



**PCN# : P365A**  
**Issue Date : Jun. 16, 2014**

**DESIGN/PROCESS CHANGE NOTIFICATION**

This is to inform you that a change is being made to the products listed below.

Unless otherwise indicated in the details of this notification, the identified change will have no impact on product quality, reliability, electrical, visual or mechanical performance and affected products will remain fully compliant to all published specifications. Products incorporating this change may be shipped interchangeably with existing unchanged products.

This change is planned to take effect in 90 calendar days from the date of this notification. Please work with your local Fairchild Sales Representative to manage your inventory of unchanged product if your evaluation of this change will require more than 90 calendar days.

Please contact your local Customer Quality Engineer within 30 days of receipt of this notification if you require any additional data or samples. Alternatively, you may send an email request for data, samples or other information to PCNSupport@fairchildsemi.com.

**Implementation of change:**

Expected First Shipment Date for Changed Product : Sep. 14, 2014

Expected First Date Code of Changed Product :1440

Description of Change (From) :  
5-inch and 6-inch wafer manufacturing

Description of Change (To) :  
Add 6-inch and 8-inch wafer manufacturing

Reason for Change:  
Increase flexibility and longevity of Fairchild's wafer manufacturing supply chain. Design, die size and layout of the affected products will remain unchanged. There are no changes in the datasheet or electrical performance.

Affected Product(s): Please refer to the list of affected products in the addendum attached in the PCN email you received. This list is based on an analysis of your company's procurement history.

| Qualification Plan | Device      | Package | Process    | No. of Lots |
|--------------------|-------------|---------|------------|-------------|
| QP13031025         | FDMS86201   | PQFN08A | MV5N/MV5NZ | 1           |
|                    | FDMS86200DC | PQFN08D |            | 3           |

| Reliability Test       | Condition                         | Standard                               | Device Name | FDMS86201  |
|------------------------|-----------------------------------|--|-------------|------------|
|                        |                                   |  | Lot No.     | FCP1336201 |
|                        |                                   |  | Duration    | Result/FA  |
| <b>Preconditioning</b> | Per spec                          | JESD22A-113                            |             | 0/154      |
| <b>HTRB</b>            | 150C, Vr=96V                      | JESD22-A108                            | 1000hrs     | 0/77       |
| <b>HTGB</b>            | 150C, Vgs=20V                     | JESD22-A108-B                          | 1000hrs     | 0/77       |
| <b>TMCL</b>            | -65 to 150C, 30min/cycle          | JESD22-A104                            | 500cyc      | 0/77       |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V               | JESD22-A110-B<br>JESD22A-101           | 96hrs       | 0/77       |
| <b>PRCL</b>            | T On/Off=2.0min, Delta<br>Tj=100C | Mil Std 750 Method 1037<br>JESD22-A105 | 10000cyc    | 0/77       |
| <b>HTSL</b>            | 150C                              | JESD22-A103                            | 1000hrs     | 0/77       |

| Reliability Test       | Condition                           | Standard                                  | Device Name | FDMS86200DC | FDMS86200DC | FDMS86200DC |
|------------------------|-------------------------------------|---|-------------|-------------|-------------|-------------|
|                        |                                     |   | Lot No.     | FCP1342401  | FCP1342402  | FCP1342403  |
|                        |                                     |   | Duration    | Result/FA   | Result/FA   | Result/FA   |
| <b>Preconditioning</b> | Per spec                            | JESD22A-113                               |             | 0/154       | 0/154       | 0/154       |
| <b>HTRB</b>            | 150C, Vr=120V                       | JESD22-A108                               | 1000hrs     | 0/77        | 0/77        | 0/77        |
| <b>HTGB</b>            | 150C, Vgs=20V                       | JESD22-A108-B                             | 1000hrs     | 0/77        | 0/77        | 0/77        |
| <b>TMCL</b>            | -65 to 150C, 30min/cycle            | JESD22-A104                               | 500cyc      | 0/77        | 0/77        | 0/77        |
| <b>HAST</b>            | 130C, 85%RH<br>Vr=42V               | JESD22-A110-B<br>JESD22A-101              | 96hrs       | 0/77        | 0/77        | 0/77        |
| <b>PRCL</b>            | T<br>On/Off=2.0min<br>Delta Tj=100C | Mil Std 750<br>Method 1037<br>JESD22-A105 | 10000cyc    | 0/77        | 0/77        | 0/77        |
| <b>HTSL</b>            | 150C                                | JESD22-A103                               | 1000hrs     | 0/77        | 0/77        | 0/77        |

| Qualification Plan | Device      | Package | Process    | No. of Lots |
|--------------------|-------------|---------|------------|-------------|
| QP13031025         | FDMC86102LZ | MLP08S  | MV5N/MV5NZ | 3           |

| Reliability Test       | Condition                      | Standard         | Device Name | FDMC86102LZ | FDMC86102LZ | FDMC86102LZ |
|------------------------|--------------------------------|------------------|-------------|-------------|-------------|-------------|
|                        |                                |                  | Lot No.     | Q20140011AA | Q20140011AB | Q20140011AC |
|                        |                                |                  | Duration    | Result/FA   | Result/FA   | Result/FA   |
| <b>Preconditioning</b> | Per spec                       | JESD22A-113      |             | 0/158       | 0/158       | 0/158       |
| <b>HTGB</b>            | 150C, Vgs=20V                  | JESD22-A108      | 1000hrs     | 0/79        | 0/79        | 0/79        |
| <b>HTRB</b>            | 150C, Vr=80V                   | JESD22-A108      | 1000hrs     | 0/79        | 0/79        | 0/79        |
| <b>HTSL</b>            | 175C                           | JESD22-A103      | 500hrs      | 0/79        | 0/79        | 0/79        |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V            | JESD22-A110      | 96hrs       | 0/79        | 0/79        | 0/79        |
| <b>MSL</b>             |                                | J-STD_020        |             | 0/22        | 0/22        | 0/22        |
| <b>PRCL</b>            | T On/Off=2.0min, Delta Tj=100C | Mil Std 750-1036 | 10000cyc    | 0/77        |             |             |
| <b>TMCL</b>            | -65C,150C                      | JESD22-A104      | 500cyc      | 0/79        | 0/79        | 0/79        |

| Qualification Plan | Device   | Package  | Process    | No. of Lots |
|--------------------|----------|----------|------------|-------------|
| QP13031025         | FDB86135 | TO263-3L | MV5N/MV5NZ | 1           |

| Reliability Test       | Condition                      | Standard    | Device Name | FDB86135   |
|------------------------|--------------------------------|-------------|-------------|------------|
|                        |                                |             | Lot No.     | FSZ1341101 |
|                        |                                |             | Duration    | Result/FA  |
| <b>Preconditioning</b> | Per spec                       | JESD22A-113 |             | 0/154      |
| <b>HTRB</b>            | 175C, Vr=80V                   | JESD22-A108 | 1000hrs     | 0/77       |
| <b>HTGB</b>            | 175C, Vgs=20V                  | JESD22-A108 | 1000hrs     | 0/77       |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V            | JESD22-A110 | 96hrs       | 0/77       |
| <b>TMCL</b>            | -65C,150C, 30min/cycle         | JESD22-A104 | 500cyc      | 0/77       |
| <b>PRCL</b>            | T On/Off=3.5min, Delta Tj=125C | Mil Std 750 | 8572cyc     | 0/77       |
| <b>HTSL</b>            | 150C                           | JESD22-A103 | 1000hrs     | 0/77       |

| Qualification Plan | Device    | Package | Process                          | No. of Lots |
|--------------------|-----------|---------|----------------------------------|-------------|
| QP12120985G        | FDMS0300S | PQFN    | N-Channel Power Trench 8 SyncFET | 3           |

| Reliability Test       | Condition                      | Standard         | Device Name | FDMS0300S | FDMS0300S | FDMS0300S |
|------------------------|--------------------------------|------------------|-------------|-----------|-----------|-----------|
|                        |                                |                  | Lot No.     | G6A6201   | G6A6181   | G6A45310  |
|                        |                                |                  | Duration    | Result/FA | Result/FA | Result/FA |
| <b>Preconditioning</b> | Per spec                       | JESD22A-113      |             | 0/154     | 0/154     | 0/154     |
| <b>HTGB</b>            | 150C, Vgs=20V                  | JESD22-A108      | 1000hrs     | 0/77      | 0/77      | 0/77      |
| <b>HTRB</b>            | 150C, Vr=80V                   | JESD22-A108      | 1000hrs     | 0/77      | 0/77      | 0/77      |
| <b>HTSL</b>            | 175C                           | JESD22-A103      | 500hrs      | 0/77      | 0/77      | 0/77      |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V            | JESD22-A110      | 96hrs       | 0/77      | 0/77      | 0/77      |
| <b>PRCL</b>            | T On/Off=2.0min, Delta Tj=100C | Mil Std 750-1036 | 10000cyc    | 0/77      | 0/77      | 0/77      |
| <b>TMCL</b>            | -65C,150C                      | JESD22-A104      | 500cyc      | 0/77      | 0/77      | 0/77      |

| Qualification Plan | Device     | Package | Process                          | No. of Lots |
|--------------------|------------|---------|----------------------------------|-------------|
| QP13181047         | FDMS7656AS | PQFN    | N-Channel Power Trench 7 SyncFET | 3           |

| Reliability Test       | Condition           | Standard    | Device Name | FDMS7656AS | FDMS7656AS | FDMS7656AS |
|------------------------|---------------------|-------------|-------------|------------|------------|------------|
|                        |                     |             | Lot No.     | T03G6A813  | X3G6A814   | T03G6A815  |
|                        |                     |             | Duration    | Result/FA  | Result/FA  | Result/FA  |
| <b>Preconditioning</b> | Per spec            | JESD22A-113 |             | 0/77       | 0/77       | 0/77       |
| <b>HTGB</b>            | 150C, Vgs=20V       | JESD22-A108 | 1000hrs     | 0/77       | 0/77       | 0/77       |
| <b>HTRB</b>            | 150C, Vr=80V        | JESD22-A108 | 1000hrs     | 0/77       | 0/77       | 0/77       |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V | JESD22-A110 | 96hrs       | 0/77       | 0/77       | 0/77       |

| Qualification Plan | Device     | Package    | Process | No. of Lots |
|--------------------|------------|------------|---------|-------------|
| QP13011024A        | FDMS7650DC | PQFN_56CLP | PT7 N S | 3           |
|                    | FDMC8010   | PQFN_33PC  | PT8 N S | 3           |

| Reliability Test       | Condition                        | Standard         | Device Name | FDMS7650DC | FDMS7650DC | FDMS7650DC |
|------------------------|----------------------------------|------------------|-------------|------------|------------|------------|
|                        |                                  |                  | Lot No.     | G6A827 A   | G6A827 B   | G6A827 C   |
|                        |                                  |                  | Duration    | Result/FA  | Result/FA  | Result/FA  |
| <b>Preconditioning</b> | Per spec                         | JESD22A-113      |             | 0/154      | 0/154      | 0/154      |
| <b>HTGB</b>            | 150C, Vgs=20V                    | JESD22-A108      | 1000hrs     | 0/77       | 0/77       | 0/77       |
| <b>HTRB</b>            | 150C, Vr=80V                     | JESD22-A108      | 1000hrs     | 0/77       | 0/77       | 0/77       |
| <b>HTSL</b>            | 175C                             | JESD22-A103      | 500hrs      | 0/77       | 0/77       | 0/77       |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V              | JESD22-A110      | 96hrs       | 0/77       | 0/77       | 0/77       |
| <b>PRCL</b>            | T On/Off=2.0min<br>Delta Tj=100C | Mil Std 750-1036 | 10000cyc    | 0/77       | 0/77       | 0/77       |
| <b>TMCL</b>            | -65C,150C                        | JESD22-A104      | 500cyc      | 0/77       | 0/77       | 0/77       |

| Reliability Test       | Condition                      | Standard         | Device Name | FDMC8010  | FDMC8010  | FDMC8010  |
|------------------------|--------------------------------|------------------|-------------|-----------|-----------|-----------|
|                        |                                |                  | Lot No.     | G6A8281   | G6A8291   | G6A8301   |
|                        |                                |                  | Duration    | Result/FA | Result/FA | Result/FA |
| <b>Preconditioning</b> | Per spec                       | JESD22A-113      |             | 0/154     | 0/154     | 0/154     |
| <b>HTGB</b>            | 150C, Vgs=20V                  | JESD22-A108      | 1000hrs     | 0/77      | 0/77      | 0/77      |
| <b>HTRB</b>            | 150C, Vr=80V                   | JESD22-A108      | 1000hrs     | 0/77      | 0/77      | 0/77      |
| <b>HTSL</b>            | 175C                           | JESD22-A103      | 500hrs      | 0/77      | 0/77      | 0/77      |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V            | JESD22-A110      | 96hrs       | 0/77      | 0/77      | 0/77      |
| <b>PRCL</b>            | T On/Off=2.0min, Delta Tj=100C | Mil Std 750-1036 | 10000cyc    | 0/77      | 0/77      | 0/77      |
| <b>TMCL</b>            | -65C,150C                      | JESD22-A104      | 500cyc      | 0/77      | 0/77      | 0/77      |

| Qualification Plan | Device     | Package  | Process | No. of Lots |
|--------------------|------------|----------|---------|-------------|
| Q20140001          | FDMC6676BZ | MLDEUC08 | ST3 PZ  | 3           |

| Reliability Test       | Condition                        | Standard         | Device Name | FDMC6676BZ  | FDMC6676BZ  | FDMC6676BZ  |
|------------------------|----------------------------------|------------------|-------------|-------------|-------------|-------------|
|                        |                                  |                  | Lot No.     | Q20140001AA | Q20140001AB | Q20140001AC |
|                        |                                  |                  | Duration    | Result/FA   | Result/FA   | Result/FA   |
| <b>Preconditioning</b> | Per spec                         | JESD22A-113      |             | 0/158       | 0/158       | 0/158       |
| <b>HTGB</b>            | 150C, Vgs=20V                    | JESD22-A108      | 1000hrs     | 0/79        | 0/79        | 0/79        |
| <b>HTRB</b>            | 150C, Vr=80V                     | JESD22-A108      | 1000hrs     | 0/79        | 0/79        | 0/79        |
| <b>HTSL</b>            | 175C                             | JESD22-A103      | 500hrs      | 0/79        | 0/79        | 0/79        |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V              | JESD22-A110      | 96hrs       | 0/79        | 0/79        | 0/79        |
| <b>MSL</b>             |                                  | J-STD_020        |             | 0/22        | 0/22        | 0/22        |
| <b>PRCL</b>            | T On/Off=2.0min<br>Delta Tj=100C | Mil Std 750-1036 | 10000cyc    | 0/79        | 0/79        | 0/79        |
| <b>TMCL</b>            | -65C, 150C                       | JESD22-A104      | 500cyc      | 0/79        | 0/79        | 0/79        |

| Qualification Plan | Device     | Package  | Process | No. of Lots |
|--------------------|------------|----------|---------|-------------|
| Q20140002          | FDS6681Z_G | NMSONC08 | ST3 PZ  | 3           |

| Reliability Test       | Condition                        | Standard         | Device Name | FDS6681Z_G  | FDS6681Z_G  | FDS6681Z_G  |
|------------------------|----------------------------------|------------------|-------------|-------------|-------------|-------------|
|                        |                                  |                  | Lot No.     | Q20140002AA | Q20140002AB | Q20140002AC |
|                        |                                  |                  | Duration    | Result/FA   | Result/FA   | Result/FA   |
| <b>Preconditioning</b> | Per spec                         | JESD22A-113      |             | 0/158       | 0/158       | 0/158       |
| <b>HTGB</b>            | 150C, Vgs=20V                    | JESD22-A108      | 1000hrs     | 0/79        | 0/79        | 0/79        |
| <b>HTRB</b>            | 150C, Vr=80V                     | JESD22-A108      | 1000hrs     | 0/79        | 0/79        | 0/79        |
| <b>HTSL</b>            | 175C                             | JESD22-A103      | 500hrs      | 0/79        | 0/79        | 0/79        |
| <b>HAST</b>            | 130C, 85%RH, Vr=42V              | JESD22-A110      | 96hrs       | 0/79        | 0/79        | 0/79        |
| <b>MSL</b>             |                                  | J-STD_020        |             | 0/22        | 0/22        | 0/22        |
| <b>PRCL</b>            | T On/Off=2.0min<br>Delta Tj=100C | Mil Std 750-1036 | 10000cyc    | 0/79        | 0/79        | 0/79        |
| <b>TMCL</b>            | -65C, 150C                       | JESD22-A104      | 500cyc      | 0/79        | 0/79        | 0/79        |