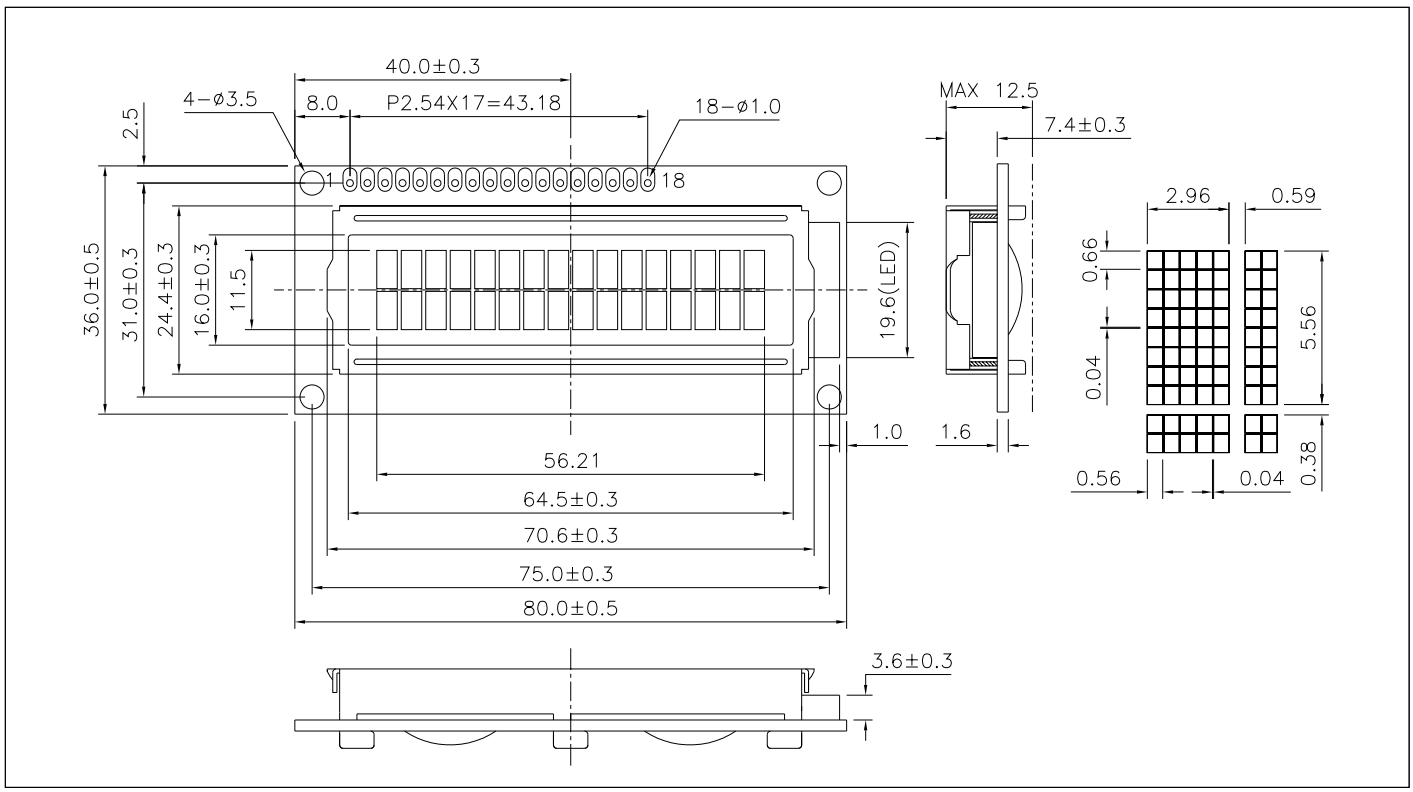
VS162E-DC

16 characters x 2 lines + RGB led backlight, 4/8-bit parallel, 5V



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V_{DD} - V_{SS}	-0.3	7.0	V
Supply Voltage(LCD)	V_{DD} - V_O	-0.3	10.0	V
Input Voltage	V_I	-0.3	V_{DD} + 0.3	V
Operating Temp.	T_{opr}	-20	70	°C
Storage Temp.	T_{stg}	-30	80	°C

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	80.0 x 36.0 x 12.5	mm
Viewing Area (W x H)	64.5 x 16.0	mm
Character Size (W x H)	2.96 x 5.56	mm
Dot Size (W x H)	0.56 x 0.66	mm
Weight	Approx. 33	g

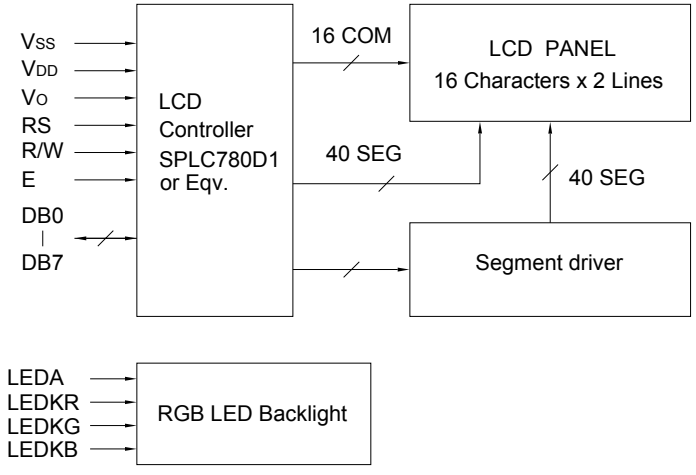
ELECTRICAL CHARACTERISTICS (V_{DD} =5V±0.25V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V_{IH}	--	2.5	--	V_{DD}	V
Input Low Voltage	V_{IL}	--	- 0.3	--	0.6	V
Output High Voltage	V_{OH}	I_{OH} = - 0.1mA	2.4	--	V_{DD}	V
Output Low Voltage	V_{OL}	I_{OL} = 0.1mA	0	--	0.4	V
Supply Current	I_{DD}	V_{DD} = 5.0V	--	1.5	3.0	mA
LCD Driving Voltage	V_{DD} - V_O	Ta=25°C	--	4.5	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V_{SS}	0V	GND
2	V_{DD}	5V	Power supply for logic
3	V_O	--	Operating voltage for LCD
4	RS	H/L	H : Data; L : Instruction code
5	R/W	H/L	H : Read; L : Write
6	E	H,H→L	Enable signal Read data when E is high Write data at falling edge of E
7	DB0	H/L	In 8-bit bus mode, used as low order bidirectional data bus. In 4-bit bus mode, open these pins.
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DB4	H/L	In 8-bit bus mode, used as high order bidirectional data bus. In 4-bit bus mode, used as both high and low order data bus.
12	DB5	H/L	
13	DB6	H/L	
14	DB7	H/L	
15	LEDA	5V	Power supply for LED anode
16	LEDKR	0V	Cathode for red LED
17	LEDKG	0V	Cathode for green LED
18	LEDKB	0V	Cathode for blue LED

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS (Ta=25°C)

Item	Symbol	Red	Green	Blue	Unit
Forward Voltage	V_f	3.3	3.3	3.3	V
Forward Current	I_f	10	15	15	mA
LED Color	RGB color				