Future Technology Devices International Ltd.

TN_159 FT90x Errata Technical Note

Document Reference No.: FT_001171

Version 1.0

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The intention of this errata technical note is to give a detailed description of known functional or electrical issues with the FTDI FT90X series device.
The current revision of the FT90X series is **Revision B, released February 2015.**

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1 FT90x Revision

FT90x part numbers are listed in **Table 1.** The letter at the end of date code identifies the device revision.

The current revision of the FT90x series is **revision B, released Feb 2015.** At the time of releasing this Technical Note there is a known issue with this silicon revision.

Part Number	Package
FT900Q/FT901Q/FT902Q/FT903Q	100-pin QFN
FT900L/FT901L/FT902L/FT903L	100-pin LQFP
FT905Q/FT906Q/FT907Q/FT908Q	76-pin QFN
FT905L/FT906L/FT907L/FT908L	80-pin LQFP

Table 1 FT90x Part Numbers

This errata technical note covers the revisions of FT90X listed in **Table 2**.

Revision	Notes
A	First device revision. Engineering Samples.
B	Second device revision. Launched Feb 2015

Table 2 FT90x Series Revisions

2 Errata History Table – Functional Errata

Functional Errata	Short description	Errata occurs in device revision
-	No known issues	-

Table 3 Functional Errata

2.1 Errata History Table – Electrical and Timing Specification Deviations.

Deviations	Short description	Errata occurs in device revision
FSOURCE pin has issue	It doesn't meet with the design specification.	B

Table 4 Electrical and Timing Errata

3 Electrical Specification Deviation Errata of FT90x

3.1 Revision B

3.1.1 FSOURCE Pin issue

Introduction:

The FT90x series has dedicated VPP and FSOURCE input pins as 64-bit EFUESE program source inputs. The function of VPP and FSOURCE pins provide the program indicate voltage (VPP = +1.85V, FSOURCE = +3.70V Typical) while 64-bit EFUSE burnt on-going. Otherwise, keeps FSOURCE pin floating or tiers to ground for EFUSE read operation or standby mode.

Issue:

The FSOURCE pin has an issue that it doesn't support EFUSE programming on the FT90x series Revision B.

Workaround:

There is no workaround for this revision, will try to be fixed on next version.

Hardware reference design:

1) No need change any PCB design. Keep original design for next fixed version to drop-in.

Package specific:

The effected packages are listed in Table 5.

Package	Applicable (Yes/No)
FT900Q/FT901Q/FT902Q/FT903Q	Yes
FT900L/FT901L/FT902L/FT903L	Yes
FT905Q/FT906Q/FT907Q/FT908Q	Yes
FT905L/FT906L/FT907L/FT908L	Yes

Table 5

4 FT90x Series Package Markings

FT90x is available in a RoHS Compliant package, 100-pin QFN, 100-pin LQFP, 76-pin QFN and 80-pin LQFP. An example of the markings on the package is shown in the figures below.

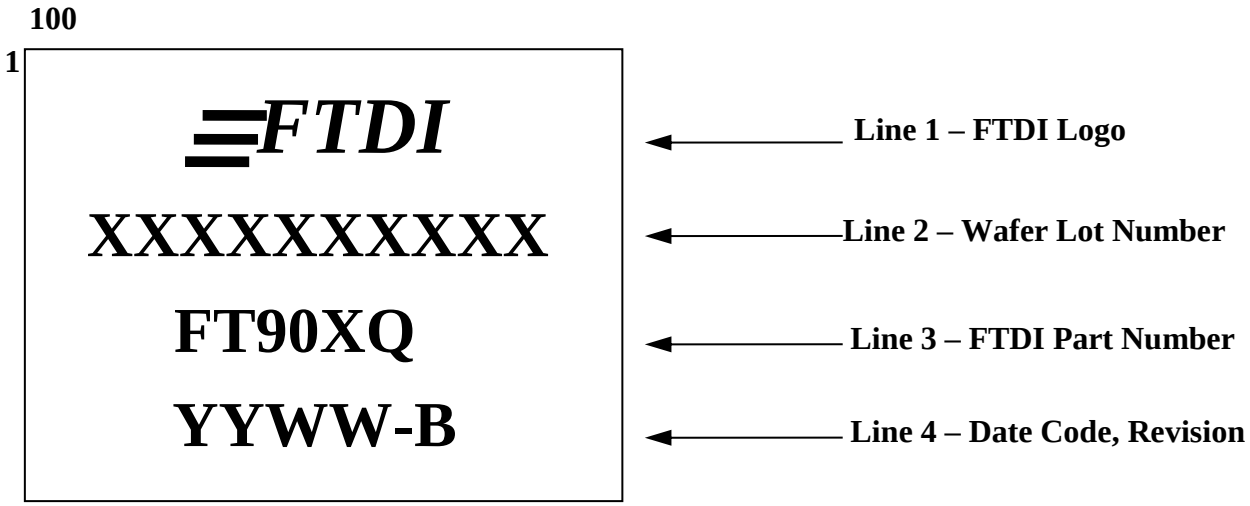

Figure 1 Package Markings – FT90XQ 100-pin

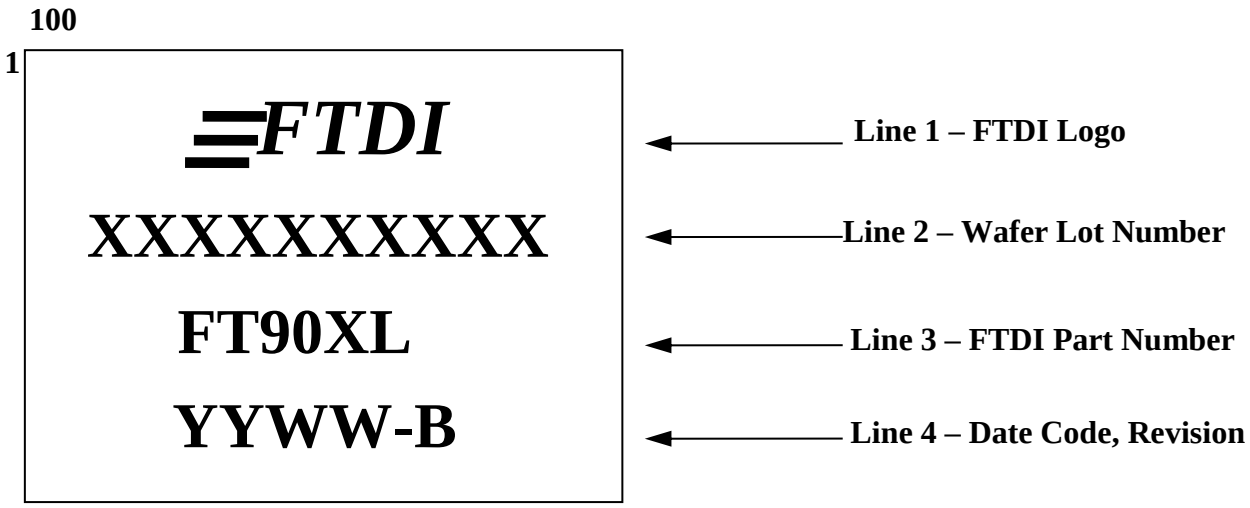

Figure 2 Package Markings – FT90XL 100-pin

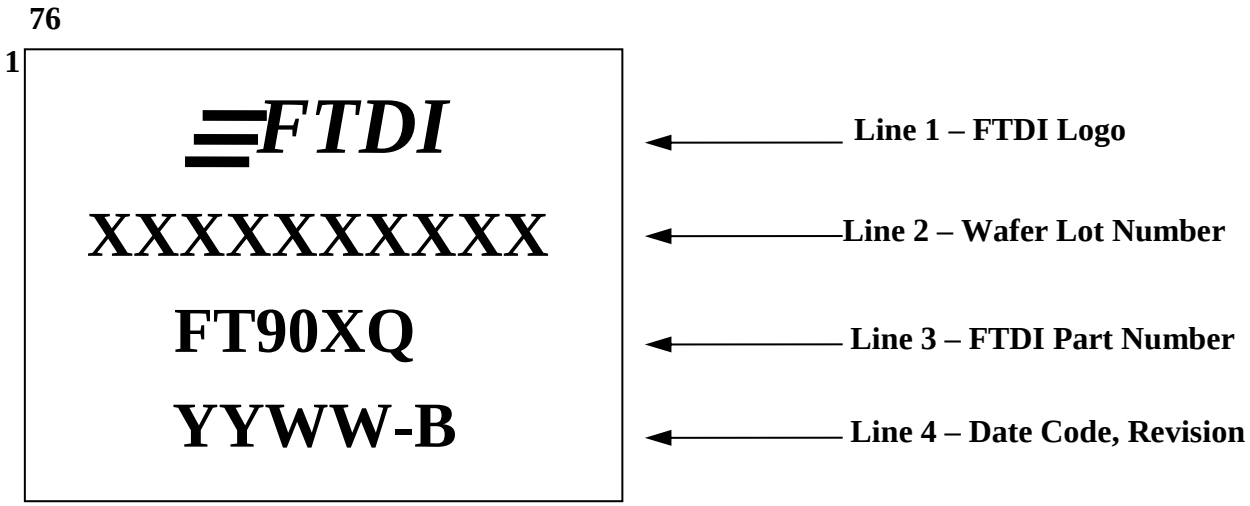

Figure 3 Package Markings – FT90XQ 76-pin

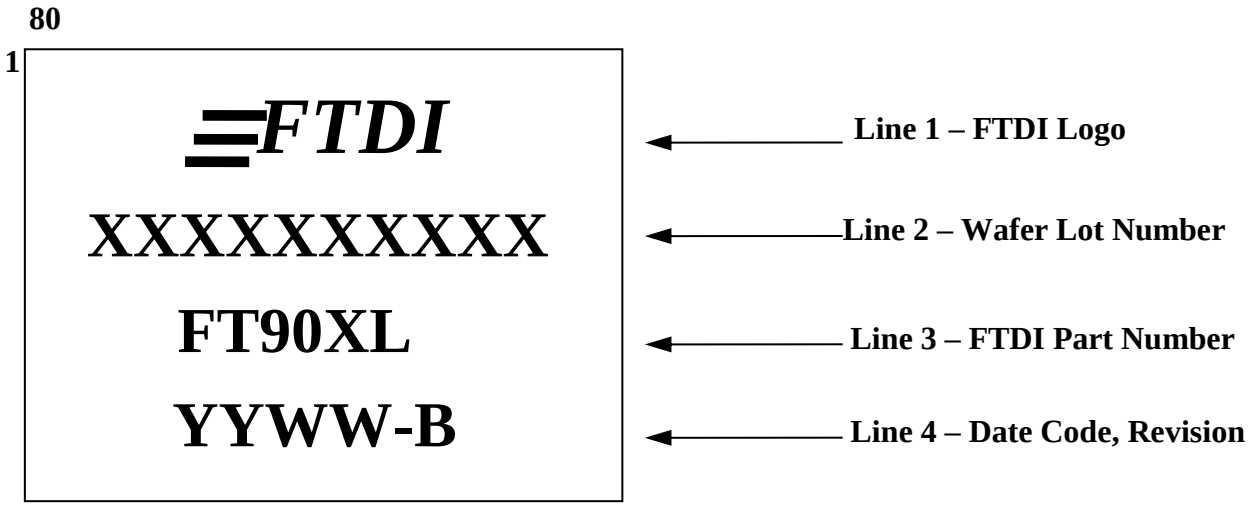

Figure 4 Package Markings – FT90XL 80-pin

The date code format is **YYWW** where WW = 2 digit week number, YY = 2 digit year number. This is followed by the revision number.

5 Contact Information

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Please visit the Sales Network page of the FTDI Web site for the contact details of our distributor(s) and sales representative(s) in your country.

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Product Page: http://www.ftdichip.com/Products/ICs/FT90x.html
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Revision	Changes	Date
1.0	Initial Release	2015-10-13