

August 1, 2009

Dear Customer,

Texas Instruments strives to provide the highest quality products for our customers and to remain in compliance with our strict quality standards. This is a notification of a product issue.

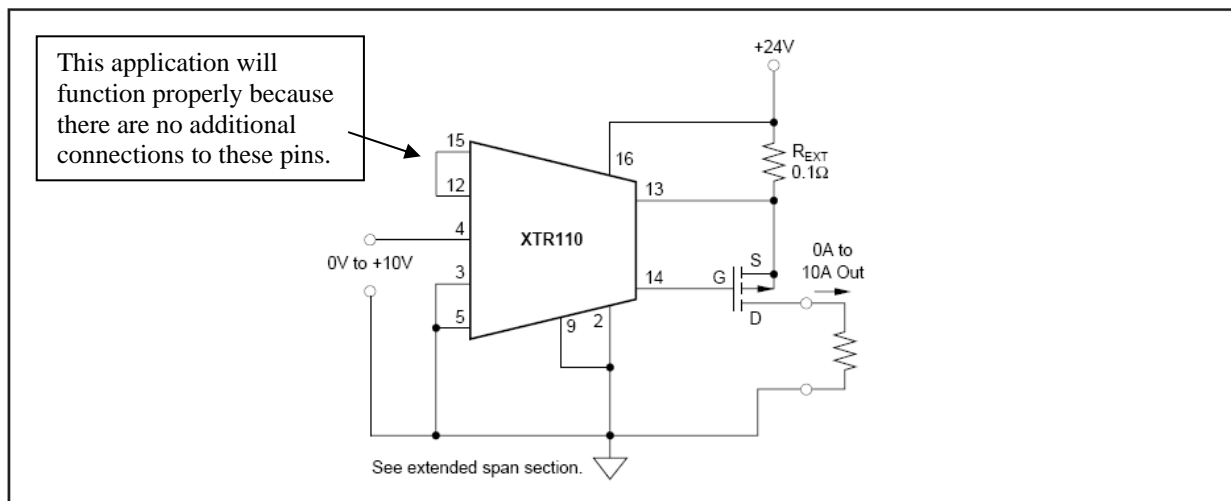
MATERIAL AFFECTED:

XTR110KP
 XTR110KU
 XTR110KU/1K
 XTR110AG
 XTR110BG

DESCRIPTION AND TECHNICAL DETAILS:

The device may not function properly if the reference voltage pins, pin 15 ($V_{REF\ FORCE}$) and pin 12 ($V_{REF\ SENSE}$), are connected to any additional circuitry.

The device +10V voltage reference will function properly under all conditions if the reference voltage pins, pin 15 ($V_{REF\ FORCE}$) and pin 12 ($V_{REF\ SENSE}$), are connected to each other, but not connected to any additional circuitry.



Example of V_{REF} pin connections that allow the device to operate correctly.

RISK ASSESSMENT:

The device issue has been in affect since mid 2005 (date code 0526) but was only recently discovered.

If pin 15 ($V_{REF\ FORCE}$) and pin 12 ($V_{REF\ SENSE}$) are connected to external circuitry a percentage of units may fail to start up properly when power is first applied. A

larger percentage of units may fail to start properly at low temperature. If a device starts up properly, it will continue to operate properly while power is applied.

CORRECTIVE ACTION:

All devices currently being shipped from TI perform properly. We are not able to provide date codes of fully compliant material.

DISPOSITION OF CUSTOMER INVENTORY:

If you wish to return material, TI will rescreen or replace any devices found to be defective. Please contact your distributor or TI field sales representative for instructions to obtain an RMR.

Texas Instruments appreciates your business and apologizes for any inconvenience this may cause. We stand ready to work with you to minimize any problems this issue might cause. Feel free to contact us at the numbers listed below, or your field sales representative, if you need more information.

Thank you for your co-operation,
Fred Nakovic
Texas Instruments – Tucson AZ
Customer Quality Engineering
Tel: 520-750-2046
Fax: 520-750-2695
<mailto:f-nakovic@ti.com>

TI Quality Homepage: <http://focus.ti.com/quality/docs/qualityhome.tsp>

How to identify the material?

1.) By Ship Track Code (STC)

The easiest and fastest way to identify the material is to compare the affected Ship Track Codes (STC) in the xls-file (column labeled as “**STC**”) with the Ship Track Codes (STC) of the material you have in stock.

This is the Ship Track Code (STC) – the unique tracking number for each shipping container!




TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2Q:
 MSL 2 /260C/1 YEAR SEAL DT
 MSL 1 /235C/UNLIM 03/29/04
 OPT:
 ITEM: 39
LBL: 5A (L)TO:1750


 e4



(1P) SN74LS07NSR
 (Q) 2000 (D) 0336
 (31T) LOT: 3959047MLA
 (4W) TKY (1T) **7523483SI2**
 (P)
 (2P) REV: (V) 0033317
 (20L) CSO: SHE (21L) CCO:USA
 (22L) ASO: MLA (23L) ACO: MYS

Left side of Label		Center of Label		Right side of Label	
MS LVL	Moisture Sensitivity Level (If highest temp is not Level 1, then 2 MSLs may be listed)	Pb-Free Symbol	Pb with a slash is Pb-free. <ul style="list-style-type: none"> An E2, E3, E4, En... is Lead (Pb) free, RoHS and JIG-101 compliant A G2, G3, G4, Gn... is Lead (Pb) free, RoHS, JIG-101 compliant & does not contain Antimony or Bromines 	(1P)	TI Orderable Part Number
2DC	If 2 Date Codes are contained, the newest is listed here	2D Bar Code Label	If any other visual data on label leads to some level of suspicion, then we can scan the 2D code and integrate the data structure (when this becomes necessary, BusIT (Dan Wikander) should authenticate.	(Q)	Quantity of units in reel, box, tube, bag, etc.
2Q	If 2 Date Codes are contained, the quantity is listed here			(D)	Datecode (YYWW = Year/Week, oldest will be listed here if more than one
SEAL DT:	Seal date of the units			(31T)	QA Lot Number with Assembly Site Code
FLR LIFE	Floor life of the units once seal is broken			(4W)	Only 3 possible values ate TKY=full turnkey processing, NTY=Non-Turnkey (orange attn: label to accompany material to support customer waiver. SWR=Special Work Request (Engineering Material).
TMP	Maximum process temperature			(1T)	Ship Track Code (STC)
OPT	Usually empty but this would be LBE/Make defined Optional Text.			(P)	Customer Part #
ITEM:	Usually empty but in some cases may be populated with a Die Name or 2 character Year-Month codes to far right which must match 1 st 2 characters of Assy LTC(s).			(2P)	Die Revision of TI Part Number
LBL:	Not useful (only used at initial pack to define label sequence# (then is lost to all Further tracking)			(V)	TI WW ISO Supplier ID (hardcoded & always 0033317)
(L) TO:	This would have been the Ship-to instruction when material was packed. It is also not very significant because a reallocation / redirect may have occurred after label was printed.			(20L)	Location of Wafer Fab
				(21L)	Country of Wafer Fab
				(22L)	Location of Assembly Site
				(23L)	Country of Assembly Site

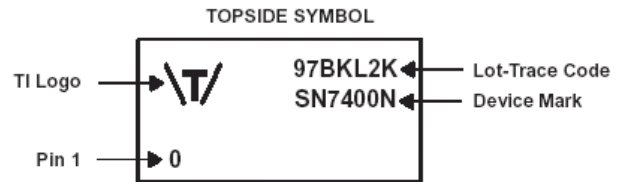
2.) By Lot Trace Code (LTC)

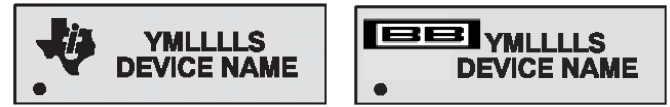
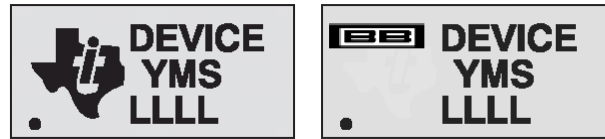

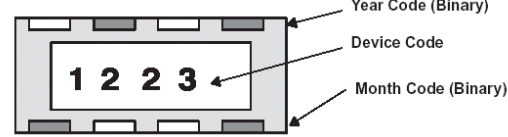
In the case the material in question has been already shipped to your end customers and is removed out of the original TI carrier boxes or mounted on board, so the identification of the material must be done for the Lot Trace Code (LTC) printed on each device top surface.

For that, please compare the affected Lot Trace Code (LTC) in the xls-file (column labeled as "**AssyLTC**") with the 7digit code printed on the devices top surface.

Each TI part is marked with a unique Lot Trace Code (LTC). It might appear in a single line or in double line.

Y = year (e.g. 1 = 2001, 2 = 2002 etc.)
 M = month (e.g. 1 = Jan, 2 = Feb ... 9 = Sep, A = Oct, B = Nov & C = Dec)
 LLLL = independent Assembly Number
 and S = Assembly Site Code.



<p>Figure 1: The part is marked with 2 rows, first containing the Lot Trace Code (LTC) and second line explains the device function.</p>	
<p>Figure 2: The part is marked with 3 rows, first explains the device function, second and third line containing the Lot Trace Code (LTC).</p>	
<p>Figure 3: Is used only on smaller packages where neither Format 1 nor Format 2 is feasible. This format loses the full LTC and decreases lot-genealogy capability (from the individual component) to all lots of a device type in a specific year and month.</p>	
<p>Figure 4: Additional special formats are used on very small packages, such as SOT/TO. The format is tailored to the specific package.</p> <p>This package is very small and has space for only 4 characters of marking</p>	

Depending on manufacturing volumes, many different lot trace codes may be contained within each month. A new year begins in the week of the first Thursday of the year. This information is taken from Mil Spec 1285 and EIA standard 576-A.