SoftBaugh

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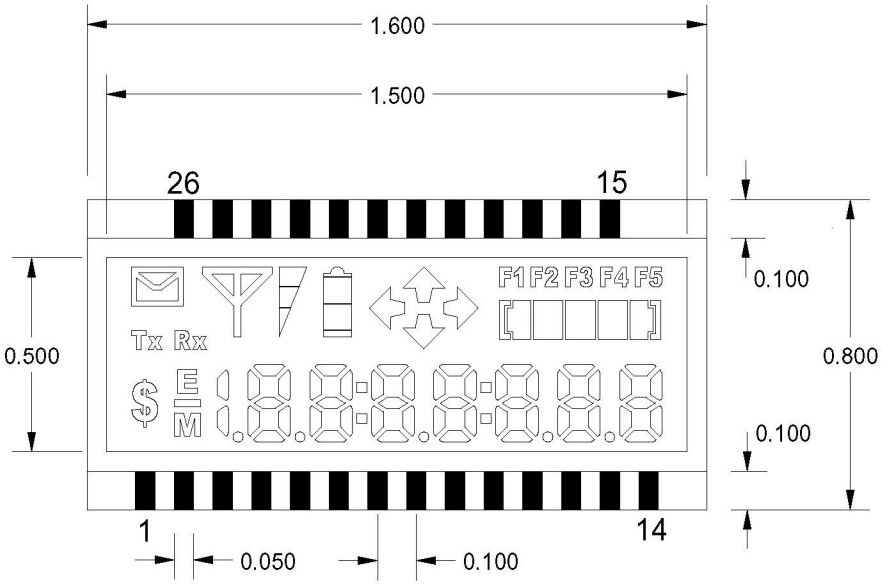
SBLCDA4



Overview

Our advanced SBLCDA4 is compatible with all MSP430s featuring LCD drive. The SBLCDA4 offers the following features:

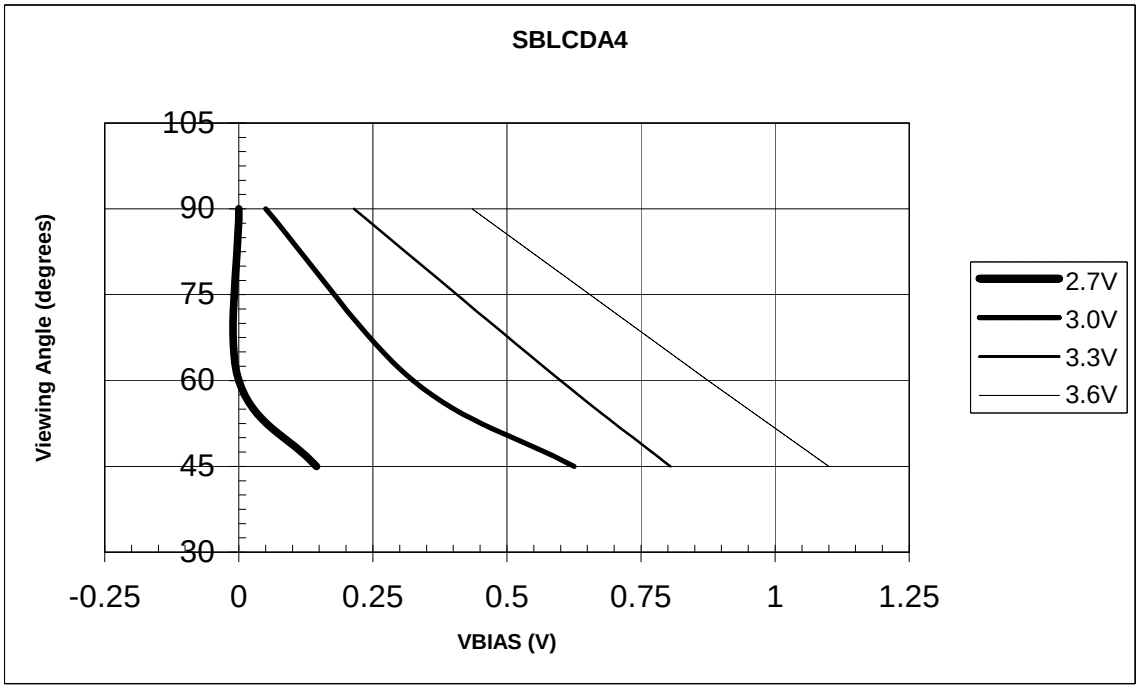
- 2.7v to 3.6v operation directly connected to the MSP430 LCD drive
- 4-mux operation
- 7.1 seven-segment with minus symbology allows versatile text
- Envelope, $, Error, and Memory symbols
- Arrows left, up, right, and down
- Battery with two-segment meter
- Antenna with three-segment meter, plus Tx/Rx symbols
- Colons for HH:MM:SS operation, plus five decimal options
- Progress bar for convenient user feedback
- Five function symbols
- 6 o'clock viewing angle
- Low-cost bias circuit allows adjustment for viewing angle, contrast, and temperature
- Operating temperature –20C/50C

Typical Operation

The following graphs illustrate the SBLCDA4 viewing angles for the range of V_{CC} from 2.7v to 3.6v. The test was performed on an MSP430F413. The voltage measured was on pin 40 (R03) of the MSP430F413. This is the input port of the lowest analog LCD level (V5). The voltage was controlled by a 200k? potentiometer.

Due to the wide viewing angle of the SBLCDA4 your bias voltage may vary from those shown in Figure 1.

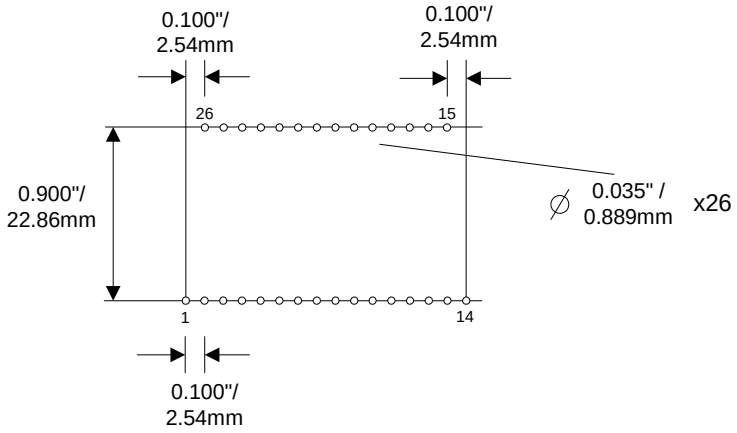
Figure 1—SBLCDA4 Viewing Angle

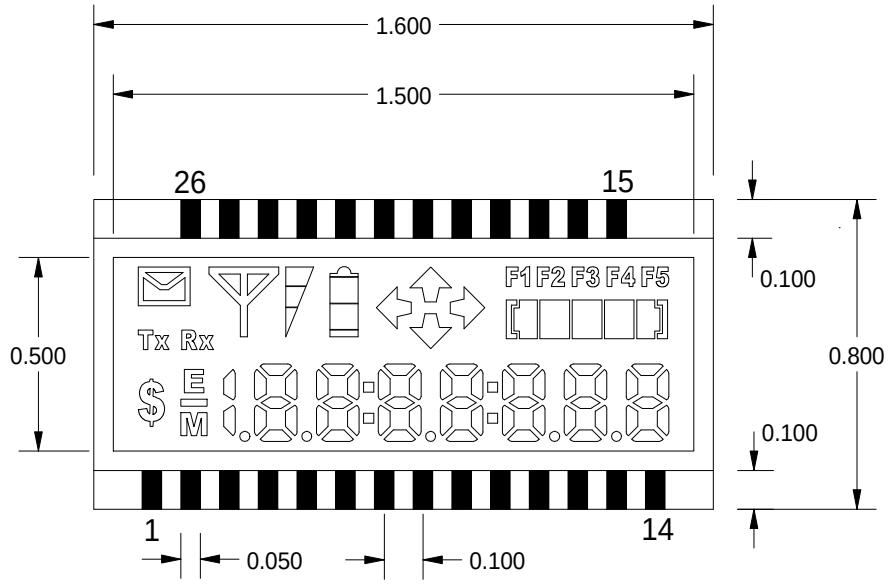


SBLCDA4 Segment Mapping

PIN	COM3	COM2	COM1	COM0		COM3	COM2	COM1	COM0	PIN
1	DP7	7E	7G	7F						
2	7D	7C	7B	7A		MEM	MINUS	ERR	DOL	**26**
3	DP6	6E	6G	6F		8BC	RX	TX	ENV	**25**
4	6D	6C	6B	6A		A0	A1	A2	ANT	**24**
5	COL5	5E	5G	5F		BB	B0	B1	BT	**23**
6	5D	5C	5B	5A		AL	AD	AR	AU	**22**
7	DP4	4E	4G	4F		P2	P1	P0	PL	**21**
8	4D	4C	4B	4A		F4	F3	F2	F1	**20**
9	COL3	3E	3G	3F		P3	P4	PR	F5	**19**
10	3D	3C	3B	3A					COM0	**18**
11	DP2	2E	2G	2F				COM1		**17**
12	2D	2C	2B	2A			COM2			**16**
13	DP1	1E	1G	1F		COM3				**15**
14	1D	1C	1B	1A						

Recommended SBLCDA4 Footprint





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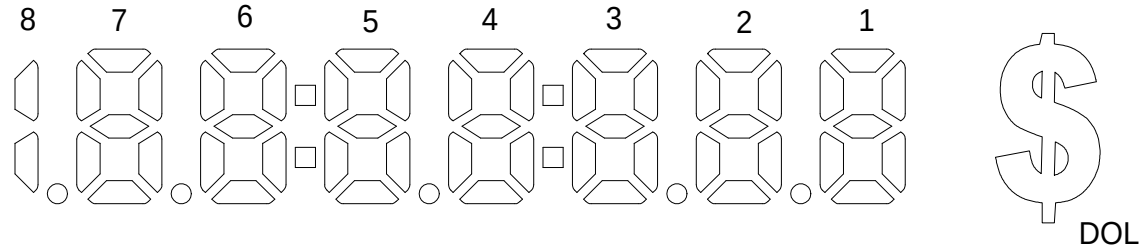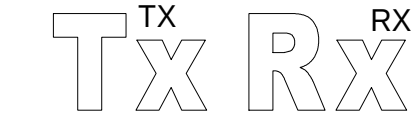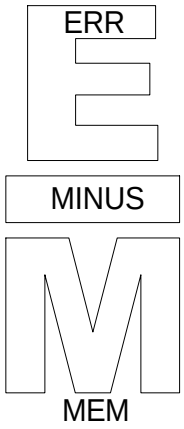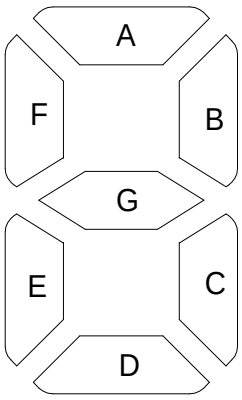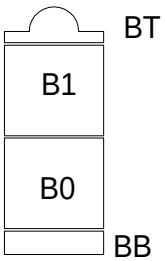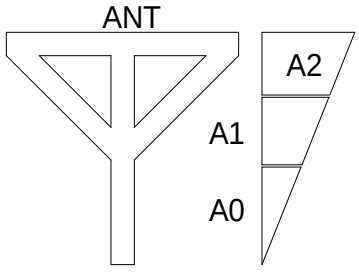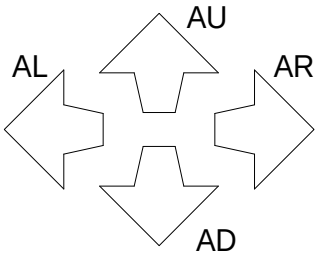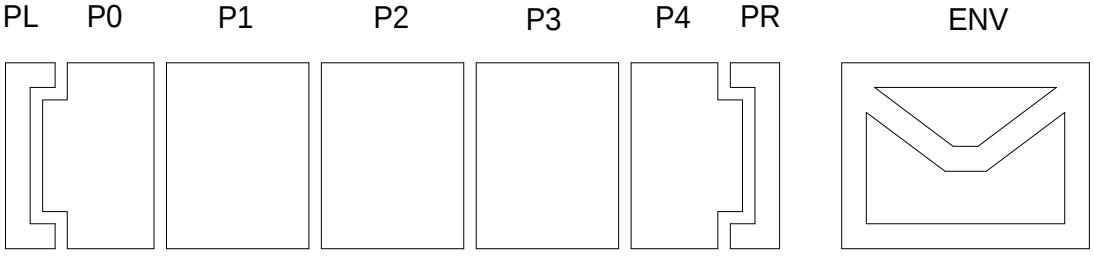
Pins both sides, 0.100" pitch, approx. 20mil wide at PCB, approx 0.250" overall
Glass is 0.8" wide, pins are 0.9" apart at PCB (0.050" knee on each side)