

[INCH-POUND]
A-A-59789/6B
6 October 2016
SUPERSEDING
A-A-59789/6A
6 October 2011

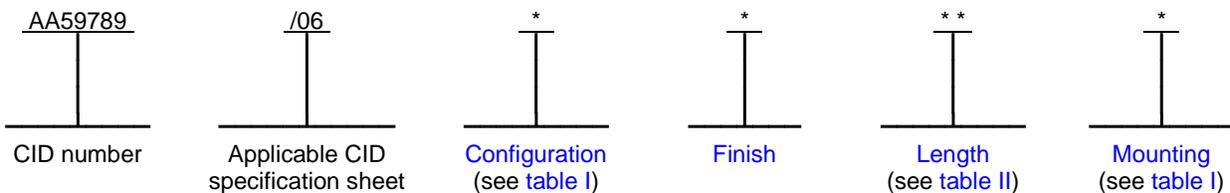
COMMERCIAL ITEM DESCRIPTION SPECIFICATION SHEET

HOLDERS, ELECTRICAL CARD, WEDGE RETAINERS, 5 PIECE, FOR COLD PLATE APPLICATIONS,
LEVER ACTUATED, SHAFT MOUNTING BODY, WITH LEVER EXTRACTION AND VISUAL LOCK INDICATION

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

The complete requirements for procuring electrical card holders described herein shall consist of this document and the latest issue in effect of [A-A-59789](#).

CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see [NOTES](#)).



Example: AA59789/06FS40M is the PIN for a card holder with an actuating lever that locks the card holder into its installed position. The levers also allow for an extraction feature that forces the circuit card assembly to disengage from its installed position. The card holder is pre-set to a clamping force of 145 pounds (645 Newtons). The card holder has a black anodize finish and is 3.8 inch (97 mm) long. The card holder also features two tapped mounting holes for use with metric M2.0 x 0.4 mm fasteners.

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card firmly in place providing high resistance to shock and vibration while providing maximum thermal transfer between the circuit card assembly and the cold plate surfaces.

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified in [figures 1, 2](#), and [table I](#) herein and meet the general requirements specified in CID [A-A-59789](#).

Material. Unless otherwise specified herein, the card holder materials shall be as specified in [A-A-59789](#).

Adjusting screw hex drive socket. The dimension for hex drive socket shall be .094 inch (2.38 mm) across flats.

Cold plate slot width (see [figure 3](#)). The recommend cold plate slot width to accommodate the circuit card assembly with attached card holder is .300 inch (7.62 mm) plus the thickness of the printed board of the circuit card assembly (see [A-A-59789](#)).

Lever actuation (see [figure 2](#)). The card holder shall be equipped with a lever to actuate the card holder to secure the attached circuit card assembly in its installed position. When in the relaxed state, the card holders shall permit the circuit card assembly to be placed into or removed from its installed position with either a zero insertion force or a slight insertion/extraction drag. To secure the circuit card assembly in place, the lever shall be actuated towards the printed board, to become perpendicular with the card holder.

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Visual lock indication (see [figure 4](#)). Visual indication of the card holder locked position is when the lever is perpendicular with the card holder, and parallel with the printed board of the circuit card assembly.

Lever extraction (see [figure 2](#)). The lever used for actuating the card holder can be used to extract the card holder and the attached circuit card assembly from its installed position.

Configuration (see [table I](#), [figures 1](#) and [3](#)). The configuration of a card holders shall be as specified in [table I](#). This card holder is available for mounting in either the left or right facing position and in various states of preset clamping force. Normal applications requires both left and right facing card holders. Right facing card holder is depicted on [figure 1](#). The configuration designator shall be included in the PIN.

TABLE I. Configuration. ^{1/}

Configuration	Clamping force	Mounting options	Facing
E	Adjustment needed ^{2/}	S, M, U	Left
F	Preset to 125 pounds (556 Newtons) ^{3/}	S, M, U	
G	Preset to 145 pounds (645 Newtons) ^{3/}	S, M, U	
Q	Adjustment needed ^{2/}	S, M, U	Right
P	Preset to 125 pounds (556 Newtons) ^{3/}	S, M, U	
T	Preset to 145 pounds (645 Newtons) ^{3/}	S, M, U	

^{1/} Mounting body size is .250 x .260 (6.35 x 6.60 mm).

^{2/} See application data for adjustment procedure.

^{3/} This preset force is contingent on using the recommend cold plate slot width of .300 inch (7.62 mm) plus the thickness of the printed board of the circuit card assembly.

Finish. The finish designator "S" shall be used in the PIN. Finish "S" shall consist of the following:

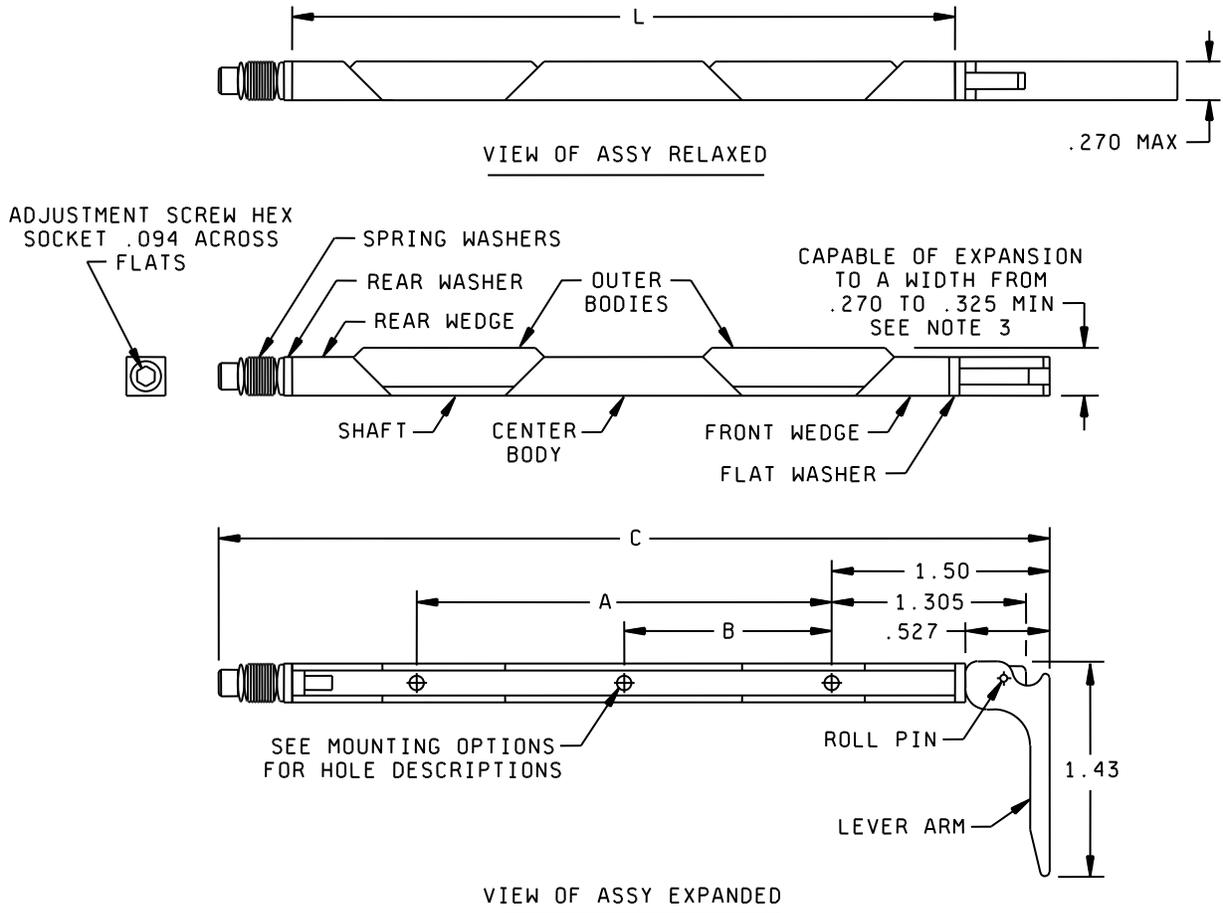
- a. The bodies, wedges, and shaft shall be black anodize in accordance with finish designator "B" as defined in [A-A-59789](#).
- b. The lever arm shall be hard black anodize in accordance with finish designator "H" defined in [A-A-59789](#).

Length, expanded, and relaxed dimensions. The length designator shall be as specified in [A-A-59789](#). The lengths available for this CID specification sheet are listed in [table II](#). The length, expanded, and relaxed dimensions shall be as specified on [figure 1](#). The length designator shall be included in the PIN.

TABLE II. Additional assembly dimensions (see [figure 1](#)). ^{1/}

PIN length designator	Dimension "L" ±.02 (± 0.5)	Dimension "A" ±.005 (± 0.13)	Dimension "B" ±.005 (± 0.13)	Dimension "C" (reference)
30	2.80 (71.1)	.900 (22.86)	.450 (11.43)	4.03 (102.4)
40	3.80 (96.5)	1.900 (48.26)	.950 (24.13)	5.03 (127.8)
50	4.80 (121.9)	2.900 (73.66)	1.450 (36.83)	6.03 (153.2)

^{1/} Dimensions are in inches. Millimeters are given for general information only.

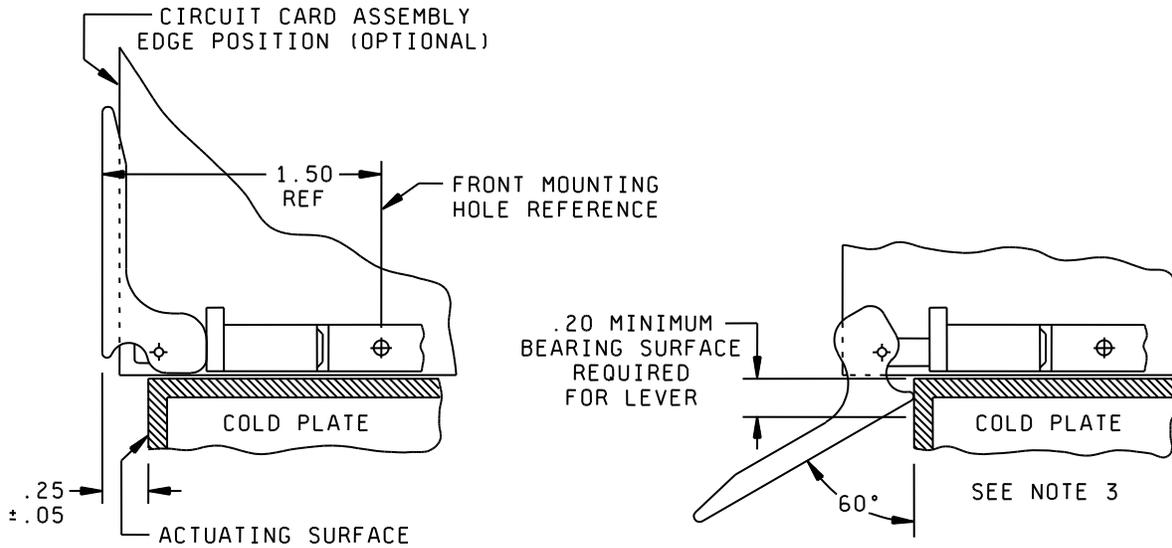


Inches	mm	Inches	mm	Inches	mm	Inches	mm
.094	2.38	.270	6.86	.527	13.39	1.43	36.3
.250	6.35	.325	8.26	1.305	33.15	1.50	38.1

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Unless otherwise specified, tolerances are for ± 0.02 inch (0.5 mm) for two place decimals and ± 0.010 inch (0.25 mm) for three place decimals.
3. Capable of expansion range of .270 inch (6.86 mm) maximum to .325 inch (8.25 mm) minimum. Adjustment is required to achieve the exact dimension within the expansion range.
4. The across flats dimension for hex drive socket shall be .094 inch (2.38 mm).

FIGURE 1. Relaxed and expanded dimensions (left facing shown).



Inches	mm	Inches	mm	Inches	mm	Inches	mm
.05	1.3	.20	5.1	.25	6.4	1.50	38.1

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Unless otherwise specified, tolerances are for ± 0.02 inch (0.5 mm) for two place decimals and ± 0.010 inch (0.25 mm) for three place decimals.
3. Extraction travel of card holder is $.25 \pm 0.05$ inch (6.4 ± 1.3 mm) when lever is rotated to 60 degree angle as shown and $.35$ inch (8.9 mm) when lever is fully rotated.

FIGURE 2. Extraction details.

Mounting. The mounting designators shall be as specified in [A-A-59789](#). The mounting options available for this CID specification sheet are as follows: "S" (tapped 2-56 UNC 2B holes), "M" (tapped metric M2.5 x 0.45 holes), or "U" (tapped metric M2 x 0.4 holes). See [figure 1](#) for mounting hole location and spacing requirements. The mounting designator shall be included in the PIN.

Rivet mount holes. Not available for this specification sheet.

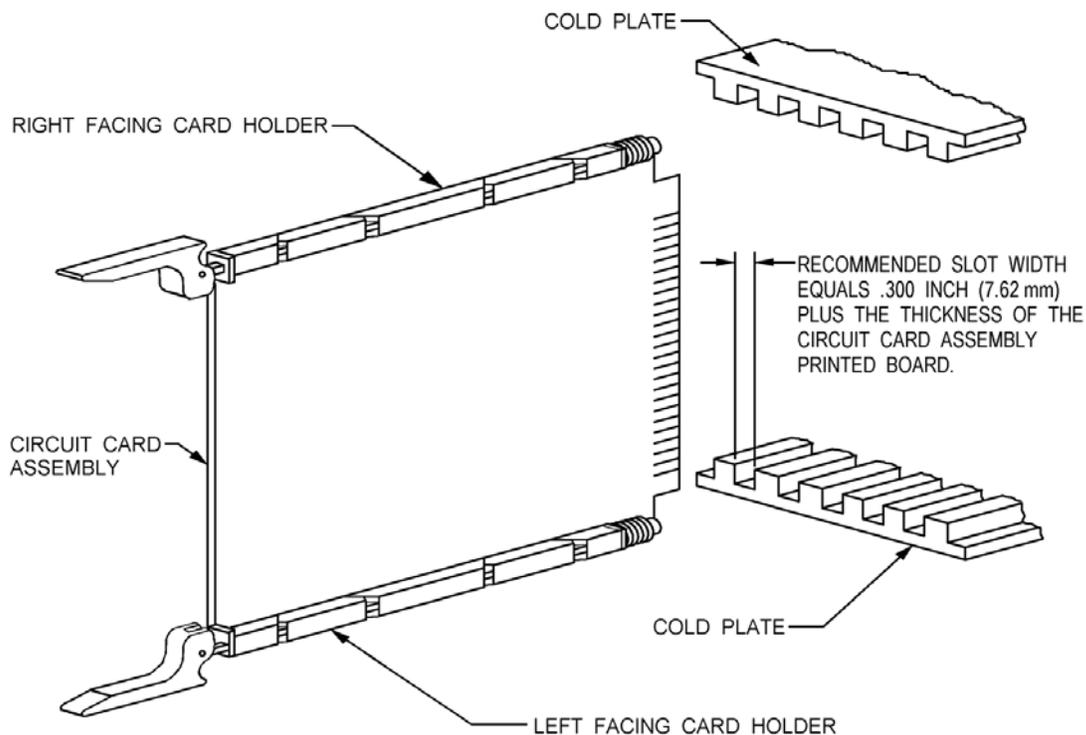


FIGURE 3. Facing and cold plate dimensions.

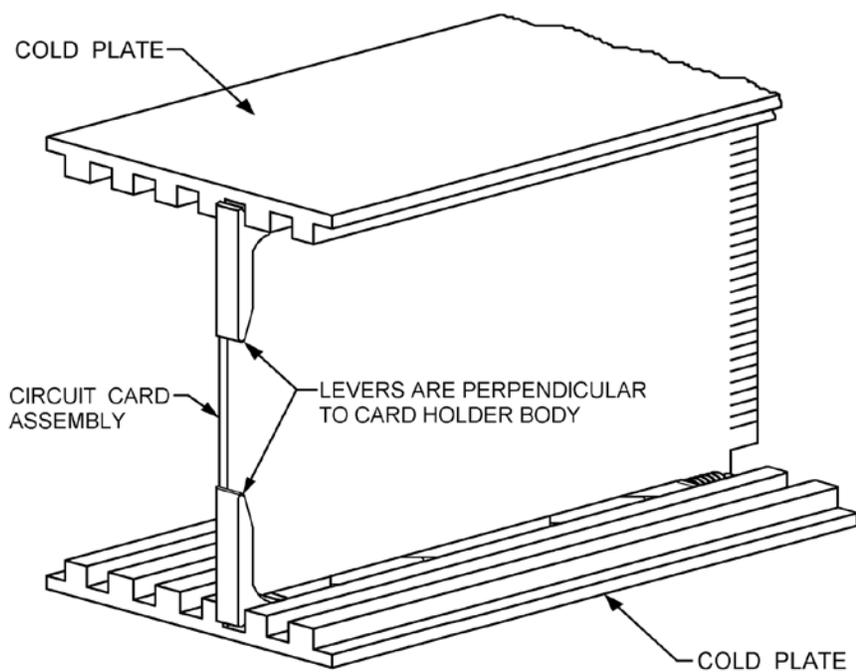


FIGURE 4. Visual indication of card holders in locked position.

Application data for card holders. All card holders configurations, except for "E" and "Q", are supplied assembled and have their clamping force pre-adjusted from the manufacturer. Card holders configurations "E" and "Q" are supplied assembled but are not adjusted for use from the manufacturer.

Clamping force adjustment procedure for configurations "E" and "Q". In order to apply the proper clamping force of approximately 125 pounds (556 Newtons), card holders of configuration "E" and "Q" need to be adjusted in accordance with the following procedure:

- Step 1: Fasten card holder to circuit card assembly.
- Step 2: Insert circuit card assembly with card holders attached into cold plate.
- Step 3: Actuate lever to locked/closed position.
- Step 4: Tighten screw until wedges initially contact wall of cold plate slot, or slight insertion/extraction drag is felt.
- Step 5: Additionally tighten screw two full turns. Do not exceed two full turns.

The card holder is now adjusted and ready for use.

Clamping force data. Direct clamping force is approximately 125 pound force (556 Newtons) for configurations "F" and "P" or when configurations "E" and "Q" are adjusted in accordance with the procedure detailed herein. The direct force of the card holder is affected as follows:

- a. Six pound force (26.7 N) for each .001 inch (0.025 mm) variation of cold plate slot width, or
- b. 38 pound force (169.0 N) for each full turn of locknut.

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of documents.

Commercial Item Description

A-A-59789 – Holder, Electrical Card, Wedge Retainers, 5 Piece, For Cold Plate Applications, General Requirements For.

(Copies of these documents are available online at <http://quicksearch.dla.mil>.)

Ordering data. Ordering data shall be as specified in A-A-59789.

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer CAGE</u>	<u>Manufacturer name and address</u>	<u>Manufacturer contact information</u>
5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231	Telephone: (714) 738-6194 Facsimile: (714) 446-0119 E-mail: sales@accrmfg.com URL: www.accrmfg.com
61081	Pentair Technical Products (formerly Calmark) 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com



Part number supersession data. These CID specification sheet PINs supersede the following manufacturer's part numbers as shown in table III. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE III. Commercial part number supersession data.

PIN designator AA59789/06	Vendor similar designator or type part number <u>1/</u> CAGE 61081	Vendor similar designator or type part number <u>1/</u> CAGE 5GB68
ES30S	LE260-2.80-1	5260LE-2.80-1
ES40S	LE260-3.80-1	5260LE-3.80-1
ES50S	LE260-4.80-1	5260LE-4.80-1
FS50S	LE260-2.80-1P	5260LE-2.80-1P
FS50S	LE260-3.80-1P	5260LE-3.80-1P
FS50S	LE260-4.80-1P	5260LE-4.80-1P
GS30S	LE260-2.80-1P2	5260LE-2.80-1P2
GS40S	LE260-3.80-1P2	5260LE-3.80-1P2
GS50S	LE260-4.80-1P2	5260LE-4.80-1P2
ES30M	LE260-2.80TM2-1	5260LE-2.80-TM2-1
ES40M	LE260-3.80TM2-1	5260LE-3.80-TM2-1
ES50M	LE260-4.80TM2-1	5260LE-4.80-TM2-1
FS50M	LE260-2.80TM2-1P	5260LE-2.80-TM2-1P
FS50M	LE260-3.80TM2-1P	5260LE-3.80-TM2-1P
FS50M	LE260-4.80TM2-1P	5260LE-4.80-TM2-1P
GS30M	LE260-2.80TM2-1P2	5260LE-2.80-TM2-1P2
GS40M	LE260-3.80TM2-1P2	5260LE-3.80-TM2-1P2
GS50M	LE260-4.80TM2-1P2	5260LE-4.80-TM2-1P2

See footnote at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59789/06	Vendor similar designator or type part number <u>1</u> / CAGE 61081	Vendor similar designator or type part number <u>1</u> / CAGE 5BG68
ES30U	LE260-2.80TM2.5-1	5260LE-2.80-TM2.5-1
ES40U	LE260-3.80TM2.5-1	5260LE-3.80-TM2.5-1
ES50U	LE260-4.80TM2.5-1	5260LE-4.80-TM2.5-1
FS50U	LE260-2.80TM2.5-1P	5260LE-2.80-TM2.5-1P
FS50U	LE260-3.80TM2.5-1P	5260LE-3.80-TM2.5-1P
FS50U	LE260-4.80TM2.5-1P	5260LE-4.80-TM2.5-1P
GS30U	LE260-2.80TM2.5-1P2	5260LE-2.80-TM2.5-1P2
GS40U	LE260-3.80TM2.5-1P2	5260LE-3.80-TM2.5-1P2
GS50U	LE260-4.80TM2.5-1P2	5260LE-4.80-TM2.5-1P2
QS30S	LE260-2.80-2	5260LE-2.80-2
QS40S	LE260-3.80-2	5260LE-3.80-2
QS50S	LE260-4.80-2	5260LE-4.80-2
PS30S	LE260-2.80-2P	5260LE-2.80-2P
PS40S	LE260-3.80-2P	5260LE-3.80-2P
PS50S	LE260-4.80-2P	5260LE-4.80-2P
TS30S	LE260-2.80-2P2	5260LE-2.80-2P2
TS40S	LE260-3.80-2P2	5260LE-3.80-2P2
TS50S	LE260-4.80-2P2	5260LE-4.80-2P2
QS30M	LE260-2.80TM2-2	5260LE-2.80-TM2-2
QS40M	LE260-3.80TM2-2	5260LE-3.80-TM2-2
QS50M	LE260-4.80TM2-2	5260LE-4.80-TM2-2
PS30M	LE260-2.80TM2-2P	5260LE-2.80-TM2-2P
PS40M	LE260-3.80TM2-2P	5260LE-3.80-TM2-2P
PS50M	LE260-4.80TM2-2P	5260LE-4.80-TM2-2P
TS30M	LE260-2.80TM2-2P2	5260LE-2.80-TM2-2P2
TS40M	LE260-3.80TM2-2P2	5260LE-3.80-TM2-2P2
TS50M	LE260-4.80TM2-2P2	5260LE-4.80-TM2-2P2
QS30U	LE260-2.80TM2.5-2	5260LE-2.80-TM2.5-2
QS40U	LE260-3.80TM2.5-2	5260LE-3.80-TM2.5-2
QS50U	LE260-4.80TM2.5-2	5260LE-4.80-TM2.5-2

See footnote at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59789/06	Vendor similar designator or type part number <u>1/</u> CAGE 61081	Vendor similar designator or type part number <u>1/</u> CAGE 5GB68
PS30U	LE260-2.80TM2.5-2P	5260LE-2.80-TM2.5-2P
PS40U	LE260-3.80TM2.5-2P	5260LE-3.80-TM2.5-2P
PS50U	LE260-4.80TM2.5-2P	5260LE-4.80-TM2.5-2P
TS30U	LE260-2.80TM2.5-2P2	5260LE-2.80-TM2.5-2P2
TS40U	LE260-3.80TM2.5-2P2	5260LE-3.80-TM2.5-2P2
TS50U	LE260-4.80TM2.5-2P2	5260LE-4.80-TM2.5-2P2

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59789](#).

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

MILITARY INTERESTS:

Custodians:
 Army – CR
 Navy – EC
 Air Force – 85
 DLA – CC

Review Activity:
 Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS
 Preparing Activity:
 DLA – CC
 Project 5998-2016-026

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.