

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

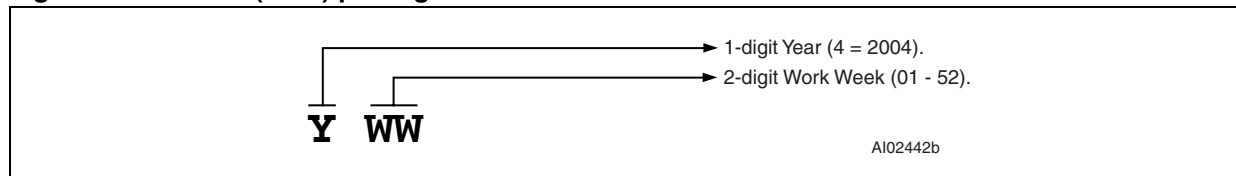


Figure 2. 8-lead SOIC, QFN16 (4 x 4), DFN16 (5 x 4), and TSSOP date and assembly site code

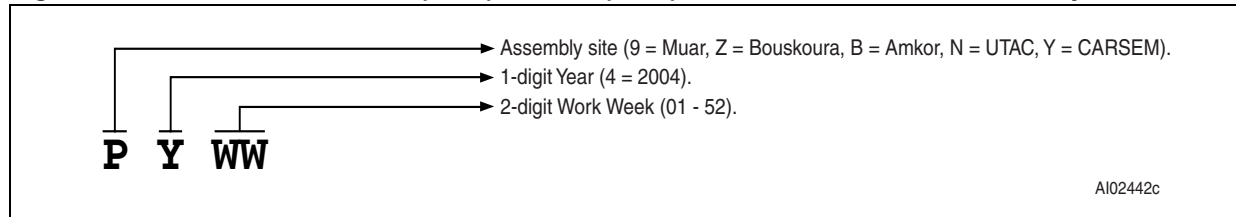


Figure 3. 16-lead SOIC date and assembly site code

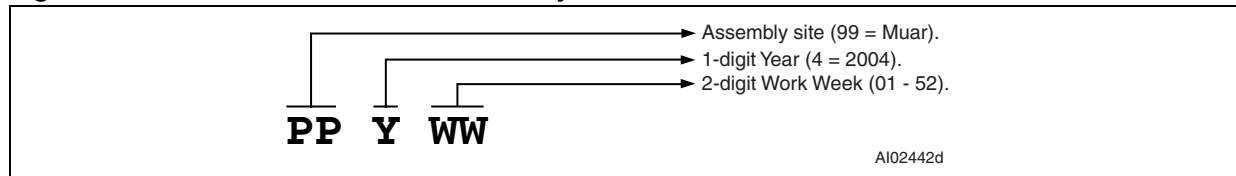


Figure 4. SOT date and part number code

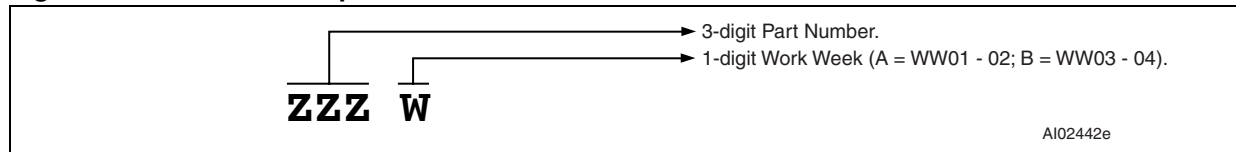


Figure 5. 24-/28-pin CAPHAT™, 28-/44-pin SOIC, 18-/28-pin SOX, and 32-/36-pin hybrid code

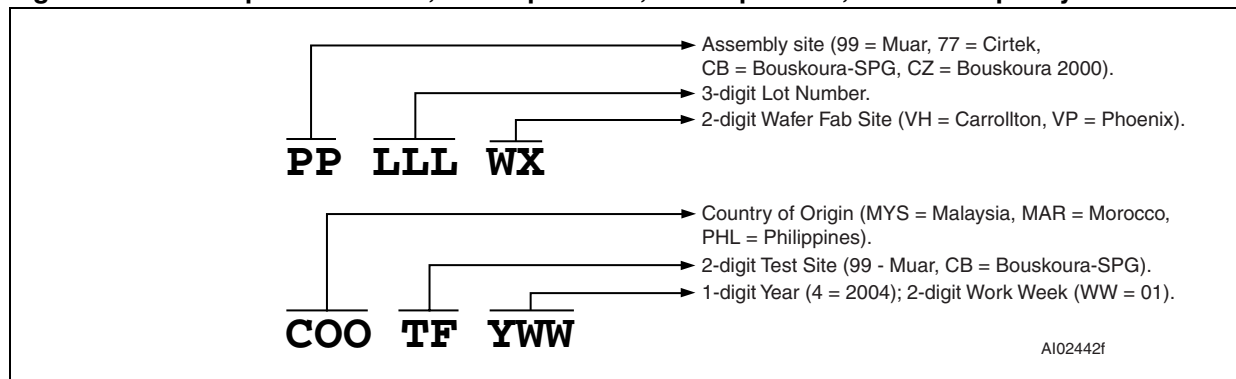
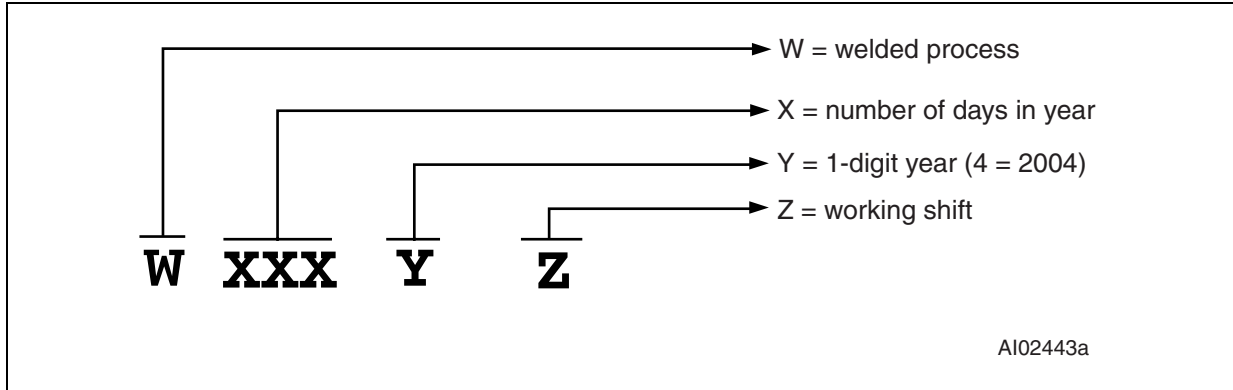


Figure 6. Encapsulation code (CAPHAT™ only)



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®

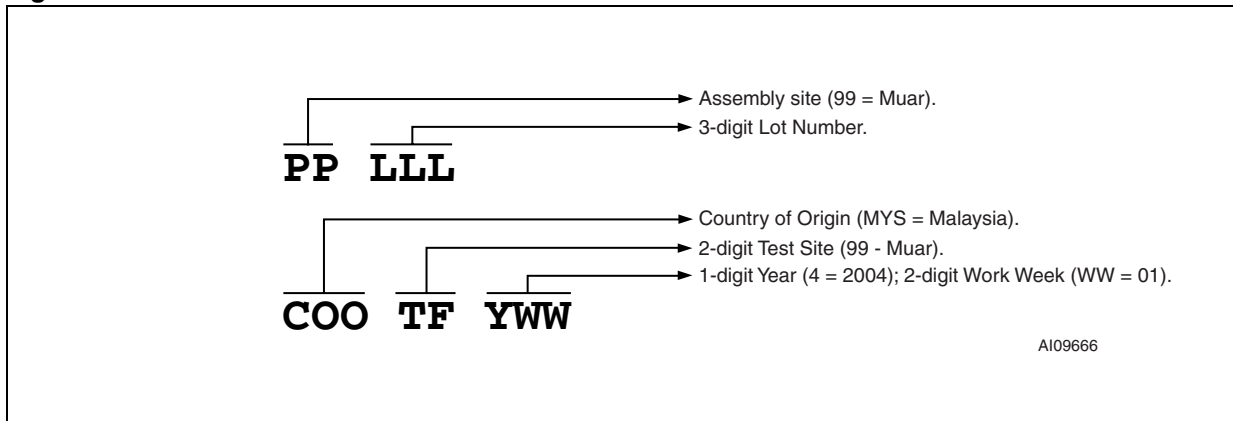
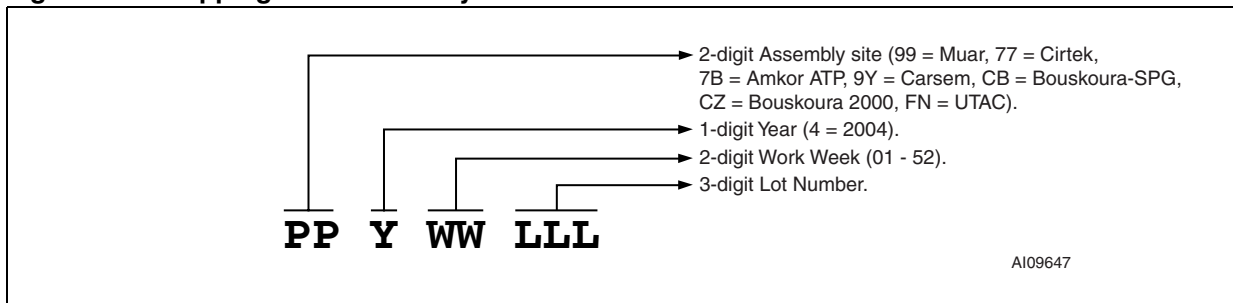


Figure 8. Shipping box traceability date code format



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

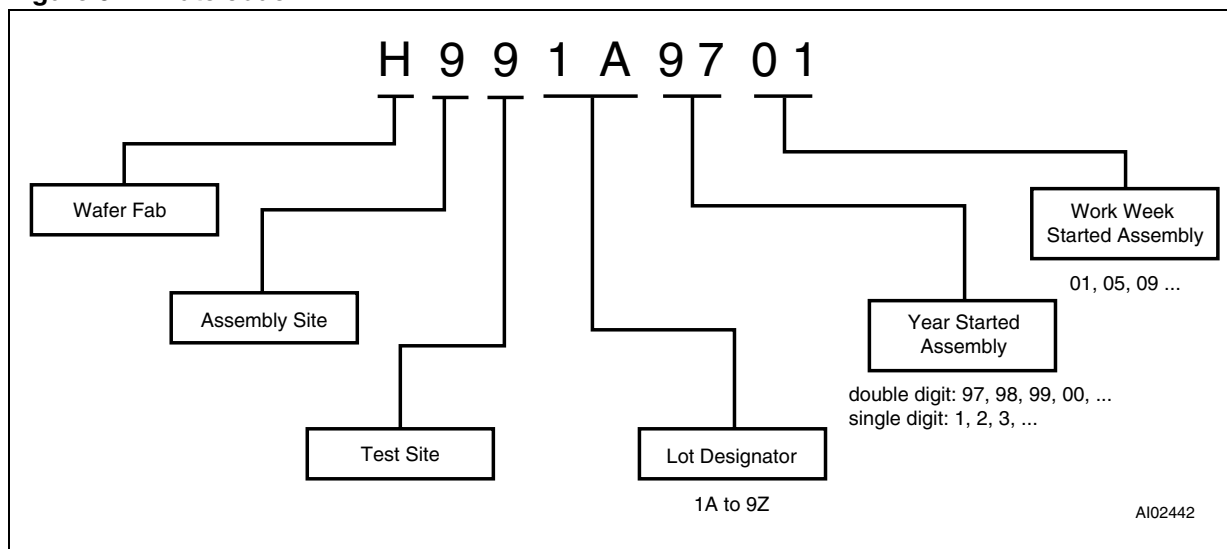


Figure 10. Fab lot number

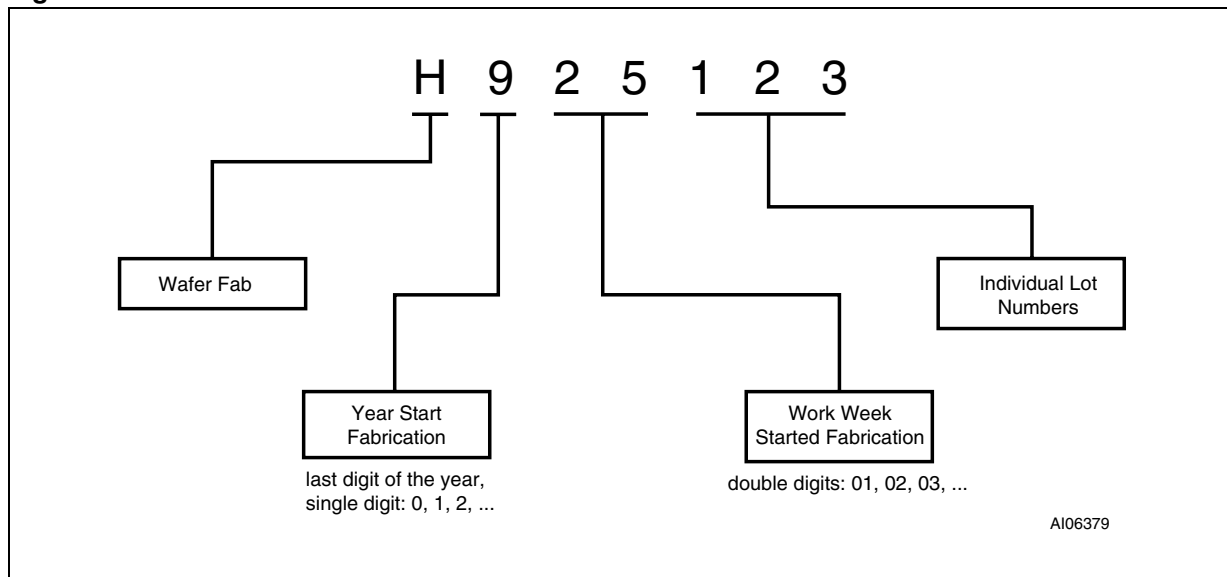


Figure 11. SNAPHAT®

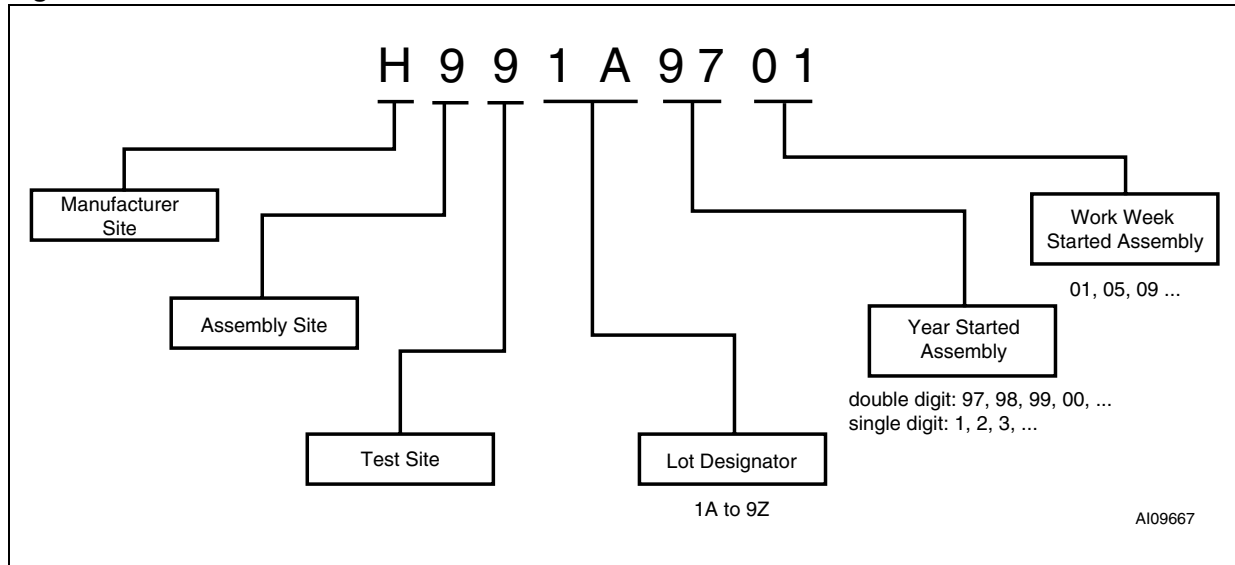
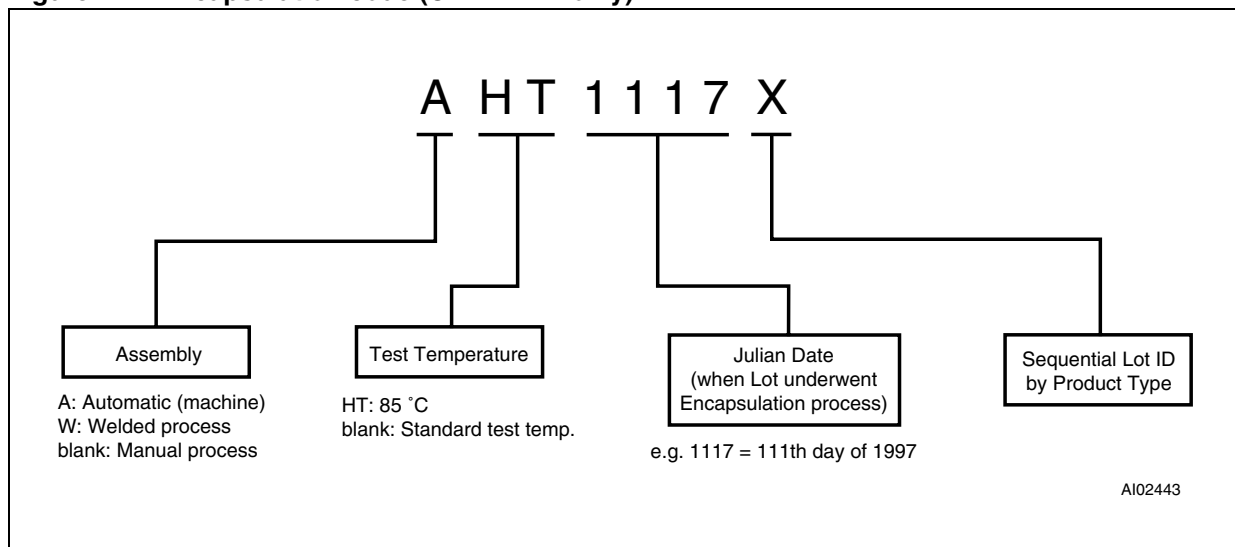


Figure 12. Encapsulation code (CAPHAT™ only)



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

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