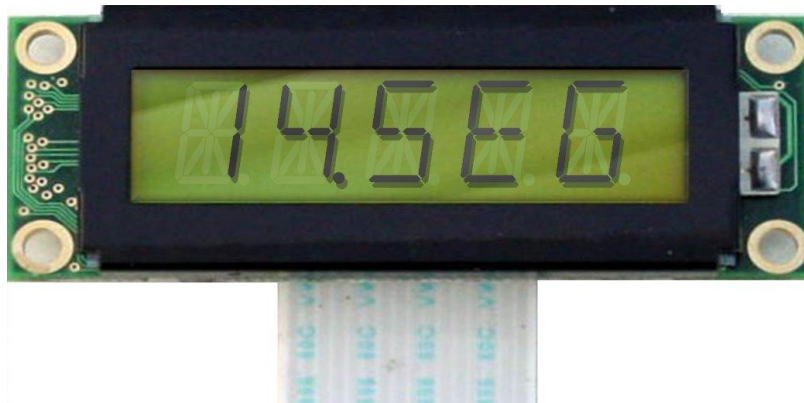




AF-LED14Seg-1 user manual - ver 1.20.docx



1 Why use fonts from Fortune Fonts?

Most LED/LCD fonts cannot be used to represent electronic displays accurately. Your frustration arises from:

1. The shape of the segments and spacing between characters are not an accurate match for the display.
2. The spacing between characters changes when entering a decimal point, comma or colon between them.
3. Custom characters are difficult or impossible to enter: you want to turn on a special pattern of segments the font designer did not include in the font.

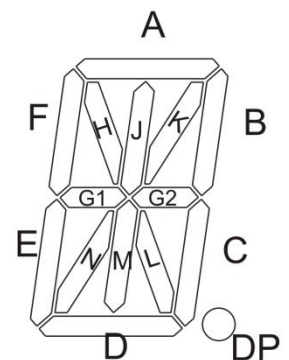


Figure 1: Segment mapping

Fortune Fonts fonts overcome these limitations, allowing you to easily produce datasheets and manuals showing exactly how the display looks for your product manuals and mock-ups.

2 About this font

This document describes how to use the AF-LED14Seg-1 font to prepare documents that accurately represent 14-segment displays. This font is widely used in both LED and LCD displays. Other fonts are available for displays with a different number of segments, or with segments of a different shape. See “Contact Us” on page 8.

Table 1: Example displays which are a match for this font

Manufacturer	Example part number	URL
Avago Technologies	HDSP-A42C	http://www.avagotech.com
LightKey Opto Semiconductors	LD5321	http://www.led-display.cc
Ningbo Flying Electronics	NFD-5421Ax	http://www.nb-flying.com/



3 Using the font

3.1 Installation

To install the font, see “4.1 Installing fonts in Windows” on page 3.

3.2 Entering the decimal point, comma, colon and top-spot

These characters are entered using the full stop, comma, colon and | keys respectively. The spacing does not change when you place these characters between other characters. I.e. they are zero width in terms of moving the cursor along. E.g.

123400	1234	4556
1,234.00	12:34	4556

3.3 Using the characters

There are four available methods for using a character in your documents. All methods require that the font be installed on your machine. Any segment pattern is available, depending on which method you use to enter the characters.

3.3.1 Method 1: Typing the characters by direct entry

This is the easiest method: just use the keyboard to enter characters. See **Table 2** as a guide.

3.3.2 Method 2: Browsing using “Insert Symbol”

In Microsoft Office applications, you can use **Insert | symbol** and browse all the characters available before inserting them. You must select “Unicode (hex)” in the dialogue box to see the full set of available characters. Note that characters 200 to 213 are zero width for use in “Method 4: Building up composite characters from individual segments”.

3.3.3 Method 3: Copying and pasting

Copy and paste from this document, then change the font to AF-LED14Seg-1 for the characters you pasted into your document. See **Table 2**.

3.3.4 Method 4: Building up composite characters from individual segments

If you need any characters not present in the preceding methods, you can build them from individual segments, referring to **Table 3**. Under Windows, individual segments can be entered into Word by holding down ALT and entering the 4 digit code on the numeric keypad. For other operating systems such as Mac OS or X11, see http://en.wikipedia.org/wiki/Unicode_input.

When entering each individual segment from **Table 3**, the cursor will not move because the individual characters in **Table 3** are zero width. This allows you to build up individual segments into the chosen composite character. Press space when finished building up your character to get the cursor to move to the next character.

Example: To build up the character $\sqrt{\quad}$, you need to enter segments A, H and L (see Figure 1: Segment mapping).

1. Change the font to AF-LED14Seg-1.



2. To get segment A, hold down ALT and type 0200 on the numeric keypad. This segment will appear to the right of the cursor, but the cursor will not move.
3. To get segment H, hold down ALT and type 0208 on the numeric keypad.
4. To get segment L, hold down ALT and type 0211 on the numeric keypad.

It can get quite confusing using the left/right cursor keys to move through the composite character that is built up of many individual zero width characters. If you start with the cursor on the left hand side of the composite character, you will have to press the right cursor key once for each zero width character it is made from before it emerges on the right hand side of the character on the screen. To minimize confusion:

1. Only use this method to generate characters that cannot be entered using one of the preceding methods.
2. Copy and paste the character you make instead of building it from scratch each time.
 - a. The easiest way to select the entire composite character is with the mouse.
 - b. Or, to select the composite character using cursor keys:
 - i. Start with the cursor on the left hand side of the composite character.
 - ii. Press and hold shift.
 - iii. You will have press the right cursor key once for each zero width character it is made from before it emerges on the right hand side.

4 General notes on fonts

4.1 Installing fonts in Windows

Open the fonts directory on your computer and copy the font file there. In Windows XP this can be done by: Start | Control Panel | Fonts

If you are trying to install another version of the same font, you will have to delete the current installation of the font from this directory first. To delete fonts, you will have to close any open programs that use fonts, e.g. Microsoft Word. You may need administrator privileges to install fonts.

4.2 Generating pdf documents with special fonts

Pdf documents that display the special font can be distributed with the font built into them. This means that the viewer of the document does not need to have the font installed on their computer.

4.2.1 Generating pdfs with PDF995

Be sure to check the option to include the font inside the document:

1. Print | Properties | advanced | graphic | download as soft font
2. Print | Properties | advanced | document | postscript | true font
download option

PDF995 is free and available is from <http://www.pdf995.com/>

4.2.2 Generating pdfs with Microsoft Word 2007

Use File | Save As | pdf

5 Font tables

To see the characters in the tables below in a document you generate, you will first need to install the font.

**Table 2: Characters to type for direct entry**

Character Code	Keyboard Character	AF-LED14Seg-1
0030	-	--
0031		
0032		
0033	!	!
0034	"	"
0035	#	#
0036	\$	\$
0037	%	%
0038	&	&
0039	'	'
0040	((
0041))
0042	*	*
0043	+	+
0044	,	,
0045	-	--
0046	.	.
0047	/	/
0048	0	0
0049	1	1
0050	2	2
0051	3	3
0052	4	4
0053	5	5
0054	6	6
0055	7	7
0056	8	8
0057	9	9
0058	:	:
0059	;	;
0060	<	<
0061	=	=
0062	>	>
0063	?	?
0064	@	@
0065	A	A
0066	B	B
0067	C	C
0068	D	D
0069	E	E
0070	F	F
0071	G	G
0072	H	H
0073	I	I
0074	J	J
0075	K	K
0076	L	L
0077	M	M
0078	N	N
0079	O	O
0080	P	P
0081	Q	Q
0082	R	R
0083	S	S
0084	T	T
0085	U	U
0086	V	V
0087	W	W
0088	X	X
0089	Y	Y
0090	Z	Z
0091	[[
0092	\	\
0093]]
0094	^	^
0095	_	_
0096	`	`
0097	a	a
0098	b	b
0099	c	c
0100	d	d
0101	e	e
0102	f	f
0103	g	g
0104	h	h
0105	i	i
0106	j	j
0107	k	k
0108	l	l
0109	m	m
0110	n	n
0111	o	o
0112	p	p
0113	q	q
0114	r	r
0115	s	s
0116	t	t
0117	u	u
0118	v	v
0119	w	w
0120	x	x
0121	y	y
0122	z	z

**Table 2: Characters to type for direct entry (continued)**

Character Code	Keyboard Character	AF-LED14Seg-1
0123	{	Σ
0124		.
0125	}	7
0126	~	~
0161	i	/
0162	¢	¢
0163	£	£
0164	¤	¤
0165	¥	¥
0166	!	/
0167	§	5
0168	..	/'
0169	©	©
0170	a	α
0171	«	≡
0172	¬	¬
0173	-	--
0174	®	®
0175	-	-
0176	°	□
0177	±	±
0178	²	7
0179	³	ν'
0180	'	/
0181	μ	μ
0182	¶	¶
0183	.	·
0184	,	√
0185	1	1
0186	o	□
0187	»	--
0188	¼	¼
0189	½	½
0190	¾	¾
0191	¿	¿
0192	À	--
0193	Á	Á
0194	Â	/
0195	Ã	1
0196	Ä	Ä
0197	Å	Å
0198	Æ	Æ


Table 3: Character codes for each segment — zero width allows for construction of composites

Character Code	Segment name from Figure 1	Segment
0200	A	
0201	B	
0202	C	
0203	D	
0204	E	
0205	F	
0206	G 1	
0207	G 2	
0208	H	
0209	J	
0210	K	
0211	L	
0212	M	
0213	N	



6 User manuals using outline font

In user manuals, it is often important to show all segments in outline form in the background.

1. Put an outline image of the display in the background showing all possible segments displayed in a low contrast colour. To generate the outline, enter the characters as normal, and then, in Microsoft Word, select the text, right click on it and choose font | effects | outline. Change the font colour to grey.
2. Copy this text box and paste it over the previous one. Turn off the outline option for this text box. Replace the text with what is supposed to be displayed and change the font colour to black.



Figure 2: Using Word font effects to generate outline font.

If the outline option is not to your liking, you can use a solid low contrast fill as described in "Realistic looking displays" below.

7 Realistic looking displays

You can make a display look more realistic by showing all available segments in a low contrast colour:


3. Put an image of the display in the background.
4. Put a text box on over that showing all possible segments displayed in a low contrast colour. The display in Figure 3 has the following characters in AF-LED14Seg-1 font

5. Copy and paste the text box over the top and change the font colour to the colour of active segments. Making the text boxes a different width makes selecting each one easier.
6. Change the characters to the desired display. Change the font colour just a little for each character to simulate a varying viewing angle.
7. If the display is LCD and not back-lit: Copy and paste this text box over the top of itself and change the font colour to the colour of the shadow that the active segments cast on the background. Move it behind the active segment using **Format | Send backward**. Move this text box a bit so the shadow is in a slightly different place from the active segments.
8. In Word 2007, you simulate a glass layer over the top by using a rectangle with the "chrome" preset gradient fill. On the "Fill effects" gradient tab, set the "from" transparency to 80% and the "to" transparency to 90%.

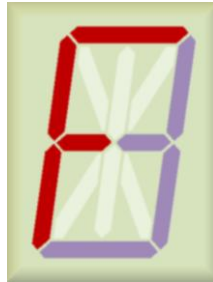


Figure 3: Close up of example of a realistic looking LCD display using this method



8 Contact Us

Contact us to ask questions about this font, or about any other fonts that you need. There is a wide selection of fonts available that accurately represent electronic displays.



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