

Introduction

To ensure traceability to specific assembly and test operations, ST clearly brands a date code on every device, as well as an encapsulation code on CAPHAT™ products. STMicroelectronics is implementing a new marking and traceability scheme due to the sizes of the packages as well as increases in the number of fabrication, assembly, and test sites.

The devices are marked with a trace code which provides for tracking the exact versions. The current device marking formats for our package options are shown in [Figure 1](#) to [8](#).

Table 1. Current packages and marking information

Package type	Figure	Marking information
QFN	1	1-digit year, 2-digit work week
8-lead SOIC and TSSOP	2	1-character assembly site, 1-digit year, 2-digit work week
16-lead SOIC	3	2-digit assembly site, 1-digit year, 2-digit work week
SOT	4	3-digit part number, 1-digit work week
24-/28-pin CAPHAT™, 24-/44-pin SOIC, 18-/28-pin SOX, and 32-/36-pin hybrid	5	2-digit assembly site, 3-digit lot number, 2-digit wafer fab site
		3-character country of origin, 2-digit test site, 1-digit year, 2-digit work week
CAPHAT™ encapsulation	6	Assembly process, days, 1-digit year, working shift
SNAPHAT®	7	2-digit assembly site, 3-digit lot number
		3-character country of origin, 2-digit test site, 1-digit year, 2-digit work week
Shipping box traceability	8	2-digit assembly site, 1-digit year, 2-digit work week, 3-digit lot number

New marking illustrations

Figure 1. QFN16 (3 x 3) package date code

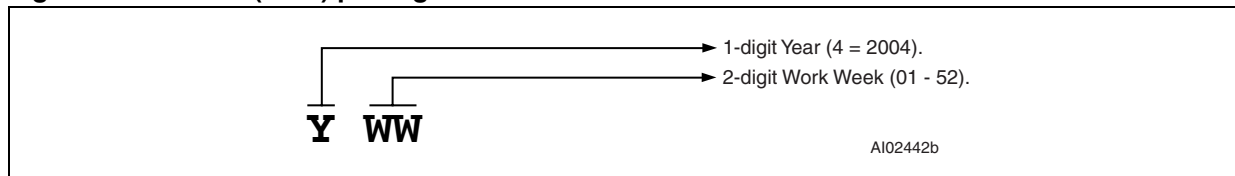


Figure 2. 8-lead SOIC, QFN16 (4 x 4), DFN16 (5 x 4), and TSSOP date and assembly site code

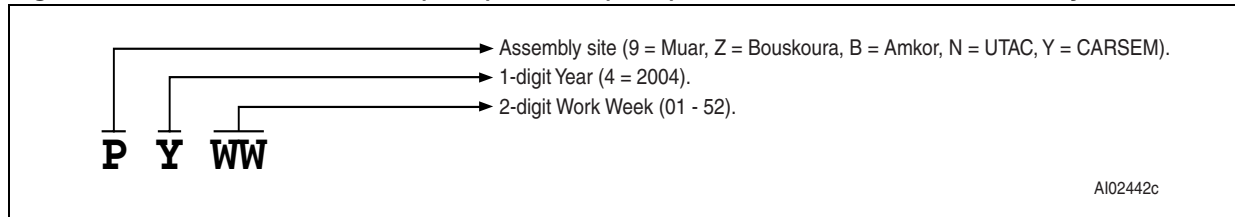


Figure 3. 16-lead SOIC date and assembly site code

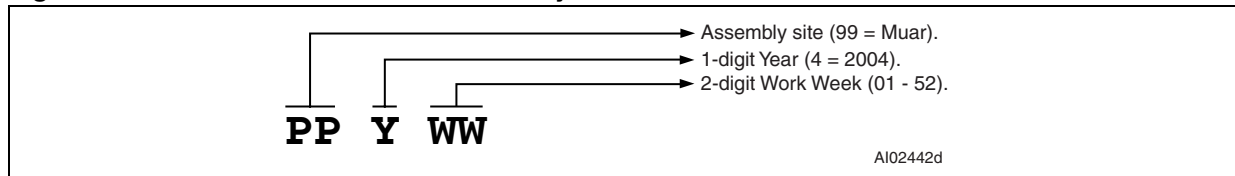


Figure 4. SOT date and part number code

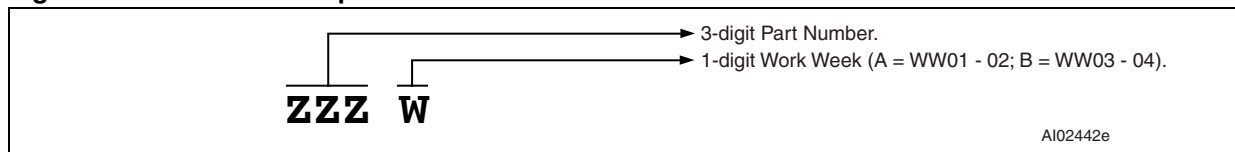


Figure 5. 24-/28-pin CAPHAT™, 28-/44-pin SOIC, 18-/28-pin SOX, and 32-/36-pin hybrid code

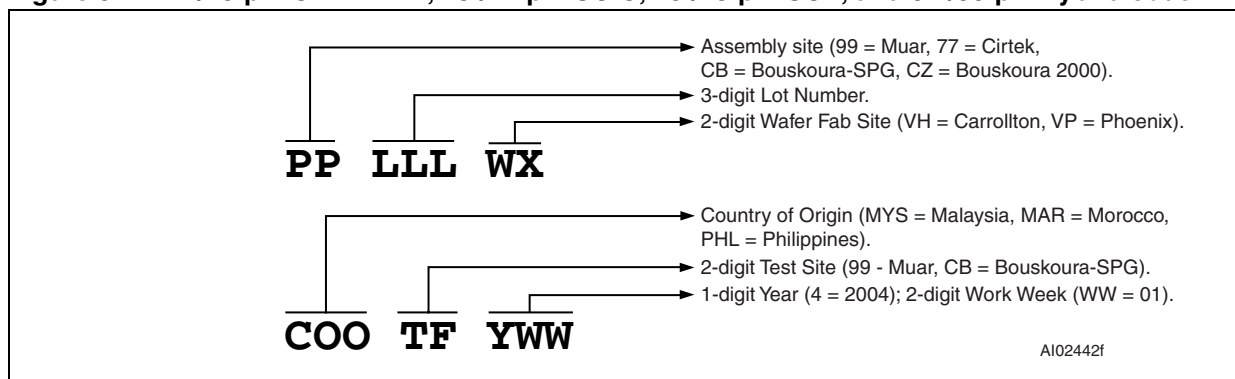
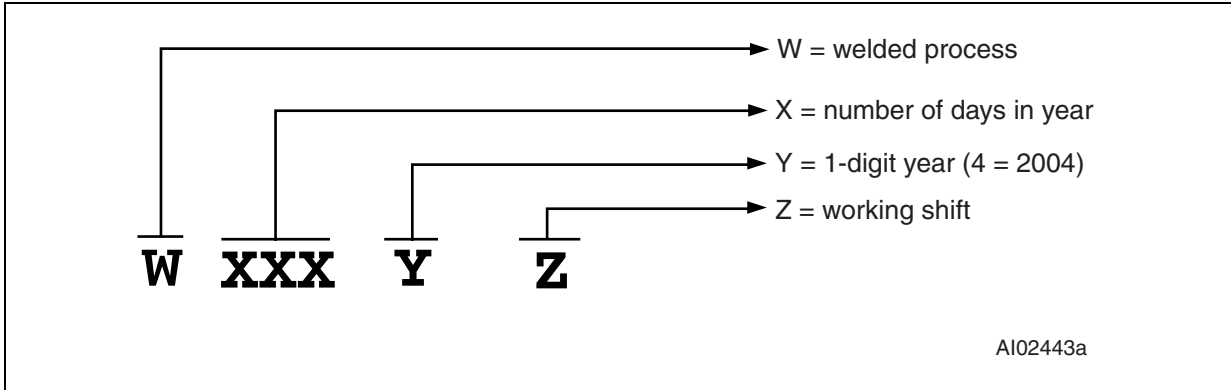


Figure 6. Encapsulation code (CAPHAT™ only)



Note: The 6-character encapsulation code (CAPHAT™ only; Figure 6) is positioned at the end of the device and is placed perpendicularly to the date code. It summarizes details of the encapsulation process

Figure 7. SNAPHAT®

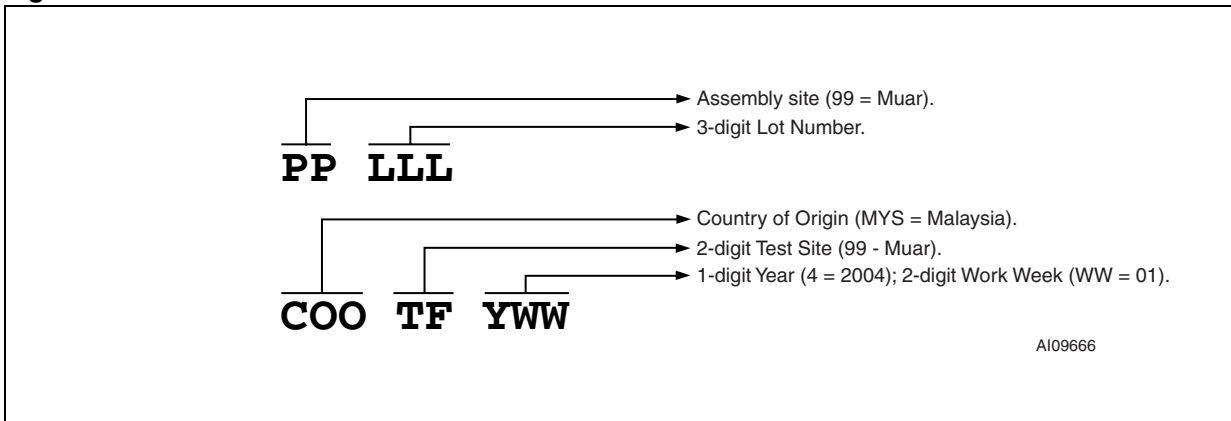
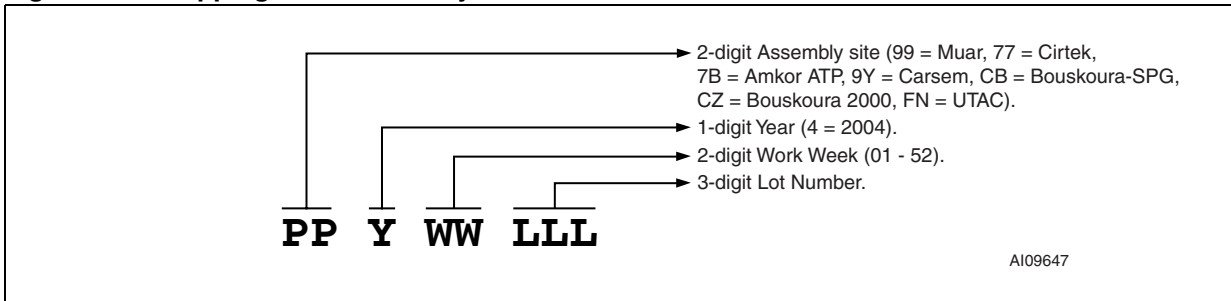


Figure 8. Shipping box traceability date code format



Previous (obsolete) marking information

The 9-character date code (*Figure 9*) is positioned at the top of the label, beside the ST logo. This presents a complete facility identification, as well as a final-test time-line of the device's manufacturing process.

The 7-character code (SOIC only; *Figure 10*) is positioned in the bottom line closest to Pin 1 on the device. It represents the lots' overall fabrication history.

Figure 9. Date code

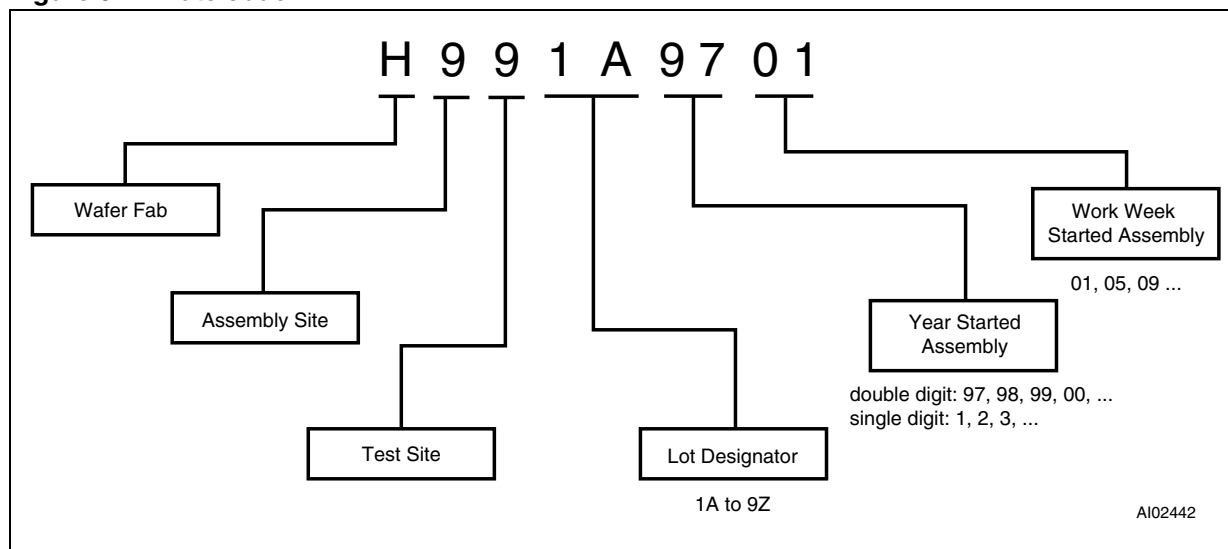


Figure 10. Fab lot number

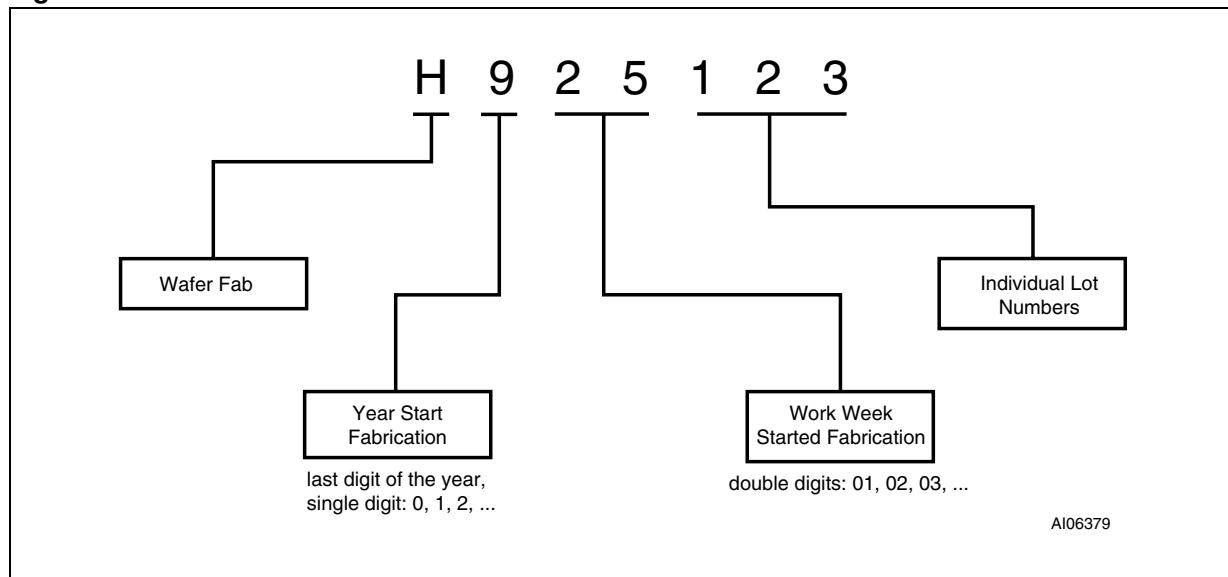


Figure 11. SNAPHAT®

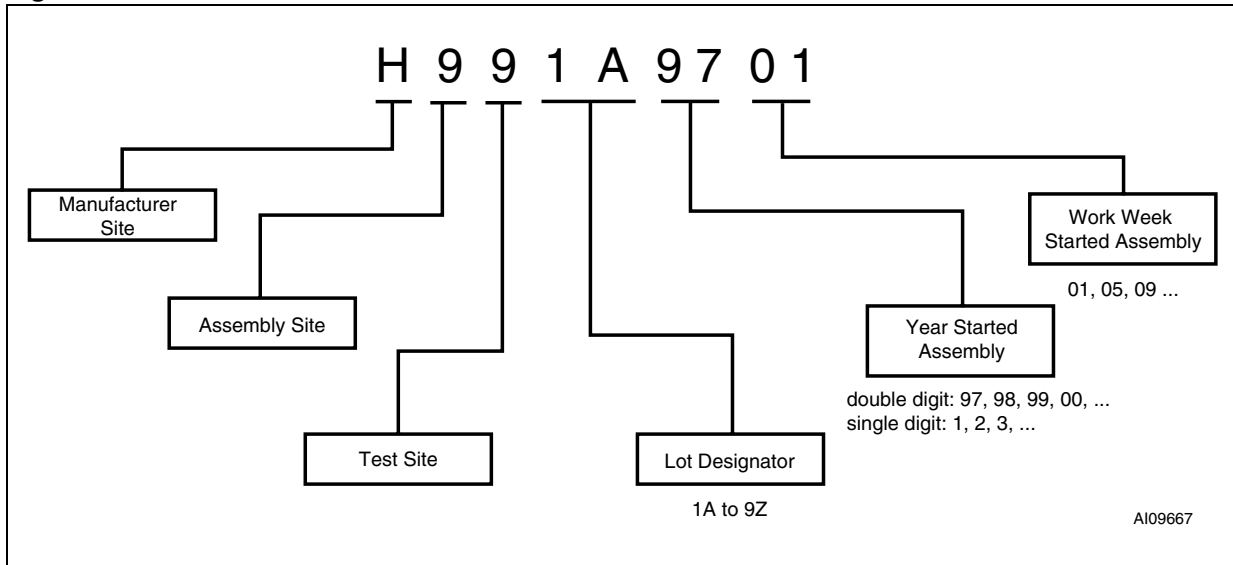
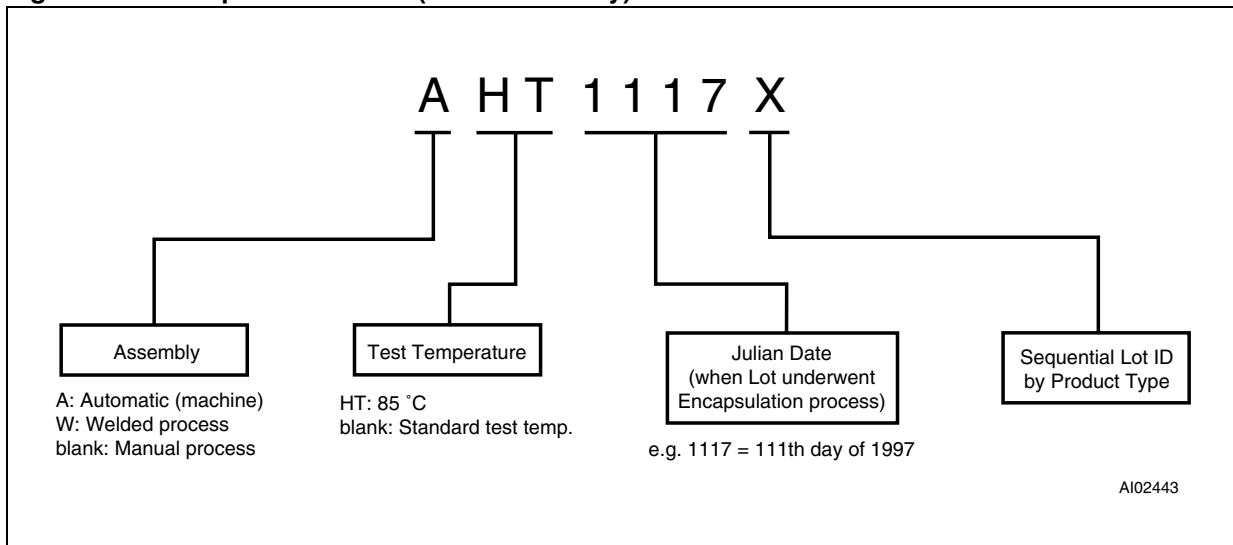


Figure 12. Encapsulation code (CAPHAT™ only)



Contact information

If you have any questions concerning matters raised in this document, please contact STMicroelectronics at the following address:

http://www.st.com/stonline/domains/support/contact_support.htm

Revision history

Table 2. Document revision history

Date	Revision	Changes
Feb- 2002	1.0	First issue.
26-Jul-2002	1.1	Updated date code (Figure 1).
03-Feb-2003	1.2	Updated date code, fab lot number (Figure 1 , 10).
14-Mar-2003	1.3	Clarify lot number terminology (Figure 10)
02-Jul-2004	2.0	Reformatted; marking formats updated (Figure 1 , 2 , 3 , 4 , 5 , 8)
26-Aug-2004	3.0	Updated (Figure 5 , 8 , 11 ; Table 1)
06-Jan-2004	4.0	Corrected figure title (Figure 5)
15-Feb-2008	5.0	Reformatted document; updated title, Table 1 , Figure 1 , 2 , 6 , 8 , and technical support URL; moved Figure 12 to Previous (obsolete) marking information .

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