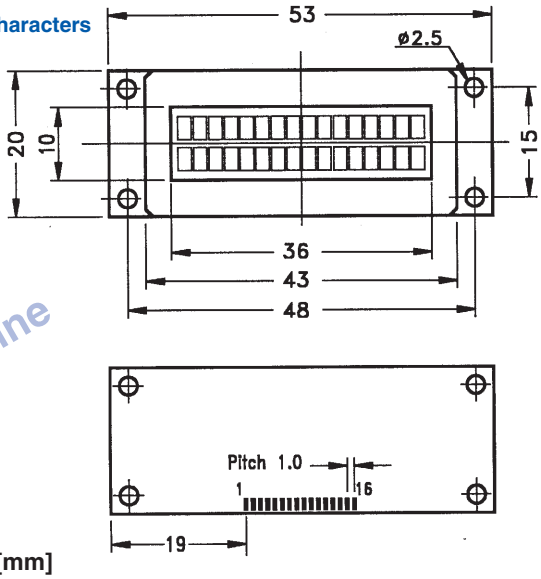
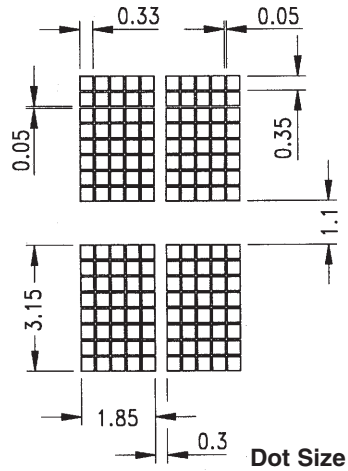
BT 21603

2 Lines x 16 Characters



Dimensions [mm]



Dot Size

Character LCD Modules

MECHANICAL DATA

Parameter	Width x Height x Depth	Unit
Outline Dimensions	53 x 20 x 8 (with LED: 8)*	mm
Effective viewing area	36 x 10	mm
Dot Size	0.33 x 0.35	mm
Dot Pitch	0.38 x 0.40	mm
Character Matrix	5 x 7	dots
Character Size	1.85 x 2.75	mm
Character Pitch	2.15 x 4.25	mm
Weight	Approximate 9.5 (with LED: 10)	g

* Types with integrated Connector: 9 mm Depth

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	V_{DD} (V_{DD}-V_{SS})	0	6.5	V
Supply Voltage (LCD Driver)	V_{EE} (V_{DD}-V_0)	0	13,5	V
Input Voltage	V_I	V_{SS}	V_{DD}	V
Operating Temperature	T_{OP}	See Page 11		°C
Storage Temperature	T_{ST}	See Page 11		°C

ELECTRICAL CHARACTERISTICS

Condition: Ta = 25°C, V_{DD} = 5.0 $\pm$ 0,25 V

Parameter	Symbol	Min.	Typ	Max.	Unit
Input Voltage HIGH	V_{INH}	2.2	---	---	V
Input Voltage LOW	V_{INL}	---	---	0.6	V
Output Voltage HIGH	V_{OH}	2.4	---	---	V
Output Voltage LOW	V_{OL}	---	---	0.4	V
Supply Current (Logic)	I_{DD}	---	1.0	---	mA
Supply Current (LCD Driver)	I_O	---	0.5	---	mA
Duty Ratio	---	---	1 / 16	---	---

LED BACKLIGHT (STANDARD COLOR GREEN)

Parameter	Symbol	Min.	Typ	Max.	Unit
Supply Voltage	V_F	3.8	4.1	4.4	V
Supply Current	I_F[at 25°C]	---	20	35	mA
Lamp Style	---	---	01	---	---
LED Segments	---	---	2	---	pcs

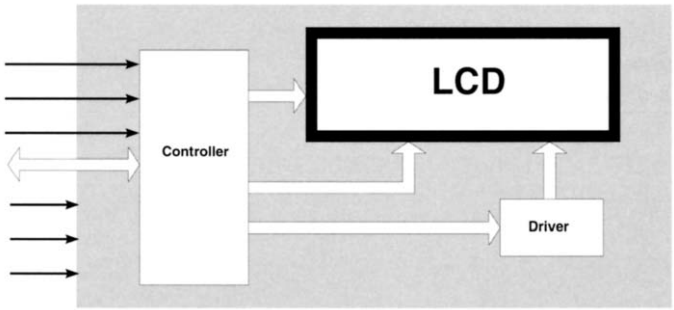
PIN TABLE

Pin	Symbol	Signal Description
1	V_{SS}	GND (0 V)
2	V_{DD}	Power Supply (5 V)
3	V_0	Supply Voltage (LCD Driver)
4	RS	Register Select - LOW = Instruction, High = Data
5	R / $\overline{W}$	Read / Write LOW = MPU to LCM, High = LCM to MPU
6	E	Enable R / $\overline{W}$ = LOW: Data are taking over at falling edge of E R / $\overline{W}$ = HIGH: Data can be read at E = 1
7 to 14	DB_0 to DB_7	Data Bus - Software selectable 4 or 8 Bit Mode
15	$+V_{LED}$	Anode of LED Unit
16	$-V_{LED}$	Cathode of LED Unit

ADDITIONAL INFORMATION

- Display Connector Type (Option):
  DIL 1 x 16 pin Connector - BT 21201 / SMD 1 x 16 pin Connector - BT 21000
  1 x 16 pin Film Cable 70 mm - BT 21300
- Controller Type - SPLC 780 (1) or compatible

BLOCK DIAGRAM




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