



Product / Process Change Notification (PCN)																						
<input checked="" type="checkbox"/> Major change <input type="checkbox"/> Minor change																						
<p>PCN #: PCN_WSEN-ITDS_20230418</p> <p>Affected Series: WSEN-ITDS; 2533020201601, 25330202016011</p> <p>PCN Date: January 18, 2023</p> <p>Effective Date: April 18, 2023</p>	<p>Change Category:</p> <input type="checkbox"/> Equipment / Location <input checked="" type="checkbox"/> General Data <input type="checkbox"/> Material <input type="checkbox"/> Process <input type="checkbox"/> Product Design <input type="checkbox"/> Shipping / Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Software																					
<p>Contact: Product Management</p> <p>Phone: +49 (0) 7942 - 945 5001</p> <p>Fax: +49 (0) 7942 - 945 5179</p> <p>E-Mail: pcn.eisos@we-online.com</p>	<p>Data Sheet Change:</p> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>Attachment:</p> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																					
<p>Description and purpose of change:</p> <p>Due to an improvement of the production capability, Würth Elektronik will change the moisture sensitivity level of the product from level 3 to level 1. Datasheet parameter descriptions will change with additional information. All products with date code 2023-04-18 or later, will be affected by this change. This is a datasheet correction only. There will be no change in form, fit, function, quality or reliability of the product.</p>																						
<p>Detail of Change:</p> <p>Moisture sensitivity level will change from 3 to 1. Datasheet parameter description will change with more information with test conditions and footnotes.</p>																						
<p>Before Change:</p> <p>Acceleration Sensor specification:</p> <table border="1" style="width: 100%; border-collapse: collapse; border: 2px solid red;"> <tbody> <tr> <td style="padding: 2px;">Resonant frequency</td> <td style="padding: 2px;">f_{res_X}</td> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">3.4</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">kHz</td> </tr> <tr> <td style="padding: 2px;">Resonant frequency</td> <td style="padding: 2px;">f_{res_Y}</td> <td style="padding: 2px;">Y</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">3.4</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">kHz</td> </tr> <tr> <td style="padding: 2px;">Resonant frequency</td> <td style="padding: 2px;">f_{res_Z}</td> <td style="padding: 2px;">Z</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">2.8</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">kHz</td> </tr> </tbody> </table> <p>¹⁾ -3 dB cutoff frequency, Anti-aliasing filter enabled</p>		Resonant frequency	f_{res_X}	X		3.4		kHz	Resonant frequency	f_{res_Y}	Y		3.4		kHz	Resonant frequency	f_{res_Z}	Z		2.8		kHz
Resonant frequency	f_{res_X}	X		3.4		kHz																
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After Change:

Acceleration Sensor specification:

Resonant frequency	f_{res_X}	X		3.4		kHz
Resonant frequency	f_{res_Y}	Y		3.4		kHz
Resonant frequency	f_{res_Z}	Z		2.8		kHz

- 1) -3 dB cutoff frequency, Anti-aliasing filter enabled
- 2) Values are after factory calibration and trimming (parts are not soldered on PCB)
- 3) The output values are independent of the selected output data rate
- 4) Output values are after factory calibration and trimming (parts are not soldered on PCB)

Before Change:

Temperature Sensor Specification:

Sensitivity	SEN_{T_12bit}	12 bit resolution		0.0625		°C/ digit
Offset	T_{OFF}		-15		15	°C

After Change:

Temperature Sensor Specification:

Offset ¹⁾	T_{OFF}		-15		15	°C
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¹⁾ Output of temperature sensor is 0 LSB typical at 25°C

Before Change:

Electrical Properties:

Digital input voltage - high-level	V_{IH}		$0.8 \cdot V_{DD_IO}$			
Digital input voltage - low-level	V_{IL}				$0.2 \cdot V_{DD_IO}$	
Digital output voltage - low-level	V_{OL}	$I_{OL} = 4 \text{ mA}$			0.2	V

After Change:

Electrical Properties:

Digital output voltage - high-level	V_{OH}	$I_{OH} = 4 \text{ mA}$	$V_{DD_IO} - 0.2 \text{ V}$			
Digital output voltage - low-level	V_{OL}	$I_{OL} = 4 \text{ mA}$			0,2	V



Before Change:

Absolute Maximum Ratings:

Input voltage control pins ¹⁾	V _{IN}	-0.3 V	V _{DD_IO} +0.3 V	
Maximum acceleration	a _{Max}		3000	g

¹⁾ Supply voltage on any pin should never exceed 4.8 V.

After Change:

Absolute Maximum Ratings:

Input voltage control pins ¹⁾	V _{IN}	-0.3 V	V _{DD_IO} +0.3 V	
Maximum acceleration	a _{Max}		3000	g

¹⁾ SDA, SCL, CS & SA0 are control pins. Input voltage on any pin should never exceed 4.8 V.

Before Change:

General Information:

Moisture Sensitivity Level (MSL)	3
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After Change:

General Information:

Moisture Sensitivity Level (MSL)	1
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Before Change:

Pin Description:

CS	2	I ² C enable/disable SPI chip select	Input
SA0	3	I ² C device address selection SPI serial data output	Input/Output
SDA	4	I ² C serial data SPI serial data input	Input/Output

After Change:

Pin Description:

CS	2	I ² C enable/disable; SPI chip select	Input
SA0	3	I ² C device address selection; SPI serial data output	Input/Output
SDA	4	I ² C serial data; SPI serial data input	Input/Output



Reliability / Qualification Summary:

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