TCN#: 812-02   **Date:** 26th Feb. 2001

DEVICE/TOOL:

ADuC812 on chip firmware, including download/debug kernel and power-on configuration routine.

DESCRIPTION OF CHANGE:

An additional Flash/EE security bit refresh instruction sequence has been inserted at the beginning of the existing power-on-configuration routine. This instruction sequence refreshes all three undocumented security bits on the ADuC812.

REASON FOR CHANGE:

Reference Errata Sheet Rev. E.1 Feb/01 available at the following URL
http://www.analog.com/microconverter/erratasheets.html

As per Errata #12, direct entry to serial download mode from power-on can be guaranteed at or below 25°C only.

The inclusion of an internal security bit refresh instruction sequence as part of the revised on-chip firmware ensures that the part will be guaranteed to enter serial download mode at elevated temperatures as decribed in the work-around section of Errata #12.

SUPPORTING INFORMATION:

ADI MicroConverter note uC004 details the entry sequence to serial download mode and the serial download mode protocols supported by the ADuC812. It is available at the following URL:
http://www.analog.com/microconverter/technotes_code.html

ADuC812 User's Manual, section 1.8 describes a recommended ADuC812 power-on reset scheme. It is available at the following URL:
http://www.analog.com/microconverter/manuals.html

TCN#: 812-02   **Date:** 26th Feb. 2001

CHANGE EFFECTIVE DATE :

This change is effective beginning with all devices shipped from the factory on or after 26th Feb. 2001.

Devices with a revised kernel can be identified via the serial download string returned from the ADuC812 UART once it enters serial download mode as follows:

Previous Kernel, Serial Download String ID =   'ADI 812 V201'
Revised Kernel, Serial Download String ID =   'ADI 812 V210'

COMPATIBILITY:

With Development Tools …..
The revised on-chip firmware kernel is 100% compatible with existing and future ADI QuickStart™ Development Tools.

With Production Systems …..
Systems making use of the serial download protocol to reprogram the device should note that the Serial download string revision ID returned by the part on entry to serial download mode has been updated from V201 to V210 on parts containing this revised on-chip firmware.

CONTACT:

MicroConverter Applications Group

in North America….   Grayson King
Analog Devices, Wilmington, MA 01887, USA
grayson.king@analog.com

in Europe and ROW….   Brian O'Mara
Analog Devices, Limerick, Ireland
brian.omara@analog.com