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**PCN# : P633AAB**  
**Issue Date : Mar. 14, 2016**

**Information Only Notification**

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

This is a minor change that has no impact on product quality, reliability, electrical or mechanical performance. Affected products will remain fully compliant to all published specifications. Notification is being made for informational purposes only and there is no approval required. Products incorporating this change may be shipped interchangeably with existing unchanged products on or after the issue date of this notification.

Please contact your local Customer Quality Engineer if you have any questions regarding this notification.

**Implementation of change:**

Description of Change (From) :

Current device FIS1100 as per datasheet version 1.1.

- Vdda 3.0V max.
- Start-up-time from Reset or Power Up (1.0 s)

Description of Change (To) :

New device FIS1100 as per datasheet version 1.2

- Vdda 3.47V max
- Changes to device to add new Low Latency OIS mode (OIS LL)
- Improved gyroscope wideband noise performance
- Improved gyroscope bias performance over temperature
- Increased start-up-time from Reset or Power Up (1.7 s)
- Accelerometer output now available in OIS modes

The changes are enhancements with effect from datecode 1547 as compared to the existing FIS1100 products. Expected First Shipment Date for Change Product will be 3/18/2016.

## IMU Performance Summary

|                                                       |             | "From" |                     | "To"                    |                        |                               |                                                 |
|-------------------------------------------------------|-------------|--------|---------------------|-------------------------|------------------------|-------------------------------|-------------------------------------------------|
| Sensor Metric                                         | Sensor Type |        | FIS1100             | FIS1100V2               | Changed for FIS1100V2? | Units                         | Notes                                           |
| Full Scale Range                                      | Gyro Max    |        | ± 2560              | ± 2560                  | No                     | dps                           |                                                 |
|                                                       | Accel Max   |        | ± 8                 | ± 8                     | No                     | g                             |                                                 |
| Noise Density                                         | Gyro        | 100Hz  | 0.01                | 0.01                    | No                     | dps/√Hz                       | Lower noise                                     |
|                                                       |             | 1000Hz | 0.03                | 0.01                    | Yes                    |                               |                                                 |
|                                                       | Accel       |        | 50                  | 50                      | No                     | μg/√Hz                        |                                                 |
| Initial Bias (Board Mounted)                          | Gyro        |        | 10 (X,Y) 1 (Z)      | 10 (X,Y) 1 (Z)          | No                     | ±dps                          |                                                 |
|                                                       | Accel       |        | 150 (X,Y) 500 (Z)   | 150 (X,Y) 500 (Z)       | No                     | ±mg                           |                                                 |
| Bias <u>Tempco</u> (Board Mounted)                    | Gyro        |        | 0.25 (X,Y) 0.02 (Z) | 0.1 (X,Y) 0.02 (Z)      | Yes                    | ±dps/°C                       | Lower drift                                     |
|                                                       | Accel       |        | 1 (X,Y) 2.5 (Z)     | 1 (X,Y) 2.5 (Z)         | No                     | ±mg/°C                        |                                                 |
| Initial Scale Factor Error (Board Mounted)            | Gyro        |        | 3 (X,Y) 1 (Z)       | 3 (X,Y) 1 (Z)           | No                     | ±%                            |                                                 |
|                                                       | Accel       |        | 1 (X,Y) 3(Z)        | 1 (X,Y) 3(Z)            | No                     | ±%                            |                                                 |
| Scale Factor <u>Tempco</u>                            | Gyro        |        | 0.07 (X,Y) 0.01 (Z) | 0.07 (X,Y) 0.01 (Z)     | No                     | ±%/°C                         |                                                 |
|                                                       | Accel       |        | 0.01 (X,Y) 0.02 (Z) | 0.01 (X,Y) 0.02 (Z)     | No                     | ±%/°C                         |                                                 |
| VDDA Operating Voltage                                | Whole Chip  |        | 2.4 to 3.0          | 2.4 to 3.47             | Yes                    | V                             | High VDDA possible                              |
| VDDD Operating Voltage                                | Whole Chip  |        | 1.62 to 1.98        | 1.62 to 1.98            | No                     | V                             |                                                 |
| Start-up Time from Reset or Power Up                  | Accel, Gyro |        | 1.0                 | 1.7                     | Yes                    | sec                           | Disable-to-Enable time 60ms                     |
| OIS Mode: Bandwidth / Integrated Noise (@8100 Hz ODR) | Gyro        |        | 4050 / 3            | 4050 / 3                | No                     | Hz / <u>dps<sub>RMS</sub></u> | Programmable bandwidth options. New mode added. |
|                                                       |             |        | 345 / 0.6           | 2000 / 0.6<br>345 / 0.3 | Yes<br>No              |                               |                                                 |
| Accel Available in OIS Mode                           | Accel       |        | No                  | Yes                     | Yes                    | -                             | New mode available                              |

Reason for Change:  
Enhancements for better performance.

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**Affected Product(s):**

|                        |         |  |
|------------------------|---------|--|
| FEBFIS1100MEMS IMU6D3X | FIS1100 |  |
|------------------------|---------|--|