

# BO128128C

## Feature

1. COG package
2. Built-in controller ST7528
3. 1/128 duty cycle
4. +2.4V~+3.6V single power supply
5. On chip LCD booster
6. 4 wire Serial Peripheral Interface(SPI)
7. 16 Gray scale
8. Option: LED B/L

## Mechanical Data

Item	Standard Value	Unit
Module Dimension	36.3 x 44.7	mm
Viewing Area	30.5 x 32.0	mm
Dot Size	0.199 x 0.199	mm
Dot Pitch	0.213 x 0.213	mm



## Pin Assignment

Pin	Symbol	Level	Function
1	NC	-	No connection
2	V0	-	LCD driver voltage $V0 \geq V1 \geq V2 \geq V3 \geq V4 \geq VSS$
3	V1	-	
4	V2	-	
5	V3	-	
6	V4	-	
7	VOOUT	-	DC-DC voltage converter
8	VSS	-	Ground
9	VDD	3.0V	Power supply (+3.3V)
10	SID	H/L	Serial Data Input
11	SCLK	H/L	Serial Clock Input
12	A0	H/L	H=Data L=Instruction
13	/RESET	L	Reset : L=Enable H=Disable
14	/CSB	L	L=chip selected H=chip unselected

## Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd = +3.3V	3.3	V
Supply Current	Idd	Vdd = +3.3V	0.5	mA
LCD Driving Voltage	V <sub>LCD</sub>	25°C	13.7	V
LED Forward Voltage	Vf	25°C	3.1	V
LED Forward Current	If	25°C	30	mA

## Dimension

