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) :
1) Page 1: Features: Bullet "2.5 V to 3.3 V Fixed Output Voltage" exits.
2) Page 1: Description: "input supply of 2.5V to 5.5V"
3) Page1: Description: "peak efficiency of 92%"
4) Page 1: Description: "while maintaining efficiency over 80% at load currents as low as 1 mA"
5) Page 1: Description: "4.7 µF for the output capacitor"
6) Page 1: Figure 1 Cout=4.7uF
7) Page 1: Ordering information table: No FAN53610AUC33X option
8) Page 3: Abs Max Ratings: HBM ESD 3.5kV
9) Page 3: Recommended Operating conditions: Cout with values for different vout conditions
10) Page 3: Thermal properties: two-layer 1s2p board with 150 C/W typical value
11) Page 4: Electrical Characteristics heading notes -   contains Vout=2.9V
12) Page 4: fsw parameter – Switching Frequency.
13) Page 4: Vout, Output Voltage Accuracy, specified at 2.5 to 2.9V and 2.9 to 3.3V ranges
14) Page 4: Tss, Soft Start ,   No Vin or Iload condition
15) Page 4, note 4: Limited by the effect of tOFF minimum (see Operation Description section).
16) Page 4: Note 5 reference
17) Page 8: Figures 14 , has 3.2V VIN data,   and Figure 15, has 3.6V VIN data
18) Page 9: contains Figures 27 and 28, Over current and fault scope captures.
19) Page 10: Operation Description – updated to match description on 1st page.
20) Page 10: Control scheme section
21) Page 10: 100% duty cycle operation , Toff(min) of 50ns
22) Page 10: Enable and Soft Start, : " ~50 nA of current"
23) Page 10: Enable and Soft Start, : "from 0 to 1 VOUT "
24) Page 10: Startup into Large Cout: "210 s of current limit"
25) Page 11: Current Limit, Fault shutdown and Restart: "after 250 us"
26) Page 11: Minimum Off-Time and Switching Frequency: Updated Toff(MIN) to 50nS and update equation value of 0.85
27) Page 11: Minimum Off-Time and Switching Frequency: Updated Equation (5) with 40ns.
28) Page 12: Output Capacitors section: table 2 wording.
29) Page 12, Table 1 heading, 470 nH

30) Page 12, Table 2
31) Page 12 Table 2: "Decrease primarily due to DC bias (VOUT) and elevated temperature. Output capacitor for VOUT 2.7 V"
32) Page 13, "3MHz" is listed in caption

Description of Change (To) :
1) Page 1: Features: Remove Bullet "2.5 V to 3.3 V Fixed Output Voltage"
2) Page 1: Description: Change to "input supply of 2.5V to 5.5V"
3) Page1: Description: "peak efficiency of 97%"
4) Page 1: Description: removed "while maintaining efficiency over 80% at load currents as low as 1 mA"
5) Page 1: Description: "10 µF for the output capacitor"
6) page 1: Figure 1 Cout=10uF
7) Page 1: Ordering information table: No FAN53610AUC33X option
8) Page 3: Abs Max ratings: HBM ESD updated to 2.0 kV
9) Page 3: Recommended Operating conditions: Cout listed as 10uF typical only
10) Page 3: Thermal properties: updated to show Four-layer 2s2p board with 125 C/W typical value
11) Page 4: Electrical Characteristics heading notes -   Removed Vout=2.9V
12) Page 4: fsw parameter - Oscillator Frequency.
13) Page 4: Vout, Output Voltage Accuracy, specified at 2.9, 3.0, and 3.3V.
14) Page 4: Tss, Soft Start ,   Added Vin or Iload condition
15) Page 4: Note 4 – Close-Loop Switching frequency may be limited by the effect of tOFF minimum (see Operation Description section).
16) Page 4: Added clarification to foot note (5) on closed versus open loop data sections
17) Page 8: Figures 14 , removed 3.2V VIN data,   and Figure 15, removed 3.6V VIN data
18) Page 9: removed Figures 27 and 28
19) Page 10: Operation Description – updated to match description on first page.
20) Page 10: Control scheme section updated
21) Page 10: 100% duty cycle operation , Toff(min) of 40ns
22) Page 10: Enable and Soft Start: to "~250 nA of current"
23) Page 10: Enable and Soft Start: to "from Vout = 0 to 1V"
24) Page 10: Startup into Large Cout: "200 ms of current limit"
25) Page 11: Current Limit, Fault shutdown and Restart: "after 200 us" and remove "which results in duty cycle of less than 0%"
26) Page 11: Minimum Off-Time and Switching Frequency: Updated Toff(MIN) to 40nS and update equation value to 0.88
27) Page 11: Minimum Off-Time and Switching Frequency: Updated Equation (5) with 50ns.
28) Page 12: Output Capacitor, removed 0402 reference
29) Page12, Table 1 heading, changed to 1 µH
30) Page12, Table 2, updated values
31) Page 12 Table 2: "Decrease primarily due to DC bias (VOUT) and elevated temperature."
32) Page 13, "3MHz" removed under PCB figure.

Reason for Change:
Datasheet change only.

FAN53600 datasheet added a new product, FAN53610AUC33X. In addition, the full datasheet went under full revision. The specification was updated with the latest min/max limits. To improve clarity in the datasheet, inconsistencies were fixed throughout the document.

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 companys procurement history.

Appendix A: Changed Products

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PCN Number : P5B4AAB

Customer Name :   Customer Code : 0003948144

Product	Customer Part Number	BBB	Drawing
FAN53600AUC33X		Y	N
FAN53610AUC29X		Y	N
FAN53610AUC30X		Y	N