Würth Elektronik eiSos GmbH & Co. KG
EMC & Inductive Solutions
Max-Eyth-Straße 1 · 74638 Waldenburg · Germany
Tel. +49 7942 945-0 · Fax +49 7942 945-5000
eiSos@we-online.com · www.we-online.com

WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

Product / Process Change Notification (PCN)

☒ Major Change
☐ Minor Change

PCN Number:	PCN_FeSTAR-Series_20250101
Affected Series:	WE-STAR-Series
Affected Order Codes:	see tables below
PCN Date:	2024-10-01 (YYYY-MM-DD)
Effective Date:	2025-01-01 (YYYY-MM-DD)

Change Category:

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

Contact:	Product Management
Phone:	+49 (0) 7942 - 945 5001
Fax:	+49 (0) 7942 - 945 5179
E-Mail:	pcn.eisos@we-online.com

Datasheet Change:
☒ Yes ☐ No

Attachment:
☒ Yes ☐ No

Description of change:

For the purpose of a datasheet information enlargement and internal standardization, Würth Elektronik will implement a new measurement setup to improve the accuracy and extend the comparability of values. Additionally, the operating temperature range will be enlarged.

This is a measurement method and datasheet visualization change only. There will be no change in form, fit, function, quality of the product.

A support note is attached describing the background of the change.

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Details of change:

1. The measurement setup will change to an internal standardized measurement setup, which uses another length of measurement cable as the previous method - the cable length is defined in a gradation of 50 mm and depends on the length of the product.
   - Shortest possible cable for specification (**Electrical Properties**)
   - Shortest possible cable for 3 turns for typical impedance characteristics

2. The content of the "**Electrical Properties:**" table will change:
   - The typical property "**Impedance @ xxx MHz 2 turns**" will be removed
   - "**Test conditions**" will change to "Test cable: TYPE; LENGTH"

Before change:

Properties		Test conditions	Value	Unit	Tol.
Impedance @ 25 MHz 1 turn	Z	25 MHz	98	Ω	±25%
Impedance @ 100 MHz 1 turn	Z	100 MHz	182	Ω	±25%
Impedance @ 25 MHz 2 turns	Z	25 MHz	401	Ω	typ.
Impedance @ 100 MHz 2 turns	Z	100 MHz	709	Ω	typ.

After change:

Properties		Test conditions	Value	Unit	Tol.
Impedance @ 25 MHz 1 turn	Z	Test cable: AWG26, 100 mm	92	Ω	±25%
Impedance @ 100 MHz 1 turn	Z	Test cable: AWG26, 100 mm	178	Ω	±25%

   - "**Value**" will change according to the results of the new standardized measurement setup with the shortest possible cable length:

WE-STAR-BUENO Series:

Part Number / Impedance @	Before change: 25 MHz 1turn	Before change: 100 MHz 1turn	After change: 25 MHz 1turn	After change: 100 MHz 1turn	After change: short cable length
74275812	125	200	122	206	100 mm
74275812S	125	200	122	206	100 mm
74275813	120	200	117	202	100 mm
74275813S	120	200	117	202	100 mm
74275815	180	350	171	340	150 mm
74275815S	180	350	171	340	150 mm

WE-STAR-FLAT Series:

Part Number / Impedance @	Before change: 25 MHz 1turn	Before change: 100 MHz 1turn	After change: 25 MHz 1turn	After change: 100 MHz 1turn	After change: short cable length
7427246	97	194	96	184	100 mm
74272469	97	194	96	184	100 mm
7427247	72	192	74	179	100 mm
74272479	72	192	74	179	100 mm
74272475	42	114	53	126	50 mm
742724759	42	114	53	126	50 mm
7427248	78	180	79	174	100 mm
74272489	78	180	79	174	100 mm
74272485	44	101	47	103	50 mm
742724859	44	101	47	103	50 mm

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WE-STAR-TEC Series:

Part Number / Impedance @	Before change:		After change:		
	25 MHz 1turn	100 MHz 1turn	25 MHz 1turn	100 MHz 1turn	short cable length
74271111	175	320	175	316	100 mm
74271111S	175	320	175	316	100 mm
74271112	176	321	175	316	100 mm
74271112S	176	321	175	316	100 mm
74271131	145	246	125	235	100 mm
74271131S	145	246	125	235	100 mm
742711319	145	246	125	235	100 mm
74271132	141	241	125	235	100 mm
74271132S	141	241	125	235	100 mm
74271142	98	182	92	178	100 mm
74271142S	98	182	92	178	100 mm
74271221	151	270	158	278	150 mm
74271221S	151	270	158	278	150 mm
74271222	145	265	158	278	150 mm
74271222S	145	265	158	278	150 mm
742712229	145	265	158	278	150 mm
74271151	223	417	200	330	150 mm
74271151S	223	417	200	330	150 mm
74271211	233	425	210	335	150 mm
74271211S	233	425	210	335	150 mm
74271251	306	525	270	420	150 mm
74271251S	306	525	270	420	150 mm

WE-STAR-TEC LFS Series:

Part Number / Impedance @	Before change:			After change:			
	300 KHz 1turn	1MHz 1turn	10 MHz 1turn	300 KHz 1turn	1MHz 1turn	10 MHz 1turn	short cable length
74272131	10	35	62	9	30	45	100 mm
74272132	10	35	62	9	30	45	100 mm
74272142	5	20	65	5	17	59	100 mm
74272151	17	73	33	15	65	33	150 mm
74272211	19	94	34	18	70	30	150 mm
74272221	12	45	40	13	50	32	150 mm
74272222	12	45	40	13	50	32	150 mm
74272251	27	63	32	23	46	27	150 mm

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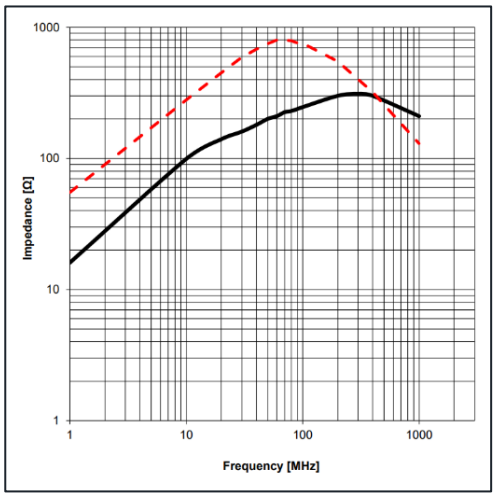
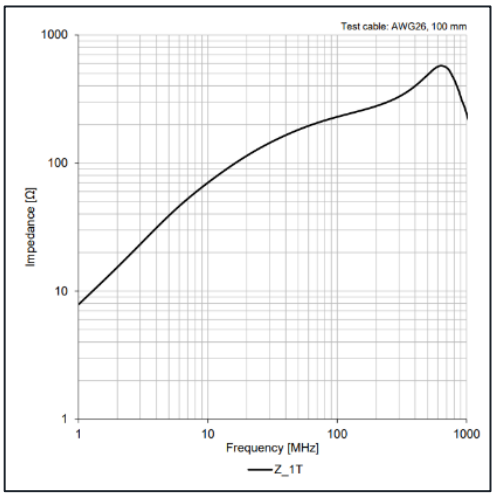
WE-STAR-RING Series:

Part Number / Impedance @	Before change:		After change:		
	25 MHz 1turn	100 MHz 1turn	25 MHz 1turn	100 MHz 1turn	short cable length
7427151	64	119	60	123	100 mm
7427151S	64	119	60	123	100 mm
7427153	83	165	75	149	100 mm
7427153S	83	165	75	149	100 mm
7427154	71	130	68	132	100 mm
7427154S	71	130	68	132	100 mm
7427155	55	110	54	112	100 mm
7427155S	55	110	54	112	100 mm

3. The visualization of chart for the "**Typical Impedance Characteristics**" changes. The used type of cable and cable length is shown in each chart.

Before change:	After change:
▪ Showing only one graph with 1 turn (1T) and 2 turns (2T) impedance curves.	▪ Showing a graph for the 1 turn (Z_1T) impedance curve with the shortest possible cable length according to the product.
	

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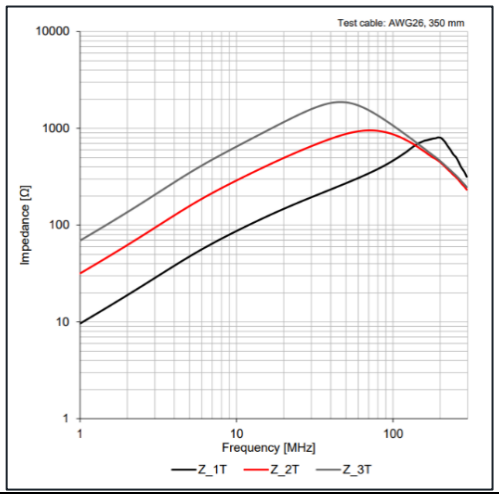
▪ Showing no graph with 3 turns impedance curve.	▪ Showing a graph for 1-3 turns (Z_1T, Z_2T, Z_3T) impedance curves with the shortest possible cable length, which is required for 3 turns according to the product. 

4. Enlargement of operating temperature:

Before change:	After change:
-25°C up to 105°C	-50°C up to 105°C
General Information:	**General Information:**

Before change:	
Temperature during mounting process	+15 °C up to +35 °C
Operating Temperature	-25 up to +105 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Storage Conditions (for single parts)	15 °C up to + 35 °C; 45 % up to 65 % RH
Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently	

After change:	
Temperature during mounting process	+15 °C up to +35 °C
Operating Temperature	-50 °C up to +105 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Storage Conditions (for single parts)	15 °C up to + 35 °C; 45 % up to 65 % RH
Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently	

Reliability / qualification of change:

Datasheet changes without changing the product:

There will be no change of the product, therefore no additional reliability or qualification testing was performed for changes 1. to 3.

Operating Temperature enlargement:

There will be no change of the product, but 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
Thermal Shock	30	MIL-STD-202G Method 107	-50 °C (30min) ~ 105 °C (30 min) Transfer time max. 20 s, 300 cycles	Approved

Würth Elektronik eiSos GmbH & Co. KG Sitz Waldenburg, Registergericht Stuttgart HRA 580801
Komplementär Würth Elektronik eiSos Verwaltungs-GmbH, Sitz Waldenburg, Registergericht Stuttgart HRB 581033
Geschäftsführer Thomas Garz, Alexander Gerfer, Dirk Knorr, Josef Wörner
Bankverbindung UniCredit Bank AG Stuttgart, Konto 322 620 136, BLZ 600 202 90, IBAN DE86 6002 0290 0322 6201 36, SWIFT/BIC HYVEDEMM473
USt.-IdNr. DE220618976