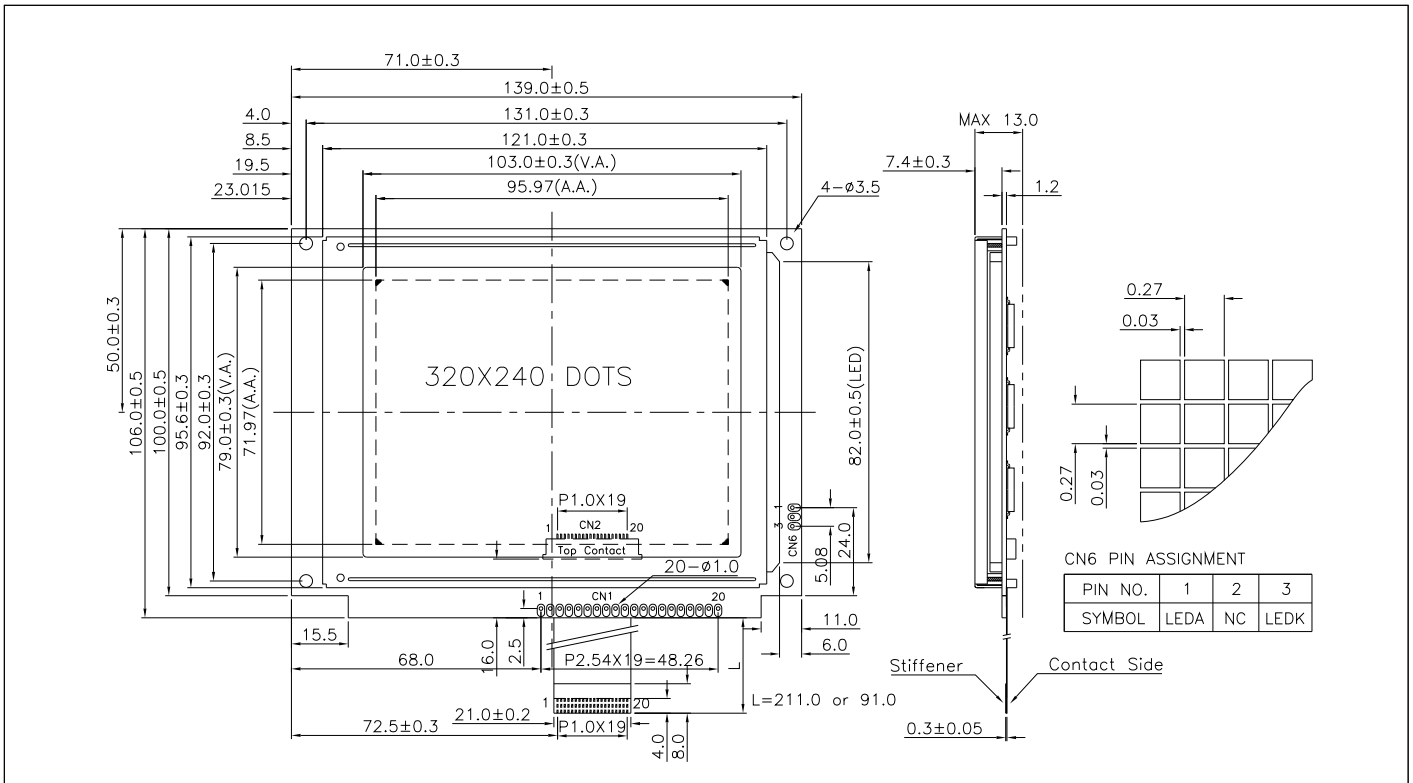


# VS3202403-DW 4.7", 320 x 240 dots + white led backlight, 8-bit parallel, 3.3V to 5.5V



## ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	$V_{DD} - V_{SS}$	-0.3	6.0	V
Supply Voltage(LCD)	$V_{DD} - V_o$	-0.3	30.0	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 )	139.0 x 106.0 x 13.0	mm
Viewing Area ( W x H )	103.0 x 79.0	mm
Dot Pitch ( W x H )	0.30 x 0.30	mm
Dot Size ( W x H )	0.27 x 0.27	mm
Weight	Approx. 175	g

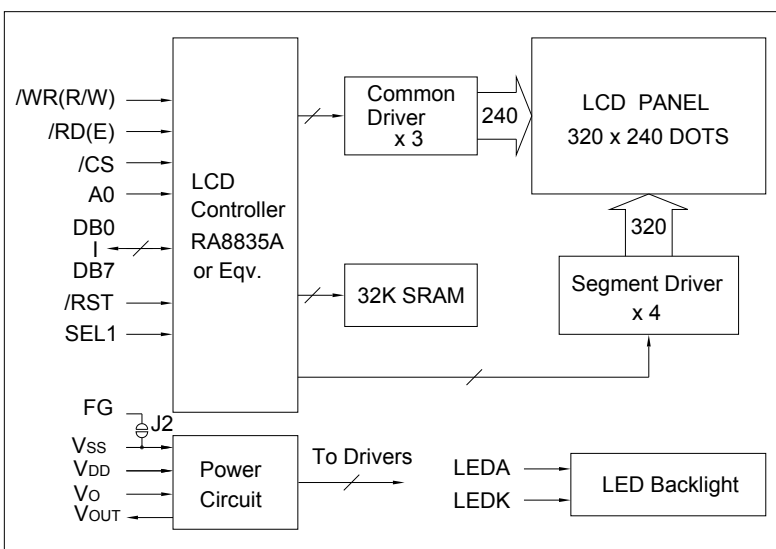
## ELECTRICAL CHARACTERISTICS ( $V_{DD}=3.3V$ to $5.5V$ )

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	$V_{IH}$	--	$0.5V_{DD}$	--	$V_{DD}$	V
Input Low Voltage	$V_{IL}$	--	0	--	$0.2V_{DD}$	V
Supply Current	$I_{DD}$	$V_{DD} = 5.0V$	--	35.0	70.0	mA
		$V_{DD} = 3.3V$	--	45.0	80.0	mA
LCD Driving Voltage	$V_{DD} - V_o$	$T_a=25^{\circ}C$	--	22.7	--	V

## PIN CONNECTIONS (CN1/CN2)

Pin	Symbol	Level	Function
1	$V_{SS}$	0V	GND
2	$V_{DD}$	3.3 to 5.5V	Power supply for logic
3	$V_o$	--	Operating voltage for LCD
4	A0	H/L	Data type selection
5	/WR(R/W)	H/L	/WR for 80 MPU, R/W for 68 MPU
6	/RD(E)	H/L	/RD for 80 MPU, E for 68 MPU
7	DB0	H/L	Data bus
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DB4	H/L	
12	DB5	H/L	
13	DB6	H/L	
14	DB7	H/L	
15	/CS	L	Chip enable signal. Active "L".
16	/RST	L	Reset signal. Active "L".
17	$V_{OUT}$	-22V	Output voltage for LCD driving
18	SEL1	H/L	L: 8080 MPU H: 6800 MPU
19	LEDA	5V	Power supply for LED backlight
20	LEDK	0V	

## BLOCK DIAGRAM



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

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	$V_f$	3.1	3.3	V
Forward Current	$I_f$	105	--	mA
LED Color		White		