



LCD Assembly: SDAF102NCRN01

Part Number: 20-0303-LCD-7SEG



General Description

The 0303-LCD-7SEG is a PCB assembled with a single 7-Segment LCD and a SHROUDED IDC HEADER.

The SDAF102NCRN01 LCD is a Positive, Reflective 7-segment display, 3-backplane multiplexed LCD.

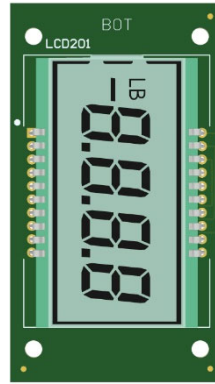
Up to three (3) LCD assemblies can be connected to our 54-0702-B_LCDDRV system. This implements a STM32L431KCU6 Processor to drive the NXP driver IC PCF85176T/1Y which communicates via the two-line bidirectional I2C-bus.

NOTE: The PCF85176T is configured as 4 backplane duplex driver. Firmware independently drives the 32 segments.

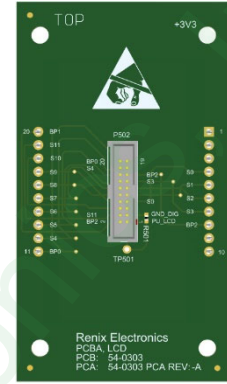
Each LCD has 7 segments per digit, (7x4 = 28), plus the 3x decimal points, plus the Colon so 28+4 = 32 LCD segments.

The system is powered by USB. PCB Voltage is jumper selectable to either +3V3 or +2V8.

The SDAF102NCRN01 LCD operates from +2V8 to +3V3 at 25°C



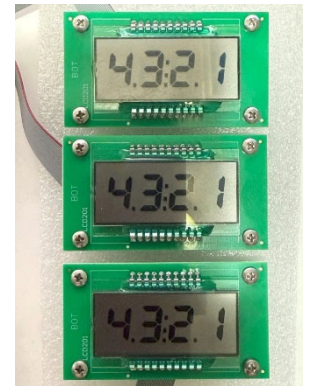
PCBA LCD side



PCBA Connector



54-0702-B_LCDDRV



54-0303-A_LCD

LCD Function Highlights

7-Segment LCD Voltage:	+2V8 to +3V3
Current consumption: (µA) (all seg on)	2.3 µA
Tested with	NXP driver IC: PCF85176T/1Y
Pull-down Resistor used to sense if LCD is connected	100 Ohm. This pulls down a 1K pull-up on LCDDRVR

SHROUDED IDC HEADERS

P502	S0 – S11, BP0, BP1, BP2
PCB Headers Samtec Mates with: IDC Ribbon Cable Asy (Sold separately).	SHF-110-01-L-D-TH FFSD-10-D-08.00-01-N