



Product / Process Change Notification (PCN)

☒ Major change

☐ Minor change

PCN #: PCN_IndPMCI_20230907

Affected Series: WE-PMCI; 744792xxxxx

PCN Date: June 07, 2023

Effective Date: September 07, 2023

Change Category:

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

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Data Sheet Change:

☒ Yes ☐ No

Attachment:

☐ Yes ☒ No

Description and purpose of change:

In order to enhance the product reliability, Würth Elektronik will add the AEC-Q200 Grade 1 qualification to the WE-PMCI series. In line with internal standardisation, Würth Elektronik will update the Rated Current information on the datasheets.

Because of a database mismatch, Würth Elektronik will update the Self Resonant Frequency information of 74479276147C.

This is a datasheet correction only. There will be no change in form, fit, function or quality of the product.

Detail of Change:

Certification:

Before Change		After Change	
RoHS Approval	Compliant [2011/65/EU&2015/863]	RoHS Approval	Compliant [2011/65/EU&2015/863]
REACH Approval	Conform or declared [(EC)1907/2006]	REACH Approval	Conform or declared [(EC)1907/2006]
Halogen Free	Conform [IEC 61249-2-21]	Halogen Free	Conform [JEDEC JS709B]
		Halogen Free	Conform [IEC 61249-2-21]
		Component Qualification	AEC-Q200 Grade 1



Rated Current Information:

Before Change

Electrical Properties:

Properties		Test conditions	Value	Unit	Tol.
Inductance	L	1 MHz/ 5 mA	0.68	µH	±20%
Rated Current	I_R	$\Delta T = 40\text{ K}$	5.1	A	max.
IR PCB Copper Width			40	mm	
IR PCB Copper Thickness			105	µm	
Saturation Current 1	$I_{SAT\ 1}$	$ dL/dI < 10\%$	1.8	A	typ.
Saturation Current 2	$I_{SAT\ 2}$	$ dL/dI < 30\%$	4	A	typ.
DC Resistance	R_{DC}	@ 20 °C	45	mΩ	typ.
DC Resistance	R_{DC}	@ 20 °C	49	mΩ	max.
Self Resonant Frequency	f_{res}		130	MHz	typ.
Rated Current Test Standard	IEC 62024-2, Class C				
Version	Standard				

General Properties:

Ambient Temperature (referring to I_R)	-40 up to +85 °C
Operating Temperature	-40 up to +125 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Moisture Sensitivity Level (MSL)	1

After Change

Electrical Properties:

Properties		Test conditions	Value	Unit	Tol.
Inductance	L	1 MHz/ 5 mA	0.68	µH	±20%
Rated Current ¹⁾	I_R	$\Delta T = 40\text{ K}$	5.1	A	max.
Saturation Current 1	$I_{SAT\ 1}$	$ dL/dI < 10\%$	1.8	A	typ.
Saturation Current 2	$I_{SAT\ 2}$	$ dL/dI < 30\%$	4	A	typ.
DC Resistance	R_{DC}	@ 20 °C	45	mΩ	typ.
DC Resistance	R_{DC}	@ 20 °C	49	mΩ	max.
Self Resonant Frequency	f_{res}		130	MHz	typ.

¹⁾ refer to IEC 62024-2-2020

General Properties:

Ambient Temperature (referring to I_R)	-40 up to +85 °C
Operating Temperature	-40 up to +125 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Moisture Sensitivity Level (MSL)	1
Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently	
Test conditions of Rated Current: refer to IEC 62024-2-2020, Class C (PCB Copper Width: 40 mm; PCB Copper Thickness: 105 µm)	

74479276147C:

Before Change

Self Resonant Frequency: 130 MHz

After Change

Self Resonant Frequency: 165 MHz

Reliability / Qualification Summary:

Product approval is according to the AEC-Q200 and is internally released by the Product Management Department.

The following items are part of the internal release process:

- High Temperature Exposure / MIL-STD-202G Method 108
- Temperature Cycling / JESD22 Method JA-104
- Biased Humidity / MIL-STD-202 Method 103
- Operational Life / MIL-PRF-27
- External Visual / MIL-STD-883 Method 2009
- Physical Dimension / JESD22 Method JB-100
- Resistance to Solvents / MIL-STD-202G Method 215



- Mechanical Shock / MIL-STD-202G Method 213
- Vibration / MIL-STD-202G Method 204
- Resistance to Soldering Heat / MIL-STD-202G Method 210
- ESD / AEC-Q200-002
- Solderability / IPC-A-610
- Electrical Characterization / User Spec.
- Board Flex / AEC-Q200-005
- Terminal Strength / AEC-Q200-006
- Low Temperature Storage Life / JESD22-A119
- Washability / Internal standard