



Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

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Overview

This document describes how information is embedded in Oracle serial numbers, lot codes, assembly identifications (IDs), and manufacturing tracking numbers (Mfg TNs). This information enables readers to quickly extract associated product information.

Audience

This document is for Product Engineering, Mechanical Engineering, Supplier Engineering (SE), Supply Management (SM), Enterprise Services, and Oracle suppliers.

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Introduction

This document describes the types of information that change owners must supply to the program coordinators for serial numbers, lot codes, assembly IDs, and Mfg TNs.

The class of the assembly determines whether it requires a serial number, lot code, assembly ID, or Mfg TNs, as follows:

1. Serial numbers are necessary for system-level products and subassemblies that have active electronic components.
2. Lot codes are necessary for strictly mechanical parts and assemblies.
3. Assembly IDs are necessary for serialized assemblies that have non-serialized components attached while promoting the existing serial number.
4. Mfg TNs are necessary for items like dual inline memory modules (DIMMs) which are serialized and are individually tracked, but which cannot or are not tracked by means of the serial number because the serial number is not readily accessible when is not functioning or installed in a functioning system.

For additional information, refer to the following:

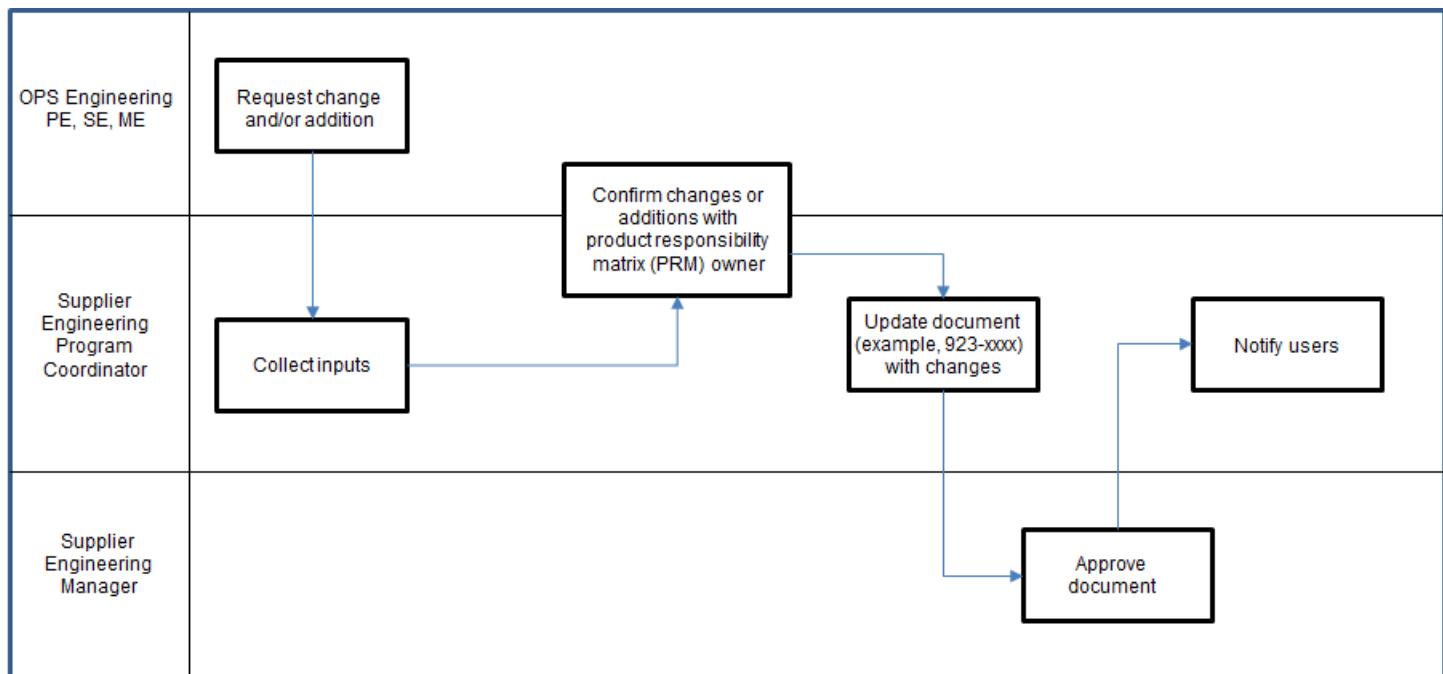
1. For parts that require serial numbers, or in other words are serial controlled, refer to *WWOPS Quality: Setting the Serial-Control Attribution in Agile PLM and GSI*, 923-3666-xx.
2. For date code markings of electronic components, refer to Standard EIA 476.

3. For the convention on numbering weeks in a year, refer to Standard ISO 8601.

1 Process Overview

When updates occur to a serial number barcode for all commodities, the change owner in Operations (Ops) Engineering and SM (that is, product engineers, mechanical engineers, supplier engineers, or supplier program managers) must notify the SE program coordinator (document owner). Refer to *Figure 1-1, Change Notification Process*, below.

Figure 1-1 Change Notification Process



2 Rules for Generating Serial Numbers, Assembly IDs, and Mfg TNs

2.1 Rules of Unique Identifier Creation

Serially controlled parts must be individually, uniquely, and unambiguously identifiable using only the part's serial number and/or an Oracle-assigned Mfg part number. This means that the serial numbers generated for parts which are assigned an Oracle Mfg part number must be formatted to meet the following criteria:

1. If the same part (number) is sourced from multiple suppliers, concurrently or consecutively, the product or commodity team must ensure that the serial numbers issued by any and all of these suppliers are not duplicate issued. Duplication is most easily avoided in one of the following two ways:
 - a. Have suppliers use serial numbers of different lengths.
 - b. Have suppliers use serial numbers of the same length and format, but embed a vendor number or code. See required and recommended formats in *Table 2-1, Required Formats of Serial Numbers*, on page 8.
2. The following types of fixed (non-ATO) assemblies must keep the serial number originally assigned to them during its entire lifetime even through rework and repair:
 - Building block for internal Mfg or customer ready systems (CRS)
 - Field replaceable unit (FRU) or serviceable item
 - Electromechanical assembly
 - Printed-circuit assembly (PCA)
 - Assembly below FRU level
3. A newly manufactured part cannot be issued a serial number or Mfg TN that was previously used on any superseded version of that same part even if the superseding version has a different part number. Only when the superseded version cannot be economically reworked to the latest version, may the serial numbers be re-issued. Embedding of a year and week code (YYWW) prevents a superseded part from being reworked and having the same serial number as a new part.

NOTE 1: Elimination of dash levels in Oracle part numbers can result in parts that are reworked or repaired to an entirely new part number.

4. Packaged spare parts must use and promote the serial number of the service item within the package or assembly, except where more than one serialized part is present, such as within P-kits and DIMM kits.
5. Do not include lower-case alphabetic characters (a - z) to enable the identifier to be encoded in a Code 39 barcode, which can only encode capital letters.
6. Avoid using characters I, O, Q, S, and Z to prevent misinterpretation in human-readable form as numbers 1, 0, 0, 5, and 2 respectively, except when it is apparent that all characters in the string or substring are alphabetic.

2.2 Serial Numbers

Table 2-1, Required Formats of Serial Numbers, on page 8, defines serial numbers which best help Oracle meet its need of keeping records unique in its data and tracking systems. Definition of variable and fixed values are defined in *Table 2-4, Definition of Fixed Characters*, on page 10, and *Table 2-5, Definition of Variable Characters*, on page 10, respectively.

NOTE 2: FRUs, customer replaceable units (CRUs), or subassemblies which currently use Type S4 serial numbers must switch to using Type S6 when these assemblies are assigned non-significant part numbers. Type S5 should only be used when the supplier does not have a GSI Vendor Number (VVVVVV). Non-significant forms of part numbers are defined in *Corp: Part Number, Revision, and Interchangeability Conventions for Orderable and Manufacturing Items*, 990-1241-xx.

2.2.1 L10/L11/FRU Serial Numbers

L10, L11, and factory generated FRU serial numbers must use STANDARD 10-digit format as shown in Table 2-1 below. Previous product type codes (X) are void at effectivity date and reduced to 3 options.

Table 2-1 Required Formats of Serial Numbers

| Assembly Level | Product Line | Design Owner | ID Type | Format (Fixed characters in bold) | Characters | Part Number |
|--------------------------------|-----------------------------|---|---------|--|------------|-----------------|
| System or Multi-System Product | Standard ¹ | Oracle, Joint Design Mfg (JDM) | S1 | YYWWPPXSSS PP=Unique factory Code X=Product Type: 0= ODA-HA or FRU generated 1= L10 Product 8= L11 Rack Product | 10 | Any |
| | Advanced Product Line (APL) | Any | S2 | PPMYWWSSS | 10 | Any |
| | Any, except APL | Original Equipment Manufacturer (OEM), Original Design Manufacturer (ODM) | S3 | Recommended to contain: YYWW | 6 - 25 | Any |
| FRU, CRU, or Subassembly | Standard ¹ | Oracle, JDM | S4 | VVVVFFFF-YYWWXXSSSS | 18 | Significant |
| | | | S5 | 4AJJJJF.YYWWXXSSSSw hen no VVVVVV assigned | 18 | Non-Significant |
| | | | S6 | VVVVVVF+YYWWXXSSSS or VVVVVVF- YYWWXXSSSS | 18 | |

¹ Due to limitations in MES and Cloud Manufacturing, internal manufacturing locations have been granted an exception to create non-standard serial numbers. Except for APL systems, all make items manufacturing in internal manufacturing orgs use a 10-character serial number not containing year (YY) or week (WW) codes.

| | | | | | | |
|--|---|----------|----|---------------------------------|--------|-----|
| | Fujitsu Manufactured parts for OPL DC and FF | Any | S7 | PPYYWWSSSS | 10 | Any |
| | Any other | OEM, ODM | S8 | Recommended to contain: YYWW | 6 - 25 | Any |

2.3 Assembly IDs

An assembly ID identifies where and when non-serialized parts are added to a serialized assembly. It is most often used to identify the supplier that attaches brackets and/or plates to hard-disk drives. In these cases the serial number of the drive is promoted to also identify the bracketed level with the same serial number.

Oracle requires using one of the formats of assembly ID defined in *Table 2-2, Required Formats of Assembly IDs*, below.

Table 2-2 Required Formats of Assembly IDs

| Assembly Level | Product Line | Design Owner | ID Type | Format (Fixed characters in bold) | Characters | Part Number |
|--------------------------|--------------|----------------|---------|---|------------|-----------------|
| FRU, CRU, or Subassembly | Any | Oracle, JDM | A1 | VVVVFFF-YYWW | 10 | Significant |
| | | | A2 | 4A JJJJF.YYWW when no VVVVVV assigned | 10 | Non-Significant |
| | | | A3 | VVVVVVF+YYWW or VVVVVVF-YYWW | 10 | |

2.4 Mfg TNs

A Mfg TN identifies serialized parts that have a serial number programmed into the part but not visible in human-readable or bar-coded forms on a physical label. It is most often used to identify DIMMs that must be tracked individually. Oracle requires using one of the formats of Assembly ID defined in *Table 2-3, Required Formats of Mfg TNs*, below.

The required values of the multi-use code (XX) are defined in *Table 11-6, XX Code Definitions*, on page 51.

NOTE 3: Starting with DDR3 and upcoming technologies, effective DIMM date code WW1340, we no longer require Mfg TN for Hynix and Samsung. We will be scanning both vendors 2D bar code label and utilize this information. Refer to *Section 11.1.5* for 2D bar code details.

Table 2-3 Required Formats of Mfg TNs

| Assembly Level | Product Line | Design Owner | ID Type | Format (Fixed characters in bold) | Characters | Part Number |
|--------------------------------|--------------|----------------|---------|---|------------|-----------------|
| FRU, CRU, or Subassembly | Any | Oracle, JDM | M1 | VVVVFFF-YYWWXXSSSS | 18 | Significant |
| | | | M2 | 4A JJJJF.YYWWXXSSSS when no VVVVVV assigned | 18 | Non-Significant |
| | | | M3 | VVVVVVF+YYWWXXSSSS or VVVVVVF-YYWWXXSSSS | 18 | |

2.5 Definition of Fixed and Variable Characters

Table 2-4 Definition of Fixed Characters

| Human-Readable Character(s) | Position | Used in ID Type | Part Number Format | Fixed character(s) indicates that... |
|------------------------------------|--|------------------------|---------------------------|--|
| 4A | 1 st and 2 nd characters from left | S5 A2 M2 | Non-significant | Embedded manufacturer's code comes from JEDEC JEP 106 |
| - (dash) | 8 th character from left | S4 A1 M1 | Significant | - Embedded supplier code comes from Oracle 10.7 ERP - Factory code populates the three positions immediately to the left |
| | | S6 A3 M3 | Non-significant | - Embedded vendor number comes from GSI EBS - Short factory code populates the first position immediately to the left |
| . (dot) | 8 th character from left | S5 A2 M2 | Non-significant | - Embedded manufacturer's code comes from JEDEC JEP 106 - Short factory code populates the first position immediately to the left |
| + (plus) | 8 th character from left | S6 A3 M3 | Non-significant | - Embedded vendor number comes from GSI EBS - Short factory code populates the first position immediately to the left |

Table 2-5 Definition of Variable Characters

| Variable | Definition |
|---|---|
| F Short Factory Code | The single-character Short Factory Code — in combination with the Vendor Number or compressed JEDEC JEP 106 Standard Manufacturer's Identification Code — uniquely identifies where an assembly was manufactured and/or labeled. This code can be numeric or alphabetic. It is created by the supplier, but Oracle SE or SM can request that a specific code be used. For example, F can represent a factory in Fremont, California. |
| FFF Factory Code | The three-character Factory Code — in combination with the Supplier Code — uniquely identifies where an assembly was manufactured and/or labeled. This code can be numeric or alphabetic. It is created by the supplier, but Oracle SE or SM can request that a specific code be used. For example, FMT can represent a factory in Fremont, California. |
| JJJJ Compressed JEDEC JEP 106 Standard Manufacturer's Identification Code | The four-character compressed form of the Standard Manufacturer's Identification Code from JEDEC JEP 106 replaces an Oracle Vendor Number when the supplier is a subtier to which Oracle does not place purchase orders directly. The two left-most characters are equal to the number, in hexadecimal, of the <i>continuation codes</i> of the assigned identification code. The two right-most characters are the hexadecimal representation of the assigned code. For example: <ul style="list-style-type: none"> Acorn Computers is assigned 0x7F5B. This code is hex 5B in bank two of JEDEC JEP 106, and uses <i>one</i> 7F continuation code. The compressed form of their manufacturer's code in hexadecimal characters is: 015B. NeoMagic is assigned 0x7F7F7F92. This code is hex 92 in bank four of JEDEC JEP 106, and uses <i>three</i> 7F continuation codes. The compressed form of their manufacturer's code in |

Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

| <i>Variable</i> | <i>Definition</i> |
|---------------------------------------|--|
| | <p>hexadecimal characters is: 0392. Any supplier can apply for a code at http://www.jedec.org/standards-documents/id-codes-order-form.</p> |
| M APL Model Code | <p>Single-character APL Model Code indicates the shared product line to which an APL system belongs. The values for it are mutually agreed to by Oracle and Fujitsu. The following values are defined:</p> <ul style="list-style-type: none"> • D for OPL DC1, DC2, DC3, DPF rack, and Power Cabinet • F for Form Factor systems • L for "low end" Niagara-based APL systems • B for I/O Box |
| PP System Mfg Plant Code | The two-character System Mfg Plant Code uniquely identifies the plant of manufacture for systems and multi-system products. It is comprised of two capital alphabetic characters that are assigned by Oracle Compliance Engineering. No two plants, even those for different EM's, can share the same code. |
| SSS or SSSS Sequence Number | <p>Three- or four- character Sequence Number is a sequentially issued string of characters assigned to items manufactured in a given factory. It is three or four characters long and padded with leading zeros if necessary. It can be numeric, hexadecimal, alphanumeric, or alphabetic.</p> <ul style="list-style-type: none"> • The value SSS (or the combined value XSSS) must be unique for a system or multi-system product for the period of the Mfg week, WW. • The value SSSS (or the combined value XXSSSS) must be unique through the production life of an assembly regardless of changes to its revision level, dash level or part number. Unlike a system serial number, the sequence number embedded into a Type S4, S5, and S6 serial numbers must not reset each week. |
| VVVV 10.7 ERP Supplier Code | The 10.7 Enterprise Resource Planning (ERP) Supplier Code is assigned by Oracle to uniquely identify the supplier to whom purchase orders are placed prior to the implementation of GSI. It is comprised of four or fewer numeric digits and is padded with leading zeros if necessary to be four digits when embedded into a Serial Number, Assembly ID, or Mfg TN. The supplier code can be found on the purchase orders issued to a supplier prior to the implementation of GSI. |
| VVVVVV GSI Vendor Number | The GSI Vendor Number is assigned by Oracle to uniquely identify the supplier to whom purchase orders are placed after the implementation of GSI. It is comprised of six or fewer numeric digits and is padded with leading zeros if necessary to be six digits when embedded into a Serial Number, Assembly ID, or Mfg TN. The vendor number can be found on the purchase orders issued to a supplier after the implementation of GSI. |
| WW Week Code | The 2-digit Week Code, according to ISO 8601, is the "ordinal number which identifies a calendar week within its calendar year according to the rule that the first calendar week of a year is that one which includes the first Thursday of that year and that the last calendar week of a calendar year is the week immediately preceding the first calendar week of the next calendar year." |
| X or XX Multi-Use Code | <p>The Multi-Use Code records various information to meet the needs of the particular application. The content must be agreed upon by Oracle Commodity Engineer, Supplier Engineer, or Supplier Program Management (SPM). Historically, it was used when serializing display devices to encode its size and type. It can also be used to encode the following information:</p> <ul style="list-style-type: none"> • Additional sequence (S) characters replacing one or both of the X or XX characters • Day of the week of the manufacture • Model code • Manufacturer code <p>Memory parts must use values for the Multi-Use Code from <i>Table 11-6, XX Code Definitions</i>, on page 51.</p> |
| YY | The Year Code is equivalent to the right-most two digits of the Gregorian calendar year of the date of manufacture or issuance of a Serial Number, Assembly ID, or Mfg TN. See the definition of the |

| <i>Variable</i> | <i>Definition</i> |
|-----------------|--|
| Year Code | Week Code above and the weekly calendar of date codes posted by year by the Electronics Industries Alliance. |

3 9-Digit Serial Numbers, Lot Codes, and Assembly IDs

JDSU Serial Number Format and Decoder

This section details the JDSU serial number format requirements. The information is provided as a single, 9-digit barcode with human readable numbers and text. The first digit indicates the country of manufacture. For details on country code distribution, refer to *Table 3-1, Country of Manufacture – Codes*, below. The following three digits are the year and week of manufacture. The next two digits contain the product code. The last three digits represent the serialization number for that week in base 34 (1 to 10 and A to Z, except letter 'I' and 'Q'). See *Figure 3-1, Serial Number Format*, below.

NOTE 4: The product code is unique for each part number. It identifies any items unique to the automated testers, which test input or output (I/O), erasable programmable device (EEPROM), diagnostics, rate select or no rate select, and so on.

Figure 3-1 Serial Number Format

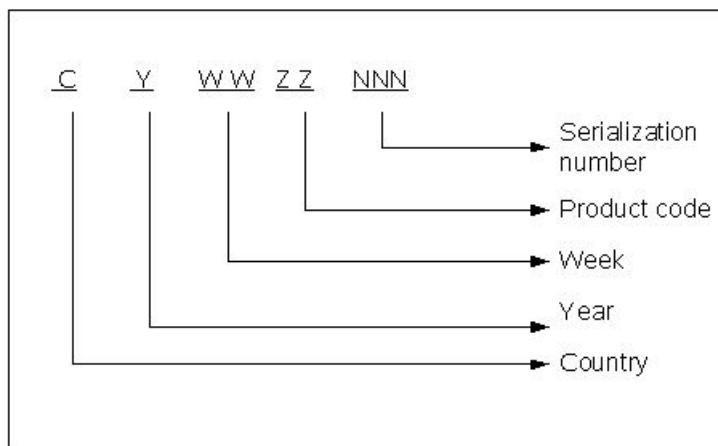


Table 3-1 Country of Manufacture – Codes

| <i>Code</i> | <i>Country</i> |
|-------------|----------------|
| A | America |
| T | Thailand |
| C | China |

4 10-Digit Serial Numbers, Lot Codes, and Assembly IDs

Removable Media (RM)

This section provides the serial number matrix for RM. For an RM serial number example, refer to *Figure 4-1, Example RM Label Information*, below. For the corresponding product matrices, refer to *Table 4-1, ADIC, Vendor Number 0001412, RM Matrix*, below, *Table 4-2, Hewlett Packard, Vendor Number 0118913, RM Matrix*, on page 14, *Table 4-3, Teac, Vendor Number 464808I, RM-ODD Matrix*, on page 14, *Table 4-4, Teac, Vendor Number 464808C, RM-ODD Matrix*, on page 15, *Table 4-5, Teac, Vendor Number 1713VJB, RM-ODD Matrix*, on page 15, *Table 4-6, TSST [Toshiba or Samsung], Vendor Number 0338017, RM-ODD Matrix*, on page 15, and *Table 4-7, Quantum SSG, Vendor Number 0122842, RM Matrix*, on page 16.

Figure 4-1 Example RM Label Information

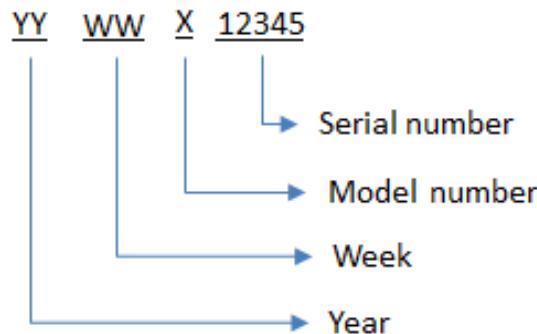


Table 4-1 ADIC, Vendor Number 0001412, RM Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> |
|--|----------------------------------|--------------------------|------------------------------|--|-------------------------------------|
| A | Redmond | L7 DLT8K HVD | 9-00229-01 | 595-6811-xx | 380-0802-xx |
| E | Rotweill (BDT) | L8 LTO GenI LVD | 9-00244-01 | 595-6858-xx | 380-0817-xx |

Table 4-2 Hewlett Packard, Vendor Number 0118913, RM Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X Option)</i> | <i>Oracle Manufacture Part Numbers</i> |
|--|----------------------------------|--------------------------|------------------------------|--|---|
| A | US | L9 and L20 | Not available (N/A) | All L9 and L20 | All L9 and L20 |
| B | Cork | L9 and L20 | N/A | All L9 and L20 | All L9 and L20 |
| C | Philippines or Hungary | DDS4 | C5683-006xx | 595-5431-xx, 595-5432-xx, 595-6180-xx | 390-0027-xx 390-0028-xx 390-0090-xx |
| F | Hungary | LTO Gen2 Desktop box | C7380-0062x | 595-7147-xx | 380-0914-xx |
| L | Philippines or Hungary | DDS3 | C1537-006xx | 595-4163-xx 595-5301-xx 595-4165-xx 595-4379-xx | 370-2376-xx 370-2377-xx |
| U | N/A | DDS3 Autoloader | C5713-006xx | 595-4167-xx | 370-2379-xx 370-2380-xx |
| V | Hungary | DAT72 Desktop drive | C7439-00625 | 595-7384-xx | 380-0993-xx |
| | | DAT72 drive | C7438-0062x | 595-7468-xx 595-7469-xx | 380-1004-xx 380-1005-xx |

Table 4-3 Teac, Vendor Number 464808I, RM-ODD Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X Option)</i> | <i>Oracle Manufacture Part Numbers</i> |
|--|----------------------------------|---------------------------|------------------------------|--|--|
| A | Indonesia | GEN3 DVD SLOT RW SATA BLK | DVW28SSWZ3 | | 7045772 |

Table 4-4 Teac, Vendor Number 464808C, RM-ODD Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Manufacture Part Numbers</i> |
|--|----------------------------------|-----------------------------|------------------------------|--|--|
| B | China | GEN4 DVD Tray Load RW SATA | DV-28S-AZ3 | | 7071296 |
| C | China | GEN5 DVD Tray Load RW SATA | DV-W28S-BZ3 | | 7089963 |
| D | China | GEN 6 DVD Tray Load RW SATA | DV-W28S-CZ3 | | 7309891 |
| E | China | GEN 7 DVD Tray Load RW SATA | DV-W28S-FZ3 | | 7336333 |

Table 4-5 Teac, Vendor Number 1713VJB, RM-ODD Matrix

Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Manufacture Part Numbers</i> |
|--|----------------------------------|--------------------------|------------------------------|--|--|
| R | Indonesia | GEN2 DVD RW SATA DRIVE | DVW28SSVZ3 | | 390-0486-xx |

Table 4-6 TSST [Toshiba or Samsung], Vendor Number 0338017, RM-ODD Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> |
|--|----------------------------------|--------------------------|------------------------------|--|-------------------------------------|
| A | Philippines | DVD-ROM, 12x | SD-M1711 | 595-5558-xx | 390-0025-xx |
| B | Philippines | DVD-R/W Slim/slave | TS-L632D/SICH | | 390-0350-01 |
| D | Philippines | DVD-ROM, 10x | SD-M1401 | 595-5558-xx | 390-0025-xx |
| H | Philippines | DVD RW HH | TS-H552A | | 390-0231-01 |
| K | Indonesia | HH Combo | TS-H492C | | 370-6463-01 |
| L | | DVD RW 8x Slim | TS-L532A | | 370-7078-02 |
| L | Philippines | DVD-R/W Slim /slave | TS-L532U | | 371-0913-01 |
| L | Philippines | DVD-R/W Slim | TS-L532U | | 390-0289-01 |
| S | | | SD-M2612 | | 390-4412-02 |
| S | Philippines | DVD-ROM, 10x, Slim | C2512/C2612 | N/A | 390-4412-xx |
| S ² | | | SD-M2732 | | 390-4412-03 |
| T | Indonesia | HH DVD ROM | TS-H352C | | 390-0287-01 |
| T | | DVD ROM, 16x | SD-M1712 | | 390-0161-01 |
| U | Philippines | DVD-R/W HH | TS-H552D | | 390-0290-01 |
| V | China | DVD-ROM Slim | SD-C2732 | | 390-4412-04 |
| V | China | DVD-ROM Slim | SD-C2732 | | 371-1789-01 |
| V | Philippines | DVD-ROM Slim | TS-L462C/SIAF | | 390-0336-01 |
| W | Philippines | DVD-ROM Slim | TS-L332A | | 390-0349-01 |
| X | Philippines | DVD-R/W HH | TS-H652D | | 390-0346-01 |
| Y | Philippines | DVD-R/W Slim | TS-L632D/SIAH | | 390-0345-01 |
| Z | Indonesia | DVD-R/W Slim Slotload | TS-T632A | | 390-0337-01 |

Table 4-7 Quantum SSG, Vendor Number 0122842, RM Matrix

² Vendor number is 0515IMI.

Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> |
|--|----------------------------------|----------------------------------|------------------------------|--|-------------------------------------|
| A | Mexico | L25 DLT HVD Base unit | 6420010-01 | 595-6546-xx | 380-0677-xx |
| B | Mexico | L25 LTO HVD base unit | 6420010-02 | 595-6547-xx | 380-0678-xx |
| C | Mexico | L100 LTO LVD base unit | 6422100-03 | 595-6853-xx | 380-0810-xx |
| D | Penang/Mexico | DLT8K HVD drive L25/L100 | 6420800-01 | 595-6550-xx | 380-0681-xx |
| E | Mexico | L100 DLT HVD base unit | 6422100-01 | 595-6548-xx | 380-0679-xx |
| F | Mexico | L100 LTO HVD base unit | 6422100-02 | 595-6549-xx | 380-0680-xx |
| G | Penang/Blackbushe | LTO GenI LVD drive L100 | 6420800-04 | 595-6854-xx | 380-0811-xx |
| H | Irvine | L25/L100 HVD Management card | 6420805-01 | 595-6554-xx | 383-0686-xx |
| I | Irvine | FC420 LVD Fibre channel card | 6420807-01 | 595-6855-xx | 380-0812-xx |
| J | Irvine | L25/L100 LVD/HVD Management card | 6420805-02 | 595-7005-xx | 380-0894-xx |
| K | Mexico | L25 LTO LVD base unit | 6420010-04 | 595-7004-xx | 380-0893-xx |
| L | Penang/ Blackbushe | LTO GenI HVD drive L25/L100 | 6420800-02 | 595-6552-xx | 380-0683-xx |
| M | Mexico | L25 DLT LVD Base unit | 6420010-03 | 595-6870-xx | 380-0821-xx |
| N | Mexico | L100 DLT LVD base unit | 6422100-04 | 595-6871-xx | 380-0822-xx |
| P | Penang/Blackbushe | LTO GenII LVD drive L100 | 6420800-07 | 595-7003-xx | 380-0892-xx |
| S | Penang/Mexico | SDLT220 HVD drive L25/L100 | 6420800-03 | 595-6551-xx | 380-0682-xx |
| T | Penang/Mexico | SDLT320 LVD drive L25/L100 | 6420800-05 | 595-6869-xx | 380-0820-xx |
| V | Penang/Mexico | SDLT600 LVD drive L25/L100 | To be determined (TBD) | TBD | TBD |
| W | Irvine | Stacklink Common L25/L100 | N/A | 595-6803-xx | 380-0797-xx |
| X | Irvine | Stacklink 2-L25 | N/A | 595-6558-xx | 380-0689-xx |
| Y | Irvine | Stacklink 5 25/ L100 | N/A | 595-6559-xx | 380-0690-xx |
| Z | Irvine | Stacklink 7-L25/ L100 | N/A | 595-6560-xx | 380-0691-xx |

5 11-Digit Serial Numbers, Lot Codes, and Assembly IDs

Host Bus Adapters (HBAs) (Supplier: LSI Logic)

There are two labels associated with HBAs from LSI Logic.

The first is an assembly or revision label showing the LSI part number and product revision level. The label has 11 human-readable numbers and text on top of a code 128 barcode. See *Table 5-1, LSI Logic HBA Number Breakdown*, below, and *Figure 5-1, LSI Logic HBA Assembly or Revision Label Information*, below.

The second label is a tracer number label which shows the board tracer number in 11 human-readable numbers and text on top of a code 128 barcode. The tracer number is in three parts: a letter indicating the Mfg site, six numbers composing the board serial number (in standard decimal format), and four characters representing the date code. Refer to *Table 5-2, LSI Logic HBA Tracer Number Label Breakdown*, on page 19, and *Figure 5-2, Example LSI Logic HBA Label Information*, on page 19.

Table 5-1 LSI Logic HBA Number Breakdown

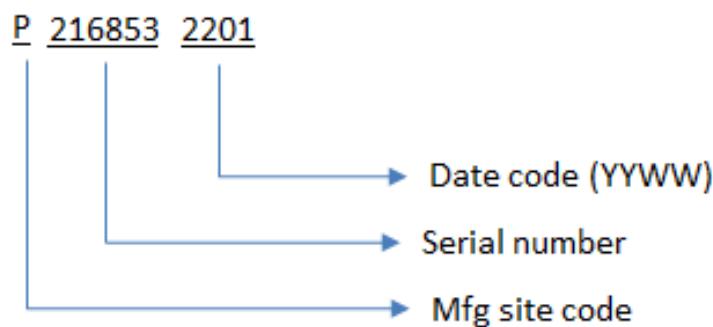
| Format | Details |
|---------------|--------------------------------|
| Part number | 10-digit LSI Logic part number |

Figure 5-1 LSI Logic HBA Assembly or Revision Label Information



Table 5-2 LSI Logic HBA Tracer Number Label Breakdown

| Format | Details |
|---------------|--|
| Mfg site code | Single letter supplier code (see <i>Table 5-3, LSI Logic HBA Mfg Site Codes</i> , below) |
| Serial number | 6-digit serial number |
| Date code | Four digits that identify the year and week of manufacture |

Figure 5-2 Example LSI Logic HBA Label Information*Table 5-3 LSI Logic HBA Mfg Site Codes*

| Manufacturer | Code |
|-----------------------------|-------------|
| Sanmina, SCI Thailand | P |
| Sanmina, SCI Colorado, USA | C |
| Solelectron Singapore | N |
| Polaris, Massachusetts, USA | L |

6 12-Digit Serial Numbers, Lot Codes, and Assembly IDs

6.1 HBAs (Supplier: QLogic)

There are two labels associated with HBAs from QLogic.

The first label is an assembly or revision label showing the QLogic part number, customer code, and product revision level. It has 12 human-readable numbers and text on top of a code three of nine barcode. Refer to *Table 6-1, QLogic HBA Assembly or Revision Number Breakdown*, below and *Figure 6-1, Example QLogic HBA Assembly or Revision Label Information*, below.

The second label is a tracer number label showing the board tracer number in 13 human-readable numbers and text. Refer to *Table 6-2, QLogic HBA Tracer Number Label Breakdown*, on page 21, and *Figure 6-2, Example Qlogic HBA Tracer Number Label Information*, on page 21.

Table 6-1 QLogic HBA Assembly or Revision Number Breakdown

| <i>Format</i> | <i>Details</i> |
|---------------|-----------------------------------|
| Part number | 9-digit QLogic part number |
| Customer code | 2-digit customer code |
| Revision code | Single-digit QLogic revision code |

Figure 6-1 Example QLogic HBA Assembly or Revision Label Information

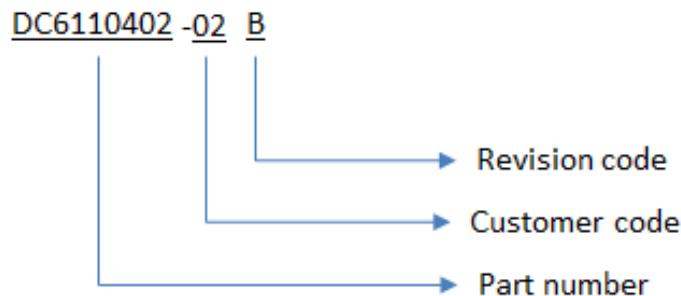


Table 6-2 QLogic HBA Tracer Number Label Breakdown

| Format | Details |
|---------------|---|
| Supplier code | Single-letter supplier code (see Table 6-3, <i>Qlogic HBA Supplier Codes</i> , below) |
| Product code | Two-letter product code |
| Date code | Four digits that identify the year and week of manufacture |
| Serial number | QLogic serial number in Hexadecimal format |

Figure 6-2 Example Qlogic HBA Tracer Number Label Information

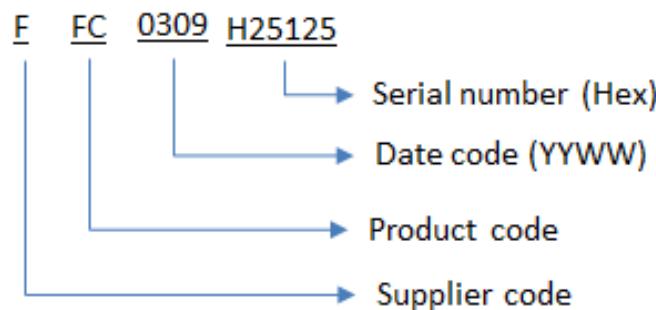


Table 6-3 Qlogic HBA Supplier Codes

| <i>Supplier</i> | <i>Code</i> |
|--------------------------------|-------------|
| Jabil, St. Petersburg, Florida | F |
| Jabil, Idaho | J |
| SMT Dynamics | T |
| ICCI | C |
| Victron | V |

6.2 Small Form Factor Plugable (SFP) Gigabit Interface Converters (GBICs)

This section details the barcode label requirements for SFP GBICs. The information on the label is provided as a single, 12-digit barcode with human-readable numbers and text. The first letter is the Mfg site code. The following letter represents the year of manufacture. The next two digits indicate the week of manufacture. The next four digits indicate the part number. The remaining four digits are a sequential number (hexadecimal). Refer to *Table 6-4, SFP GBICs Serial Number Label Breakdown*, below and *Figure 6-3, Example SFP GBICs Serial Number Label Information*, below.

Table 6-4 SFP GBICs Serial Number Label Breakdown

| Format | Details |
|---------------------------------|--|
| Mfg site code | Single-letter supplier code (refer <i>Table 6-5, SFP GBICs Mfg Site Codes</i> , on page 23) |
| Year code | The last digit of the year of manufacture, where 1=2001, 2=2002, and 3=2003 |
| Week code | Two digits that identify the week of manufacture (01-52) |
| Part number | Four digits representing the last four digits of the base card assembly part number |
| Sequential number (hexadecimal) | 4-digit sequential number (First transceiver tested in the week = 0001, the second transceiver tested in the week = 0002, and so on) |

Figure 6-3 Example SFP GBICs Serial Number Label Information

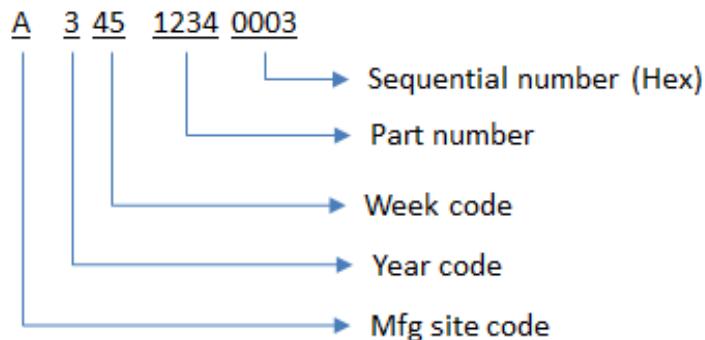


Table 6-5 SFP GBICs Mfg Site Codes

| <i>Manufacturer</i> | <i>Code</i> |
|---------------------|-------------|
| Celestica Monterrey | A |
| Kimball Reynosa | B |
| Pemstar | C |
| Rochester | R |

6.3 GBICs

This section details the barcode label requirements for GBICs. The information on the label is provided as a single, 12-digit barcode with human-readable numbers and text. The first letter is the Mfg site code. The following letter represents the year of manufacture. The next two digits indicate the week of manufacture. The next four digits indicate the part number. The remaining four digits are a sequential number (hexadecimal). Refer to *Table 6-6, GBICs Serial Number Label Breakdown*, below, and *Figure 6-4, Example GBICs Serial Number Label Information*, on page 24.

Table 6-6 GBICs Serial Number Label Breakdown

| <i>Format</i> | <i>Details</i> |
|---------------------------------|--|
| Mfg site code | Single-letter supplier code (see <i>Table 6-7, GBICs Mfg Site Codes</i> , on page 24) |
| Year code | The last digit of the year of manufacture, where 1=2001, 2=2002, and 3=2003, and so on |
| Week code | Two digits that identify the week of manufacture (01-52) |
| Part number | Four digits representing the last four digits of the base card assembly part number |
| Sequential number (hexadecimal) | 4-digit sequential number (First transceiver tested in the week = 0001, the second transceiver tested in the week = 0002, and so on) |

Figure 6-4 Example GBICs Serial Number Label Information

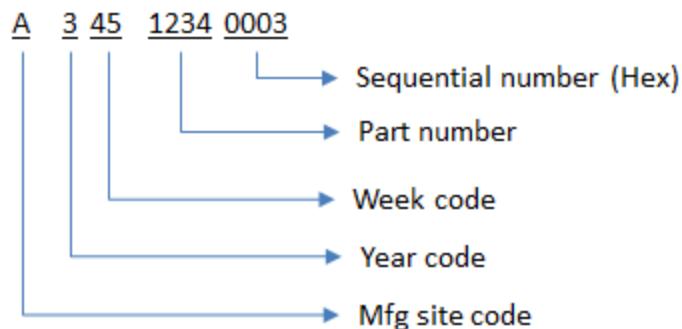


Table 6-7 GBICs Mfg Site Codes

| <i>Manufacturer</i> | <i>Code</i> |
|---------------------|-------------|
| Celestica Monterrey | A |
| Kimball Reynosa | B |
| Pemstar | C |
| Rochester | R |

7 13-Digit Serial Numbers, Lot Codes, and Assembly IDs

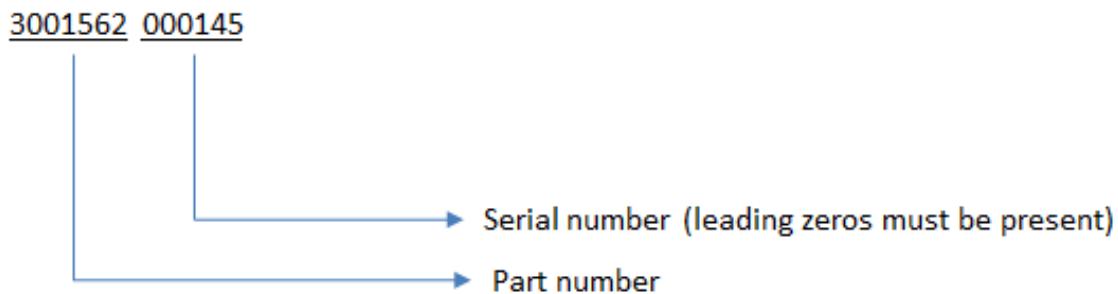
7.1 Power Supplies (DC/DC) (Type 1 Label)

This section details the barcode label requirements for Type 1 label power supplies. The information on the label is provided as a single, 13-digit barcode with human-readable numbers. The first seven digits are the part number. The remaining six digits are the serial number. See *Table 7-1, Power Supply (DC/DC) Serial Number Breakdown*, below, and *Figure 7-1, Example DC/DC Power Supply Label Information*, below.

Table 7-1 Power Supply (DC/DC) Serial Number Breakdown

| <i>Format</i> | <i>Details</i> |
|---------------|------------------------------|
| Part number | Oracle's 7-digit part number |
| Serial number | 6-digit serial number |

Figure 7-1 Example DC/DC Power Supply Label Information



7.2 Smart Card Readers

This section details the barcode label requirements for smart card readers. The information on the label is provided as a single, 13-digit barcode with human-readable numbers. The first four digits are the product ID. The following four digits are the year and week of manufacture. The next digit is the vendor or manufacturer code. The remaining four digits are the serial number. See *Table 7-2, Smart Card Reader Serial Number Breakdown*, below, and *Figure 7-2, Example Smart Card Reader Label Information*, below.

Table 7-2 Smart Card Reader Serial Number Breakdown

| Format | Details |
|------------------------------|--|
| Product ID | The first four digits are the product ID |
| Year and week of manufacture | The next four digits are the year and week of manufacture |
| Vendor or manufacturer code | The next single digit is the vendor or manufacturer code (see <i>Table 7-3, Smart Card Reader Vendor or Manufacturer Code Matrix</i> , on page 27) |
| Serial number | The last four digits are the serial number |

Figure 7-2 Example Smart Card Reader Label Information

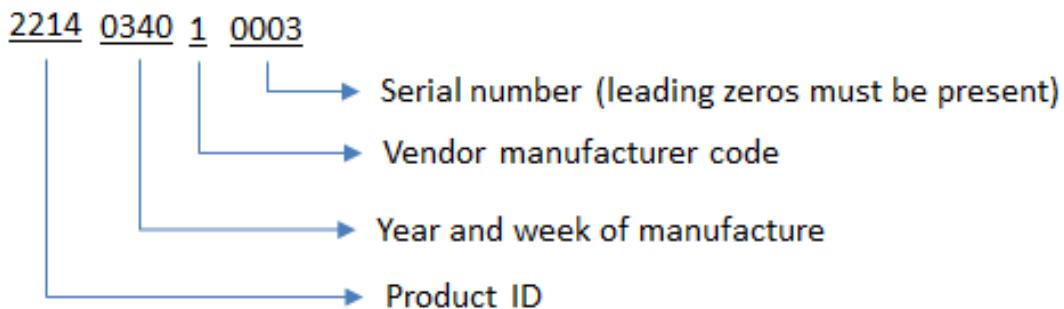


Table 7-3 Smart Card Reader Vendor or Manufacturer Code Matrix

| Code Number | Vendor or Manufacturer Code |
|--------------------|------------------------------------|
| 1 | SCM Microsystems - Singapore |
| 2 | SCM Microsystems - Germany |
| 3 | SCM Microsystems - Taiwan |
| 4 | SCM Microsystems - China |
| 5 | RESERVE |
| 6 | SCM Microsystems - Malaysia |
| 7 | SCM Microsystems - China |
| 8 | SCM Microsystems - Danriver |

7.3 Starcats

This section details the barcode label requirements for Starcats. To identify part vendors for Oracle part numbers with multiple vendors, locate the vendor-specific character code immediately following the 7-digit part number. Refer to *Table 7-4, Starcat Supplier Vendor Code Serial Number Breakdown*, below, and *Figure 7-3, Example Starcat Supplier Vendor Code Label Information*, on page 28.

Table 7-4 Starcat Supplier Vendor Code Serial Number Breakdown

| Format | Details |
|------------------------------|--|
| Part number | Seven digits |
| Vendor-specific code | Single letter or number (see <i>Table 7-5, Vendor-Specific Codes</i> , on page 28) |
| Oracle build sequence number | Five digits (alpha or numeric) |

Figure 7-3 Example Starcat Supplier Vendor Code Label Information

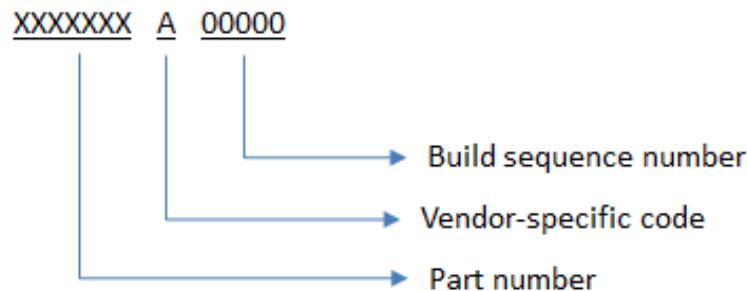


Table 7-5 Vendor-Specific Codes

| <i>Manufacturer</i> | <i>Code</i> |
|-------------------------|------------------------|
| EIT | B, C, D, E, or numeric |
| NMI | N or numeric |
| Sanmina - Lisburn | L |
| Sanmina - Westbrook | W or numeric |
| Shinei - Canada | K |
| Shinei - Singapore | S |
| Shinei - South Ockendon | U |
| Solelectron - Charlotte | Y |
| Solelectron - Penang | P |

8 15-Digit Serial Numbers, Lot Codes, and Assembly IDs

8.1 Dynamic Random Access Memory (DRAM) Modules

This section details the barcode label requirements for DRAM. The information on the label is provided as a single, 15-digit barcode with human-readable numbers and text. The first seven digits are the Oracle part number. The eighth digit is the supplier code. The ninth digit is a code used by Memory SE for tracking changes to product, for example, different die revisions. The remaining six digits are the alphanumeric serial number. The combination of supplier, part number, and serial number must be unique. See *Table 8-1, DRAM Serial Number Breakdown*, below, and *Figure 8-1, Example DRAM Label Information*, below.

Table 8-1 DRAM Serial Number Breakdown

| <i>Format</i> | <i>Details</i> |
|-----------------------------|---|
| Part number | The first seven digits of the Oracle part number, without the dash roll |
| Vendor or manufacturer code | Single-digit supplier code (see <i>Table 8-2, DRAM Vendor or Manufacturer Code Matrix</i> , on page 30) |
| Change tracking identifier | Single-digit to be used when necessary by Memory SE |
| Serial number | 6-digit alphanumeric sequence |

Figure 8-1 Example DRAM Label Information

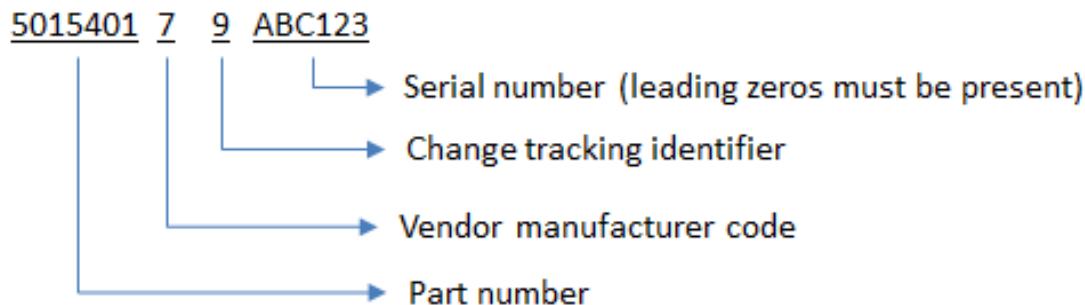


Table 8-2 DRAM Vendor or Manufacturer Code Matrix

| Vendor or Mfg Code | Change Tracking Identifier | DRAM Manufacturer |
|---------------------------|-----------------------------------|--------------------------|
| 0 | 7 | Hitachi, now Elpida |
| 2 | 8 | Mitsubishi, now Elpida |
| 4 | Any | Micron |
| 6 | Any | Infineon |
| 7 | Any | Samsung |
| F | Any | Elpida |

8.2 Static Random Access Memory (SRAM) Modules

This section details the barcode label requirements for SRAM modules. The information on the label is provided as a single, 15-digit barcode with human-readable numbers and text. The first seven digits are the Oracle part number. The following character (alphanumeric) is the external manufacturer (EM) or manufacturer code. The next two digits are the Oracle and EM or manufacturer revision numbers. The remaining five digits are the alphanumeric serial number. See *Table 8-3, SRAM Serial Number Breakdown*, below, and *Figure 8-2, Example SRAM Label Information*, on page 31.

Table 8-3 SRAM Serial Number Breakdown

| Format | Details |
|--|---|
| Part number | The first seven digits of the Oracle part number, without the dash roll |
| EM or manufacturer code | Single alpha character |
| Revision number | 1-digit Oracle revision number |
| Vendor or manufacturer revision number | 1-digit EM or manufacturer revision number |
| Serial number | 5-digit alphanumeric sequence |

NOTE 5: Each supplier has a unique EM or manufacturer code (refer to *Table 8-4, SRAM EM or Manufacturer Code Matrix*, on page 31).

Figure 8-2 Example SRAM Label Information

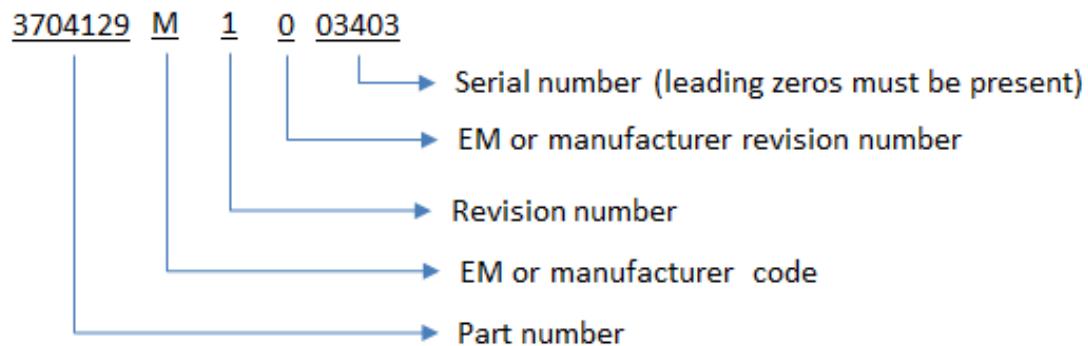


Table 8-4 SRAM EM or Manufacturer Code Matrix

| Code Number | Module Assembly | SRAM Manufacturer |
|--------------------|------------------------|--------------------------|
| C | Celestica Toronto | IBM |
| K | Celestica Toronto | Samsung |
| Y | Celestica Toronto | Sony |
| H | Celestica Toronto | HGST or Renesas |
| M | Celestica Thailand | Samsung |
| S | Celestica Thailand | Sony |
| T | Celestica Thailand | Renesas |

9 16-Digit Serial Numbers, Lot Codes, and Assembly IDs

9.1 Mouse Devices (Type 1 Label)

This section details the barcode label requirements for mouse devices. The information on the label is provided as a single, 16-digit barcode with human readable numbers. The first six digits are the vendor number. The next digit is the factory code. The next four digits are the year and week of manufacture. The next two digits are the product code. The remaining four digits are the serial number. See *Table 9-1, Mouse Devices Serial Number Breakdown (Type 1 Label)*, below, *Figure 9-1, Example Mouse Devices Label Information*, below, *Table 9-2, Mouse Devices Factory Code Matrix*, on page 33, and *Table 9-3, Mouse Devices Product Code Matrix*, on page 33.

Table 9-1 Mouse Devices Serial Number Breakdown (Type 1 Label)

| <i>Format</i> | <i>Details</i> |
|------------------------------|---|
| Vendor number | The first six digits are the vendor number |
| Factory code | The next digit is the factory code |
| Year and week of manufacture | The next four digits are the year and week of manufacture |
| Product code | The next two digits are the product code |
| Serial number | The last four digits are the serial number |

Figure 9-1 Example Mouse Devices Label Information

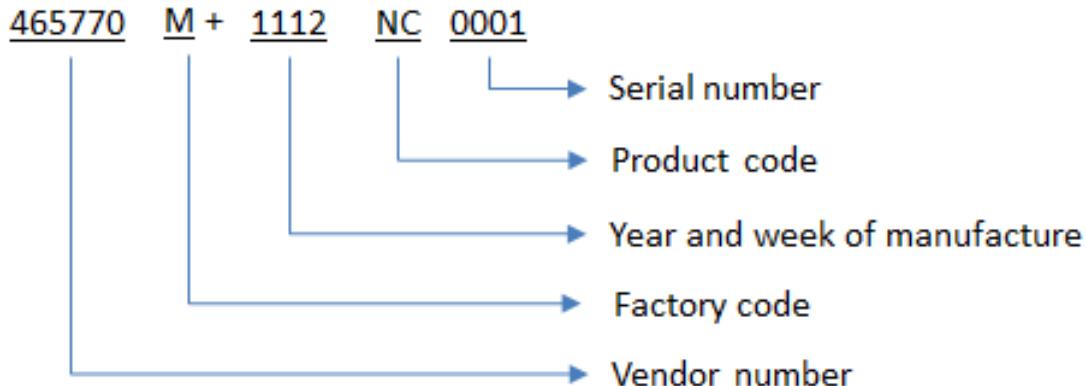


Table 9-2 Mouse Devices Factory Code Matrix

| Factory Code | Factory |
|---------------------|----------------|
| M | Montery |

Table 9-3 Mouse Devices Product Code Matrix

| Product Code | Product |
|---------------------|----------------|
| NC | Mouse |

9.2 Displays

This section details the barcode label requirements for displays. The information on the label is provided as a single, 16-digit barcode with human readable numbers and text. The first six digits are the vendor number. The next digit is the factory code. The next four digits are the year and week of manufacture. The next two digits are the product code. The remaining four digits are the serial number. See *Table 9-4, Display Serial Number Breakdown*, below, *Figure 9-2, Example Display Label Information*, on page 34, *Table 9-5, Displays Factory Code Matrix*, on page 34, and *Table 9-6, Displays Product Code Matrix*, on page 34.

Table 9-4 Display Serial Number Breakdown

| Format | Details |
|------------------------------|---|
| Vendor number | The first six digits are the vendor number |
| Factory code | The next digit is the factory code |
| Year and week of manufacture | The next four digits are the year and week of manufacture |
| Product code | The next two digits are the product code |
| Serial number | The last four digits are the serial number |

Figure 9-2 Example Display Label Information

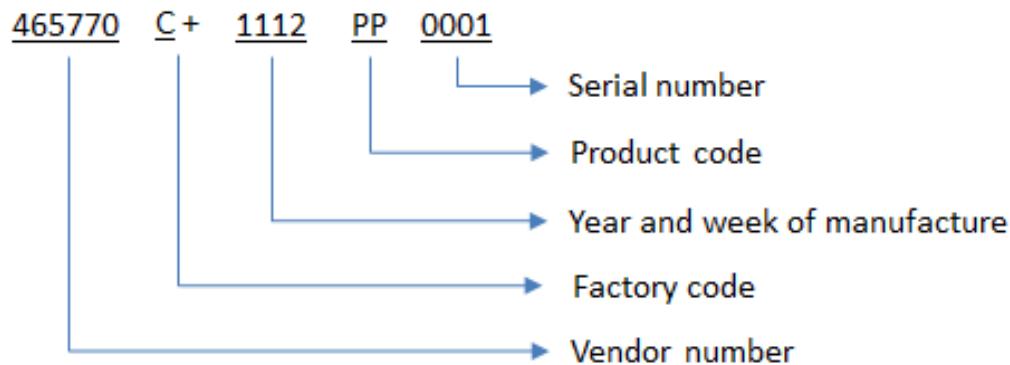


Table 9-5 Displays Factory Code Matrix

| <i>Factory Code</i> | <i>Factory</i> |
|---------------------|---------------------|
| C | Quanta CSMC Factory |
| Q | Quanta QSMC Factory |

Table 9-6 Displays Product Code Matrix

| <i>Product Code</i> | <i>Product</i> |
|---------------------|---|
| PR | Quanta CSMC 17" Orion LCD monitor China |
| PN | Quanta CSMC 19" Cypress LCD monitor China |
| PP | Quanta CSMC 22" Memphis LCD monitor China |
| PQ | Quanta CSMC 24" Banyan LCD monitor China |

9.3 Keyboards

This section details the barcode label requirements for keyboards. The information on the label is provided as a single, 16-digit barcode with human-readable numbers. The first six digits are the vendor number. The next digit is the factory code. The next four digits are the year and week of manufacture. The next two digits are the product code. The remaining four digits are the serial number. See *Table 9-7, Keyboard Serial Number Breakdown*, below, *Figure 9-3, Example Keyboard Label Information*, below, *Table 9-8, Keyboard Factory Code Matrix*, on page 36, and *Table 9-9, Keyboard Product Code Matrix*, on page 36.

Table 9-7 Keyboard Serial Number Breakdown

| Format | Details |
|------------------------------|---|
| Vendor number | The first six digits are the vendor number |
| Factory code | The next digit is the factory code |
| Year and week of manufacture | The next four digits are the year and week of manufacture |
| Product code | The next two digits are the product code |
| Serial number | The last four digits are the serial number |

Figure 9-3 Example Keyboard Label Information

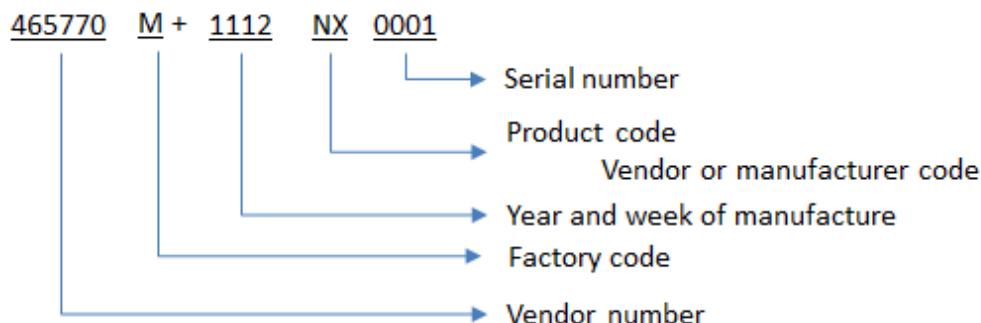


Table 9-8 Keyboard Factory Code Matrix

| <i>Factory Code</i> | <i>Factory</i> |
|---------------------|----------------|
| M | Montery |

Table 9-9 Keyboard Product Code Matrix

| <i>Product Code</i> | <i>Product</i> |
|---------------------|--------------------------------------|
| NX | Type7 USB Keyboard-US |
| NW | Type7 USB Keyboard-UK |
| NJ | Type7 USB Keyboard-German |
| NI | Type7 USB Keyboard-French |
| NK | Type7 USB Keyboard-Italian |
| NQ | Type7 USB Keyboard-Spanish |
| NR | Type7 USB Keyboard-Swedish |
| NS | Type7 USB Keyboard-Swiss/French |
| NN | Type7 USB Keyboard-Norwegian |
| NY | Type7 USB Keyboard-UNIX |
| NF | Type7 USB Keyboard-Danish |
| NG | Type7 USB Keyboard-Netherlands/Dutch |
| NT | Type7 USB Keyboard-Swiss/German |
| N, | Type7 USB Keyboard-Korean |
| NO | Type7 USB Keyboard-Portuguese |
| NE | Type7 USB Keyboard-Taiwanese |
| NL | Type7 USB Keyboard-Japanese |
| NH | Type7 USB Keyboard-Finnish |
| NP | Type7 USB Keyboard-Russian |
| ND | Type7 USB Keyboard-Arabic |
| NV | Type7 USB Keyboard-Turkish Qtype |
| NE | Type7 USB Keyboard-Belgian |
| NK | Type7 USB Keyboard-Hebrew |
| | Type7 USB Keyboard-BLANK |

10 17-Digit Serial Numbers, Lot Codes, and Assembly IDs

10.1 Hard Disk Drives (HDDs)

This section details the barcode label requirements for HDDs. The information on the label is provided as a single, 17-digit barcode with human-readable numbers and text. The first seven digits are the vendor ID. The following four digits are the year and week of manufacture. The next digit is the model identifier. The remaining five digits are the serial number. See *Table 10-1, HDD Serial Number Breakdown*, below and *Figure 10-1, Example HDD Label Information*, below.

Table 10-1 HDD Serial Number Breakdown

| <i>Format</i> | <i>Details</i> |
|------------------------------|--|
| Vendor ID | 7-digit vendor ID (see <i>Table 10-2, HDD Vendor ID Codes</i> , on page 38) |
| Year and week of manufacture | Four digits that identify the year and week of manufacture |
| Model identifier | Single-digit model identifier and <i>Section 10.1.1, HGST HDD Model Identifier Codes</i> , on page 41). For End of Life Model Codes, reference <i>Appendix A, Digit Serial Numbers, Lot Codes, and Assembly IDs for Hard Disk Drive (HDD) End of Life (EOL) Products</i> , on page 59. |
| Serial number | 5-digit supplier serial number |

NOTE 6: Each supplier has a unique vendor code (see *Table 10-2, HDD/SSD Vendor ID Codes*, on page 38) and a model identifier and *Section 10.1.1, HGST HDD Model Identifier Codes*, on page 41).

Figure 10-1 Example HDD Label Information

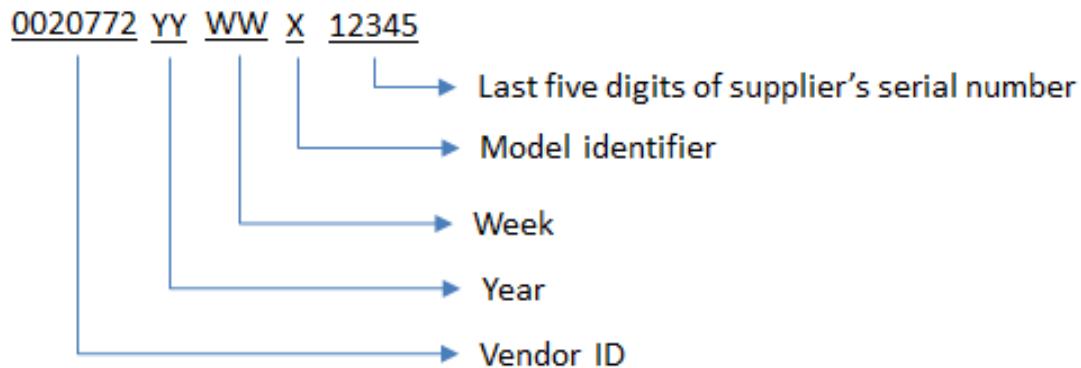
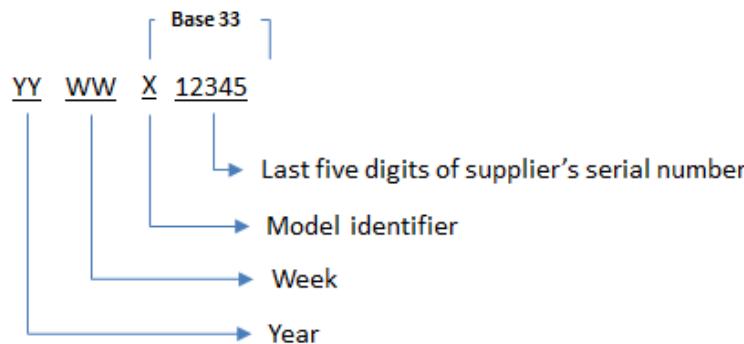


Figure 10-2 Oracle Serial Number Matrix



NOTE 7: Use upper case alphanumerical characters for the last six digits of the Oracle serial number, excluding I, O, and U from the list.

The SE must check other suppliers to ensure the same ID is not assigned that relates to the same RPM and/or capacity. Upon end of warranty level, a character or product can be retired and reused.

NOTE 8: The SE must use the designated Oracle repository for revision control and any changes must be passed to the coordinator for updating the embedded serial number document.

Table 10-2 HDD/ SSD Vendor ID Codes

| Supplier | Code | Section |
|-----------------|--|---|
| Hitachi/HGST | 0001308 – Philippines 1308EST – China 1308PRB – Thailand 1308SGP – Singapore 1308UTC – Thailand 1308GSP – China 464151T – Thailand 464151S - Singapore HDD 464151F – Singapore SSD 464151G – Penang SSD | <i>Section 10.1.1, HGST HDD Model Identifier Codes, on page 41</i> |
| Western Digital | 465064M | <i>Section 10.1.2, Western Digital HDD Model Identifier Codes, on page 41</i> |
| Toshiba | 465781P | <i>Section 10.1.3, Toshiba HDD Model Identifier Codes, on page 42</i> |

Table 10-3, Hard Drive Assembly Legend, below, provides the assembly legend used throughout this section as well as Appendix A, Digit Serial Numbers, Lot Codes, and Assembly IDs for Hard Disk Drive (HDD) End of Life (EOL) Products, on page 59. Refer to this information for Seagate, Fujitsu, and HGST (Hitachi) drives.

Table 10-3 Hard Drive Assembly Legend

| <i>Legend</i> | <i>Description</i> |
|---------------|--------------------|
| 1 | Spud only |
| 2 | Spud and Plt |
| 3 | T3 Sled |
| 4 | Spud3 |
| 5 | Spud/Plt Nebs |
| 6 | Spud Only Nebs |
| 7 | Bare |
| 8 | SCSI3 Spud/Plt |
| 9 | SCSI4 Spud only |
| 10 | SCSI4 Nebs |
| 11 | Minnow |
| 12 | CSM1 |
| 13 | CSM2 |
| 14 | Thumper |
| 15 | Honeycomb |
| 16 | Alamo/Riverwalk |
| 17 | Coral |
| 18 | Stingray |
| 19 | Nemo |
| 20 | Marlin |
| 21 | Blue Marlin |
| 22 | Mantaray |
| 23 | LCA |
| 24 | Dory |
| 25 | Wasabi |
| 26 | Gari |

Table 10-4, EM Assembly ID Format, on page 40, provides the legend to identify where the bracket is assembled to the HDD. Refer to Table 2-2, Required Formats of Assembly IDs, on page 9, for assembly ID format definition.

Table 10-4 EM Assembly ID Format

| EM | EM Code | EM Location | EM Location Code |
|-----------|----------------|--------------------|-------------------------|
| Mitac | 29 | Fremont | MIS |
| Celestica | 27 | Monterey, Mexico | CMX |
| Oracle | 13 | Hillsboro | HLS |
| Oracle | 14 | Burlington | BUR |
| Celestica | 22 | Thailand | CTH |
| Mitac | 31 | China | MSL |
| Foxconn | 37 | China | NN |

NOTE 9: RR Donnelley (RRD) is no longer a supplier. *Table 10-5, RRD Assembly ID Format*, below, is for historical reference only for HDD bracket assemblies for legacy products.

Table 10-5 RRD Assembly ID Format

| Supplier Code | Factory Location | Factory Code |
|----------------------|-------------------------|---------------------|
| 0069 | Fremont | FMT |
| 0069 | Scotland | STD |
| 0069 | Singapore | SGP |
| 0069 | Apeldoorn | APL |

10.1.1 HGST HDD Model Identifier Codes

NOTE 10: Since the Hitachi HDD Division was sold to Western Digital (WD), the current generation of drives will be labeled HGST, but the EOL drives will remain labeled as Hitachi.

Refer to *Figure 10-2, Oracle Serial Number Matrix*, on page 38, for Oracle serial number model identifier cross reference numbers for each table in this section. Also refer to *Table 10-3, Hard Drive Assembly Legend*, on page 39.

10.1.1.1 HGST 464151S or 464151T

Table 10-6 HGST 464151S or 464151T Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>HGST Model Number</i> | <i>Oracle Part Number</i> |
|--|--|--------------------------|---------------------------|
| A | DRV,HGST,900GB,SFF,SAS,COBRAE | HUC109090CSS600 | 7045230 |
| B | DRV,HGST,600GB,SFF,SAS,COBRAE | HUC109060CSS600 | 7045228, 7066795 |
| C | DRV,HGST,300GB,SFF,SAS,COBRAE | HUC109030CSS600 | 7045226, 7066794 |
| E | DR, 4TB,3.5" SAS-3,7200rpm,HGST Mars-KP | HUS724040ALS640 | 7065489 |
| D | DRV,HGST,1.2TB,10Krpm,SFF,SAS2,COBRAE+,PHASE2, SSW | HUC101212CSS600 | 7045846, 7082883 |
| F | Cobra F 600G SAS | HUC101860CSS200 | 7093013 |
| G | Cobra F 1.2T SAS | HUC101812CSS200 | 7093035 |
| M | DR,4TB,3.5" SAS3,7200rpm,HGST Aries-KP | HUS726040AL5210 | 7301575 |
| P | DR,8TB,3.5" SAS3,7200rpm,HGST Aries-He | HUH728080AL5200 | 7301585 |
| 2 | DRV, HGST, 1.2TB, SFF, SAS3,7200rpm, COBRA F, FIPS | HUC101812CSS205 | 7309429 |
| 4 | DRV, HGST, 8TB, LFF, SAS3, 7200RPM, ARIES HE, FIPS | HUH728080AL5205 | 7309433 |
| R | DRV,10TB,3.5" SAS3,7200rpm,HGST Libra | HUH721010AL5200 | 7332753 |
| 6 | DRV,10TB,3.5" SAS3,7200rpm,HGST Libra, TCG | HUH721010AL5201 | 7342261 |
| S | DRV,8TB,3.5" SAS3,7200rpm,HGST Libra | HUH721008AL5200 | 7332768 |
| V | DRV,HGST,600GB,SFF,SAS,COBRAF,without encryption | HUC101860CSS204 | 7352258 |
| U | DRV,HITACHI,1.2TB,SFF,SAS,COBRAF,without encryption | HUC101812CSS204 | 7350764 |
| Q | DRV,10TB,3.5" SAS3,7200rpm,HGST Libra,without encryption | HUH721010AL5204 | 7350773 |
| T | DRV,8TB,3.5" SAS3,7200rpm,HGST Libra,without encryption | HUH721008AL5204 | 7351439 |
| N | DRV,14TB,3.5" SAS3,7200rpm,HGST,Leo-B,with encryption | WUH721414AL5200 | 7360615 |
| Z | DRV,14TB,3.5" SAS3,7200rpm,HGST,Leo-B,without encryption | WUH721414AL5204 | 7360616 |
| 0 | DRV,18TB CMR,3.5" SAS3,7200rpm,WDC, PARIS-C,with encryption | WUH721818AL5200 | 8205844 |
| 1 | DRV,18TB CMR,3.5" SAS3,7200rpm,WDC, PARIS-C,without encryption | WUH721818AL5204 | 8205851 |
| 7 | DRV,22TB CMR,3.5" SAS3,7200rpm,WDC, LONDON-D,with encryption | W7222A520ORA022 T | 8212808 |

Unassigned Codes: 0, 1, 8, 9, W, Y, (X will not be used since it is used as a wildcard)

10.1.2 Western Digital HDD Model Identifier Codes

Refer to *Figure 10-2, Oracle Serial Number Matrix*, on page 38, for Oracle serial number model identifier cross reference numbers for each table in this section. Also refer to *Table 10-3, Hard Drive Assembly Legend*, on page 39.

10.1.2.1 Western Digital 465064M

Table 10-7 Western Digital 465064M Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Western Digital Model Number</i> | <i>Oracle Part Number</i> |
|--|---|-------------------------------------|---------------------------|
| B | Drive, 500GB, SATA, 2.5", 10Krpm, WD Inca | WD501BLHXSUN500G | 7053913 |
| Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, T, U, V, W, X, Y, Z | | | |

10.1.3 Toshiba HDD Model Identifier Codes

Refer to *Figure 10-2, Oracle Serial Number Matrix*, on page 38, for Oracle serial number model identifier cross reference numbers for each table in this section. Also refer to *Table 10-3, Hard Drive Assembly Legend*, on page 39.

10.1.3.1 Toshiba 465781P

Table 10-8 Toshiba 465781P Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Toshiba Model Number</i> | <i>Oracle Part Number</i> |
|--|---|-----------------------------|---------------------------|
| A | Spec,Drive,2TB,3.5",7200rpm,SAS-2,Toshiba Mustang | MK2001RKBSUN1.0T | 7045283 |
| B | Drive,2TB,3.5",7200rpm,SAS-2,Toshiba Mustang | MK2001RKBSUN2.0T | 7045281 |
| Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, T, U, V, W, X, Y, Z | | | |

10.1.4 Seagate HDD Model Identifier Codes

10.1.4.1 Seagate 0440KOR

Table A-2 Seagate 0440KOR Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number (Electronic)</i> | <i>Oracle Part Number</i> |
|--|---|--|---------------------------|
| V | Mobula BP 14TB HDD | | |
| L | DRV,SEAGATE,1.2TB,SFF,SAS,SKYBOLT | ST1200IN9SUN1.2T | 7363535 |
| J | DRV,SEAGATE,600GB,DE-STROKE,SFF,SAS,SKYBOLT | ST0900IN9SUN600G | 8200040 |
| D | DRV,SEAGATE,900GB,DE-STROKE,SFF,SAS,SKYBOLT | ST0600IN9SUN900G | 8205834 |
| E | DRV,SEAGATE,300GB,DE-STROKE,SFF,SAS,SKYBOLT | ST0300IN9SUN300G | 8212778 |
| Unassigned Codes: 0, 1, 2, 3, 4, 9, D, F, Q, W, Y, Z (X will not be used since it is used as a wildcard) | | | |

10.1.4.2 Seagate 0440WUX

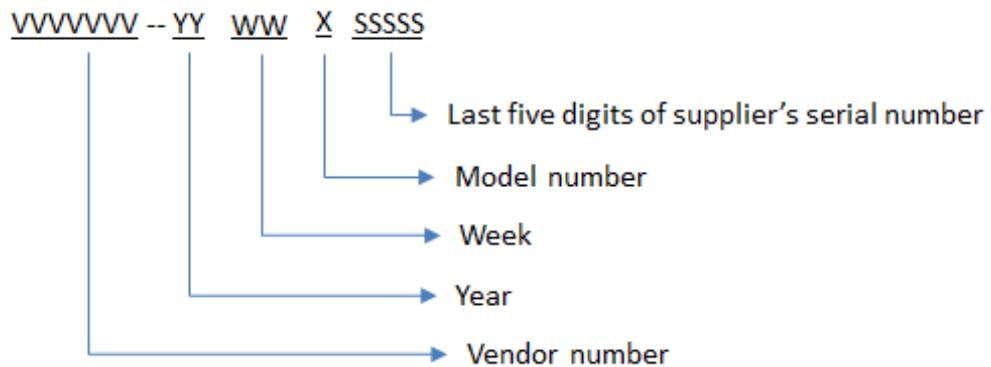
Table A-3 Seagate 0440WUX Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number (Electronic)</i> | <i>Oracle Part Number</i> |
|--|---|--|---------------------------|
| L | DRV,SEAGATE,1.2TB,SFF,SAS,SKYBOLT | ST1200IN9SUN1.2T | 7363535 |
| J | DRV,SEAGATE,600GB,DE-STROKE,SFF,SAS,SKYBOLT | ST0900IN9SUN600G | 8200040 |
| D | DRV,SEAGATE,900GB,DE-STROKE,SFF,SAS,SKYBOLT | ST0600IN9SUN900G | 8205834 |
| E | DRV,SEAGATE,300GB,DE-STROKE,SFF,SAS,SKYBOLT | ST0300IN9SUN300G | 8212778 |
| Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, G, H, K,N, P, R, S, T, V, W, (X will not be used since it is used as a wildcard) | | | |

10.2 Tape Drives (Pre-12 April 2004)

For a pre-12 April 2004, part number 950-1037-xx, and tape drive serial number example, refer to *Figure 10-3, Pre-12 April 2004 Oracle Tape Drive Serial Number Format*, below.

Figure 10-3 Pre-12 April 2004 Oracle Tape Drive Serial Number Format



For the tape drive matrix for pre-12 April 2004 tape drives, refer to *Table 10-9, ADIC, Vendor Number: 0001412, Tape Drive Matrix*, on page 44, *Table 10-10, Hewlett Packard, Vendor Number: 0118913, Tape Drive Matrix*, on page 44, and *Table 10-11, Quantum SSG, Vendor Number: 0122842, Tape Drive Matrix*, on page 45.

Table 10-9 ADIC, Vendor Number: 0001412, Tape Drive Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> |
|--|----------------------------------|--------------------------|------------------------------|--|-------------------------------------|
| A | Redmond | L7 DLT8K HVD | 9-00229-01 | 595-6811-xx | 380-0802-xx |
| E | Rotweill (BDT) | L8 LTO GenI LVD | 9-00244-01 | 595-6858-xx | 380-0817-xx |

Table 10-10 Hewlett Packard, Vendor Number: 0118913, Tape Drive Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X Option)</i> | <i>Oracle Assembly Part Numbers</i> |
|--|----------------------------------|--------------------------|------------------------------|--|---|
| A | US | L9 and L20 | N/A | All L9 and L20 | All L9 and L20 |
| B | Cork | L9 and L20 | N/A | All L9 and L20 | All L9 and L20 |
| C | Philippines/ Hungary | DDS4 | C5683-006xx | 595-5431-xx 595-5432-xx 595-6180-xx | 390-0027-xx 390-0028-xx 390-0090-xx |
| F | Hungary | LTO Gen2 Desktop box | C7380-0062x | 595-7147-xx | 380-0914-xx |
| L | Philippines/ Hungary | DDS3 | C1537-006xx | 595-4163-xx, 595-5301-xx 595-4165-xx, 595-4379-xx | 370-2376-xx 370-2377-xx |
| U | N/A | DDS3 Autoloader | C5713-006xx | 595-4167-xx | 370-2379-xx 370-2380-xx |

| | | | | | |
|---|---------|---------------------|-------------|----------------------------|----------------------------|
| V | Hungary | DAT72 Desktop drive | C7439-00625 | 595-7384-xx | 380-0993-xx |
| | | DAT72 drive | C7438-0062x | 595-7468-xx 595-7469-xx | 380-1004-xx 380-1005-xx |

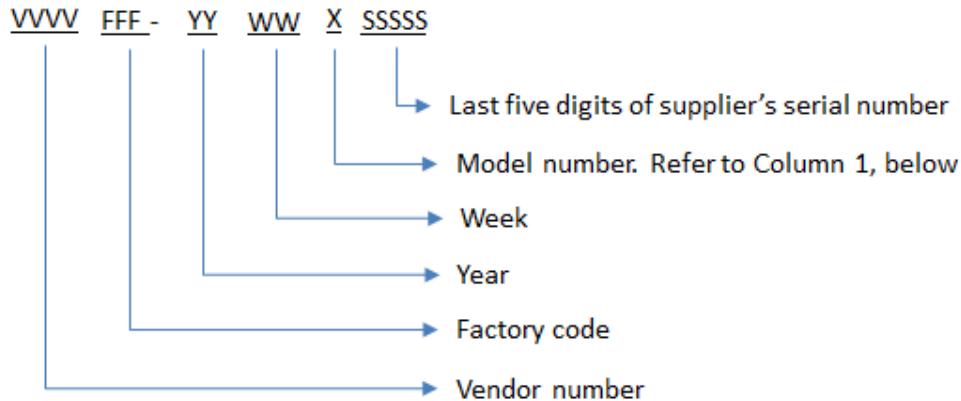
Table 10-11 Quantum SSG, Vendor Number: 0122842, Tape Drive Matrix

| <i>Oracle Serial Number Model Identifier (X)</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> |
|--|----------------------------------|----------------------------------|------------------------------|--|-------------------------------------|
| A | Mexico | L25 DLT HVD base unit | 6420010-01 | 595-6546-xx | 380-0677-xx |
| B | Mexico | L25 LTO HVD base unit | 6420010-02 | 595-6547-xx | 380-0678-xx |
| C | Mexico | L100 LTO LVD base unit | 6422100-03 | 595-6853-xx | 380-0810-xx |
| D | Penang/Mexico | DLT8K HVD drive L25/L100 | 6420800-01 | 595-6550-xx | 380-0681-xx |
| E | Mexico | L100 DLT HVD base unit | 6422100-01 | 595-6548-xx | 380-0679-xx |
| F | Mexico | L100 LTO HVD base unit | 6422100-02 | 595-6549-xx | 380-0680-xx |
| G | Penang/Blackbushe | LTO GenI LVD drive L100 | 6420800-04 | 595-6854-xx | 380-0811-xx |
| H | Irvine | L25/L100 HVD management card | 6420805-01 | 595-6554-xx | 383-0686-xx |
| I | Irvine | FC420 LVD Fibre channel card | 6420807-01 | 595-6855-xx | 380-0812-xx |
| J | Irvine | L25/L100 LVD/HVD management card | 6420805-02 | 595-7005-xx | 380-0894-xx |
| K | Mexico | L25 LTO LVD base unit | 6420010-04 | 595-7004-xx | 380-0893-xx |
| L | Penang/Blackbushe | LTO GenI HVD drive L25/L100 | 6420800-02 | 595-6552-xx | 380-0683-xx |
| M | Mexico | L25 DLT LVD Base unit | 6420010-03 | 595-6870-xx | 380-0821-xx |
| N | Mexico | L100 DLT LVD base unit | 6422100-04 | 595-6871-xx | 380-0822-xx |
| P | Penang/Blackbushe | LTO GenII LVD drive L100 | 6420800-07 | 595-7003-xx | 380-0892-xx |
| S | Penang/Mexico | SDLT220 HVD drive L25/L100 | 6420800-03 | 595-6551-xx | 380-0682-xx |
| T | Penang/Mexico | SDLT320 LVD drive L25/L100 | 6420800-05 | 595-6869-xx | 380-0820-xx |
| W | Irvine | Stacklink Common L25/L100 | N/A | 595-6803-xx | 380-0797-xx |
| X | Irvine | Stacklink 2-L25 | N/A | 595-6558-xx | 380-0689-xx |
| Y | Irvine | Stacklink 5-L25/L100 | N/A | 595-6559-xx | 380-0690-xx |
| Z | Irvine | Stacklink 7-L25/L100 | N/A | 595-6560-xx | 380-0691-xx |

10.3 Tape Drives (Post-12 April 2004)

For a post-12 April 2004, part number 950-4477-xx and tape drive serial number example, refer to *Figure 10-4, Post-12 April 2004 Oracle Tape Drive Serial Number Format*, below.

Figure 10-4 Post-12 April 2004 Oracle Tape Drive Serial Number Format



For the tape drive matrix for post-12 April 2004 tape drives, refer to *Table 10-12, Hewlett Packard, Vendor Number: 0216, Tape Drive Matrix*, below, *Table 10-13, Quantum Automation, Vendor Number: 1411, Tape Drive Matrix*, on page 47, and *Table 10-14, Quantum Drives, Vendor Number: 0407, Tape Drive Matrix*, on page 47.

Table 10-12 Hewlett Packard, Vendor Number: 0216, Tape Drive Matrix

| <i>Oracle Serial Number Model Identifier "X"</i> | <i>Mfg or Configuration Site (FFF)</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> |
|--|--|--------------------------|------------------------------|--|-------------------------------------|
| T | Houston (001), Czech Republic (002), China (003) | DAT72 1U Tray | TBD | 595-7590-xx | 380-1116-xx |

Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

Table 10-13 Quantum Automation, Vendor Number: 1411, Tape Drive Matrix

| <i>Oracle Serial Number Model Identifier "X"</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> | <i>Notes</i> |
|--|----------------------------------|----------------------------------|------------------------------|--|-------------------------------------|------------------------------|
| V | Penang (TBD) Mexico (TBD) | SDLT600 LVD drive L25/L100 | TBD | TBD | TBD | Still requires qualification |

Table 10-14 Quantum Drives, Vendor Number: 0407, Tape Drive Matrix

| <i>Oracle Serial Number Model Identifier "X"</i> | <i>Mfg or Configuration Site</i> | <i>Model Description</i> | <i>Supplier Model Number</i> | <i>Oracle Product Part Number (X-Option)</i> | <i>Oracle Assembly Part Numbers</i> | <i>Notes</i> |
|--|----------------------------------|---------------------------|------------------------------|--|-------------------------------------|------------------------------|
| TBD | Penang (TBD) | SDLT600 LVD desktop drive | TBD | TBD | TBD | Still requires qualification |

11 18-Digit Serial Numbers, Lot Codes, and Assembly IDs

11.1 Dual Inline Memory Module (DIMM)

DIMMs that adhere to JEDEC rules for serial presence detect (SPD) are programmed by the manufacturer with specific information. Specific bytes of this information can be synthesized into a serial number so that Oracle and its suppliers can track it. This serial number can also be used for identifying the DIMM even when it has no physical label. This synthesized serial number is 18 hexadecimal characters long.

This is the recognized format that can be used when reporting which JEDEC DIMMs are configured into a system or shipped loose as FRUs or X-options.

The serial number recognized by Oracle can be produced in hexadecimal characters by concatenating the values contained in the following fields of the SPD in order:

- The module manufacturer's JEDEC ID code, represented in compressed form as jjjj
- Module Mfg location, represented as ll
- Module Mfg date, represented as yyww
- Module serial number, represented as ssssssss
- The resulting serial number is represented as jjjjllyywwssssssss

NOTE 11: The serial number in this form is not written into the SPD.

11.1.1 DDR1 DIMMs

The Oracle-recognized serial number can be created for DDR1 DIMMs by concatenating the information in the identified bytes of the SPD (refer to *Table 11-2, Synthesis of an Oracle Serial Number for DDR1 DIMMs*, on page 49).

Compress the module manufacturer's JEDEC ID code from eight bytes to two to comply with the method described in *Corporate FRU ID: EEPROM Programming Overview and Procedures*, 950-3757-xx. Examples of compressed manufacturer's codes are shown in *Table 11-1, Examples of Compressed JEDEC ID Codes*, on page 49.

Table 11-1 Examples of Compressed JEDEC ID Codes

| <i>Manufacturer Name</i> | <i>JEDEC ID Code according to JEP-106</i> | <i>Oracle's Compressed JEDEC ID, jjjj</i> |
|-----------------------------|---|---|
| Infineon (formerly Siemens) | C1000000 00000000 | 00C1 |
| SK Hynix | AD000000 00000000 | 00AD |
| Micron | 2C000000 00000000 | 002C |
| Micron CMS | 7F450000 00000000 | 0145 |
| Qimonda | 7F7F7F7F 7F510000 | 0551 |
| Samsung | CE000000 00000000 | 00CE |

Table 11-2 Synthesis of an Oracle Serial Number for DDR1 DIMMs

| <i>SPD Bytes</i> | <i>Encoding</i> | <i>Field Name</i> | <i>Convert to</i> | <i>Number of Characters</i> | <i>Order of Concatenation (left to right)</i> | <i>Variable Representation</i> |
|------------------|-----------------|-------------------------------------|-------------------|-----------------------------|---|--------------------------------|
| 64-71 | Binary | Module Manufacturer's JEDEC ID Code | hexadecimal | 4 ³ | 1 | jjjj |
| 72 | Binary | Module Mfg Location | hexadecimal | 2 | 2 | ll |
| 93-94 | BCD | Module Mfg Date | decimal | 4 | 3 | yyww |
| 95-98 | Binary | Module Serial Number | hexadecimal | 8 | 4 | ssssssss |

11.1.2 DDR2 DIMMs

The Oracle-recognized serial number can be created for DDR2 DIMMs by compressing and concatenating the information in the identified bytes of the SPD in the specified order (refer to *Table 11-3, Synthesis of an Oracle Serial Number for DDR2 DIMMs*, on page 50).

³ Compress the eight-byte module manufacturer's JEDEC ID code to two bytes (four hexadecimal characters) by following the method described in *Corporate FRU ID: EEPROM Programming Overview and Procedures for FRU Vendors*, 950-3757-xx.

Table 11-3 Synthesis of an Oracle Serial Number for DDR2 DIMMs

| SPD Bytes | Encoding | Field Name | Convert to | Number of Characters | Order of Concatenation (left to right) | Variable Representation |
|------------------|-----------------|-------------------------------------|-------------------|-----------------------------|---|--------------------------------|
| 64-71 | Binary | Module Manufacturer's JEDEC ID Code | hexadecimal | 4 ⁴ | 1 | jjjj |
| 72 | Binary | Module Mfg Location | hexadecimal | 2 | 2 | ll |
| 93-94 | BCD | Module Mfg Date | decimal | 4 | 3 | yyww |
| 95-98 | Binary | Module Serial Number | hexadecimal | 8 | 4 | ssssssss |

11.1.3 FB DIMMs

The Oracle-recognized serial number can be created for FB DIMMs by concatenating the information in the identified bytes of the SPD in the specified order (refer to *Table 11-5, Synthesis of an Oracle Serial Number for FB DIMMs*, on page 51).

The module manufacturer's JEDEC ID code written into FB DIMMs has already been compressed to two bytes. In this case, however, JEDEC requires that odd parity to be imposed on the first byte by using the high-order bit. Mask out this high-order bit in the first byte to create Oracle's version of a compressed JEDEC code. For examples of compressed JEDEC ID codes, refer to *Table 11-4, Examples of Compressed JEDEC ID Codes*, below.

Table 11-4 Examples of Compressed JEDEC ID Codes

| Manufacturer Name | JEDEC's Compressed ID Code | Oracle's Compressed JEDEC ID, jjjj |
|-----------------------------|-----------------------------------|---|
| Infineon (formerly Siemens) | 80C1 | 00C1 |
| SK Hynix | 80AD | 00AD |
| Micron | 802C | 002C |
| Micron CMS | 0145 | 0145 |
| Qimonda | 0551 | 0551 |
| Samsung | 80CE | 00CE |

⁴ Compress the eight-byte module manufacturer's JEDEC ID code to two bytes (four hexadecimal characters) by following the method described in *Corporate FRU ID: EEPROM Programming Overview and Procedures*, 950-3757-xx.

Table 11-5 Synthesis of an Oracle Serial Number for FB DIMMs

| SPD Bytes | Encoding | Field Name | Convert to | Number of Characters | Order of Concatenation (left to right) | Variable Representation |
|------------------|-----------------|-------------------------------------|-------------------|-----------------------------|---|--------------------------------|
| 117-118 | Binary | Module manufacturer's JEDEC ID Code | hexadecimal | 4^5 | 1 | jjjj |
| 119 | Binary | Module Mfg location | hexadecimal | 2 | 2 | ll |
| 120-121 | BCD | Module Mfg date | decimal | 4 | 3 | yyww |
| 122-125 | Binary | Module serial number | hexadecimal | 8 | 4 | ssssssss |

11.1.4 DIMM Tracking Labels

To facilitate tracking DIMMs individually during Mfg, a permanent label having a tracking number on it can be applied to them. The format of the tracking number conforms to one of the formats defined in *Table 2-3, Required Formats of Mfg TNs*, on page 9. The sequence number (SSSS) of an Mfg TN can be reset weekly.

NV DIMMs shall utilize an MFG TN, ID Type M3, as documented in *Section 2.4 MFG TNs*, *Table 2-3, Required Formats of Mfg TNs*. The values used for the multi-use code (XX) describe the manufacturer and capacity of the NVDIMM, are shown in *Table 11-6, XX Code Definitions*.

The values used for the multi-use code (XX) describe the manufacturer and capacity of the DIMM. The list of valid values is shown in *Table 11-6, XX Code Definitions*, below.

Table 11-6 XX Code Definitions

| Manufacturer | X-Code | Capacity | -X Code |
|----------------------|---------------|-----------------|----------------|
| ATP Electronics | B | 512MB | 5 |
| SK Hynix | H | 1GB | 1 |
| Micron | M | 2GB | 2 |
| Nanya | N | 4GB | 4 |
| Qimonda and Infineon | Q | 8GB | 8 |
| Samsung | S | 16GB | 6 |
| Smart Technology | A | 32GB | 3 |
| Viking | V | 64GB | A |
| | | 128GB | B |
| | | 256GB | C |
| | | 128MB | X |
| | | 256MB | Y |
| Unigen | U | | |

⁵ Mask out the high-order bit of byte 117 when creating the hexadecimal form of the module manufacturer's JEDEC ID code.

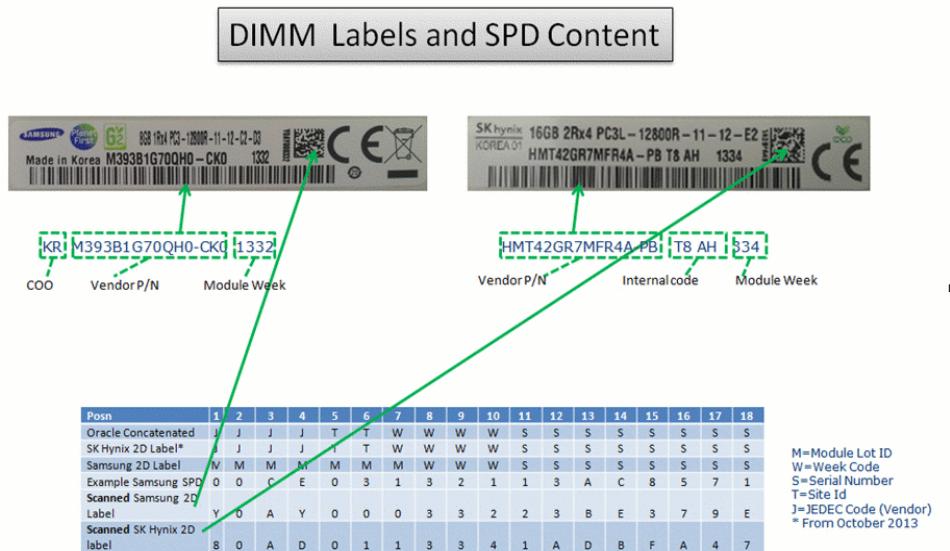
11.1.5 Hynix and Samsung 2D Bar Code Label

Hynix and Samsung implemented a 2D bar code label starting with DDR3 and their upcoming technology effective DIMM date code WW1340.

Figure 11-1 2D Bar code Content vs Oracle Concatenated (SPD synthesized) below explains the content of the 2D bar code which is decoded into 18 characters unique to each DIMM. The 2D bar code will be scanned and will be replacing the Mfg TN.

Figure 11-1 2D Bar code Content vs Oracle Concatenated (SPD synthesized) below also decodes the content of the 2D label for each vendor vs the Oracle concatenated serial number (synthesized from the SPD content).

Figure 11-1 2D Bar code Content vs Oracle Concatenated (SPD synthesized)



For DDR5, the 2D Label contents are shown in the example below. We need to extract the serial number information denoted by the character (S). Refer to the example below.

| | Sample Label | Contents | Extracted information, using character identifier (S) |
|---------|--|----------|---|
| Samsung | <p>(L)256GB 2S4Rx4 PC5-4800B-RA0-0909-XT(S)80CE01211601AB2700(P)M321RBGA0B40-CWKZP(M)30R4000</p> | | 80CE01211601AB2700 |
| Hynix | <p>(L)64GB 2Rx4 PC5-5600B-RA0-1010-XT(S)80AD01220813DA0FC3(P)HMCG94AGBRA176N</p> | | 80AD01220813DA0FC3 |

11.2 NAND Flash Products

To facilitate tracking NAND Flash products individually during Mfg, the application of a permanent Oracle serial number label is required. The number format must conform to the serial number format for subassemblies, as defined in *Table 2-1, Required Formats of Serial Numbers*, on page 8.

The value used for the multi-use code (X or XX) describes the manufacturer (X) or manufacturer and model (XX). The list of valid values are shown in *Table 11-7, NAND Flash Product Code Definition (X or XX)*, below.

Table 11-7 NAND Flash Product Code Definition (X or XX)

| Supplier | Description | Supplier Part Number | Oracle Part Number | XX or X Coding |
|----------|--|--|--|----------------|
| Intel | 32GB 2.5" SATA2 SLC SSD | SSDSA2SH032G1 | 371-4196-xx | NA |
| Intel | 100GB 2.5" SATA2 eMLC Lyndonville | MM# 916150 / SSDSA2BZ100G3SA | 7017177 | NB |
| Intel | 300GB 2.5" SATA2 eMLC Lyndonville | MM# 916152 / SSDSA2BZ300G3SA | 7017181 | NB |
| Intel | 400GB 2.5" SATA3 eMLC Taylorsville | MM# 923978 / SSDSC2BA400G3SP | 7076379 | ND |
| Intel | 1.6TB Fultondale NVMe SFF SSD | MM# 937379 / SSDPE2MD016T4SE | 7093848 | NF |
| Intel | 1.6TB Fultondale NVMe LP AIC | MM# 937380 /SSDPEDMD016T4SE | 7090698 | NG |
| Intel | 6.4TB Cliffdale 4608 Series NVMe AIC, AURA 7 | SSDPECKE064T7 | 7335943 | NJ |
| Intel | 6.4TB,Cliffdale 4600 Series SFF 2.5",NVMe SSD | SSDPE2KE064T7 | 7335940 | NH |
| Intel | 6.4 TB Cliffdale Refresh SFF | MM# 984749 / 984750 / SSDPE2KE064T8 | 7361456 | NK |
| Intel | 6.4 TB Cliffdale Refresh AIC | SSDPECKE064T8 | 7361454 | NL |
| Intel | SSD, 6.8TB, 2.5in, NVMe, Intel D7-P5500 | SSDPF2KX076T9S | 8204576 (G) 8206492 (G), 8204598 (G) | ID Type S8 |
| Intel | ASSY, 6.4TB FLASH, NVMe (AIC, AURA9) | MM# 999RNX and 99A5JJ | 8205697 (G) | ID Type S8 |
| Intel | SSD, 3.84TB, 2.5in, NVME, (AURA9) | MM# 99A5JH | 8206200 (G) | ID Type S8 |
| Intel | M.2,150GB,SATA,22x80mm,SSD,INTEL, DC S3520 | MM# 951057 / SSDSCKJB150G7 | 7341587 | ID Type S8 |
| Intel | M.2,480GB,SATA,22x80mm,SSD,INTEL , DC S3520 | MM# 951059 / SSDSCKJB480G7 | 7341590 | ID Type S8 |
| Intel | M.2,240GB,SATA,22x80mm,SSD,INTEL , DC S4510 | MM# 963510 / 963514 / SSDSCKKB240G8 | 7361253 | ID Type S8 |
| Intel | M.2,480GB,SATA,22x80mm,SSD,INTEL , DC S4510 | MM# 963511 / 963515 / SSDSCKKB480G8 | 7361255 | ID Type S8 |
| Intel | SFF 2.5",480GB,SATA,,SSD,INTEL, DC S4510 | MM# 963340 / 963350 / SSDSC2KB480G8 | 7361257 | ID Type S8 |

Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

| | | | | ID Type |
|-----------|---|---------------------------|-----------------|---------|
| | | | | S8 |
| Micron | M.2,240GB,SATA,22x80mm,SSD,MICR ON,5300 | MTFDDAV240TDS-1AW1ZABYY | 8205295 | |
| Marvell | ASY,DOM,FLASH,24GB,D21Y | SD88SA024SB0-DOM1D21Y | 7061269 | M0 |
| Marvell | FMOD,SATA,24GB,SLC,D139 | SD88SA024SB0-MDM1D139 | 7061954 | M0 |
| Marvell | ASSY,24GB SATA FMOD,BOOT,D20R | SD88SA024BB0-MDM1C000 | 371-4531-xx | M0 |
| STEC/HGST | 73GB 2.5" Gen4 SAS SSD | Z16IZF2E-73UCU-ORC | 7045627 | H0 |
| STEC/HGST | 200GB 2.5" Gen4 SAS SSD | Z16IZF2E-200UCU-ORC | 7049385 | H0 |
| STEC | 73GB 3.5" Gen3 SAS-2 SSD | Z16IZF3D-73UCT-ORC | 371-5049- xx | G0 |
| STEC | 18GB 3.5" Gen2 SAS SSD | Z16IZD3C-18UC-SUN | 371-4820- xx | E0 |
| STEC | 100GB, 2.5" SATA SLC SSD | MACH M8ISB2-100UC | 371-4193-xx | C0 |
| STEC | 18GB 3.5" SATA SLC SSD | Z16ISD3B-18UC-SUN | 371-4192-xx | D0 |
| HGST | 200GB 2.5" Sunset Cove Plus | HUSMM1640ASS200 / 0B32120 | 7093646 | JL |
| HGST | 400GB ME 2.5" Sunset Cove Plus | HUSMM1640ASS200 / 0B32110 | 7093645 | JQ |
| HGST | 1.6TB 2.5" SunsetCove Plus | HUSMR1616ASS200 / 0B32206 | 7094629 | J9 |
| HGST | 1.6TB 2.5" SunsetCove Plus FIPS | HUSMR1616ASS205 / 0B32292 | 7309427 | J2 |
| HGST | 400GB 2.5" SunsetCove Plus FIPS | HUSMM1640ASS205 / 0B32196 | 7309424 | J1 |
| HGST/WD | 200GB BearCove SSD, WI,2.5",SAS3 | HUSMH4020ASS210 / 0B35319 | 7336973 | J3 |
| HGST/WD | 800GB BearCove SSD, ME, 2.5", SAS3 | HUSMM3280ASS200 / 0B35149 | 7330684 | J4 |
| HGST/WD | 3.2TB BearCove SSD, RI, 2.5", SAS3 | HUSMR3232ASS200 / 0B35194 | 7337004 | J5 |
| HGST/WD | 800GB BearCove SSD, ME, 2.5", SAS3, FIPS | HUSMM3280ASS205 / 0B35300 | 7337016 | J6 |
| HGST/WD | 3.2TB BearCove SSD, RI, 2.5", SAS3, FIPS | HUSMR3232ASS205 / 0B35345 | 7337022 | J7 |
| HGST/WD | 3.2TB BearCove SSD, RI, 2.5", SAS3, TCG | HUSMR3232ASS201 / 0B35273 | 7342259 | JD |
| HGST/WD | 200GB BearCove SSD, WI,2.5",SAS3,without encryption | HUSMH4020ASS214-0B35311 | 7350740 | JE |
| HGST/WD | 800GB BearCove SSD, ME, 2.5", SAS3,without encryption | HUSMM3280ASS204-0B35087 | 7350742 | JF |
| HGST/WD | 3.2TB BearCove SSD, RI, 2.5", SAS3, without encryption | HUSMR3232ASS204-0B35360 | 7350744 | JG |
| WD | 200GB BearCovePlus ISE | WUSTM3240ASS200 0B41784 | 7364128 | JH |
| WD | 800GB BearCovePlus ISE | WUSTM3280ASS200 0B41410 | 7364132 | JJ |
| WD | 7680GB BearCovePlus ISE | WUSTR1576ASS200 0B41424 | 7364136 | JK |
| WD | 200GB BearCovePlus without encryption | WUSTM3240ASS204 0B41786 | 7364130 | JM |
| WD | 800GB BearCovePlus without encryption | WUSTM3280ASS204 0B40432 | 7364134 | JN |
| WD | 7680GB BearCovePlus without encryption | WUSTR1576ASS204 0B40577 | 7364138 | JP |
| Toshiba | 512GB 2.5" HG3 SSD | THNSNC512GBSJ | 371-5052- xx | T0 |
| Toshiba | 512GB 2.5" HG2 SSD | THNS512GG8BBAA | 371-4769- xx | T0 |
| Sandisk | 1.6TB 2.5" SAS SSD | SDLB6JC-016T-60 | 7045914 | PA |
| Sandisk | 400GB 2.5" SAS SSD | SDLB6HM-400G-60 | 7066736 | PB |

Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

| | | | | |
|---------|--|--|---------------------------------------|------------|
| Samsung | 480GB 2.5" SFF SATA SSD SM-863 | MZ7KM480HAHP-000U5 | 7328750 | KC |
| Samsung | 480GB 2.5" SFF SATA SSD SM-863 OEM | MZ7KM480HAHP-00005 | 7353626 | KF |
| Samsung | 120GB 80mmx22mm SATA M.2 PM-872 | MZNLN120HCGR-000U1 | 7310616 | ID Type S8 |
| Samsung | Aura6 3.2TB SFF 2.5-inch NVMe PCIe 3.0 SSD PM-1725 | MZWLK3T2HCJL-000U3 | 7314250 | KA |
| Samsung | Aura6 3.2TB Flash Accelerator F320 NVMe PCIe 3.0 PM-1725 | MZPLK3T2HCJL-000U4 | 7317693 | KB |
| Samsung | DualPort SFF NVMe SSD 6.4TB, PM1725b | MZWLL6T4HMLA-00AU3 MZWLL6T4HMLA-000U3 | 8200193 8204598 (G) | KG |
| Samsung | SSD, 6.8TB/7.68TB Max, 2.5in, NVMe, Samsung PM1733 v1 | MZWLJ7T6HALA-00AU3 | 8204577 8206492 (G) 8204598 (G) | ID Type S8 |
| Samsung | SSD, 3.84TB, 2.5in, NVMe, Samsung PM1733 v2 | MZWLR3T8HBLS-00AU3 | 8206193 8206200 (G) | ID Type S8 |
| Samsung | SSD, 7.68TB Max, 2.5in, NVMe, Samsung PM1733 v2 | MZWLR7T6HALA-00AU3 | 8207694 | ID Type S8 |
| Samsung | SSD, 200GB WI, 2.5", SAS3, Samsung PM1643a | MZILT960HBHQ-00007 MZILT960HBHQ-00AU3 | 8206077 | ID Type S8 |
| Samsung | SSD, 800GB ME, SAS3, 2.5", Samsung PM1643a | MZILT1T9HBJR-00007 MZILT1T9HBJR-00AU3 | 8206081 | ID Type S8 |
| Samsung | SSD, 7.68TB RI, 2.5", SAS3, Samsung PM1643a | MZILT7T6HALA-00007 MZILT7T6HALA-00AU3 | 8206085 | ID Type S8 |
| Samsung | SSD, 200GB WI, 2.5", SAS3, Samsung PM1653a | MZILG960HCHQ-00AU3 | 8213350 | ID Type S9 |
| Samsung | SSD, 800GB ME, 2.5", SAS3, PM1653, MARLIN | MZILG1T9HCJR-00AU3 | 8213351 | ID Type S9 |
| Samsung | SSD, 7.68TB RI, 2.5", SAS3, Samsung PM1653a | MZILG7T6HBLA-00AU3 | 8213352 | ID Type S9 |

11.3 Power Components (AC_DC & DC_DC & PDU) (Type 2 Label)

This section details the barcode label requirements for a Type 2 label, S6 ID Type used on power supplies (refer to *Table 2-1, Required Formats of Serial Numbers*, on page 8). The information on the label is provided as a single, 18-digit barcode with human-readable alpha-numeric characters. See *Table 11-8, Power Supply Serial Number Breakdown*, below, *Figure 11-2, Example DC_DC Power Supply Label Information*, below, and *Figure 11-3, Example AC_DC Power Supply Label Information*, on page 56.

Table 11-8 Power Supply Serial Number Breakdown

| <i>Format</i> | <i>Details</i> |
|------------------------------|--|
| Vendor or manufacturer code | Eight alpha-numeric characters with leading zeros if necessary: 6-digit numeric vendor code and a single alpha character factory code from <i>Table 11-9, Power Supply Vendor or Manufacturer Code Matrix</i> , on page 56, and a '+' sign. |
| Year and week of manufacture | Four numeric digits: 2-digit year code for the year of the manufacture and 2-digit week code for the week of the build |
| Power supply identifier | 2-character designator of specific power supplies (Starting with AA for DC_DC units, the next increment is AB) (Starting with A0 for AC_DC units, the next increment is A1) |
| Serial number | 4-digit serial number (The last four digits represent the serialization number for that week in base 31 (0 to 9 and A to Z, except letter I, O, Q, S, and Z)) |

Figure 11-2 Example DC_DC Power Supply Label Information

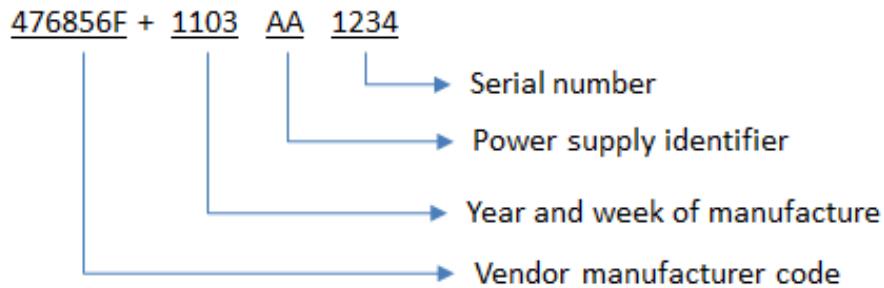


Figure 11-3 Example AC_DC Power Supply Label Information

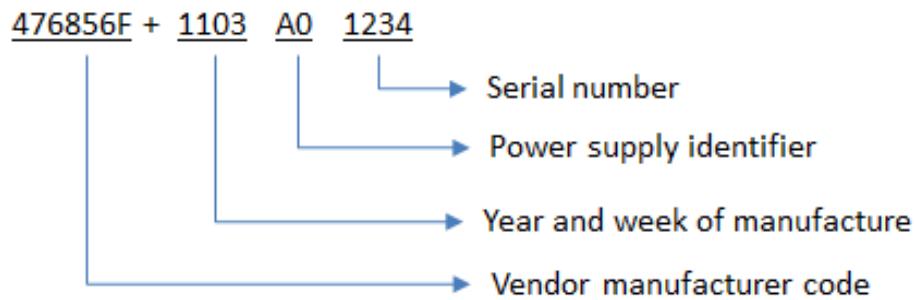


Table 11-9 Power Supply Vendor or Manufacturer Code Matrix

| Code Number | Manufacturer |
|--|--|
| 476856(F = China / Fuyong) (Z = China / Zhong Zhan) (C = Philippines / Cavite) (L = Philippines / Laguna) | Advanced Energy (Astec/Artesyn) |
| 465776(G = China / Guangming) | Bel Power (PowerOne) |
| 467932(F = China / Fuzhou) (K = Taiwan / Kaohsiung) | BlueTek Power Inc. |
| 465824(T = Thailand / Bang Na) (S = Germany / Soest) (H = China / Hangzhou) | Delta Electronics |
| 471583(M = Mexico / Matamoros) (S = China / Shanghai) | GE (Lineage Power, Cherokee) |
| 467320(C = China / Dongguan) (M = Malaysia / Penang) | Flex Power |
| 053064 (Vertiv L = USA Lincoln Nebraska) | 053064 Vertiv (L = USA Lincoln Nebraska) |
| 038633 (S = Server Tech) | Server Tech |

12 21-Digit Serial Numbers, Lot Codes, and Assembly IDs

HBAs (Supplier: JNI/AMCC)

There is one label consisting of the assembly part number, revision level, date code, Mfg site code, and serial number. The label has 21 human-readable numbers and text. Refer to *Table 12-1, JNI/AMCC HBA Number Breakdown*, below, and *Figure 12-1, Example JNI/AMCC HBA Label Information*, below.

Table 12-1 JNI/AMCC HBA Number Breakdown

| <i>Format</i> | <i>Details</i> |
|----------------------|--|
| Assembly part number | 10-digit assembly part number |
| Revision code | Single-letter revision code |
| Date code | Four digits that identify the year and week of manufacture |
| Mfg site code | Single-letter Mfg site code (see <i>Table 12-2, JNI/AMCC HBA Mfg Site Codes</i> , on page 58.) |
| Serial number | 5-digit serial number |

Figure 12-1 Example JNI/AMCC HBA Label Information

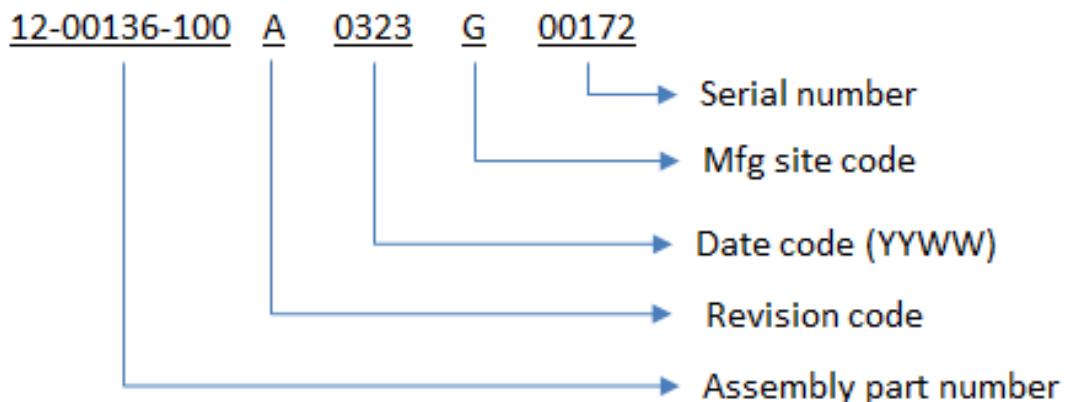


Table 12-2 JNI/AMCC HBA Mfg Site Codes

| <i>Manufacturer</i> | <i>Code</i> |
|---------------------|-------------|
| JNI Corporation | A |
| SMS Technologies | B |
| SCI Systems | C |
| GSS/Array | D |
| System Corporation | E |
| Corlund Electronics | G |
| Varian | H |
| Celestica China | J |

Appendix A Digit Serial Numbers, Lot Codes, and Assembly IDs for Hard Disk Drive (HDD) End of Life (EOL) Products

HDD EOL (End of Life) Model Identifier Codes

Refer to *Figure 10-2, Oracle Serial Number Matrix*, on page 38, for Oracle serial number model identifier cross reference numbers for each table in this section. Also refer to *Table 10-3, Hard Drive Assembly Legend*, on page 39.

A.1 Seagate EOL Model Identifier Codes

A.1.1 Seagate 0440AMK

Table A-1 Seagate 0440AMK Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number</i> | <i>Oracle Part Number</i> |
|---|---|-----------------------------|----------------------------|
| 2 | DRV,SEA,73GB,SFF,SAS,10K2 | ST973402SS | 390-0323-xx |
| 9 | DRV,SEA,146GB,SFF,SAS,10K2 | ST9146802SS | 390-0324-xx |
| A | DRV,SEA,GALX750GB,SATA,7200 | ST3750640NS | 390-0356-xx |
| B | DRV,SEA,146GB,SAS,HURRICANE | ST3146356SS | 390-0422-xx |
| C | DRV,SEA,300GB,FCAL,HURRICANE | ST3300656FC | 390-0420-xx |
| D | DRV,SEA,450GB,FCAL,HURRICANE | ST3450856FC | 390-0421-xx |
| R | DRV,SEA,73GB,FCAL,15K5 | ST373455FC | 390-0326-xx |
| S | DRV,SEA,146GB,FCAL,15K5 | ST3146855FC | 390-0328-xx |
| 7 | DRV,SEA,300GB,SFF,SAS,10K3 | ST9300603SS | 390-0449-xx |
| 8 | DRV,SEA,146GB,SFF,SAS,10K3 | ST9146803SS | 390-0448-xx |
| B | DRV,SEA,146GB,SAS,HURRICANE | ST3146356FC | 390-0422-xx |
| B | Hurricane15K6,146GB FCAL | ST3146356FC | 390-0419-xx |
| C | DRV,SEA,300GB,SAS,HURRICANE | ST3300656SS | 390-0423-xx |
| D | DRV,SEA,450GB,SAS,HURRICANE | ST3450856SS | 390-0424-xx |
| N | DRV,SEA,600GB,FCAL,SED,EAGLE | ST3600957FC | 390-0477-xx |
| E | DRV,SEA,600GB,15K,3.5",SAS | ST3600057SS | 390-0463-xx |
| E | DRV,SEA,600GB,15K,3.5",FCAL | ST3600057FC | 390-0464-xx |
| G | DRV,SEA,300GB,15K,3.5",SAS | ST3300657SS | 390-0461-xx |
| G | DRV,SEA,300GB,15K,3.5",FCAL | ST3300657FC | 390-0462-xx |
| 7 | DRV,SEA,300GB,SFF,SAS,10K3 | ST9300603SS | 390-0449-xx |
| R | DRV,SEA,73GB,SAS,15K5 | ST373455SS | 390-0333-xx |
| R | DRV,SEA,73GB,SCSI,15K5 DRV,SEA,73GB,SCSI,D240,15K5 | ST373455LC | 390-0325-xx 390-0415-xx |
| S | DRV,SEA,146GB,SAS,15K5 | ST3146855SS | 390-0334-xx |
| S | DRV,SEA,146GB,SCSI,15K5 DRV,SEA,146GB,SCSI,D240,15K5 | ST3146855LC | 390-0327-xx 390-0416-xx |
| T | DRV,SEA,300GB,SAS,15K5 DRV,SEA,300GB,SAS,15K5 | ST3300655SS 7010282 | 390-0335-xx 7010282 |
| T | DRV,SEA,300GB,SCSI,15K5 | ST3300655LC | 390-0329-xx |
| T | DRV,SEA,300GB,FCAL,15K5 | ST3300655FC | 390-0330-xx |
| V | DRV,SEA,73G15K1,SFF,SAS | ST973451SS | 390-0382-xx |
| X | DRV,SEA TRC,400GB10K,SAS | ST3400755SS | 390-0397-xx |
| X | DRV,SEA TRC,400GB10K,FCAL | ST3400755FC | 390-0396-xx |
| Unassigned Codes: 0, 1, 3, 4, 5, 6, H, J, K, L, M, P, Q, Y, Z | | | |

A.1.2 Seagate 0440KOR

Table A-2 Seagate 0440KOR Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number</i> | <i>Oracle Part Number</i> |
|---|-----------------------------------|-----------------------------|---------------------------|
| A | DRV,SEA,GALX750GB,SATA,7200 | ST3750640NS | 390-0356-xx |
| B | DRV,SEA,GALX250GB,SATA,7200 | ST3250820NS | 390-0354-xx |
| C | DRV,SEA,GALX500GB,SATA,7200 | ST3500630NS | 390-0355-xx |
| 5 | DRV,SEA,MOOSE,1TB,SATA,7200 | ST31000340NS | 390-0414-xx |
| 6 | DRV,SEA,MOOSE750GB,SATA,7200 | ST3750330NS | 390-0413-xx |
| 7 | DRV,SEA,MOOSE500GB,SATA,7200 | ST3500320NS | 390-0412-xx |
| 8 | DRV,SEA,MOOSE250GB,SATA,7200 | ST3250310NS | 390-0411-xx |
| 5 | DRV,1TB,SAS,7200RPM,SEA,MOOSE | ST31000640SS | 390-0438-xx |
| 8 | DRV,DRV,SEA,146GB,15K4,4GBIT,F | ST3146954FC | 390-0299-xx |
| H | DR,1TB,7200RPM3.5"SATA,MSKI | ST31000524NS | 390-0473-xx |
| J | DR,2TB,7200RPM3.5"SATA,MSKI | ST32000644NS | 390-0474-xx |
| K | DR,1TB,7200RPM3.5"SAS,MSKI | ST31000424SS | 390-0475-xx |
| L | DR,2TB,7200RPM3.5"SAS,MSKI | ST32000444SS | 390-0476-xx |
| M | DRV,SEA,DRA3GBSATA,500G7.2K,SF | ST9500530NS | 390-0468-xx |
| M | DRV,SEA,DRA3GBSATA,500G7.2K,SF | ST9500530NS | 390-0468-xx |
| 5 | DRV,SEA,MOOSE,1TB,SATA,7200 | ST31000340NS | 390-0414-xx |
| M | DRV,160GB,SEA,SATA,ROHS,7200 | ST3160812AS | 390-0318-xx |
| R | DRV,SG,500GB,SATA,SFF,AIRWALKE | ST9500620NS | 390-0492-xx |
| S | DR,3TB,3.5"SAS/7200,Manta Ray | ST33000650SS | 7010033 |
| T | OEM DR,3TB,3.5"SAS/7200,Manta Ray | ST33000650SS | 7010033 |
| | | | |
| | | | |
| Unassigned Codes: 0, 1, 2, 3, 4, 9, D, E, F, Q, V, W, X, Y, Z | | | |

A.1.3 Seagate 0440WUX

Table A-3 Seagate 0440WUX Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number</i> | <i>Oracle Part Number</i> |
|---|-------------------------------|-----------------------------|---------------------------|
| A | DRV,SEA,GALX750GB,SATA,7200 | ST3750640NS | 390-0356-xx |
| B | DRV,SEA,GALX250GB,SATA,7200 | ST3250820NS | 390-0354-xx |
| C | DRV,SEA,GALX500GB,SATA,7200 | ST3500630NS | 390-0355-xx |
| M | DRV,160GB,SEA,SATA,ROHS,7200 | ST3160812AS | 390-0318-xx |
| Q | DRV,SEA,TNKII,400GB,SATA,7200 | ST3400833NS | 390-0286-xx |
| Y | DRV,SEA,TNKII,82GB,SATA,7200 | ST3808110AS | 390-0242-xx |
| Z | DRV,SEA,TNKII250GB,SATA,7200 | ST3250824NS | 390-0243-xx |
| 5 | DRV,SEA,MOOSE,1TB,SATA,7200 | ST31000340NS | 390-0414-xx |
| | | | |
| | | | |
| Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, G, H, J, K, L, N, P, R, S, T, V, W, X | | | |

A.1.4 Seagate 0440772*Table A-4 Seagate 0440772 Model Identifier Codes*

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number</i> | <i>Oracle Part Number</i> |
|--|--|-----------------------------|---|
| 0 | DRV,SEA,36GB,SFF,SAS,10KRPM | ST936701SS | 390-0208-xx |
| 1 | DRV,SEA,73GB,SFF,SAS,10KRPM | ST973401SS | 390-0213-xx |
| 6 | DRV,SEA,36GB,15K,SCSI4,ROHS | ST336754LC | 390-0199-xx |
| 6 | DRV,SEA,36GB,15K,FCAL ROHS DRV,SEA,36GB,15K,FCAL,T3,ROHS | ST336754FC ST336754FC | 390-0187-xx, 390-0190-xx |
| 7 | DRV,SEA,73GB,15K,FCAL ROHS | ST373454FC | 390-0193-xx |
| 8 | DRV,SEA,146GB,3.5,SAS,15K | ST3146854SS | 390-0234-xx |
| 8 | DRV,SEA,146GB,15K,FCAL ROHS | ST3146854FC | 390-0196-xx |
| A | DRV,SEAGATE,3610K 1",FCAL | ST336607FC | 390-0137-xx |
| 3 | DRV,SEA,73GB,10K,1"SCSI4 | ST373207LC | 390-0174-xx |
| A | DRV,SEAGATE,3610K 1",FCAL DRV,SEA,73GB10K,SCSI4,ROHS | ST336607FC | 390-0137-xx 390-0275-xx |
| 3 | DRV,SEA,73GB,10K,FCAL,NON T3DRV,SEA,73GB,10K,FCAL,T3 DRV,SEA,73GB10K,FCAL,T3,ROHS DRV,SEA,73GB10K,FCAL,ROHS | ST373207FC | 390-0165-xx, 390-0168-xx 390-0278-xx 390-0279-xx |
| 4 | DRV,SEA,146GB,10K,1"SCSI4 DRV,SEA,146GB10K,SCSI4,ROHS | ST3146707LC | 390-0177-xx 390-0276-xx |
| 4 | DRV,SEA,146GB,10K,FCAL,NON T3 | ST3146707FC | 390-0171-xx |
| 4 | DRV,SEA,146GB10K,FCAL,ROHS | ST3146707FC | 390-0280-xx |
| 5 | DRV,SEA,300GB,10K,SCSI DRV,SEA,300GB10K,SCSI4,ROHS | ST3300007LC | 390-0184-xx 390-0277-xx |
| 5 | DRV,SEA,300GB,10K,FCAL,NON T3 DRV,SEA,300GB10K,FCAL,ROHS | ST3300007FC | 390-0181-xx 390-0281-xx |
| 7 | DRV,SEA,73GB,15K,SCSI4,ROHS | ST373454LC | 390-0202-xx |
| 7 | DRV,DRV,SEA,73GB,15K4,4GBT,FC | ST373554FC | 390-0300-xx |
| 8 | DRV,SEA,146GB,3.5,SAS,15K,NOE | ST3146854SS | 390-0338-xx |
| 8 | DRV,SEA,146GB,15K,SCSI4,ROHS | ST3146854LC | 390-0205-xx |
| 8 | DRV,DRV,SEA,146GB,15K4,4GBT,F | ST3146954FC | 390-0299-xx |
| Unassigned Codes: 2, 9, A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, T, V, X, Y, Z | | | |

A.1.5 Seagate 0020772*Table A-5 Seagate 0020772 Model Identifier Codes*

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number</i> | <i>Oracle Part Number</i> |
|---|---|-----------------------------|-----------------------------|
| A | DRV,SEA,36GB,10K,1"SCSI4 Note: Spindle motor change | ST336607LC | 390-0109-xx 390-0160-xx |
| A | DRV,SEAGATE,3610K 1",FCAL CHEE DRV,SEA,36GB,10K,1" FCAL T3 | ST336607FC | 390-0137-xx, 390-0138-xx |
| B | DRV,SEA,73GB,10K,1"SCSI4 Note: Spindle motor change | ST373307LC | 390-0106-xx 390-0159-xx |
| B | DRV,SEA,73GB,10K,1" FCAL T3 DRV,SEA,73GB,10K,1" FCAL | ST373307FC | 390-0115-xx 390-0121-xx |
| C | DRV,SEAGATE,146GB,10RPM,SCS,1" | ST3146807LC | 390-0145-xx |
| C | DRV,SEA,146GB,10K,1" FCAL T3 | ST3146807FC | 390-0118-xx |
| D | DRV,SEA,36GB 10K,1" SCSI | ST336704LC | 390-0050-xx |
| D | DRV,SEA,36GB 10K,1"FCAL DRV,SEA,36GB10K,1"FCAL,PURP | ST336704FC | 390-0035-xx 390-0056-xx |
| E | DRV,SEA,73GB 10K,1.6" FCAL | ST173404FC | 390-0036-xx |
| F | DRV,SEA,36GB,15K,1"FCAL DRV,SEA,36GB,15K,1"FCAL T3 | ST336752FC | 390-0099-xx 390-0101-xx |
| G | DRV,SEA,180GB,7200RPM,1.6",FCA | ST1181677FC | 390-0102-xx |
| H | DRV,SEA,36GB,15K,1"SCSI4 | ST336753LC | 390-0131-xx |
| H | DRV,SEA,36GB,15K,1"FCAL -S&P DRV,SEA,36GB,15K,1"FCAL -T3 | ST336753FC | 390-0130-xx 390-0127-xx |
| J | DRV,SEA,73GB,15K,1",SCSI | ST373453LC | 390-0143-xx |
| J | DRV,SEA,73GB,15K,1",FCAL,S&P | ST373453FC | 390-0144-xx |
| K | DRV,SEA,18GB,10K,1"SCSI,CHT5 | ST318305LC | 390-0085-xx |
| K | DRV,SEA,73GB,10K,1"FCAL DRV,SEA,73GB,10K,1"FCAL -T3 | ST373405FC | 390-0071-xx 390-0073-xx |
| L | DRV,SEA,18GB 10K,1"FCAL DRV,SEA,18GB,10K 1"FCAL,PURP | ST318304FC | 390-0034-xx 390-0053-xx |
| P | DRV,SEA,36GB,10K,1"SCSI3 | ST336605LC | 390-0069-xx |
| P | DRV,SEA,36GB,10K,1"FCAL DRV,SEA,36GB,10K,1"FCAL -T3 | ST336605FC | 390-0070-xx 390-0072-xx |
| T | DRV,SEA,18GB 10K,1" SCSI | ST318404LC | 390-0038-xx |
| V | DRV,SEA,9GB 10K,1" SCSI | ST39204LC | 390-0037-xx |
| Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, M, N, Q, R, S, W, X, Y, Z | | | |

A.1.6 Seagate 0440SZT

Table A-6 Seagate 0440SZT HDD Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Seagate Model Number</i> | <i>Oracle Part Number</i> |
|--|---|-----------------------------|---------------------------|
| 7 | 10K3 2.5 Firefly 300GB SASDRV,SEA,300GB,SFF,SAS,10K3 | ST9300603SS | 390-0449-xx |
| 8 | DRV,SEA,146GB,SFF,SAS,10K3 | ST9146803SS | 390-0448-xx |
| E | DRV,SEA,600GB,15K,3.5",SAS | ST3600057SS | 390-0463-xx |
| E | DRV,SEA,600GB,15K,3.5",FCAL | ST3600057FC | 390-0464-xx |
| N | DRV,SEA,600GB,FCAL,SED,EAGLE | ST36000957FC | 390-0477-xx |
| G | DRV,SEA,300GB,15K,3.5",SAS | ST3300657SS | 390-0461-xx |
| G | DRV,SEA,300GB,15K,3.5",FCAL | ST3300657FC | 390-0462-xx |
| P | DRV,SG,600GB,SFF,SAS, COMPASS | ST9600205SS | 390-0491-xx |
| Q | DRV,SG,300GB,SFF,SAS,COMPASS | ST9300605SS | 390-0490-xx |
| R | DRV,SEA,73GB,SCSI,15K5 | ST373455LC | 390-0325-xx |
| | DRV,SEA,73GB,SCSI,D240,15K5 | | 390-0415-xx |
| S | DRV,SEA,146GB,SAS,15K5 | ST3146855SS | 390-0334-xx |
| S | DRV,SEA,146GB,SCSI,15K5 | ST3146855LC | 390-0327-xx |
| | DRV,SEA,146GB,SCSI,D240,15K5 | | 390-0416-xx |
| T | DRV,SEA,300GB,SAS,15K5 | ST3300655SS | 390-0335-xx |
| | DRV,SEA,300GB,SAS,15K5 | | 7010282 |
| T | DRV,SEA,300GB,SCSI,15K5 | ST3300655LC | 390-0329-xx |
| T | DRV,SEA,300GB,FCAL,15K5 | ST3300655FC | 390-0330-xx |
| Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 9, A, B, C, D, H, J, K, L, M, N, R, S, T, V, W, X, Y, Z | | | |

A.2 Fujitsu EOL Model Identifier Codes

A.2.1 Fujitsu 0195FCP

Table A-7 Fujitsu 0195FCP Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Fujitsu Model Number</i> | <i>Oracle Part Number</i> |
|---|--|-------------------------------------|---|
| A | DRV,FUJ,73GB,SFF,SAS,AL10SE | MBB2073RC | 390-0374-xx |
| B | DRV,FUJ,73GB,10K,FCAL,NON T3 DRV, FUJ,73GB,10K,FCAL T3 DRV, FUJ,73GB,10K,FCAL,ROHS | MAT3073FC MAW3073FC MAW3073FC | 390-0166-xx, 390-0169-xx, 390-0256-xx |
| B | DRV,FUJ,73GB,10K,1"SCSI4 DRV,FUJ,73GB,10K,SCSI4,ROHS | MAT3073NC MAW3073NC | 390-0175-xx, 390-0252-xx |
| C | DRV,FUJ,146GB,10K,FCAL,NON T3 DRV,FUJ,146GB,10K,FCAL,ROHS | MAT3147FC MAW3147FC | 390-0172-xx 390-0257-xx |
| C | DRV,FUJ,146GB,10K,1"SCSI4 DRV, FUJ,146GB,10K,SCSI4,ROHS | MAT3147NC MAW3147NC | 390-0178-xx, 390-0253-xx |
| D | DRV,FUJ,300GB,10K,FCAL,NON T3 DRV,FUJ,300GB,10K,FCAL,ROHS | MAT3300FC MAW3300FC | 390-0182-xx, 390-0258-xx |
| D | DRV,FUJ,300GB,10K,SCSI DRV,FUJ,300GB,10K,SCSI4,ROHS | MAT3300NC MAW3300NC | 390-0185-xx, 390-0254-xx |
| E | DRV,FUJ,36GB,15K,FCAL NON T3 DRV,FUJ,36GB,15K,FCAL,T3 DRV,FUJ,36GB,15K,FCAL,ROHS | MAU3036FC MAU3036FC MAX3036FC | 390-0188-xx, 390-0191-xx, 390-0262-xx |
| E | DRV,FUJ,36GB,15K,SCSI4 DRV,FUJ,36GB,15K,SCSI4,ROHS | MAU3036NC MAX3036NC | 390-0200-xx, 390-0259-xx |
| F | DRV,FUJ,73GB,15K,FCAL NON T3 F | MAU3073FC MAX3073FC | 390-0194-xx, 390-0263-xx |
| F | DRV,FUJ,73GB,15K,FCAL4 | MAX3073FD | 390-0312-xx |
| F | DRV,FUJ,73GB,15K,SCSI4 DRV,FUJ,73GB,15K,SCSI,ROHS | MAU3073NC MAX3073NC | 390-0203-xx, 390-0260-xx |
| G | DRV,FUJ,146GB,15K,FCAL NON T3 DRV,FUJ,146GB,15K,FCAL,ROHS | MAU3147FC MAX3147FC | 390-0197-xx, 390-0264-xx |
| G | DRV,FUJ,146GB,15K,FCAL4 | MAX3147FD | 390-0313-xx |
| G | DRV,FUJ,146GB,15K,SCSI4 DRV,FUJ,146GB,15K,SCSI4,ROHS | MAU3147NC MAX3147NC | 390-0206-xx, 390-0261-xx |
| H | DRV,FUJ,146GB,SFF,SAS,AL10SE | MBB2147RC | 390-0375-xx |
| A | DRV,FUJ,73GB,SFF,SAS,AL10SE | MBB2073RC | 390-0374-xx |
| S | DRV,FUJ,73GB,SFF,SAS,10KRPM DRV,FJ,73GB,ROHS,SFF,SAS,10K | MAV2073RC MAY2073RC | 390-0211-xx, 390-0285-xx |
| Unassigned Codes: 2, 3, 4, 5, 6, 7, 8, 9, N, P, Q, R, V, Z, X | | | |

A.2.2 Fujitsu 0195FTC

Table A-8 Fujitsu 0195FTC Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Fujitsu Model Number</i> | <i>Oracle Part Number</i> |
|--|--------------------------------|-----------------------------|---------------------------|
| H | DRV,FUJ,40GB,5400,2.5,SATA,MOB | MHT2040BS | 390-0215-xx |
| J | DRV,30GB FJ PATA,2.5",5400 RPM | MHT2040AS | 390-0222-xx |
| K | DRV,FUJ,60GB,5400,2.5,SATA,MOB | MHT2060BS | 390-0216-xx |
| G | DR,200GB/5400RPM,2.5",SATA,M12 | MHY2200BS | 390-0407-xx |
| Unassigned Codes: 3, 4, 5, 6, 7, 8, 9, B, C, D, E, F, G, L, M, N, P, Q, R, S, T, V, W, X, Y, Z | | | |

A.2.3 Fujitsu 0066152

Table A-9 Fujitsu 0066152 Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Fujitsu Model Number</i> | <i>Oracle Part Number</i> |
|---|---|-----------------------------|-----------------------------|
| 3 | 9GB,7200,1",USCSI,FJ,AL5,DRV | MAE3091LC | 390-0004-xx |
| 4 | 9GB, 10K, 1",USCSI,FJ,AL5,DRV | MAG3091LC | 390-0005-xx |
| 5 | DRV,FUJ,18GB,10K,1",USCSI,AL5 | MAG3182LC | 390-0006-xx |
| 6 | DRV,FUJ,AL5,36G 10K 1.6" USCSI | MAF3364LC | 390-0014-xx |
| 7 | DRV,FUJ,36GB,15K,1"FCAL-T3 DRV,FUJ,36GB,15K,1" FCAL2 | MAS3367FC | 390-0150-xx, 390-0151-xx |
| 7 | DRV,FUJ,36GB,15K,1"SCSI4 | MAS3367NC | 390-0132-xx |
| 8 | DRV,FUJ,73GB,15K,1"FCAL2 | MAS3735FC | 390-0152-xx |
| 8 | DRV,FUJ,73GB,15K,1" SCSI4 | MAS3735NC | 390-0153-xx |
| M | DRV,FUJ,36GB 10K,1" SCSI FJ,36GB 10K 1" TOGO DRV | MAJ3364MC | 390-0051-xx, 390-0059-xx |
| N | DRV,FJ,36GB,10K,1"SCSI4 DRV,FJ,36GB,10K1"SCSI4-T485-61 | MAP3367NC | 390-0110-xx, 390-0156-xx |
| P | DRV,FUJ,18GB 10K,1" SCSI FJ 18GB 10K 1" TOGO DRV | MAJ3182MC | 390-0043-xx, 390-0060-xx |
| Q | DRV,FJ,73GB,10K,1" FCAL T3 DRV,FJ,73GB,10K, 1" FCAL | MAP3735FC | 390-0116-xx, 390-0122-xx |
| Q | DRV,FJ,73GB,10K,1"SCSI4 DRV,FJ,73GB,10K 1" SCSI4-T485-61 | MAP3735NC | 390-0107-xx, 390-0157-xx |
| R | DRV,FJ,146GB,10K,1" FCAL T3 DRV,FJ,146GB,10K,1" FCAL | MAP3147FC | 390-0113-xx, 390-0119-xx |
| R | DRV,FUJ,146GB,10K,1",SCSI4 | MAP3147NC | 390-0154-xx |
| V | DRV,FJ,36GB,10K,1"SCSI3 | MAN3367MC | 390-0065-xx |
| X | DRV,FJ,36G,10K,1",FCAL-T3,AL7 | MAN3367FC | 390-0095-xx |
| X | DRV,FJ,73G,10K,1",FCAL-T3,AL7 DRV,FJ,73G,10K,1",FCAL,AL7 | MAN3735FC | 390-0096-xx, 390-0098-xx |
| Z | DRV,FJ,18GB,10K,1"SCSI3 | MAN3184MC | 390-0066-xx |
| Unassigned Codes: 0, 1, 2, 9, A, B, C, D, E, F, G, H, J, K, L, S, T, W, Y | | | |

A.3 Hitachi EOL Model Identifier Codes

NOTE 12: Since the Hitachi HDD Division was sold to Western Digital (WD), the current generation of drives will be labeled HGST, but the EOL drives will remain labeled as Hitachi.

A.3.1 Hitachi 1308SGP

Table A-10 Hitachi 1308SGP Model Identifier Codes

| Oracle Serial Number Model Identifier | Description | Hitachi Model Number | Oracle Part Number |
|--|-------------------------------|----------------------|--------------------|
| A | DRV,HTH,V-B,73GB15K,SAS | HUS153073VLS300 | 390-0370-xx |
| A | DRV,HTH,V-B,73GB15K,SCSI | HUS153073VL3800 | 390-0360-xx |
| A | DRV,HTH,V-B,73GB15K,FC4 | HUS153073VLF400 | 390-0364-xx |
| A | DRV,HTH,V-B,73GB15K,D240 | HUS153073VL3800 | 390-0417-xx |
| B | DRV,HTH,V-B,146GB15K,SAS | HUS153014VLS300 | 390-0371-xx |
| B | DRV,HTH,V-B,146GB15K,SCSI | HUS153014VL3800 | 390-0361-xx |
| B | DRV,HTH,V-B,146GB15K,D240 | HUS153014VL3800 | 390-0418-xx |
| B | DRV,HTH,V-B,146GB15K,FC4 | HUS153014VLF400 | 390-0365-xx |
| C | DRV,HTH,V-B,300GB15K,SAS | HUS153030VLS300 | 390-0372-xx |
| C | DRV,HTH,V-B,300GB15K,SCSI | HUS153030VL3800 | 390-0362-xx |
| R | DRV,HTH,73GB10K,SCSI4,ROHS | HUS103073FL3800 | 390-0265-xx |
| T | DRV,HTH,146GB10K,SCSI4,ROHS | HUS103014FL3800 | 390-0266-xx |
| R | DRV,HTH,73GB10K,FCAL,ROHS | HUS103073FLF210 | 390-0269-xx |
| T | DRV,HTH,146GB10K,FCAL,ROHS | HUS103014FLF210 | 390-0270-xx |
| V | DRV,HTH,300GB10K,FCAL,ROHS | HUS103030FLF210 | 390-0271-xx |
| C | DRV,HTH,V-B,300GB15K,FC4 | HUS153030VLF400 | 390-0366-xx |
| D | DRV,HTH,73GB,SFF,SAS,COBRA-B | HUC101473CSS300 | 390-0376-xx |
| E | DRV,HTH,146GB,SFF,SAS,COBRA-B | HUC101414CSS300 | 390-0377-xx |
| F | DRV,HTH,146GB,SFF,SAS,COBRAC | HUC103014CSS600 | 390-0450-xx |
| G | DRV,HTH,300GB,SFF,SAS,COBRAC | HUC103030CSS600 | 390-0451-xx |
| H | DRV,HIT,VIPERC,300GB,FCAL,15K | HUS156030VLF400 | 390-0482-xx |
| H | DRV,HIT,VIPERC,300GB,SAS,15K | HUS156030VLS600 | 390-0482-xx |
| K | DRV,HIT,VIPERC,600GB,FCAL,15K | HUS156060VLF401 | 390-0484-xx |
| K | DRV,HIT,VIPERC,600GB,SAS,15K | HUS156060VLS600 | 390-0483-xx |
| P | DRV,HIT,73GB,15K,SCSI4ROHS | HUS151473VL3800 | 390-0204-xx |
| R | DRV,HIT,73GB,10K,1"SCSI4 | HUS103073FL3800 | 390-0176-xx |
| R | DRV,HIT,73GB,10K,FCAL,NON T3 | HUS103073FLF210 | 390-0167-xx, |
| | DRV,HITACHI,73GB,10K,FCAL,T3 | | 390-0170-xx |
| T | DRV,HIT,146GB,10K,1"SCSI4 | HUS103014FL3800 | 390-0179-xx |
| C | DRV,HTH,V-B,300GB15K,FC4 | HUS153030VLF400 | 390-0366-xx |
| T | DRV,HIT,146GB,10K,FCAL,NON T3 | HUS103014FLF210 | 390-0173-xx |
| X | DRV,HIT,36GB,15K,SCSI4ROHS | HUS151436VL3800 | 390-0201-xx |
| Z | DRV,HIT,146GB,15K,SCSI4ROHS | HUS151414VL3800 | 390-0207-xx |

Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, J, L, M, N, S, W, U, Y

A.3.2 Hitachi 1308PRB

Table A-11 Hitachi 1308PRB Model Identifier Codes

| <i>Oracle Serial Model Identifier</i> | <i>Description</i> | <i>Hitachi Model Number</i> | <i>Oracle Part Number</i> |
|---------------------------------------|---|-----------------------------|---------------------------|
| F | DRV,HTH,400GB,SATA,7200RPM | HDS724040KLSA80 | 390-0214-xx |
| K | DRV,HTH,KURO2,500GB,SATA,7200 | HDS725050KLA360 | 390-0247-xx |
| K | DRV,HTH,KURO2,500GB,SATA,4.1 | HDS725050KLA360 | 390-0384-xx |
| M | DRV,HTH,JUPK,2TB,SATA,7200 | H7220AA30 | 390-0467-xx |
| G | DRV,HTH,GEMI,1TB,SATA,7200RPM | HUA721010KLA330 | 390-0381-xx |
| H | DRV,HTH,GEMI,750GB,SATA,7200RP | HUA721075KLA330 | 390-0379-xx |
| J | DRV,HTH,GEMI,500GB,SATA,7200R | HUA721050KLA330 | 390-0383-xx |
| L | DR,500GB/5400RPM,2.5",SATA,BK | HTE5450SA | 390-0433-xx |
| N | DRV,HIT,300GB,SFF,SAS,COBRAD | HUC106030CSS600 | 390-0487-xx |
| P | DRV,HIT,600GB,SFF,SAS,COBRAD | HUC106060CSS600 | 390-0488-xx |
| Q | DR,2TB,3.5"SAS/7200,MarsK | HUS723020ALS640 | 7025852 |
| R | HDD,3TB,3.5",SAS/7200rpm,PI-Type0,MarsK | HUS723030ALS640 | 7021037 |
| R | HDD,3TB,3.5",SAS/7200rpm,PI-Type1,MarsK | HUS723030ALS640 | 7048503 |

Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, S, T, V, W, X, Y, Z

A.3.3 Hitachi 1308EST

Table A-12 Hitachi 1308EST Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Hitachi Model Number</i> | <i>Oracle Part Number</i> |
|--|---|-----------------------------|-----------------------------|
| L | DRV,HTH,PHT,80GB,SATA,7200RPM | HDS728080PLA380 | 390-0245-xx |
| M | DRV,HTH,PHT,80GB,SATA,7200RPM DRV,HTH,PHT,80GB,ELBL,SATA | HDS728080PLA380 | 390-0302-xx, 390-0303-xx |
| Q | DRV,HTH,PF2,160GB,SATA,7200RPM | HDS721616PLA380 | 390-0351-xx |

Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, J, K, N, P, R, S, T, V, W, X, Y, Z

A.3.4 Hitachi 0001308

Table A-13 Hitachi 0001308 Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Hitachi Model Number</i> | <i>Oracle Part Number</i> |
|--|---|-----------------------------|-----------------------------|
| S | DRV,HTH,36GB,10K,1"SCSI4 | DK32EJ- 36NC | 390-0111-xx |
| S | DRV,HTH,36GB,10K,1" FCAL | DK32EJ- 36FC | 390-0146-xx |
| W | DRV,HTH,73GB,10K,1"SCSI4 | DK32EJ- 72NC | 390-0108-xx |
| W | DRV,HTH,73GB,10K,1" FCAL T3 DRV,HTH,73GB,10K,1" FCAL | DK32EJ- 72FC | 390-0117-xx, 390-0123-xx |
| Y | DRV,HTH,146GB,10K,1",SCSI4 | DK32EJ- 14NC | 390-0155-xx |
| Y | DRV,HTH,146GB,10K,1" FCAL | DK32EJ- 14FC | 390-0120-xx |

Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, T, V, X, Z

A.3.7 Hitachi 1308UTC

Table A-14 Hitachi 1308UTC Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Hitachi Model Number</i> | <i>Oracle Part Number</i> |
|--|--|-----------------------------|-----------------------------|
| B | DRV,HTH,V5,250GB,SATA,7200RPM | HDT725025VLA380 | 390-0352-xx |
| D | DRV,HTH,250GB,SATA,7200RPM | HDS722525VLS80 | 390-0164-xx |
| G | DRV,160GB,HIT,SATA,ROHS,7200 | HDT722516DLA380 | 390-0317-xx |
| N | DRV,HTH,VAN4,250GB,SATA,7200 DRV,HTH,VAN4,250GB,ELBL,7200 | HDT722525DLA380 | 390-0246-xx, 390-0295-xx |

Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, C, E, F, H, J, K, L, M, P, Q, R, S, T, V, W, X, Y

A.3.8 Hitachi 1308GSP

Table A-15 Hitachi 1308GSP Model Identifier Codes

| <i>Oracle Serial Number Model Identifier</i> | <i>Description</i> | <i>Hitachi Model Number</i> | <i>Oracle Part Number</i> |
|--|-----------------------------|-----------------------------|---------------------------|
| A | DRV,HIT,JUP-U,1TB,SATA,7200 | H7210CA30 | 390-0479-xx |

A.4 Western Digital 465064M

Table A-16 Western Digital 465064M Model Identifier Codes

| Oracle Serial Number Model Identifier | Description | Western Digital Model Number | Oracle Part Number |
|---|--------------------------------------|---|---------------------------|
| A | Drive, 500GB, SATA, 2.5", 10Krpm, WD | WD500BLHXSUN500G | 7042764 |
| Unassigned Codes: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, T, U, V, W, X, Y, Z | | | |

Reference Information

Reference Documents and Records

| Document Title | Number | ESO Controlled⁶ | |
|--|---------------|-----------------------------------|-----------|
| | | Yes | No |
| <i>WWOPS Quality: Setting the Serial-Control Attribution in Agile PLM and GSI</i> | 923-3666-xx | x | |
| <i>Corp: Part Number, Revision, and Interchangeability Conventions for Orderable and Manufacturing Items</i> | 990-1241-xx | x | |
| <i>Corporate FRU ID: EEPROM Programming Overview and Procedures for FRU Vendors</i> | 950-3757-xx | | x |
| JEDEC Standard Manufacturer's Identification Code order form: http://www.jedec.org/standards-documents/id-codes-order-form | N/A | | x |
| <i>JEDEC JEP 106</i> | N/A | | x |
| <i>Standard EIA 476</i> | N/A | | x |
| <i>Standard ISO 8601</i> | N/A | | x |

Document History and Approvals

| Dash | Rev | Date | Description of Change | Originator |
|-------------|------------|--------------|--|-------------------|
| 01 | A | 30 Jan 2004 | Initial release. | N/A |
| 02 | A | 08 Mar 2004 | Updated <i>Dynamic Random Access Memory (DRAM) Modules</i> section. | N/A |
| 03 | A | 30 Apr 2004 | Updated with information for host bus adapters, GBICs, and Starcat supplier vendor codes. | N/A |
| 04 | A | 20 Aug 2004 | Updated document. | N/A |
| 05 | A | 08 Nov 2004 | Updated hard drive tables in <i>Section 9</i> , added sections on removable media and Sun tape drives. | N/A |
| 06 | A | 15 Feb 2005 | Updated information for models H, J, K in <i>Table 32</i> . | N/A |
| 07 | A | 15 Jun 2005 | Added <i>Figure 17</i> to show HDD part number change process. Updated <i>Tables 7, 30, 31, 32</i> , and <i>33</i> . | N/A |
| 08 | A | 12 Sept 2005 | Updated <i>Tables 31</i> and <i>33</i> . | N/A |
| 09 | A | 11 Nov 2005 | Updated <i>Tables 25, 31</i> , and <i>33</i> . | N/A |
| 10 | A | 06 Mar 2006 | Updated <i>Title</i> , <i>Overview</i> , <i>Introduction</i> , <i>Process Overview</i> , <i>Format Overview</i> , and all headings. | N/A |
| 11 | A | 02 Jun 2006 | Created new sections and sub-sections in <i>Section 9</i> for all hard drive model number matrixes. | N/A |
| 12 | A | 02 Nov 2006 | Updated <i>Tables 4-5, 10-2, 10-4, 10-5, 10-6, 10-7, 10-8, 10-9, 10-10, 10-11, 10-12, 10-13</i> , and <i>10-14</i> . Corrected all cross-references. Added DIMM section. | N/A |
| 13 | A | 28 Feb 2007 | Updated <i>Tables 4-5, 10-2, 10-7, 10-8, 10-9</i> , and <i>10-13</i> . | N/A |

⁶ All references to documents controlled by Engineering Services were current when this document was released.

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Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

| 14 | A | 27 Jun 2007 | Updated <i>Tables 10-5, 10-8, and 10-9</i> . Added <i>Tables 10-6 and 9-6</i> and <i>Section 9-4</i> . | N/A |
|----------------------|---------------|--|---|-----|
| 15 | A | 17 Sep 2007 | Updated <i>Table 9-6</i> . | N/A |
| 16 | A | 30 Nov 2007 | Added new <i>Notes 3, 5, 6, and 8</i> . | N/A |
| 17 | A | 28 Mar 2008 | Added additional models to Hitachi and Seagate Hard Disk Drive tables. | N/A |
| 18 | A | 11 Sept 2008 | Added updates to Seagate HDD. Added new section on JDSU serial number format. | N/A |
| 19 | A | 19 Jan 2009 | Updated <i>Section 11.2</i> and <i>Table 11-7</i> , and made editorial amendments. | N/A |
| 20 | A | 17 Apr 2009 | Updated <i>Tables 10-6, 10-7, 10-8, 10-9, and 10-16</i> , and added <i>Table 10-4</i> . | N/A |
| 21 | A | 15 Dec 2009 | Modified the <i>Introduction</i> , changed the <i>WWOPS Supply Engineering: Supplier Traceability Requirements</i> , 923-3406-xx reference to <i>WWOPS Quality: Policy and Procedure for Setting Serialization Attribute in Oracle 11i</i> , 923-3666-xx, and inserted <i>Notes 2 and 3</i> into <i>Section 2.1</i> . | N/A |
| 22 | A | 25 Feb 2010 | Updated <i>Table 11.7</i> contents, amended all cross references and images. | N/A |
| 23 | A | 17 Jun 2010 | Updated to the new Oracle template. Added China vendor code in <i>Table 10-2</i> . Added new product and part numbers in <i>Tables 10-7 and 10-16</i> . Created <i>Section 10.1.1.6</i> and <i>Table 10-10</i> . Also updated <i>Tables 10-8 and 10-9</i> . | N/A |
| 24 | A | 14 Jan 2011 | Updated <i>Sections 2 and 11.1.4</i> and changed all occurrences of 'Sun' to 'Oracle' throughout the document. | N/A |
| 25 | A | 16 Mar 2011 | Updated <i>Step 2 of Section 2.1</i> and the content of the sections describing the serial numbers, lot codes, and assembly IDs of mouse devices, displays, keyboards, and power supplies. | N/A |
| 26 | A | 15 Nov 2011 | Updated <i>Tables 10-6, 10-7, 10-8, 10-9, 10-10, 10-11, 10-15, 10-16, 10-17, 10-18, 10-19, and 10-20</i> , removed the Oracle Assembly Part Numbers column from all the tables in <i>Section 10.1</i> , and inserted <i>Table 10-4</i> and <i>Note 7</i> into <i>Section 10.1</i> . | N/A |
| 27 | A | 02 Mar 2012 | Added two more capacity values to <i>Table 11-6</i> . Added new Oracle PNs and/or HDD model numbers to <i>Tables 10-9 and 10-11</i> . Updated <i>Tables 10-18, 10-20, and 11-7</i> . Added new Hitachi, Western Digital, and Toshiba HDD codes to <i>Table 10-2</i> . Added <i>Tables 4-3 and 4-4</i> on Teac RM-ODD Matrices. Added <i>Sections 10.1.3.7, 10.1.4, and 10.1.5</i> . | N/A |
| Agile History | | | | |
| Rev | Date | Description of Change | Originator | |
| 28 | 3 Oct 2012 | Additions and changes to HDD Serial Number Matrix. Moved the EOL products to Appendix A. | N/A | |
| 29 | 29 Apr 2013 | This revision included additions and changes to the Embedded Serial Numbers for HDD Products and Site Locations, flash changes included new coding descriptions, JEDEC ID Codes were updated and changed Supplier Name Hynix to SK Hynix. Added Intel Talorsville models to Table 11-7. Added HGST codes to Table 10-2. Updated Hitachi codes in Section 10.1.2.3. Added Infineon to Table 11-6. | N/A | |
| 30 | 27 Sep 2013 | Added Viking to Table 11-6 and added second part number to HGST Cobra EP 1.2TB SAS | N/A | |
| 31 | 04 April 2014 | Corrected/Added Part Numbers and changed descriptions to section 10 Hard Disk Drives. Also moved remaining Seagate products to EOL section (Appendix A). Updated name from Hitachi to HGST on current generation drives. | N/A | |

Embedded Logic in Serial Numbers, Lot Codes, and Assembly Identifications (IDs)

| | | | |
|----|-------------|---|-----|
| 32 | 20 May 2014 | Updated Table 11-7 NAND Flash Product Codes for NPI Intel and HGST drives. Updated Table 10-8 to remove 'J' as unassigned code for HDD as now used on SSD's. Updated Tables 2-1 through 2-4 to allow serial numbers, assembly IDs and Mfg TNs to contain a dash (or +) as a separating character. even if they include a vendor code from GSI or are used to identify parts having non-significant (7xxxxxx) part numbers. Modified the note below Table 2-1, which advises that Tekelec and Acme are producing serial numbers which do not meet this spec. Added Cobra F information to the HGST. Delete letter F, G, H, I, J, K and L from the unassigned codes in Table 10-8 (HGST 464151S or 464151T Model Identifier Codes). Updated Table 11-7 rows 5 and 6 Column C and added new line, HGST 1.6TB 2.5" SunsetCove Plus HUSMR1616ASS200 / 0B32206 7094629 J9. Removed reference to Livelink. Added 390-0172-xx to Table A-6. | N/A |
| 33 | 5 Aug 2014 | Added ATP Electronics to Table 11-6. Removed Cobra F 1.8T SAS from Table 10-6 and updated Hitachi 1308SGP and HGST 1308SGP Codes tables. Moved HGST 1308PRB and HGST 1308SGP to EOL Section (in Appendix A). Removed references to 990-1242. | N/A |
| 34 | 31 Mar 2015 | Added Unigen XX Code (U) to Table 11-6 (XX Code Definitions). Added row for new HGST SSD (1.6TB 2.5" SunsetCove Plus FIPS) in Table 11-7 (NAND Flash Product Code Definition (X or XX)). | N/A |
| 35 | 31 Mar 2015 | Correct revision only; no content change. | N/A |
| 36 | 8 July 2015 | Added new HGST part numbers in Table 10-6 (HGST 464151S or 464151T Model Identifier Codes). Updated Appendix A – removed part numbers from HDD EOL that were either duplicates or non-released parts. Added the use of 2D barcode label for Samsung and Hynix and dropped the use of Mfg TN label starting with DDR3, DIMM date code WW1340 (Section 2.4 and new Section 11.1.5). | N/A |
| 37 | 22 Oct 2015 | Added Samsung products to Table 11-7, NAND Flash Product Code Definition (X or XX). Added Model ID "D" to Table 4-4, Teac, Vendor Number 464808C, RM-ODD Matrix and added Model ID "2 & 4" to Section 10.1.1.1 HGST 464151S or 464151T. | N/A |
| 38 | 19 Aug 2016 | Update Table 11-7, NAND Flash Product Code Definition (X or XX). Remove link to EIA weekly date code. Update internal manufacturing note at the end of Table 2-1 to reflect non-standard SN format. | N/A |
| 39 | 17 Mar 2017 | Update information for 2.xTB BearCove SSD for ODA to TBD for the Supplier, Supplier Part Number, Oracle Part Number columns, and Intel parts in Table 11-7. Added SSD, 6.4TB, SFF-2.5", 1725A NVMe1.2 x4 part information to Table 11-7. Added Libra Products to Table 10-6. | N/A |
| 40 | 19 May 2017 | Added SSD, 6.4TB, SFF-2.5", 1725A NVMe1.2 x4 part information to Table 11-7. Added EM site ID to table 10-4, and added a new Hard Drive to Table 10-6. | N/A |
| 41 | 25 May 2017 | Turn off Track Changes function to remove redlines from Revision 40. No content changes made. | N/A |

| | | | |
|-----------------------|-------------|--|-----|
| 42 | 22 Sep 2017 | Updated Table 11-7 (added HGST parts JE, JF, and JG and Samsung parts KF; also corrected 480GB pn). Updated Table 10-6 (Added V, U, Q, and T). | N/A |
| Fusion History | | | |
| 43 | 21 Jan 2019 | Updated Table 11-7 (added HGST parts JH, JJ, JK, JM, JN, JP and Intel parts NK, NL, Samsung KG) Updated Table 11-7 (added HGST parts JE, JF, and JG and Samsung parts KF; also corrected 480GB pn). Updated Table 10-6 (Added V, U, Q, and T). | N/A |
| 44 | 28 Jan 2019 | Change history is missing rev 43 and replace Neil Strachan's name with N/A. | N/A |
| 45 | 17 June 20 | Added these drives to this document: Skybolt 900GB, Micron 240GB M.2, Paris-C 18TB, Intel D7-P5500 6.8TB, Samsung PM1733 6.8TB, Samsung PM1643a 200GB, 800GB, 7.68TB. | N/A |
| 46 | 8 Feb 21 | changes to table 11-7 of spec 923-3392-Rev45-VerA to reflect new Intel and Samsung parts | N/A |
| 47 | 14 May 2022 | Added DDR5 2D Label Requirement in section 11.1.5 and removed GSI reference in Introduction. Update table 11-8 Power Supplier Serial Number Breakdown; removed '9999' and extend SN range. Update table 11-9 Power Supply Vendor or Manufacturer Code Matrix: changed Emerson Network Power (Astec) to Advanced Energy (Astec/Artesyn), updated PowerOne to Bel Power. Also added Flex Power to table 11-9. Updated confidentiality statement from Oracle Internal to Oracle Restricted. | N/A |
| 48 | 12 Jan 2023 | Added WDC London-D 22TB HDD and Seagate Destroked 300G HDD. Added 3 Samsung SSD PN's (pg 54) Version B: added PDU supplier codes to table 11-9. Version C: updated title of 11.3. Version D: Update Table 11-9 Power Supply Vendor or Manufacturer Code Matrix page 55. | N/A |
| 49 | 13 Feb 2025 | Updated L10/L11 SNs to remove unique product identifier from 7 th character and use only 3 defined. | N/A |

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