



Product/Process Change Notice (PCN)

- ☒ Major Change
☐ Minor Change

PCN Number: PCN_UtRJ45LAN_20250213

Affected Series: WE-RJ45LAN

Affected Part Number: 7497011611A

PCN Date: 2024-11-13 (YYYY-MM-DD)

Effective Date: 2025-02-13 (YYYY-MM-DD)

Change Category:

- ☐ Equipment/Location
☒ General Data
☒ Material
☒ Process
☒ Product Design
☐ Shipping/Packaging
☐ Supplier
☐ Software

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Datasheet Change:

- ☒ Yes ☐ No

Attachment:

- ☐ Yes ☒ No

DESCRIPTION OF CHANGE:

In order to enhance the product reliability, Würth Elektronik eiSos will implement a new spot welding design technology.

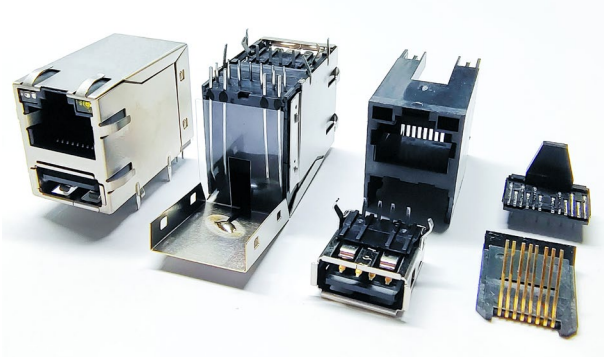
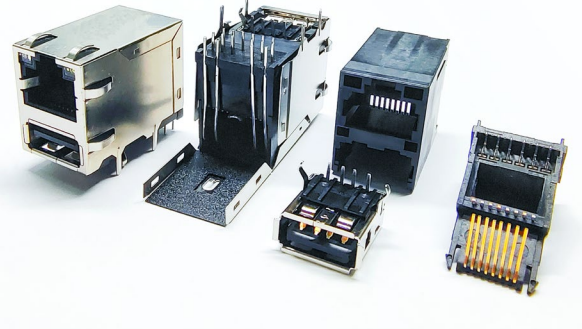
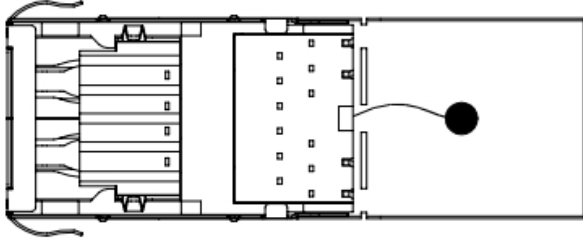
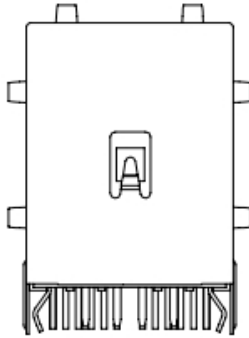
Along with this, further general improvements are done in design and process like shield connection and wire to shield insulation.

There will be no change in fit and function of the product.

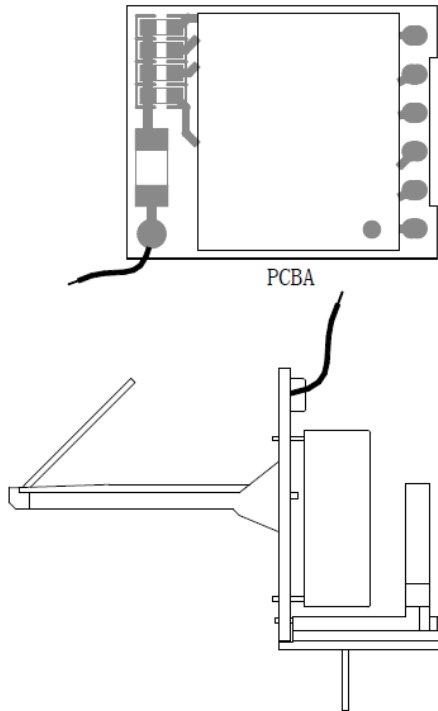
The new revision of the affected order codes will be sent out after the previous revision is out of stock (according to FIFO - first-in, first-out).

DETAILS OF CHANGE:

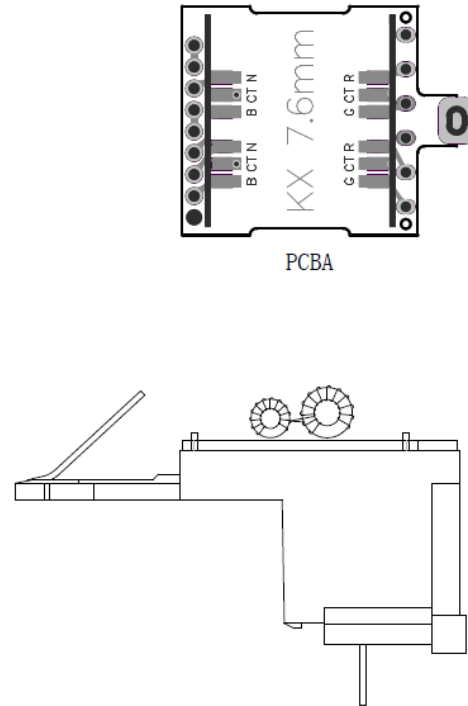
1.) General Changes:

Before Change	After Change
Comparison of design:	
	
Shielding connection:	
	
Empty space for additional details or notes	

Use automatic spot welding and standardize core diameters and inner structure:

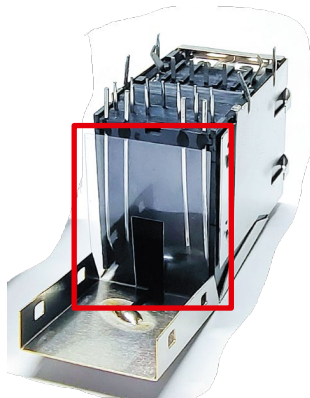


Assembly of discrete module with cores inside



Automatic assembly process by spot welding

Backside view open with insulation film:



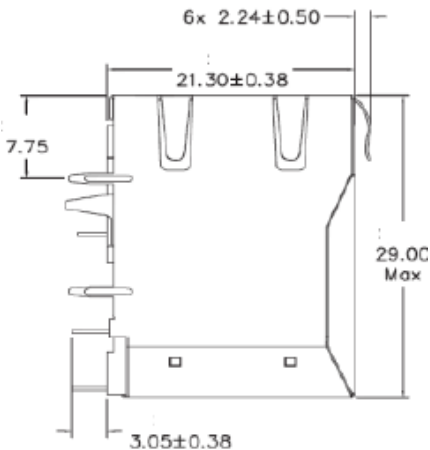
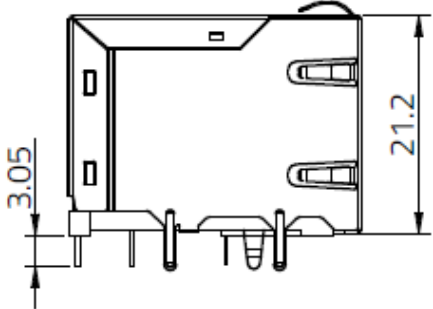
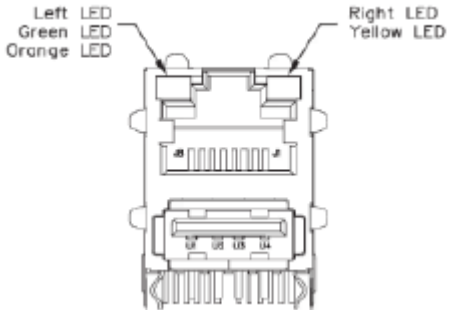
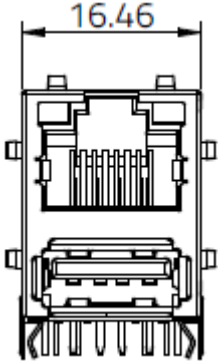
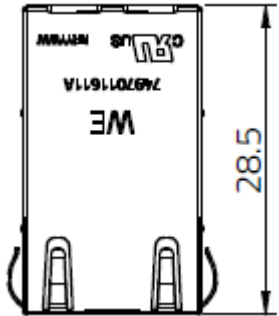
Transparent insulation film out of the material PET

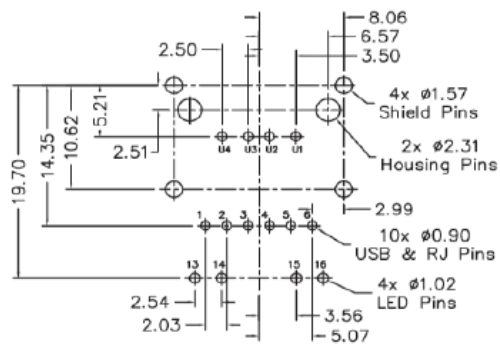
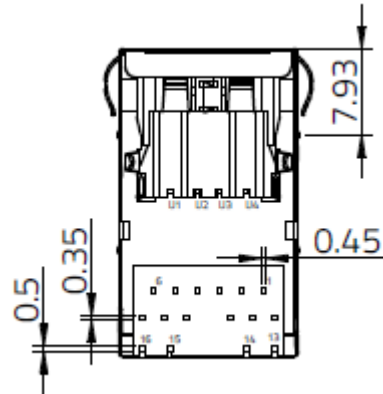
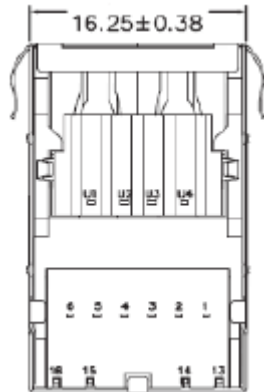


Black insulation film out of the material PC

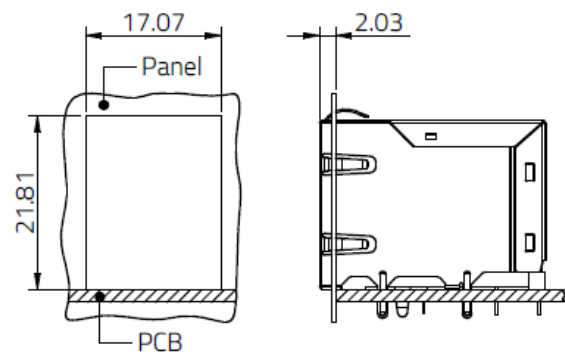
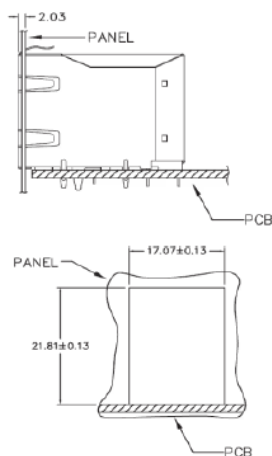
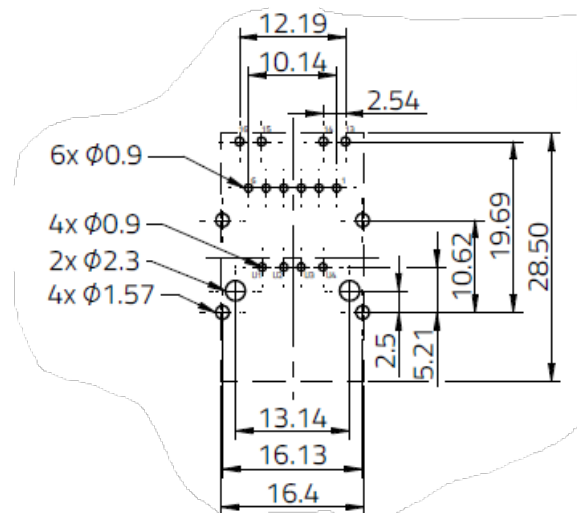
2.) Datasheet corrections and details for the part number:

7497011611A:

Before Change	After Change
	
	
	



Recommended PCB layout (Component Side View)
 All dimension tolerance are ± 0.08 unless otherwise specified





RL: 1 – 30 MHz 30 – 45 MHz 45 – 60 MHz 60 – 80 MHz	RL: 1 – 30 MHz 30 – 60 MHz 60 – 80 MHz 80 – 100 MHz
CCMR: 1 – 100 MHz	CMRR: 1 – 30 MHz 30 – 60 MHz 60 – 100 MHz
CT: 1 – 100 MHz	CT: 1 – 60 MHz 60 – 100 MHz
HIPOT: 1500 V(rms) for 1 min.	HIPOT: 2250 V(DC) for 1 min.

RELIABILITY / QUALIFICATION OF CHANGE:

An additional reliability testing was performed and approved.

Additional details of the tests can be found in the table below:

Test Item	Sample size	Reference	Test conditions	Acceptance
Resistance to Soldering Heat (THT Types)	30	MIL-STD-202-210	Tp = 260 ±5 °C, tp = 10 ±1 s, 1 time wave	Approved
Soldering Test (THT Types)	30	J-STD-002	Steam Aging 8 hrs @ 93 °C, Soldering Temperature: 245 ±5 °C Soldering Time: 4 ~ 5 seconds Solder: Sn96.5Ag3Cu0.5	Approved
OCL at temperature limits	10	eiSos PM Standard	Put in oven while measuring the inductance. (OCL value at 1. Ambient Temperature, 2. Low temperature limit, 3. High temperature limit) Operating temp. limits ±3 °C Electrical conditions: 100 mV, 100 kHz, Bias current see datasheet Temperature limits: See datasheet	Approved
High Temperature Exposure	30	MIL-STD-202-108	Temperature: 85 ±3 °C, Duration: 1000 hours	Approved



Low Temperature Storage life	30	JESD22-A119	Temperature: -40 ±3 °C, Duration: 1000 hours	Approved
Thermal Shock	30	MIL-STD-202-107	-40 °C (30min) ~ 85 °C (30min), Transfer time max. 20s, 300 cycles	Approved
Vibration	30	MIL-STD-202-204	10g's for 20 minutes, 12 cycles each of 3 orientations. Test from 15-2000 Hz	Approved
MaU WES 3.1 Mating & unmating (force)	5	EIA-364-13D	Test speed: 25mm/min, maximal force value while mating and unmating.	Approved
Durability	5	IEC 60512, Test 9a, 13b /EIA -364-09C	Mate and Unmate connector, 30Nmax, Test speed = 450~550 cycles/hour, total 1200 cycles.	Approved
Moisture Resistance	30	MIL-STD-202-106	Temperature: 25 °C ~ 65 °C, 24H/cycle humidity: 95 % (R.H), Duration: 500 hours	Approved
Static Pull	5	EIA-364-98	53.4 N (12 lbf) min pull at an 40° angle, 4 directions, electrical load:100 mA DC; 60 s in each direction.	Approved
Dynamic Pull	5	EIA-364-41E	33.34 N (7.5 lbf) min pull at an 40° angle from normal hanging axis, each of 2 planes dimension, electrical load:100 mA DC; 4 cycles a minute, 3 cycles (full rotations in each direction)	Approved
Salt Spray	30	EIA-364-26B	Temperature: 35±2 °C, humidity: 95 ~ 98 % (R.H) PH Value: 6.5 ~ 7.2, Duration time: 72 hours Density of salt water: 5 ±1 %	Approved