



Integrated Device Technology, Inc.  
6024 Silver Creek Valley Road, San Jose, CA 95138

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> N1508-01 <b>Date:</b> September 21, 2015 <b>Product Affected:</b> 8T73S208-01NLGI (8) 8T74S208-01NLGI (8) (Refer to Table 1 for the affected part#) <b>Date Effective:</b> December 21, 2015	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input checked="" type="checkbox"/> Product Mark      Change in ordering part# <input type="checkbox"/> Back Mark <input type="checkbox"/> Date Code <input type="checkbox"/> Other
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Contact:</b> TSD Clock Team <b>E-mail:</b> <a href="mailto:clocks@idt.com">clocks@idt.com</a>	<b>Attachment:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>Samples:</b> Samples are available now.
-----------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------

**DESCRIPTION AND PURPOSE OF CHANGE:**

<input type="checkbox"/> Die Technology <input type="checkbox"/> Wafer Fabrication Process <input type="checkbox"/> Assembly Process <input type="checkbox"/> Equipment <input type="checkbox"/> Material <input type="checkbox"/> Testing <input type="checkbox"/> Manufacturing Site <input checked="" type="checkbox"/> Data Sheet <input checked="" type="checkbox"/> Other - Die Revision Change	<p>This notice is to advise our customers that the IDT Part 8T73S208A-01NLGI (8) / 8T74S208A-01NLGI (8) is an updated version of the 8T73S208-01NLGI (8) / 8T74S208-01NLGI (8) to improve the noise immunity for an overall better performance in I2C operations.</p> <p>There is a minor change to the top metal. There is no change to the die/package technology or manufacturing. The change in datasheet parameters is shown in page 3 and page 4.</p> <p>We are requesting a last time buy of the previous version by December 21, 2015.</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**RELIABILITY/QUALIFICATION SUMMARY:**

There is no change in die technology/process.

**CUSTOMER ACKNOWLEDGMENT OF RECEIPT:**

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: _____	<input type="checkbox"/> <i>Approval for shipments prior to effective date.</i>
Name/Date: _____	E-Mail Address: _____
Title: _____	Phone # /Fax #: _____

**CUSTOMER COMMENTS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**IDT ACKNOWLEDGMENT OF RECEIPT:**

RECD. BY: \_\_\_\_\_                      DATE: \_\_\_\_\_



Integrated Device Technology, Inc.  
6024 Silver Creek Valley Road, San Jose, CA 95138

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT 1 - PCN #: N1508-01

**PCN Type:** Die Revision Change / Datasheet

**Data Sheet Change:** Yes

**Detail of Change:** This notice is to advise our customers that the IDT Part 8T73S208A-01NLGI (8) / 8T74S208A-01NLGI (8) is an updated version of the 8T73S208-01NLGI (8) / 8T74S208-01NLGI (8) to improve the noise immunity for an overall better performance in I2C operations.

There is a minor change to the top metal. There is no change to the die/package technology or manufacturing. The change in datasheet parameters is shown in page 3 and page 4.

We are requesting a last time buy of the previous version by December 21, 2015.

**Table 1**

Old Ordering Part Number	New Ordering Part Number
8T73S208-01NLGI	8T73S208A-01NLGI
8T73S208-01NLGI8	8T73S208A-01NLGI8
8T74S208-01NLGI	8T74S208A-01NLGI
8T74S208-01NLGI8	8T74S208A-01NLGI8

**Qualification Test Plan and Result:**

Qual Vehicle: 8T73S208A-01NLGI, 8T74S208A-01NLGI

Test Description	Test Method (Latest specs in effect)	Test Results (SS / Rej)	
		8T73S208A-01NLGI	8T74S208A-01NLGI
ESD: Human Body Model @ 2000V	JS-001	3/0	3/0
ESD: Charged Device Model @ 500V	JESD22-C101	3/0	3/0
Latch-up	JESD78	6/0	6/0

FROM

A) 8735208-01

Table 4B. LVCMOS/LVTTL Input DC Characteristics,  $V_{CC} = V_{CC0} = 2.5V \pm 5\%$  or  $3.3V \pm 5\%$ ,  $V_{EE} = 0V$ ,  $T_A = -40^\circ C$  to  $85^\circ C$

Symbol	Parameter	Test Conditions	Minimum	Typical	Maximum	Units
$V_{IH}$	Input High Voltage <sup>1</sup>	$V_{CC} = 3.3V$	2.2		$V_{CC} + 0.3$	V
		$V_{CC} = 2.5V$	1.7		$V_{CC} + 0.3$	V
$V_{IL}$	Input Low Voltage <sup>1</sup>	$V_{CC} = 3.3V$	-0.3		0.8	V
		$V_{CC} = 2.5V$	-0.3		0.7	V
$I_{IH}$	Input High Current	FSEL[1:0], ADR[1:0] $V_{CC} = V_{IN} = 2.625$ or $3.465V$			150	$\mu A$
		SCL, SDA $V_{CC} = V_{IN} = 2.625$ or $3.465V$			10	$\mu A$
$I_{IL}$	Input Low Current	FSEL[1:0], ADR[1:0] $V_{CC} = 2.625$ or $3.465V$ , $V_{IN} = 0V$	-10			$\mu A$
		SCL, SDA $V_{CC} = 2.625$ or $3.465V$ , $V_{IN} = 0V$	-150			$\mu A$

NOTE 1:  $V_{IL}$  should not be lower than -0.3V and  $V_{IH}$  should not be higher than  $V_{CC} + 0.3V$ .

TO

8735208A-01

Table 4B. LVCMOS/LVTTL Input DC Characteristics,  $V_{CC} = V_{CC0} = 2.5V \pm 5\%$  or  $3.3V \pm 5\%$ ,  $V_{EE} = 0V$ ,  $T_A = -40^\circ C$  to  $85^\circ C$

Symbol	Parameter	Test Conditions	Minimum	Typical	Maximum	Units
$V_{IH}$	Input High Voltage <sup>1</sup>	FSEL[1:0], ADR[1:0] $V_{CC} = 3.3V \pm 5\%$	2.2		$V_{CC} + 0.3V$	V
		SCL, SDA $V_{CC} = 3.3V \pm 5\%$	2.4		$V_{CC} + 0.3V$	V
		FSEL[1:0], ADR[1:0] $V_{CC} = 2.5V \pm 5\%$	1.7		$V_{CC} + 0.3V$	V
		SCL, SDA $V_{CC} = 2.5V \pm 5\%$	1.9		$V_{CC} + 0.3V$	V
$V_{IL}$	Input Low Voltage <sup>1</sup>	FSEL[1:0], ADR[1:0] $V_{CC} = 3.3V \pm 5\%$	-0.3		0.8	V
		SCL, SDA $V_{CC} = 3.3V \pm 5\%$	-0.3		0.8	V
		FSEL[1:0], ADR[1:0] $V_{CC} = 2.5V \pm 5\%$	-0.3		0.7	V
		SCL, SDA $V_{CC} = 2.5V \pm 5\%$	-0.3		0.5	V
$I_{IH}$	Input High Current	FSEL[1:0], ADR[1:0] $V_{CC} = V_{IN} = 2.625$ or $3.465V$			150	$\mu A$
		SCL, SDA $V_{CC} = V_{IN} = 2.625$ or $3.465V$			10	$\mu A$
$I_{IL}$	Input Low Current	FSEL[1:0], ADR[1:0] $V_{CC} = 2.625$ or $3.465V$ , $V_{IN} = 0V$	-10			$\mu A$
		SCL, SDA $V_{CC} = 2.625$ or $3.465V$ , $V_{IN} = 0V$	-150			$\mu A$

NOTE 1:  $V_{IL}$  should not be lower than -0.3V and  $V_{IH}$  should not be higher than  $V_{CC} + 0.3V$ .

FROM

B) 8745208-01

Table 4B. LVCMOS/LVTTL Input DC Characteristics,  $V_{DD} = V_{DD0} = 2.5V \pm 5\%$ ,  $T_A = -40^\circ C$  to  $85^\circ C$

Symbol	Parameter	Test Conditions	Minimum	Typical	Maximum	Units
$V_{IH}$	Input High Voltage <sup>1</sup>		1.7		$V_{DD} + 0.3$	V
$V_{IL}$	Input Low Voltage <sup>1</sup>		-0.3		0.7	V
$I_{IH}$	Input High Current	FSEL[1:0], ADR[1:0] $V_{DD} = V_{IN} = 2.625$			150	$\mu A$
		SCL, SDA $V_{DD} = V_{IN} = 2.625$			5	$\mu A$
$I_{IL}$	Input Low Current	FSEL[1:0], ADR[1:0] $V_{DD} = 2.625$ , $V_{IN} = 0V$	-10			$\mu A$
		SCL, SDA $V_{DD} = 2.625$ , $V_{IN} = 0V$	-150			$\mu A$

NOTE: 1.  $V_{IL}$  should not be lower than -0.3V and  $V_{IH}$  should not be higher than  $V_{DD} + 0.3V$ .

TO

8745208A-01

Table 4B. LVCMOS/LVTTL Input DC Characteristics,  $V_{DD} = V_{DD0} = 2.5V \pm 5\%$ ,  $T_A = -40^\circ C$  to  $85^\circ C$

Symbol	Parameter	Test Conditions	Minimum	Typical	Maximum	Units
$V_{IH}$	Input High Voltage <sup>1</sup>	FSEL[1:0], ADR[1:0] $V_{DD} = 2.5V \pm 5\%$	1.7		$V_{CC} + 0.3V$	V
		SCL, SDA $V_{DD} = 2.5V \pm 5\%$	1.9		$V_{CC} + 0.3V$	V
$V_{IL}$	Input Low Voltage <sup>1</sup>	FSEL[1:0], ADR[1:0] $V_{DD} = 2.5V \pm 5\%$	-0.3		0.7	V
		SCL, SDA $V_{DD} = 2.5V \pm 5\%$	-0.3		0.5	V
$I_{IH}$	Input High Current	FSEL[1:0], ADR[1:0] $V_{DD} = V_{IN} = 2.625$			150	$\mu A$
		SCL, SDA $V_{DD} = V_{IN} = 2.625$			5	$\mu A$
$I_{IL}$	Input Low Current	FSEL[1:0], ADR[1:0] $V_{DD} = 2.625$ , $V_{IN} = 0V$	-10			$\mu A$
		SCL, SDA $V_{DD} = 2.625$ , $V_{IN} = 0V$	-150			$\mu A$

NOTE 1:  $V_{IL}$  should not be lower than -0.3V and  $V_{IH}$  should not be higher than  $V_{DD} + 0.3V$ .