

Würth Elektronik eiSos GmbH & Co. KG

EMC & Inductive Solutions

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Product / Process Change Notification (PCN)

- Major change
 Minor change

PCN #: PCN_IndGF_20210201

Affected Series: WE-GF; 744764xxx; 744766xxx

PCN Date: November 16, 2020

Effective Date: February 01, 2021

Change Category:

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

Contact: Product Management

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Data Sheet Change:

- Yes No

Attachment:

- Yes No

DESCRIPTION AND PURPOSE OF CHANGE:

In order to meet current market demands, Würth Elektronik will change the varnish of the wire. Due to this change the moisture sensitivity level (MSL) will change from 3 to 1.

The last 3 digits of the lot number indicate the MS level of the article. All articles with the ending 001 of the lot number are affected by the change.

Due to an internal standardization, the specification of the size will change from inch to mm.

Furthermore, the self-resonant frequency of the individual inductance values and the reflow conditions will change due to the change of the varnish.

There will be no change in form, fit, quality or reliability of the product.

DETAIL OF CHANGE:

MS Level:

The change from MSL 3 to level 1 will implemented in datasheet as well.

The storage temperature (in original packing) will change:

From MSL 3: < 40°C; < 90% RH

To MSL 1: -20°C up to +40°C, 75% RH max.




To be able to recognize the respective series, the last 3 digits need to be used for product specific improvements. The meanings of the digits are shown in the following table.

Code Block description	Description of the product changes	Valid Date
000	This number stands for the GF Series with MSL 3	01.11.2020
001	This number stands for the GF Series with MSL 1	01.11.2020

The illustration of the label is shown in the follows.

GF Series with MSL 3

(1P) Part No.: 744 764 xxx /74 476 6xx x 



(Q) Quantity: 500 pcs. 




(1T) Lot No.: 226xxxxxxx000 


4532
0.22 µH; 450 mA; 0.32 Ω

(16D) Date Code: 2020 - 12 - 01 

eiSos Made in Taiwan 

GF Series with MSL 1

(1P) Part No.: 744 764 xxx /74 476 6xx x 




(Q) Quantity: 500 pcs. 



(1T) Lot No.: 226xxxxxxx001 

4532
0.22 µH; 450 mA; 0.32 Ω

(16D) Date Code: 2020 - 12 - 01 

eiSos Made in Taiwan 

Size specification:

The size specification will change as follows.

	Size code [inch]	Size code [mm]
744764xxx	1210	3225
744766xxx	1812	4532

Technical specs:

The corrected technical specs are marked with **red** before and **green** after change.

	Size 1210 [3225]			Size 1812 [4532]	
	Before	After		Before	After
	SRF [MHz]	SRF [MHz]		SRF [MHz]	SRF [MHz]
744764002	751	660	744766001	907	780
7447640027	676	630	7447660033	517	440
7447640033	607	580	7447660039	421	390
744764003	580	520	7447660068	353	310
744764004	526	480	7447660082	330	300
744764005	499	420	74476601	310	275
744764006	423	400	744766012	285	250
7447640082	403	370	744766015	215	230
74476401	380	340	744766018	213	210
744764012	346	320	74476602	207	185
744764015	254	250	74476603	138	155
744764018	187	170	744766039	100	120
74476402	138	100	74476604	78	95
744764027	100	80	744766056	62	60
74476403	72	60	74476606	46	35
744764039	66	50	744766082	35	30
74476404	58	45	74476610	28	25
74476406	48	38	744766115	25	20
74476410	40	32	744766118	21	19
744764112	36	28	744766122	20	18
744764115	31	26	744766133	16	14
744764118	28	23	744766147	12	12
744764122	25	20	744766156	11	11
744764133	20	17	744766168	10,5	10
744764139	19	16	74476620	8,9	8,5
744764147	17	15	744766215	7,8	6
744764156	16	14	744766218	7,1	5,5
744764168	14	12,5	744766220	6,6	5
74476420	12	11	744766227J	5,9	4,7
			744766233	5,5	4,5
			744766239	4,8	3,5
			74476624	4,6	3,4
			74476625	4	3
			74476626	3,7	3
			74476628	3,6	2,5
			74476630	2,9	2,5

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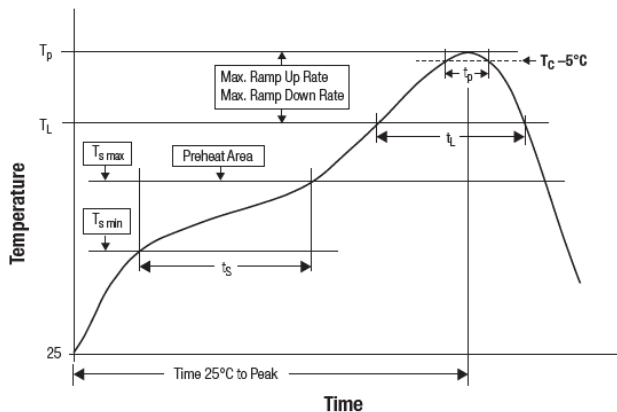
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Reflow Profile:

The samples are tested with a peak temperature at the reflow soldering of 250°C according to IPC/ JEDEC J-STD-020E.

Classification Reflow Profile for SMT components:



current

Profile Feature		Value
Preheat Temperature Min	$T_{s \text{ min}}$	150 °C
Preheat Temperature Max	$T_{s \text{ max}}$	200 °C
Preheat Time t_s from $T_{s \text{ min}}$ to $T_{s \text{ max}}$	t_s	60 - 120 seconds
Ramp-up Rate (T_L to T_p)		3 °C/ second max.
Liquidous Temperature	T_L	217 °C
Time t_L maintained above T_L	t_L	60 - 150 seconds
Peak package body temperature	T_p	245 °C max.
Time within 5 °C of actual peak temperature	t_p	10 seconds max.
Ramp-down Rate (T_L to T_p)		6 °C / second max.
Time 25 °C to peak temperature		8 minutes max.

will change to

Profile Feature		Value
Preheat Temperature Min	$T_{s \text{ min}}$	150 °C
Preheat Temperature Max	$T_{s \text{ max}}$	200 °C
Preheat Time t_s from $T_{s \text{ min}}$ to $T_{s \text{ max}}$	t_s	60 - 120 seconds
Ramp-up Rate (T_L to T_p)		3 °C/ second max.
Liquidous Temperature	T_L	217 °C
Time t_L maintained above T_L	t_L	60 - 150 seconds
Peak package body temperature	T_p	250°C max.
Time within 5 °C of actual peak temperature	t_p	20 - 30 seconds
Ramp-down Rate (T_L to T_p)		6 °C / second max.
Time 25 °C to peak temperature		8 minutes max.

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RELIABILITY / QUALIFICATION SUMMARY:

Product approval is according to the specification and is internally released by the Product Management Department.

Furthermore a Five Time Reflow (according JEDEC J-STD-020E [with 250°C]) was performed.