



## Product / Process Change Notification (PCN)

- Major change  
 Minor change

**PCN #:** PCN\_IndGFH\_20210201  
**Affected Series:** WE-GFH; 7447649xxx; 7447669xxx  
**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  
**Phone:** +49 (0) 7942 - 945 5001  
**Fax:** +49 (0) 7942 - 945 5179  
**E-Mail:** pcn.eisos@we-online.com

**Data Sheet Change:**  
 Yes  No  
**Attachment:**  
 Yes  No

### DESCRIPTION AND PURPOSE OF CHANGE:

Due to internal standardization, Würth Elektronik will change the varnish of the wire.

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

Due to the change of the varnish, the self-resonant frequency of the individual inductance values will change. Furthermore the Q value and reflow conditions will be updated.

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

### DETAIL OF CHANGE:

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 GFH with the old material and varnish	01.11.2020
001	This number stands for the GFH with the new material and varnish	01.11.2020

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The illustration of the label is shown in the follows:

**Example:**

#### GFH with the old material and varnish

**(1P) Part No.: 744 764 9xx /74 476 69x x** 



**(Q) Quantity: 500 pcs.**



**(1T) Lot No.: 226xxxxxxx000**



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



eiSos Made in Taiwan

4532  
0.22 µH; 450 mA; 0.32 Ω




#### GFH with the new material and varnish

**(1P) Part No.: 744 764 9xx /74 476 69x x** 



**(Q) Quantity: 500 pcs.**



**(1T) Lot No.: 226xxxxxxx001**



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



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0.22 µH; 450 mA; 0.32 Ω




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## Technical specs:

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

	3225					
	Q min				SRF [MHz]	
	Before		After		Before	After
	Test Cond. [MHz]	Value	Test Cond. [MHz]	Value		
744764901	1,25	20	7,96	15	210	175
7447649015	1,25	25	7,96	15	127	100
744764902	1,25	25	7,96	15	100	85
744764903	1,25	25	7,96	15	79	70
744764904	1,39	30	7,96	15	63	55
744764910	1,47	30	2,52	30	40	35
7447649115	1,47	35	2,52	30	34	30
7447649122	1,47	35	2,52	35	27	22
7447649133	1,65	35	2,52	35	22	20
7447649147	1,65	35	2,52	35	17	15
7447649168	1,92	45	2,52	40	14	12
744764920	0,796	45	0,796	45	12	10

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	4532					
	Q min				SRF [MHz]	
	Before		After		Before	After
	Test Cond. [MHz]	Value	Test Cond. [MHz]	Value		
744766901	1,6	25	7,96	15	254	265
7447669012	1,6	30	7,96	15	182	180
744766902	1,6	30	7,96	15	79	110
744766903	1,45	30	7,96	15	61	55
7447669039	1,45	30	7,96	15	55	50
744766904	1,25	30	7,96	15	53	47
744766906	1,06	30	7,96	15	42	35
744766910	1,06	35	2,52	25	36	29
7447669112	1,06	35	2,52	25	31	28
7447669115	1,06	35	2,52	25	27	24
7447669118	1,06	35	2,52	25	24	21
7447669122	1,06	35	2,52	25	23	20
7447669127	1,06	35	2,52	25	20	17
7447669133	0,975	35	2,52	25	19	16,5
7447669139	0,975	40	2,52	30	17	14,5
7447669147	0,975	40	2,52	30	15	14
7447669156	0,975	40	2,52	30	14	11
7447669168	0,975	40	2,52	30	12	10,5
7447669182	0,975	40	2,52	30	11	10
744766920	0,796	40	0,796	40	10	8,5
7447669212	0,796	40	0,796	40	9	8
7447669218	0,796	40	0,796	40	7	6,5
7447669220	0,796	40	0,796	40	6,5	6

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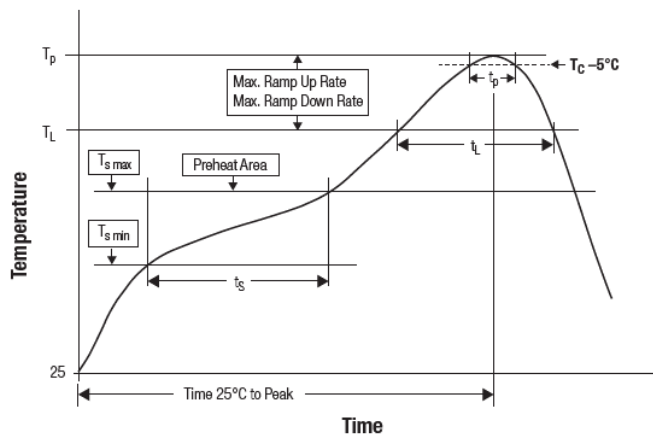
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## Reflow Profile:

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	$t_p$	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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### 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.

### 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.