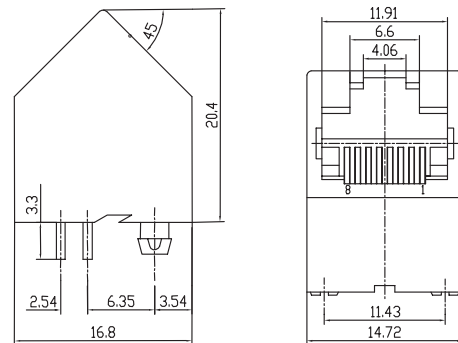
### PACKAGING

- Tray

Order Code	Pins	Description
634 008 138 121	8P8C	Vertical Plastic SMT Modular Jack

NEW

## 45° Plastic 8P8C Modular Jack WR-MJ



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
- Quality class: 500 mating cycles

### ENVIRONMENTAL

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

### ELECTRICAL

- Current rating: 1.5 A
- Working voltage: 120 Vac
- Insulation resistance: >500 MOhm
- Dielectric withstanding voltage: 1 000 Vac/mn
- Contact resistance: 20 mOhm max

### SOLDERING

- Solder temperature: JEDEC lead free wave soldering

### PACKAGING

- Tray

Order Code	Pins	Description
615 008 142 521	8P8C	45° Plastic Modular Jack



## Modular Jack & Communication Connector Design Kit



**Order Code 615 001**

Design Kit WR-MJ

All the parts of the assortment are detailed below

Note: Modular Jack design kit is the same that WR-COM chapter. WR-COM see chapter 11





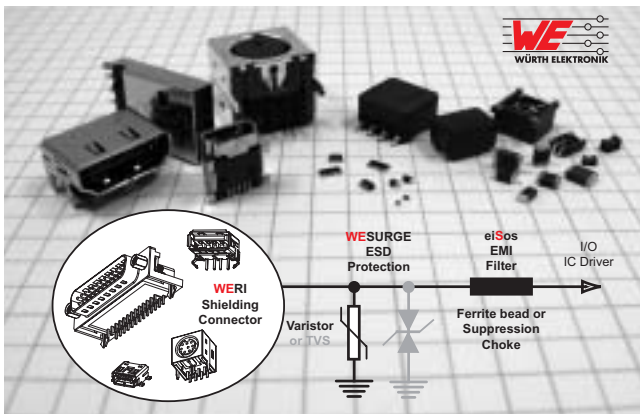
# Modular Jack & Communication Connector Design Kit

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

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