

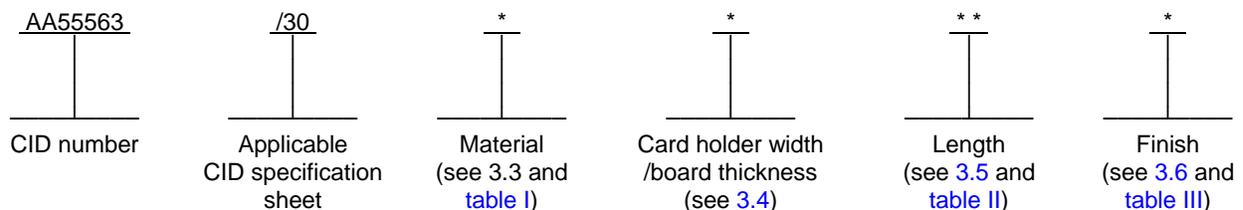
## COMMERCIAL ITEM DESCRIPTION

### HOLDER, ELECTRICAL CARD, METAL CARD GUIDE, GENERAL REQUIREMENTS FOR

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

1. **SCOPE.** This Commercial Item Description (CID) covers the general requirements for a family of metal card guides (hereafter referred to as card holders) intended for use to guide and hold circuit card assemblies into their installed positions. Card holders covered by this CID are for moderate heat transfer and vibration applications. Requirements for specific card holders are covered in the individual CID specification sheets. Card holders covered by this CID are intended for commercial/industrial applications.

2. **CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN).** This CID uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see 7.1).



### 3. SALIENT CHARACTERISTICS.

3.1 **CID specification sheet.** The family of card holders for use on circuit card assemblies shall be in accordance with the requirements specified herein and the applicable CID specification sheet. In the event of conflict between this general CID and the applicable CID specification sheet, the latter shall govern.

3.2 **Interface and physical dimensions.** Card holders shall be as specified herein and in the applicable CID specification sheet. NOTE: Tolerances, unless otherwise specified, tolerances are  $\pm 0.02$  inch (0.5 mm) for two place decimals and  $\pm 0.010$  inch (0.25 mm) for three place decimals.

3.3 **Materials.** The materials used shall be as specified herein and the applicable CID specification sheet. Materials not specified herein or in the CID specification sheet shall be of the same quality used for the intended purpose in best commercial practices (see section 4). Suitable protection against galvanic corrosion shall be provided when dissimilar metals are used.

3.3.1 **Beryllium copper, temper TD01 (formerly 1/4 H).** Beryllium copper of temper TD01 material shall be as defined in [ASTM B194](#), or equivalent. Card holders constructed of beryllium copper of temper TD01 shall include a suffix "A" in the PIN.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to: DLA Land and Maritime, ATTN: VAC, Post Office Box 3990, Columbus, OH 43218-3990, or facsimile (614) 693-1642, or electronic mail [5998.Documents@dla.mil](mailto:5998.Documents@dla.mil). Since contact information can change, you may want to verify the currency of the address information using the ASSIST Online database at <https://assist.dla.mil>.

3.3.2 Beryllium copper temper TH01, heat treated (after forming) (formerly 1/4 HT). Heat treated beryllium copper of temper TH01 material shall be as defined in [ASTM B194](#), or equivalent. Card holders constructed of heat treated beryllium copper shall include a suffix "B" in the PIN.

3.3.3 Steel. Steel shall be as defined in [ASTM A684/A684M](#), or equivalent. Card holders constructed of steel shall include a suffix "C" in the PIN.

3.3.4 Stainless steel SAE 30301 (formerly type 301, condition quarter hard). Stainless steel SAE 30301 shall be as defined in [SAE AMS 5517](#), or equivalent. Card holders constructed of stainless steel SAE 30301 shall include a suffix "D" in the PIN.

3.3.5 Stainless steel 1/2 H (half hard). Stainless steel 1/2 H shall be as defined in [ASTM A240/A240M](#) or equivalent. Card holders constructed of stainless steel 1/2 H shall include a suffix "E" in the PIN.

3.3.6 Stainless steel full H (full hard). Stainless steel full H shall be as defined in [SAE AMS 5519](#), [SAE AMS 5906](#), or equivalent. Card holders constructed of stainless steel full H shall include a suffix "F" in the PIN.

3.3.7 Phosphor bronze. Phosphor bronze shall be as defined in [ASTM B103/B103M](#) or [ASTM B139/B139M](#), or equivalent. Card holders constructed of phosphor bronze shall include a suffix "G" in the PIN.

TABLE I. Card holder material.

| Material designator | Material type                     | Applicable specification   | Paragraph |
|---------------------|-----------------------------------|--|-----------|
| A                   | Beryllium copper of temper TD01   | <a href="#">ASTM B194</a> , temper TD01                            | 3.3.1     |
| B                   | Beryllium copper of temper TH01   | <a href="#">ASTM B194</a> , temper TH01                            | 3.3.2     |
| C                   | Steel (cold rolled)               | <a href="#">ASTM A684/A684M</a>                                    | 3.3.3     |
| D                   | Stainless steel 1/4 H (SAE 30301) | <a href="#">SAE AMS 5517</a>                                       | 3.3.4     |
| E                   | Stainless steel 1/2 H             | <a href="#">ASTM A240/A240M</a>                                    | 3.3.5     |
| F                   | Stainless steel full H            | <a href="#">SAE AMS 5519</a> , <a href="#">SAE AMS 5906</a>        | 3.3.6     |
| G                   | Phosphor bronze                   | <a href="#">ASTM B103/B103M</a> or <a href="#">ASTM B139/B139M</a> | 3.3.7     |

3.4 Card holder width/board thickness or configuration. Card holder width/board thickness or configuration shall be as specified in the applicable CID specification sheet. The card holder width/board thickness or configuration designator(s) from the applicable CID specification sheet shall be included in the PIN.

3.5 Overall length. Unless otherwise specified in the applicable CID specification sheet, overall length shall be as defined in [table II](#). Overall length designator from [table II](#) shall be included in the PIN.

3.6 Finish. Unless otherwise specified in the applicable CID specification sheet, finish shall be as defined in [table III](#). Finish designator from [table III](#) shall be included in the PIN.

3.6.1 Cadmium, yellow chromate (see 7.6 and 7.6.1). Cadmium yellow chromate finish shall be as defined in [SAE AMS-QQ-P-416](#), type II, class 2, or equivalent. Cadmium yellow chromate finish parts shall include a suffix "A" in the PIN.

3.6.2 Cadmium, clear chromate (see 7.6 and 7.6.1). Cadmium clear chromate finish shall be as defined in [SAE AMS-QQ-P-416](#), type II, class 2, or equivalent. Cadmium clear chromate finish parts shall include a suffix "B" in the PIN.

3.6.3 Copper. Copper plate finish shall be as defined in [SAE AMS 2418](#), or equivalent. Copper plate finish parts shall include a suffix "C" in the PIN.

TABLE II. Overall length.

| Length designator | Card holder overall length dimension "L" <sup>1/</sup> |       | Length designator | Card holder overall length dimension "L" <sup>1/</sup> |       |
|-------------------|--|-------|-------------------|--|-------|
|                   | Inches   | (mm)  |                   | Inches   | (mm)  |
| 10                | 1.0  | (25)  | 60                | 6.0  | (152) |
| 15                | 1.5  | (38)  | 65                | 6.5  | (165) |
| 20                | 2.0  | (51)  | 70                | 7.0  | (178) |
| 25                | 2.5  | (64)  | 75                | 7.5  | (191) |
| 30                | 3.0  | (76)  | 80                | 8.0  | (203) |
| 35                | 3.5  | (89)  | 85                | 8.5  | (216) |
| 40                | 4.0  | (102) | 90                | 9.0  | (229) |
| 45                | 4.5  | (114) | 95                | 9.5  | (241) |
| 50                | 5.0  | (127) | A0                | 10.0   | (254) |
| 55                | 5.5  | (140) | A5                | 10.5   | (267) |

<sup>1/</sup> See the applicable CID specification sheet for the actual lengths used.

3.6.4 Ebonal, black. Black ebonal finish shall be as defined in [MIL-F-495](#), or equivalent. Black ebonal finish parts shall include a suffix "D" in the PIN.

3.6.5 Gold plate. Gold plate finish shall be as defined in [ASTM B488](#), or equivalent. Gold plate finish parts shall include a suffix "E" in the PIN.

3.6.6 Nickel, electrodeposited. Electrodeposited nickel finish shall be as defined in [SAE AMS-QQ-N-290](#), class 1, grade G, bright, or equivalent. Electrodeposited nickel finish parts shall include a suffix "F" in the PIN.

3.6.7 Passivate (stainless steel only). Passivate cleaning of stainless steel shall be as defined in [ASTM A967](#), or equivalent. Passivate cleaning of stainless steel parts shall include a suffix "G" in the PIN.

3.6.8 Silver. Silver finish shall be as defined in [ASTM B700](#), type 3, grade A (mat), or equivalent. Silver finish parts shall include a suffix "H" in the PIN.

3.6.9 Zinc, clear chromate. Zinc clear chromate finish shall be as defined in [ASTM B633](#) Fe/Zn 8, or equivalent. Zinc clear chromate finish parts shall include the suffix "R" in the PIN.

3.6.10 Zinc, yellow chromate. Zinc yellow chromate finish shall be as defined in [ASTM B633](#). Zinc yellow chromate plate finish parts shall include the suffix "J" in the PIN.

3.6.11 No finish. No finish option parts shall include the suffix "K" in the PIN.

3.6.12 Nickel, electroless. Electroless nickel finish shall be as defined in [ASTM B733](#), [SAE AMS 2404](#), or equivalent. Electroless nickel finished parts shall include a suffix "N" in the PIN.

3.7 Marking. Card holders supplied to this CID shall be marked with the manufacturer's standard commercial PIN. The part number marked on the unit pack shall be the CID PIN.

3.8 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.9 Workmanship. Card holders shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

TABLE III. Card holder finishes.

| Finish designator | Finish                   | Applicable specification (or equivalent)   | Paragraph |
|-------------------|--------------------------|--|-----------|
| A                 | Cadmium, yellow chromate | SAE AMS-QQ-P-416, type II, class 2         | 3.6.1     |
| B                 | Cadmium, clear chromate  | SAE AMS-QQ-P-416, type II, class 2         | 3.6.2     |
| C                 | Copper                   | SAE AMS 2418                               | 3.6.3     |
| D                 | Ebonal, black            | MIL-F-495                                  | 3.6.4     |
| E                 | Gold                     | ASTM B488                                  | 3.6.5     |
| F                 | Nickel, electrodeposited | SAE AMS-QQ-N-290, class I, grade G, bright | 3.6.6     |
| G                 | Passivated steel         | ASTM A967, SAE AMS 2700                    | 3.6.7     |
| H                 | Silver                   | ASTM B700                                  | 3.6.8     |
| R <u>1/</u>       | Zinc, clear chromate     | ASTM B633, Fe/Zn 8                         | 3.6.9     |
| J                 | Zinc, yellow chromate    | ASTM B633, Fe/Zn 8                         | 3.6.10    |
| K                 | No finish                |  | 3.6.11    |
| N                 | Nickel, electroless      | ASTM B733, SAE AMS 2404                    | 3.6.12    |

1/ PIN designator "I" superseded by designator "R".

#### 4. REGULATORY REQUIREMENTS.

4.1 Recycled/recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with 23.403 of the Federal Acquisition Regulation (FAR).

#### 5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, quality assurances practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.2 Market acceptance. The following market acceptance criteria are necessary to document the quality of the product to be provided under this CID.

- a. The company producing the item must have been producing a product meeting the requirements of this CID for at least 24 months.
- b. The company producing the item must have sold 250 units meeting the requirements of this CID in the commercial marketplace over the past 24 months.

5.3 Inspection requirements. Inspection and acceptance of material shall be in accordance with the requirements cited in the contract or purchase request.

5.4 Certificates of compliance. Each manufacturer desiring to be listed as a suggested source of supply (see applicable CID specification sheet) shall submit a DLA Land and Maritime certificate of compliance to DLA Land and Maritime – VAC. This certificate shall state that the manufacturer's product meets all the requirements of this CID and the applicable CID specification sheet.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 PIN. The PIN should be used for Government purposes to buy commercial products to this CID. See section 2 for of PIN format example.

7.2 Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these card holders to DSCC under the Military Parts Control Advisory Group (MPCAG) evaluation program, CAGE code 58536 should be used.

7.3 Source of documents.

DEPARTMENT OF DEFENSE SPECIFICATION

MIL-F-495 – Finish, Chemical, Black, For Copper Alloys.

(Copies of these documents are available online at <http://quicksearch.dla.mil> or <https://assist.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

FEDERAL REGULATIONS

FAR – Federal Acquisition Regulations (FAR)

(Copies of these documents are available online at <http://www.acquisition.gov/comp/far/index.html> or from the U.S. Government Printing Office, 732 North Capital Street, NW, Washington D.C. 20401.)

ASTM INTERNATIONAL (ASTM)

- ASTM B103/B103M – Standard Specification for Phosphor Bronze Plate, Sheet, Strip And Rolled Bar.
- ASTM B139/B139M – Standard Specification for Phosphor Bronze Rod, Bar, and Shapes.
- ASTM B194 – Standard Specification for Copper-Beryllium Alloy Plate, Sheet, Strip And Rolled Bar.
- ASTM A240/A240M – Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
- ASTM B488 – Standard Specification for Electrodeposited Coating of Gold for Engineering Uses.
- ASTM B633 – Standard Specification for Electrodeposited Coatings of Zinc On Iron and Steel.
- ASTM A684/A684M – Standard Specification for Steel, Strip, High-Carbon, Cold-Rolled.
- ASTM B700 – Standard Specification for Electrodeposited Coatings of Silver for Engineering Use.
- ASTM B733 – Standard Specification for Autocatalytic (Electroless) Nickel-Phosphorus Coatings on Metal.
- ASTM A967 – Standard Specification for Chemical Passivation Treatments for Stainless Steel Parts.

(Copies of these documents are available online at <http://www.astm.org> or from the ASTM International, P.O. Box C700, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

SAE INTERNATIONAL (SAE)

- SAE AMS-QQ-N-290 – Nickel Plating (Electrodeposited).
- SAE AMS-QQ-P-416 – Plating, Cadmium (Electrodeposited).
- SAE AMS 2404 – Electroless Nickel Coatings.
- SAE AMS 2418 – Plating, Copper.
- SAE AMS 2700 – Passivation of Corrosion Resistant Steels.
- SAE AMS 5517 – Steel, Corrosion Resistant, Sheet and Strip 18Cr - 8Ni (SAE 30301) Cold Rolled, 125 ksi (862 MPa) Tensile Strength.
- SAE AMS 5519 – Steel, Corrosion Resistant, Sheet and Strip 18Cr - 8Ni (SAE 30301) Cold Rolled, 185 ksi (1276 MPa) Tensile Strength.
- SAE AMS 5906 – Steel, Corrosion Resistant, Sheet Strip 18Cr - 9.0Ni (SAE 30302) Cold Rolled, Full Hard, 185 ksi (1276 MPa) Tensile Strength.

(Copies of these documents are available online at <http://www.sae.org> or from the SAE World Headquarters, 400 Commonwealth Drive, Warrendale, PA 15096-0001.)

7.4 Ordering data. The contract or order should specify the following:

- a. CID document number, revision, and CID PIN.
- b. Product conformance provisions.
- c. Packaging requirements.

7.5 Government users. To acquire information on obtaining these card holders from the Government inventory system, contact DLA Land and Maritime, ATTN: FMT, Post Office Box 3990, Columbus, OH 43218-3990, by telephone (614) 692-7402.

7.6 Environmentally preferable material. Environmentally preferable materials should be used to the maximum extent possible to meet the requirements of this specification. As of the date of this document, the U.S. Environmental Protection agency (EPA) is focusing efforts on reducing 31 priority chemicals. The list of chemicals and additional information is available on their website <http://www.epa.gov/osw/hazard/wastemin/priority.htm>. Included in the EPA list of 31 priority chemicals are cadmium, lead, and mercury. Use of these materials should be minimized or eliminated unless needed to meet the requirements specified herein (see Section 3).

7.6.1 Guidance on use of alternative parts with less hazardous or non-hazardous materials. This specification provides for a number of alternative plating materials via the PIN. Users should select the PIN with the least hazardous material that meets the form, fit, and function requirements of their application.

7.7 Changes from previous issue. The margins of this CID 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 activities:  
Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS  
Preparing Activity  
DLA – CC

Project 5998-2012-034

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>.