

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	$V_{DD} - V_{SS}$	-0.3	4.0	V
Supply Voltage(LCD)	$V_{OUT} - V_{SS}$	-0.3	19.8	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)	90.0 x 29.8 x 9.5	mm
Viewing Area (W x H)	84.0 x 18.4	mm
Dot Pitch (W x H)	0.30 x 0.23	mm
Dot Size (W x H)	0.28 x 0.21	mm
Weight	Approx. 24	g

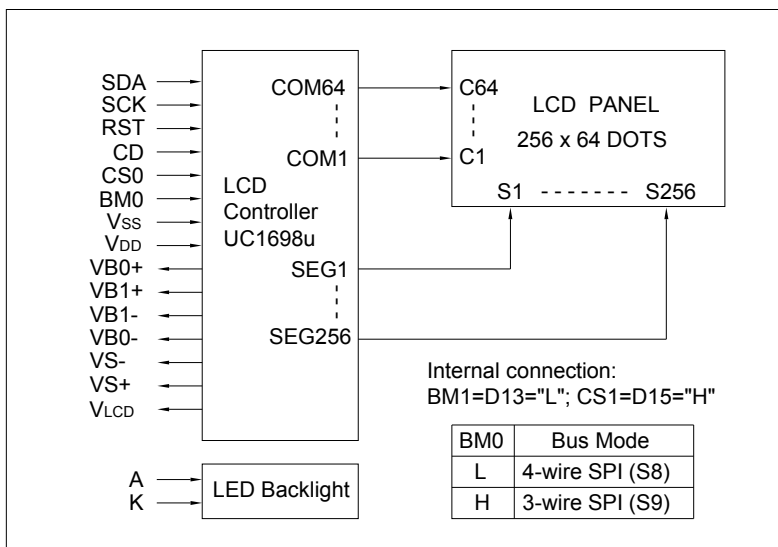
ELECTRICAL CHARACTERISTICS ($V_{DD}=2.7V$ to $3.3V$)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V_{IH}	--	$0.8V_{DD}$	--	V_{DD}	V
Input Low Voltage	V_{IL}	--	0	--	$0.2V_{DD}$	V
Supply Current	I_{DD}	$V_{DD} = 3.3V$	--	1.5	2.0	mA
LCD Driving Voltage	$V_{LCD}-V_{SS}$	$T_a=25^\circ C$	--	13.2	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V_{LCD}	--	LCD driving voltage
2	$VS+$	--	LCD bias voltage
3	$VS-$	--	LCD bias voltage
4	$VB0-$	--	LCD bias voltage
5	$VB1-$	--	LCD bias voltage
6	$VB1+$	--	LCD bias voltage
7	$VB0+$	--	LCD bias voltage
8	V_{DD}	2.7V to 3.3V	Power supply for logic and booster
9	V_{SS}	0V	GND
10	BM0	H/L	Bus mode selection
11	CS0	L	Chip selection signal. Active "L".
12	CD	H/L	H:Display data L:Instruction code
13	V_{SS}	0V	GND
14	RST	L	Reset signal. Active "L".
15	SCK	H/L	Serial colck input
16	V_{DD}	2.7V to 3.3V	Power supply for logic
17	SDA	H/L	Serial data input
18	V_{SS}	0V	GND
19	V_{DD}	2.7V to 3.3V	Power supply for logic
20	NC	--	No connection

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS ($T_a=25^\circ C$)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V_f	2.8	2.9	V
Forward Current	I_f	30	--	mA
LED Color		White		