LED Part-Numbering System



Application Brief L-001

Introduction

There are two Avago Technologies LED Part Numbering Systems, namely:

- 1) Existing LED Part Numbering system (shown in Section 1)
- 2) New LED Part Numbering System (shown in Section 2)

The existing Avago Technologies Part Numbering System differs from product family to product family and will continue to be applicable for existing products. The New Avago Technologies LED Part Numbering system incorporates Avago Technologies Brand Identification with more standardized features and will only be applicable for new Avago Technologies LEDs.

This document is intended as a general guide to the part numbering systems employed by each part family. This document is not intended as a selection guide, and does not contain parametric values for specific devices. For further information on specific products, please refer to the respective Product Technical Data Sheet. Some part numbers may not appear to fall in the categories contained herein—this does not indicate obsolescence, but rather the specific part number may not exactly match the generalizations in this document. For those part numbers not exactly matching the descriptions in this document, please download the appropriate Product Technical Data Sheet from Avago Technologies Website (http://www.avagotech.com) or contact the nearest Avago Technologies Representative.

Section 1: Index of Part-Numbering System

There are six main product families, and there may be several Part Number groups in each product family. For convenience, two indexes are provided in this document—one sorted by Product Family (Table 1), and the other sorted by Part Number (Table 2).

The next page contains an index table sorted by Part Number, where an "x" or "X" indicates a wildcard (any) character.

Table 1. Index of Part Numbering System by Product Family

Product Family	Description	Figure
Through-Hole Lamps	3 mm, 5 mm, 4 mm Round, Oval and Rectangular Through-Hole LED Lamps	Figure 1a, Figure 1b
Segmented Displays	Seven Segment LED Displays	Figure 2
Light Bars	Light Bars and Bar Graph Arrays	Figure 3
Surface Mount Lamps • SMT Subminiatures • SMT ChipLEDs • SMT Flash LED	Subminiature Through-hole and Surface Mountable LED Lamps Surface Mountable Chip LED Flash LED	Figure 4a, Figure 4b Figure 5 Figure 5
Dot Matrix Displays	LED Dots in a Matrix (Array)	Figure 6
Smart Alphanumeric Displays	Intelligent Alphanumeric Displays	Figure 7a, Figure 7b

Table 2[1]. Index of Part Numbering System Sorted by Part Number

Part Number	Description / Product Family	Figure
5082-76xx-xxxxx	Segmented Displays	Figure 2
HCMS-2xxx	Smart Alphanumeric Displays	Figure 7a
HCMS-39xx	Smart Alphanumeric Displays	Figure 7a
HDLx-2416	Smart Alphanumeric Displays	Figure 7a
HDLx-1414	Smart Alphanumeric Displays	Figure 7a
HDLx-3416	Smart Alphanumeric Displays	Figure 7a
HDSP-0xxx	Smart Alphanumeric Displays	Figure 7b
HDSP-2xxx	Smart Alphanumeric Displays	Figure 7b
HDSP-5xxx	Dot Matrix Displays	Figure 6
HDSP-7xxx	Dot Matrix Displays	Figure 6
HDSP-Axxx	Segmented Displays	Figure 2
HDSP-Bxxx	Dot Matrix Displays	Figure 6
HDSP-Exxx	Segmented Displays	Figure 2
HDSP-Fxxx	Segmented Displays	Figure 2
HDSP-Gxxx	Segmented Displays	Figure 2
HDSP-Hxxx	Segmented Displays	Figure 2
HDSP-Kxxx	Segmented Displays	Figure 2
HDSP-Mxxx	Dot Matrix Displays	Figure 6
HDSP-Nxxx	Segmented Displays	Figure 2
HDSP-Rxxx	Dot Matrix Displays	Figure 6
HDSP-Sxxx	Dot Matrix Displays	Figure 6
HDSP-Uxxx	Segmented Displays	Figure 2
HEMT-xxxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HPDL-x41x	Smart Segmented Displays	Figure 7b
HLCP-xxxx-xxxxx	Light Bars and Bar Graph Arrays	Figure 3
HLMA-xxxx-xxxxx	SMT Subminiatures	Figure 4a, 4b
HLMP-1xxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HLMP-2xxx-xxxxx	Light Bars and Bar Graph Arrays	Figure 3
HLMP-3xxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HLMP-Cxxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HLMP-Dxxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HLMP-Kxxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HLMP-Nxxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HLMP-Sxxx-xxxxx	Through Hole Lamps	Figure 1a, 1b
HLMP-xxxx-xxxxx	SMT Subminiatures	Figure 4a, 4b
HLMT-xxxx-xxxxx	SMT Subminiatures	Figure 4a, 4b
HSMx-xxxx	SMT ChipLED	Figure 5
	•	-

Note:

^{1.} For codes not listed in this Table, please refer to the respective data sheet or contact your nearest Avago Technologies representative for details.

Hxxx-xxxx-xxxxMechanical Options [1] 00 : Bulk Packing' 01 : Tape & Reel, Crimped Leads 02 : Tape & Reel, Straight Leads Α1 : Right Angle Housing A2 : Right Angle Housing Αx : Tape & Reel, Straight Leads В1 : Right Angle Housing B2 : Right Angle Housing : Tape & Reel, Straight Leads Bx Сх : Ammo Pack, Straight Leads Dх : Ammo Pack, Straight Leads : Ammo Pack, Straight Leads Ex : Special Mechanical Option Fx : Tape & Reel, Diagonal Leads Jx Κx : Tape & Reel, Diagonal Leads : Ammo Pack, Diagonal Leads Lx Mx : Ammo Pack, Diagonal Leads : Ammo Pack, Diagonal Leads Nx Rx : Tape & Reel, Counterclockwise Direction : Tape & Reel, Horizontal Leads Sx Tx : Tape & Reel, Horizontal Leads Ux : Ammo Pack, Horizontal Leads Vx : Ammo Pack, Horizontal Leads Wx : Ammo Pack, Horizontal Leads ΥY : Flexi-bin, Bulk Packing ZZ : Flexi-bin, Ammo Pack Color Bin and VF Options [1, 2] : Full Color Distribution 0 : Color bin 1 & 2 Α В : Color bin 2 & 3 С : Color bin 3 & 4 D : Color bin 4 & 5 Ε : Color bin 5 & 6 F : Color bin 1.2 & 3 : Color bin 2,3 & 4 G Н : Color bin 3,4 & 5 J : Color bin 2 & 4 K : Color bin 2 & 4 L : Color bin 4 & 6 M : Color bin 2.4 & 6 Ν : Color bin 6 & 7 Р : Special Color Bin Range Q : Color bin 7 & 8 R : Color bin 1,2 4 & 6, Vf max2.6V S :Color bin 2 & 4. Vf max 2.6V Т : Full color bin distribution, Vf max 2.6V U : Color bin 4, Vf max 2.6V W : Color bin 2,4 & 6, Vf max 2.6V 1. For codes not listed in the figure above, please refer Υ : Color bin 4 & 6, Vf max 2.6V to the respective data sheet or contact your nearest Ζ : Special Vf Bin Range Avago Technologies representative for details. 2. Bin options refer to shippable bins for a part-num-► Maximum Intensity Bin [1, 2] ber. Color and Intensity Bins are typically restricted : No Maximum Intensity Bin Limitation to 1 bin per bulk pack, ammo-pack, or reel (exceptions may apply). Please refer to respective data

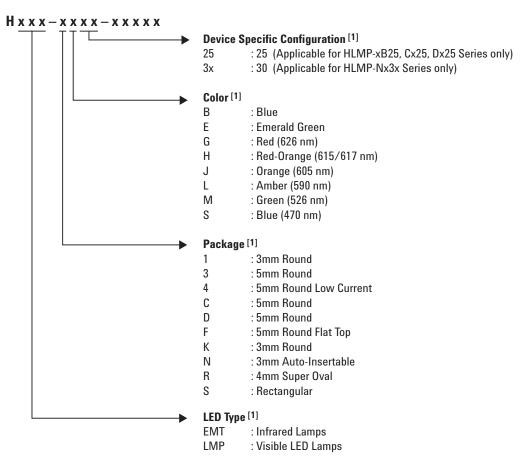
► Minimum Intensity Bin [1, 2]

: No Minimum Intensity Bin Limitation

sheet for specific bin limit information.

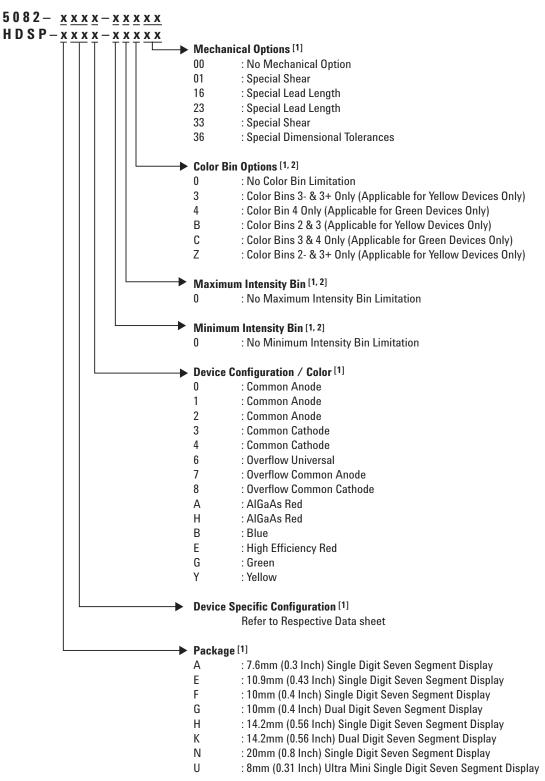
3. Continued on next page.

Figure 1a [3]. Through Hole Lamps [1]



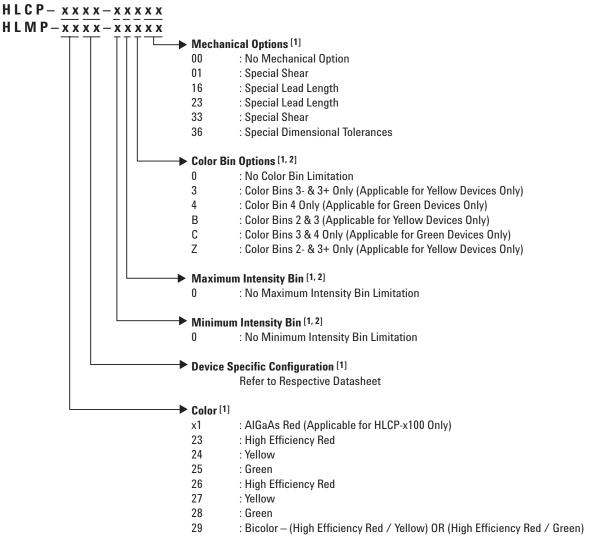
- 1. For codes not listed in the figure above, please refer to the respective data sheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per bulk pack, ammo-pack, or reel (exceptions may apply). Please refer to respective data sheet for specific bin limit information.
- 3. Continued from previous page.

Figure 1b [3]. Through Hole Lamps [1]



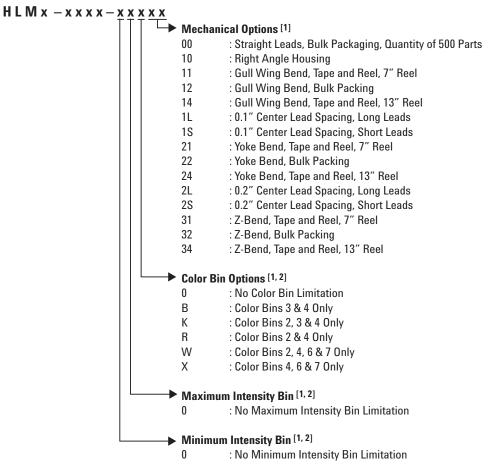
- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per tube (exceptions may apply). Please refer to respective datasheet for specific bin limit information.

Figure 2. Segmented Displays [1]



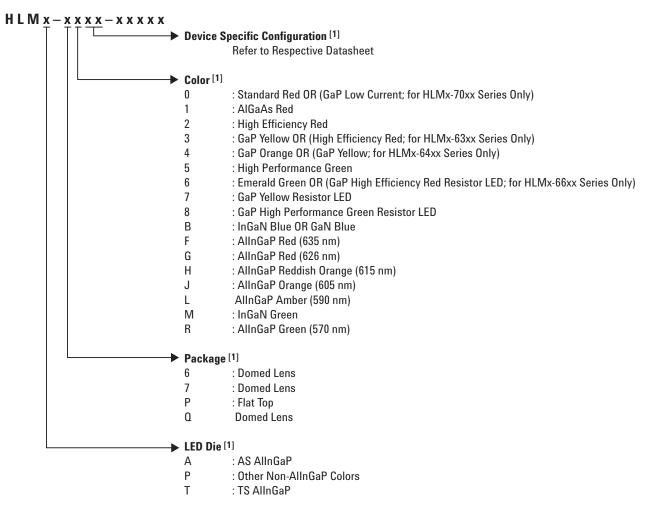
- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per tube (exceptions may apply). Please refer to respective datasheet for specific bin limit information.

Figure 3. Light Bars and Bar Graph Arrays[1]



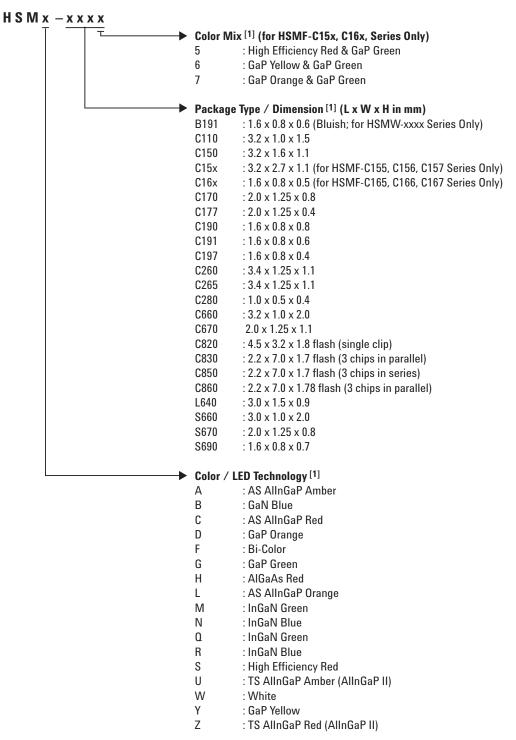
- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per bulk pack, ammo-pack, or reel (exceptions may apply). Please refer to respective datasheet for specific bin limit information.
- 3. Continued on next page.

Figure 4a [3]. Subminiature Lamps [1]



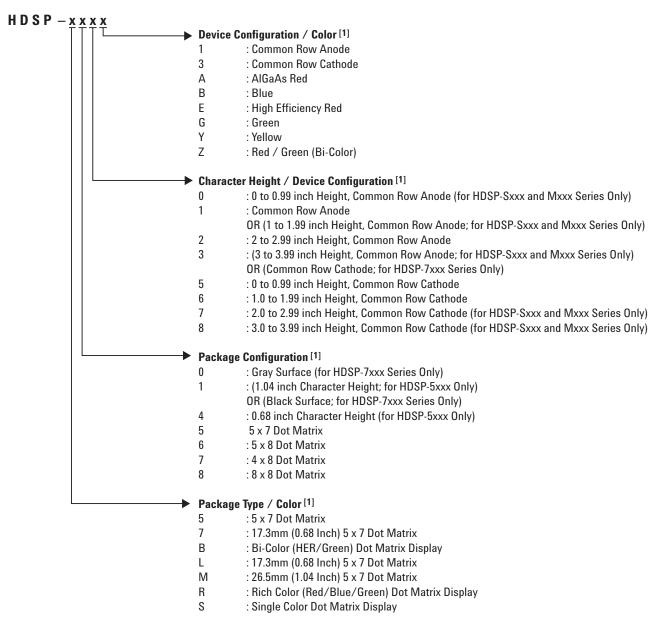
- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per bulk pack, ammo-pack, or reel (exceptions may apply). Please refer to respective datasheet for specific bin limit information.
- 3. Continued from previous page.

Figure 4b [3]. Subminiature Lamps [1]



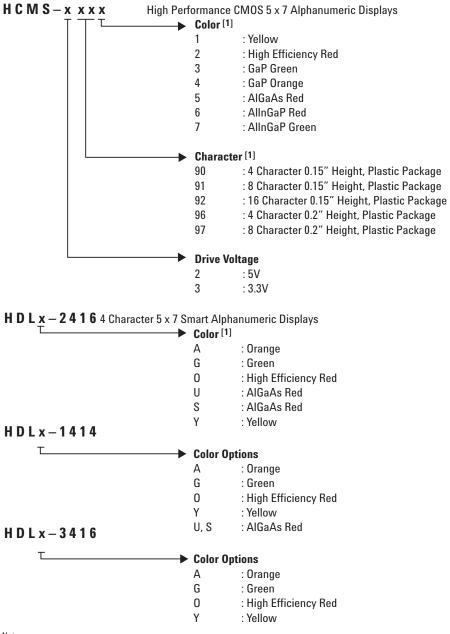
- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per bulk pack, ammo-pack, or reel (exceptions may apply). Please refer to respective datasheet for specific bin limit information.

Figure 5. ChipLED [1]



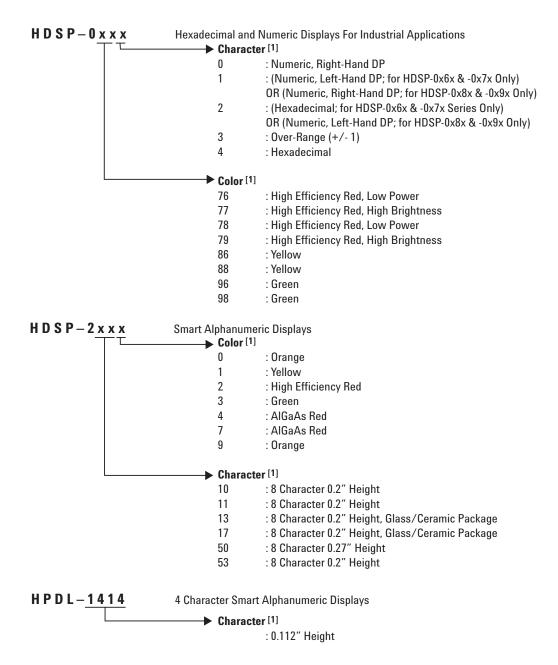
- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per tube or tray (exceptions may apply). Please refer to respective datasheet for specific bin limit information.

Figure 6. Dot Matrix Displays [1]



- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per tube or tray (exceptions may apply). Please refer to respective datasheet for specific bin limit information.
- 3. Continued on next page.

Figure 7a [3]. Smart Alphanumeric Displays [1]



- 1. For codes not listed in the figure above, please refer to the respective datasheet or contact your nearest Avago Technologies representative for details.
- 2. Bin options refer to shippable bins for a part-number. Color and Intensity Bins are typically restricted to 1 bin per tube or tray (exceptions may apply). Please refer to respective datasheet for specific bin limit information.
- 3. Continued from previous page.

Figure 7b [3]. Smart Alphanumeric Displays [1]

Section 2:

Table 3. Index of New Part Numbering System

Part Numbering System	Figure
ALMP-xxxx-xxxxx	Figure 8
ALMC-xxxx-xxxxx	
ASMT-xxxx-xxxxx	Figure 9
ADSP-xxxx-xxxxx	Figure 10
	ALMP-xxxx-xxxxx ALMC-xxxx-xxxxx ASMT-xxxx-xxxxx

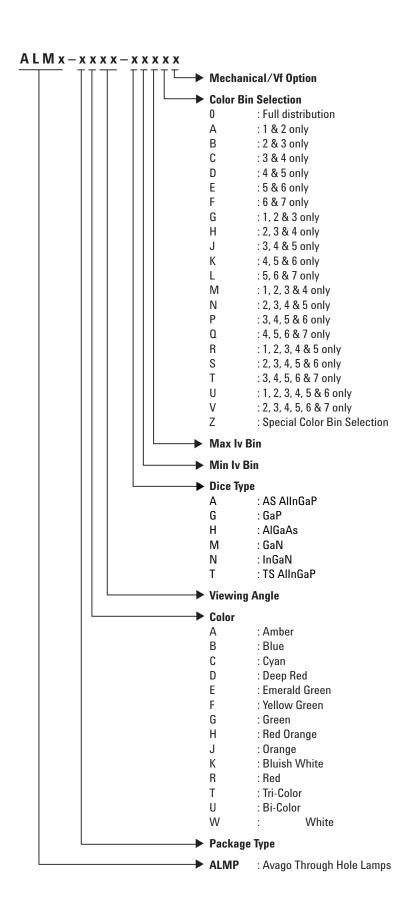


Figure 8. New "A" Series part number structure for Through Hole Lamps

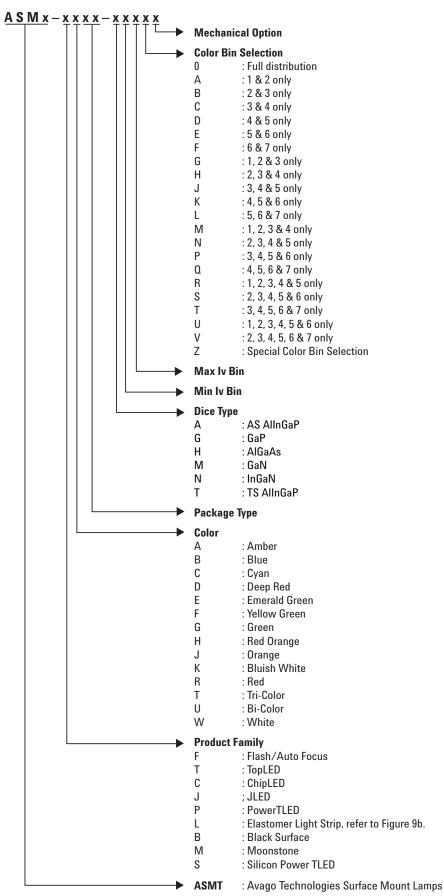


Figure 9a. New "A" Series part number structure for Surface Mount Lamps

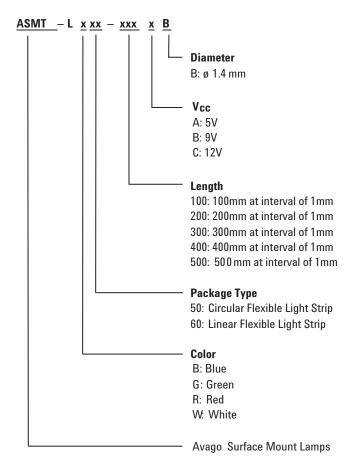


Figure 9b. New "A" Series part number structure for Elastomer Light Strip

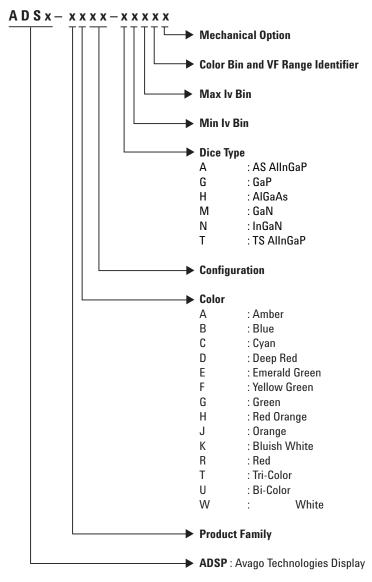


Figure 10. New "A" Series part number structure for Display

For product information and a complete list of distributors, please go to our web site: **www.avagotech.com**

