



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
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05-FEB-2002

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #12274

TITLE: Initial Notification Of High Speed Logic Family Migration

EFFECTIVE DATE: 05-Jun-2002

AFFECTED CHANGE CATEGORY: ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION: Logic Products Div

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Ken Fergus <RRST50@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office
or Tom Bruner <RPP920@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Tom Bruner <RPP920@onsemi.com>

DISCLAIMER:

Initial Product/Process Change Notification (IPCN) -First Notification distributed to customers.
Distributed at least 120 days from the effective date of the change.

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce the introduction of a new manufacturing site for the High Speed CMOS Logic Product Family (MC74HCxxx, MC74HCTxxx). The new manufacturing site is ONPY1, an existing 4-inch ON Semiconductor wafer process area located in Piestany, Slovakia. ONPY1 has been producing Metal Gate CMOS Logic wafers for the past 2 years. The existing High Speed CMOS Logic wafer fab area is Phenitec Semiconductor (a 5-inch external foundry), located in Ibarra City, Japan. ONPY1 will use existing HC/HCT designs and mask sets. This manufacturing site change will not require any design changes, specification or circuit performance changes. All designs and mask sets are fully qualified from previous wafer process areas.

QUALIFICATION PLAN :

Full reliability testing will consist of the following and will be available for the Final PCN :

High Temp Op Life TA=145 deg C, 504 hrs
High Temp Bake TA= 150 deg C, 1008 hrs
HAST, 96 hrs
Autoclave, 96 hrs
Temp Cycle -65/+150 deg C, 500 cycles

**Initial Product/Process Change Notification #12274**

Electrical characterization will be completed on the designated qualification devices. These devices are representative of the entire family and will qualify the process.

This characterization will include:

- 1) ESD performance (HBM, MM, CDM)
- 2) Latch-up
- 3) Full electrical characterization of AC/DC performance
- 4) Ground bounce

AFFECTED DEVICE LIST (WITHOUT SPECIALS):**PART**

JLC34538AF, JMC74HCU04AW, MC74HC00AD, MC74HC00ADR2
MC74HC00ADT, MC74HC00ADTR2, MC74HC00AF, MC74HC00AFEL
MC74HC00AN, MC74HC02AD, MC74HC02ADR2, MC74HC02ADT
MC74HC02ADTR2, MC74HC02AF, MC74HC02AFEL, MC74HC02AN
MC74HC03AD, MC74HC03ADR2, MC74HC03ADT, MC74HC03ADTR2
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**Initial Product/Process Change Notification #12274**

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**Initial Product/Process Change Notification #12274**

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SC022HC04AN, SC022HC14AN, SC300062D14ADR2, SC30595AD
SC30595ADR2, SL000HC244AF, SL000HC244AFEL, SL000HC273AF
SL000HC273AFEL, SL000HC32AF, SL000HC32AFEL, SL000HC540AF
SL000HC540AFEL