Standard Microcircuit Cross-Reference (SMCR) Help

Overview

The Standard Microcircuit Cross Reference (SMCR) references microcircuits covered by Standard Microcircuit Drawings, MIL-M-38510 Specifications and Vendor Item Drawings and provides information about approved sources, equivalent military part numbers, preferred part numbers, etc.

Search results include parts matching search criteria and the option to view additional information including package descriptions, end-of-life dates, Radiation Hardness Assurance levels, and corresponding military specifications or drawings.

There are two kinds of SMCR searches:

- ## Part Number/Key Word Search
  Search by standard part number, vendor part number, generic part number, vendor name, vendor CAGE code, National Stock Number, or a keyword/phrase in the description.

- ## EIC / Description Search
  Search by EIC and Description to view a range of parts available; narrow search to specific parts.

Part Number/Key Word Search

To complete a search using a Part Number and/or Key Word:

1. Use the first drop-down list to select a Part Number type:

- **Standard Part Number** - The military part number, as defined by a MIL-M-38510 specification or SMD (e.g., M38510/00104BCA) See Standard Part Number Definitions for more information.
- **Vendor Part Number**
  The vendor's catalog part number (e.g., JD5400BCA)
- **Generic Part Number**
  The vendor's part number without prefix or suffix characters (e.g., 5400)
- **Description**
  A keyword or phrase contained in the description of the part (e.g., NAND GATE)

- **Vendor Name**
  The company that manufactures the part (e.g., Harris)
- **CAGE Code**
  The company's Commercial and Government Entity code (e.g., 01295)
- **NSN**
  The National Stock Number by which the part is listed in the DoD supply system (e.g., 5962-01-399-1589)

2. Use the second drop-down list to select a search type:

- **Contains**
  Returns records where search text is found anywhere within the selected field. This is the broadest (and slowest) way to search.
- **Starts with**
  Returns records where the data value in the selected field starts with the search text, regardless of which characters follow. This is a fast, flexible, way to search because the level of detail is specified by adding or removing characters at the end of the search text.
- **Exactly matches**
  Returns records where the entire data value in the selected field exactly matches the search text. This is the narrowest (and fastest) way to search.

3. If desired, narrow the search by entering additional text in the empty field.

  – The *Starts With* operator automatically inserts a trailing wild card and the *Contains* operator automatically inserts leading and trailing wild cards.
  – Use the buttons on the right side of search bar labeled **5962-** , **M38510/** and **V62/** to insert the corresponding string into the search text (a *JavaScript enabled browser is required*)
  .
4. If desired, check one of the following:

- **Show only QML Parts**
  Check this box to return only QML parts (QPL parts and Class M (MIL-STD-883 compliant) parts are not included in search results).
- **Show only RHA Parts**
  Check this box to return only radiation hardened parts. If this box is checked and a Standard PN starting with "5962-" or "M38510/" or "M38510/" is specified, the dash or slash is replaced with a wild card character so that all RHA variations are returned. The highest RHA level for each vendor is displayed; lower levels may be supplied at the vendor's discretion.

5. Click **Go**.
   The system displays output similar to the following:

Standard PN	Source	Vendor PN	EOL Date	Description
5962-9550301QPA	NATIONAL (1)	LM6142AMJ/883		OP AMP, HIGH-SPEED, LOW POWER, INPUT-OUTPUT

6. Click a Standard PN number for additional information about the part or click the Source name for information about the source.

   For more information about interpreting search results, see this document's Interpreting Part Number/Key Word Search Results.

Interpreting Part Number/Key Word Search Results

The system displays PN details in the following format:

Standard PN	5962-7802004MEA
Description	LINE RECEIVER, QUAD DIFFERENTIAL
NSN	5962-01-340-8440
Source	TI
Cage	01295
Vendor PN	AM26LS33AMJB
Generic PN	26LS33A
Package	Dual-in-line, wide
Pin Count	16
ESD Status	Class 1: 0 to 1,999 V (1000 V actual)
RHA Level	
Quality Level	QML monolithic - regular
EOL Date	
EIC	575-6LS33A
Drawing	78020 [PDF] (109 kb) Revision:V Date: 3/3/2010
Comments	

Show Similar Parts
Show Points of Contact

◄ Previous View
⌐ New Search

1. Click the **Source** name for additional information about the source.

2. Click the **Drawing** number to download the military part or drawing in PDF format

3. Click **Show Similar Parts** to display functionally equivalent parts (based on the generic PN). The system displays all variations of package and lead finish, and may include SMD parts, M38510 parts and VID parts.

4. Click **Show Points of Contact** to display POCs responsible for the part/document.

5. Click **Show Preferred Parts** to display standard parts that are preferred to this part for new design. The system displays all variations of package and lead finish, and may include SMD parts, M38510 parts and VID parts.

A note about NSN search results

For NSN searches, the system displays specialized result sets. The system first looks for an exact match to the NSN.   If an exact match is found, the system queries again to find all lead finish variations with the corresponding PN. Records found with matching lead finish are displayed with links to part details and records without matching lead finish are displayed with blank Source and Vendor PN fields.

The system displays the following output for an NSN search for *5962-01-264-0084,* PN *M38510/30003BCA* and a description of *Hex Inverter:*

Records shown include NSNs for all cataloged lead finish variations.			
Standard PN	NSN	Source	Vendor PN
M38510/30003BCA	5962-01-264-0084	TI	54LS04
M38510/30003BCA	5962-01-264-0084	NATIONAL (2)	JD54LS04BCA
M38510/30003BCA	5962-01-264-0084	MOTOROLA	54LS04/BCAJC
M38510/30003BCB	5962-01-332-6428		
M38510/30003BCB	5962-01-027-6863		
M38510/30003BCX	5962-01-393-9638		

Standard Part Number Definitions

Standard PN's are constructed according to one of the following schemes:

SMD PN's: pre-1985

Drawing Number	Device Type	Package	Lead Finish
77034	01	T	A

SMD PN's: 1985 - 1986

Drawing Number	Device Type	Package	Lead Finish
5962-85155	01	R	A

SMD PN's: 1987 to present

FSC Prefix	RHA Level	Drawing Designation	Device Type	Quality Level	Package	Lead Finish
5962	-	90965	01	M	T	A

MIL-M-38510 part numbers

MIL-M- 38510 Designation	RHA Level	Slash Sheet	Device Type	Quality Level	Package	Lead Finish
M38510	/	001	01	B	C	A

VID part numbers

VID Designation	FSC-Drawing Yr. Separator	Drawing Yr.	Sequential Drawing #	Device Type	Package	Lead Finish
V62	/	03	601	01	X	A

Notes:
- The following part numbers are exceptions to the preceding schemes:
  5962-38128   5962-38707
  5962-38267   5962-78020
  5962-38294   5962-78023
  5962-38480   5962-85064
  5962-38705
- *QML DATABOOK PT* in the standard PN column indicates parts manufactured under QML processes but not covered by SMDs.

For more information about Standard PN numbering schemes, see Integrated Circuits (Microcircuits) Manufacturing, General Specification For FSC 5962 (MIL-PRF-38535).

Example Part Number/Key Word Searches

The following examples provide information about adjusting input criteria for meaningful results.

Example: To find a device in a specific package, without regard to lead finish:

| Standard PN ▼ | Starts with ▼ | 5962-8752501MC | Go |

Example: To find all variations of one device type, without regard to quality level, package, or lead finish:

| Standard PN ▼ | Starts with ▼ | 5962-8752501 | Go |

Example: To find all variations all device types listed on a drawing:

| Standard PN ▼ | Starts with ▼ | 5962-87525 | Go |

Example: To find all variations of all device types listed on a drawing:

| Standard PN ▼ | Starts with ▼ | 5962-8752501%CA | Go |

The system displays the following PNs:
- 5962-8752501CA
- 5962-8752501BCA
- 5962-8752501MCA
- 5962-8752501SCA

Example: To find all SMD parts with RHA level R:

| Standard PN ▼ | Starts with ▼ | M38510%05553BEA | Go |

The system displays the following PNs:
 - M38510/05553BEA
 - M38510H05553BEA
 - M38510R05553BEA

Example: To find a TTL Quad 2-input NAND Gate, generic PN 5400 using various search methods:

| Generic PN ▼ | Exactly matches ▼ | 5400 | Go |

or

| Standard PN ▼ | Starts with ▼ | M38510/00104 | Go |

or

| Vendor PN ▼ | Contains ▼ | 5400 | Go |

EIC / Description Search

To complete a search using EIC/Description:

1. Use the drop-down list to select an EIC/Description.

See the List of Standard Microcircuit Drawings (MIL-HDBK-103) for a list of microcircuits covered by Standard Microcircuit Drawings, approved sources, a cross-reference from vendor part numbers to Standard Microcircuit Drawing part numbers, and vice versa.

2. Click **Go**.
The system displays output similar to the following:

3. Click an EIC to narrow the search to a specific description or generic part type.
The system displays a list of parts corresponding to the selected EIC with output similar to the following: