

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V _{DD} - V _{SS}	-0.3	7.0	V
Supply Voltage(LCD)	V _{SS} - V _O	-0.3	7.0	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)	180.0 x 65.0 x 10.0/15.5	mm
Viewing Area (W x H)	132.0 x 39.0	mm
Dot Pitch (W x H)	0.50 x 0.54	mm
Dot Size (W x H)	0.46 x 0.50	mm
Weight (Reflective/LED)	Approx. 110 / 150	g

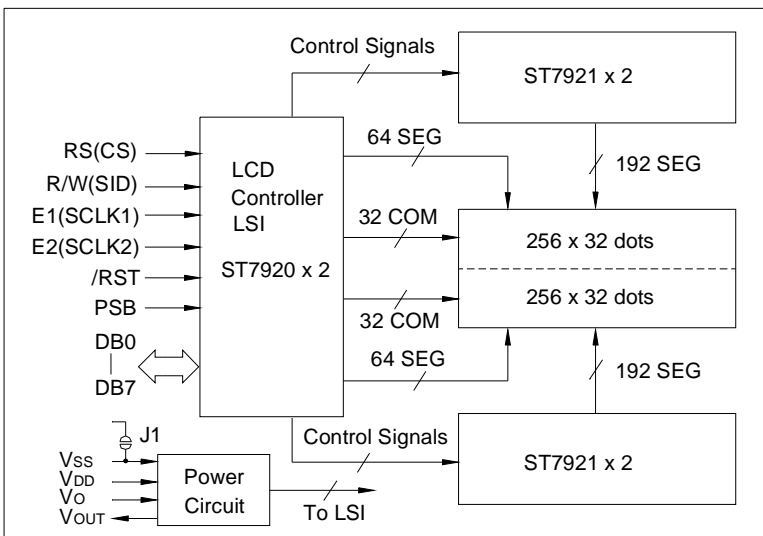
ELECTRICAL CHARACTERISTICS (V_{DD}=5V±0.25V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	--	0.7V _{DD}	--	V _{DD}	V
Input Low Voltage	V _{IL}	--	- 0.3	--	0.6	V
Output High Voltage	V _{OH}	--	0.8V _{DD}	--	V _{DD}	V
Output Low Voltage	V _{OL}	--	0	--	0.4	V
Supply Current	I _{DD}	V _{DD} = 5.0V	--	10.0	15.0	mA
LCD Driving Voltage	V _{SS} - V _O	T _a =25°C	--	6.5	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	FG	--	Frame ground
2	V _{SS}	0V	GND
3	V _{DD}	+5V	Power supply for logic
4	V _O	--	No connection
5	R/W	H/L	H : Read L : Write
6	E1	H,H>L	Enable signal 1
7	E2	H,H>L	Enable signal 2
8	RS	H/L	H : Data L : Instruction code
9	PSB	H/L	H: Parallel mode L: Serial mode
10	/RST	L	Reset signal, active "L"
11	DB0	H/L	Data bus line
12	DB1	H/L	
13	DB2	H/L	
14	DB3	H/L	
15	DB4	H/L	
16	DB5	H/L	
17	DB6	H/L	
18	DB7	H/L	
19	NC	--	No connection
20	V _{OUT}	--	No connection

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS (T_a=25°C)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V _f	4.1	4.3	V
Forward Current	I _f	550	--	mA
Emission Wave Length	λ _p	568	--	nm