



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

02-Dec-2008

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #16177

TITLE: Initial Notification for Transfer of Standard Logic Metal Gate Integrated Circuits Die Manufacturing From ON Semiconductor Piestany (Slovakia) To ON Semiconductor Roznov (Czech Republic).

PROPOSED FIRST SHIP DATE: 02-Apr-2009

AFFECTED CHANGE CATEGORY: ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION: Standard Logic Products

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Won Kang <Won.Kang@onsemi.com>

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

May 14, 2008 - ON Semiconductor (Nasdaq: ONNN), has announced plans to close its two wafer manufacturing facilities located in Piestany, Slovakia, and transfer the production lines to other company-owned facilities. The targeted close date is Q4 2009.

Description of the change:

The transfer and qualification of the Metal Gate CMOS process and the associated integrated circuits from the ON Semiconductor Piestany facility (Slovakia) to the Roznov CZ4 wafer fabrication site located in the Czech Republic.

The Roznov CZ4 site is certified according to ISO/TS16949 standard.

The Metal Gate process is a CMOS technology being replicated at Roznov CZ4 to get the same electrical and reliability performances as the Piestany wafer fab.

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Assembly will also be converted at the same time from gold wire bond to copper wire bond with the exception of the PDIP and SOIEAJ packages which still use gold wire bond. SOIC, SOIC-W and TSSOP will be converted to copper wire bond. The qualification plan includes the requirement to validate both the fab transfer and conversion to copper wire bond altogether.

The integrated circuits design and electrical specifications will remain identical. A full electrical characterization over the temperature range will be performed for each product to check the device functionality and electrical specifications.

Qualification tests are designed to show that the reliability of transferred devices will continue to meet or exceed ON Semiconductor standards. ON Semiconductor recommends that customers evaluate sample units in each associated application circuit to ensure there are no unexpected electrical incompatibilities.

The Metal Gate process is expected to be internally qualified at Roznov CZ4 by end of 1Q2009 and all the products by end of 3Q2009. A final notification (FPCN) will be published in 1Q2009, at least 60 days prior to the actual conversion. It will contain the qualification results and effective planned production release dates at Roznov CZ4. Samples will become gradually available from March 2009.

QUALIFICATION PLAN:

Qualification of each device type to be transferred is being performed to the following requirements:

- Three temperature electrical characterization
- ESD testing Human Body Model and Machine Model
- Latch up testing
- Reliability testing includes:

Test	Conditions	Duration/Sample Size
Early Life (ELFR)	Ta=+125°C, Bias	48hrs/800 units
High Temp.Operating Life Life (HTOL)	Ta=+125°C, Bias	1008hrs/80 units
Temp. Cycle (TC)*	-65°C to +150°C	500 cycles/80 units
Autoclave (AC) *	+121°C /15psig/100%RH	96hrs/80 units
High Temperature Storage Life (HTSL)	+150°C	1008hrs/80 units
High Accelerated Stress Test* (HAST)	+130°C/85%RH Bias	96hrs/80 units
Wire Bond Pull Strength (BPS)	After TC, 30 bonds/5 units	
Wire Bond Shear Strength (BS)	30 bonds/5 units	

*Note : These tests may be performed with pre-conditioned parts depending upon the device type used.



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AFFECTED DEVICE LIST:

- MC14001BCP
- MC14001BCPG
- MC14001BD
- MC14001BDG
- MC14001BDR2
- MC14001BDR2G
- MC14001BDTR2
- MC14001BDTR2G
- MC14001BFELG
- MC14001UBCPG
- MC14001UBD
- MC14001UBDG
- MC14001UBDR2
- MC14001UBDR2G
- MC14007UBCPG
- MC14007UBDG
- MC14007UBDR2
- MC14007UBDR2G
- MC14007UBFELG
- MC14008BCP
- MC14008BCPG
- MC14008BDR2G
- MC14011BCP
- MC14011BCPG
- MC14011BD
- MC14011BDG
- MC14011BDR2
- MC14011BDR2G
- MC14011BDR2GH
- MC14011BDTR2
- MC14011BDTR2G
- MC14011BFEL
- MC14011BFELG
- MC14011BFG
- MC14011UBCP
- MC14011UBCPG
- MC14011UBDG
- MC14011UBDR2
- MC14011UBDR2G
- MC14012BCP
- MC14012BCPG
- MC14012BDG
- MC14012BDR2
- MC14012BDR2G
- MC14012BFEL
- MC14013BCP
- MC14013BCPG
- MC14013BD
- MC14013BDG
- MC14013BDR2
- MC14013BDR2G
- MC14013BDTR2
- MC14013BDTR2G
- MC14013BF



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- MC14013BFEL
- MC14013BFELG
- MC14013BFG
- MC14014BCP
- MC14014BCPG
- MC14014BD
- MC14014BDG
- MC14014BDR2
- MC14014BDR2G
- MC14014BF
- MC14014BFEL
- MC14014BFELG
- MC14014BFG
- MC14015BCP
- MC14015BCPG
- MC14015BDG
- MC14015BDR2
- MC14015BDR2G
- MC14015BFEL
- MC14015BFELG
- MC14016BCP
- MC14016BCPG
- MC14016BDG
- MC14016BDR2
- MC14016BDR2G
- MC14016BFELG
- MC14017BCP
- MC14017BCPG
- MC14017BD
- MC14017BDG
- MC14017BDR2
- MC14017BDR2G
- MC14017BFELG
- MC14018BCP
- MC14018BCPG
- MC14018BD
- MC14018BDG
- MC14018BDR2G
- MC14020BCP
- MC14020BCPG
- MC14020BD
- MC14020BDG
- MC14020BDR2
- MC14020BDR2G
- MC14021BCP
- MC14021BCPG
- MC14021BD
- MC14021BDG
- MC14021BDR2
- MC14021BDR2G
- MC14021BFELG
- MC14022BCP
- MC14022BCPG
- MC14022BD
- MC14022BDG
- MC14022BDR2G



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- MC14023BCP
- MC14023BCPG
- MC14023BD
- MC14023BDG
- MC14023BDR2
- MC14023BDR2G
- MC14023BFEL
- MC14023BFELG
- MC14024BCP
- MC14024BCPG
- MC14024BD
- MC14024BDG
- MC14024BDR2
- MC14024BDR2G
- MC14024BFELG
- MC14025BCPG
- MC14025BD
- MC14025BDG
- MC14025BDR2
- MC14025BDR2G
- MC14025BFELG
- MC14027BCP
- MC14027BCPG
- MC14027BD
- MC14027BDG
- MC14027BDR2
- MC14027BDR2G
- MC14028BCP
- MC14028BCPG
- MC14028BDG
- MC14028BDR2
- MC14028BDR2G
- MC14028BFELG
- MC14029BCP
- MC14029BCPG
- MC14029BDR2
- MC14029BDR2G
- MC14029BFELG
- MC14040BCP
- MC14040BCPG
- MC14053BCP
- MC14053BCPG
- MC14053BD
- MC14053BDG
- MC14053BDR2
- MC14053BDR2G
- MC14053BDTR2
- MC14053BDTR2G
- MC14053BF
- MC14053BFEL
- MC14053BFELG
- MC14053BFG
- MC14060BCP
- MC14060BCPG
- MC14060BD
- MC14060BDG



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MC14060BDR2
MC14060BDR2G
MC14040BD
MC14040BDG
MC14040BDR2
MC14040BDR2G
MC14040BDTR2
MC14040BDTR2G
MC14040BFELG
MC14042BCP
MC14042BCPG
MC14042BD
MC14042BDG
MC14042BDR2G
MC14043BCP
MC14043BCPG
MC14043BD
MC14043BDG
MC14043BDR2
MC14043BDR2G
MC14043BFELG
MC14044BCP
MC14044BCPG
MC14044BD
MC14044BDG
MC14044BDR2
MC14044BDR2G
MC14046BCP
MC14046BCPG
MC14046BDW
MC14046BDWG
MC14046BDWR2
MC14066BFEL
MC14066BFELG
MC14066BFG
MC14067BDW
MC14067BDWG
MC14067BDWR2
MC14067BDWR2G
MC14069UBCP
MC14069UBCPG
MC14069UBD
MC14069UBDG
MC14069UBDR2
MC14069UBDR2G
MC14069UBDTR2
MC14069UBDTR2G
MC14069UBFEL
MC14069UBFELG
MC14070BCP
MC14046BDWR2G
MC14046BF
MC14046BFEL
MC14046BFELG
MC14046BFG
MC14049BCP



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MC14049BCPG
MC14049BD
MC14049BDG
MC14049BDR2
MC14049BDR2G
MC14049BFELG
MC14049UBCP
MC14049UBCPG
MC14049UBD
MC14049UBDG
MC14049UBDR2
MC14049UBDR2G
MC14049UBDTEL
MC14049UBDTELG
MC14049UBDTR2
MC14049UBDTR2G
MC14049UBFEL
MC14049UBFELG
MC14050BCP
MC14050BCPG
MC14050BD
MC14050BDG
MC14050BDR2
MC14050BDR2G
MC14071BDT
MC14071BDTG
MC14071BDTR2
MC14071BDTR2G
MC14071BFELG
MC14073BCP
MC14073BCPG
MC14073BDG
MC14073BDR2
MC14073BDR2G
MC14073BFELG
MC14076BCP
MC14076BCPG
MC14076BDG
MC14076BDR2
MC14076BDR2G
MC14077BCP
MC14077BCPG
MC14050BDT
MC14050BDTG
MC14050BDTR2
MC14050BDTR2G
MC14050BFEL
MC14050BFELG
MC14051BCP
MC14051BCPG
MC14051BD
MC14051BDG
MC14051BDR2
MC14051BDR2G
MC14051BDTR2
MC14051BDTR2G



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- MC14051BF
- MC14051BFEL
- MC14051BFELG
- MC14051BFG
- MC14052BCP
- MC14052BCPG
- MC14052BD
- MC14052BDG
- MC14052BDR2
- MC14052BDR2G
- MC14052BDTR2
- MC14052BDTR2G
- MC14052BF
- MC14052BFEL
- MC14052BFELG
- MC14052BFG
- MC14081BFELG
- MC14082BCPG
- MC14082BDG
- MC14082BDR2G
- MC14093BCP
- MC14093BCPG
- MC14093BD
- MC14093BDG
- MC14093BDR2
- MC14093BDR2G
- MC14093BDTR2
- MC14093BDTR2G
- MC14093BFEL
- MC14093BFELG
- MC14094BCP
- MC14094BCPG
- MC14094BD
- MC14094BDG
- MC14060BDTR2G
- MC14060BFELG
- MC14066BCP
- MC14066BCPG
- MC14066BD
- MC14066BDG
- MC14066BDR2
- MC14066BDR2G
- MC14066BDTR2
- MC14066BDTR2G
- MC14066BF
- MC14099BDWR2
- MC14099BDWR2G
- MC14106BCP
- MC14106BCPG
- MC14106BD
- MC14106BDG
- MC14106BDR2
- MC14106BDR2G
- MC14106BDTR2
- MC14106BDTR2G
- MC14174BCP



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- MC14174BCPG
- MC14174BDR2
- MC14174BDR2G
- MC14175BCP
- MC14175BCPG
- MC14175BDG
- MC14175BDR2
- MC14175BDR2G
- MC14175BFELG
- MC14490DW
- MC14490DWG
- MC14490DWR2
- MC14490DWR2G
- MC14490F
- MC14490FEL
- MC14490FELG
- MC14490FG
- MC14490P
- MC14490PG
- MC14532BCPG
- MC14532BDG
- MC14532BDR2
- MC14532BDR2G
- MC14536BCP
- MC14536BCPG
- MC14536BDW
- MC14070BD
- MC14070BDG
- MC14070BDR2
- MC14070BDR2G
- MC14070BFELG
- MC14071BCP
- MC14071BCPG
- MC14071BD
- MC14071BDG
- MC14071BDR2
- MC14071BDR2G
- MC14503BCP
- MC14503BCPG
- MC14503BD
- MC14503BDG
- MC14503BDR2
- MC14503BDR2G
- MC14503BFELG
- MC14504BCP
- MC14504BCPG
- MC14504BD
- MC14504BDG
- MC14504BDR2
- MC14504BDR2G
- MC14504BDT
- MC14504BDTG
- MC14504BDTR2
- MC14504BDTR2G
- MC14504BFEL
- MC14504BFELG



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- MC14504BFG
- MC14511BCP
- MC14511BCPG
- MC14511BD
- MC14511BDG
- MC14511BDWR2
- MC14511BDWR2G
- MC14511BF
- MC14511BFELG
- MC14511BFG
- MC14512BCP
- MC14541BCPG
- MC14541BD
- MC14541BDG
- MC14541BDR2
- MC14541BDR2G
- MC14541BDTR2
- MC14541BDTR2G
- MC14077BDR2G
- MC14077BFELG
- MC14081BCP
- MC14081BCPG
- MC14081BD
- MC14081BDG
- MC14081BDR2
- MC14081BDR2G
- MC14081BDTR2
- MC14081BDTR2G
- MC14081BFEL
- MC14512BCPG
- MC14512BD
- MC14512BDG
- MC14512BDR2
- MC14512BDR2G
- MC14513BCP
- MC14513BCPG
- MC14514BDWR2
- MC14514BDWR2G
- MC14515BDWR2
- MC14515BDWR2G
- MC14516BCP
- MC14516BCPG
- MC14516BD
- MC14516BDG
- MC14516BDR2
- MC14516BDR2G
- MC14516BF
- MC14516BFG
- MC14517BCP
- MC14517BCPG
- MC14517BDW
- MC14517BDWG
- MC14517BDWR2
- MC14517BDWR2G
- MC14518BCP
- MC14518BCPG



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MC14518BDWG
MC14518BDWR2G
MC14520BCP
MC14551BFG
MC14553BCP
MC14553BCPG
MC14555BCP
MC14555BCPG
MC14555BD
MC14555BDG
MC14094BDR2G
MC14094BDTR2
MC14094BDTR2G
MC14094BF
MC14094BFEL
MC14094BFELG
MC14094BFG
MC14099BCP
MC14099BCPG
MC14099BDW
MC14099BDWG
MC14520BCPG
MC14520BDWG
MC14520BDWR2
MC14520BDWR2G
MC14521BCP
MC14521BCPG
MC14521BD
MC14521BDG
MC14521BDR2
MC14521BDR2G
MC14521BF
MC14521BFELG
MC14521BFG
MC14526BCP
MC14526BCPG
MC14526BDWG
MC14526BDWR2
MC14526BDWR2G
MC14526BFG
MC14528BCP
MC14528BCPG
MC14528BD
MC14528BDG
MC14528BDR2
MC14528BDR2G
MC14528BF
MC14528BFEL
MC14528BFELG
MC14528BFG
MC14532BCP
MC14572UBCP
MC14572UBCPG
MC14572UBDG
MC14572UBDR2
MC14572UBDR2G



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- MC14584BCP
- MC14584BCPG
- MC14536BDWR2
- MC14536BDWR2G
- MC14536BFEL
- MC14536BFELG
- MC14538BCP
- MC14538BCPG
- MC14538BD
- MC14538BDG
- MC14538BDR2
- MC14538BDR2G
- MC14538BDTR2
- MC14538BDTR2G
- MC14538BDW
- MC14538BDWG
- MC14538BDWR2
- MC14538BDWR2G
- MC14538BF
- MC14538BFEL
- MC14538BFELG
- MC14538BFG
- MC14541BCP
- SC14046BDWR2G
- SC14051BDR2
- SC14051BDR2G
- SL14046BDWR2G
- MC14541BFG
- MC14543BCP
- MC14543BCPG
- MC14543BD
- MC14543BDG
- MC14543BDR2
- MC14543BDR2G
- MC14543BFG
- MC14549BCP
- MC14549BCPG
- MC14549BDWR2
- MC14549BDWR2G
- MC14551BCP
- MC14551BCPG
- MC14551BD
- MC14551BDG
- MC14551BDR2
- MC14551BDR2G
- MC14551BF
- MC14551BFEL
- MC14551BFELG
- MC14555BFEL
- MC14555BFELG
- MC14556BCP
- MC14556BCPG
- MC14556BDR2G
- MC14556BFEL
- MC14556BFELG
- MC14557BCP



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MC14557BCPG
MC14557BDW
MC14557BDWG
MC14557BDWR2G
MC14559BCP
MC14559BCPG
MC14559BDWR2
MC14559BDWR2G
MC14569BCP
MC14569BCPG
MC14569BDWG
MC14569BDWR2
MC14569BDWR2G
MC14584BDR2
MC14584BDR2G
MC14584BDTR2
MC14584BDTR2G
MC14584BF
MC14584BFEL
MC14584BFELG
MC14584BFG
MC14585BCP
MC14585BCPG
MC14585BD
MC14585BDG
MC14585BDR2G
MC14585BFELG
MC14598BCPG
NLV14066BCP
NLV14066BCPG
NLV14099BDWR2
NLV14099BDWR2G
SC027MG066BFEL
SC14046BDWG