FEATURES

The features of LCD are as follows

- Controller: HDC 1600(COG)
- Display mode: CSTN/Negative/Transmissive
- Operating voltage: 16V(LCD)
- Interface input data: 8-bit parallel
- Driving method: 1/160 Duty, 1/12 Bias
- Viewing direction: 6:00 O'clock
- Operating temperature: -20°C ~ 70°C
- Storage temperature: -30°C ~ 80°C
- LCD module size: 34.7(w) x 65.28(h) x 3.40Max(t)
- Viewing area: 30.54Min(w) x 36.04Min(h)
- Effective display area: 27.25(w) x 33.85(h)
- Number of dots: 384 (128*3) x 160 dots
- Dot size: 0.201(BGR)(w) x 0.201(h)
- Dot pitch: 0.071(w) x 0.213(h)

INTERFACE PIN FUNCTION

No.	Symbol	Function
1	LED-K	Backlight -
2	LED-A	Backlight +
3	VSS	Ground
4	VDD	+3.0V logic supply voltage
5	CDIR	Direction of common scanning
6	NC	No connection
7	/CS	Chip select, low active
8	/RST	Hardware reset, low active
9	RS	Register select input pin
		H: display data L: control data
10	/WRB	Write enable, low active
11	/RDB	Read enable, low active
12-19	D7-D0	8080 8-bit parallel data I/O
20	VSS	Ground

SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating	Unit
Supply Voltage range	VDD3	-0.3 to +3.6	V
	VDD	-0.3 to +3.6	
	VIN1	-0.3 to +3.6	
LCD Supply Voltage range	|VCC – VEE|	18.0	V
Input Voltage range	Vin	-0.3 to VDD3+0.3	V
Operating Temperature range	T_{OPR}	-30 to +70	°C
Storage Temperature range	T_{STR}	-45 to +125	°C

OPERATING VOLTAGE

Item	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage (1)	VDD3(*1)	1.65	-	3.3	V
Supply Voltage (2)	VDD	1.65	-	1.95	V
Supply Voltage (3)	VIN1(*2)	2.4	3.0	3.6	V

(*1) When VDD3 = 1.65 to 1.95[V], VDD=VDD3 (No using Internal Regulator, REG_ENB = "VDD3")
When VDD3>1.95[V], VDD=REG_OUT(Using Internal Regulator, REG_ENB= "VSS")
(*2) VIN1 = VIN1R, VIN1A

Remarks: Refer to HDC1600 data sheet for further details

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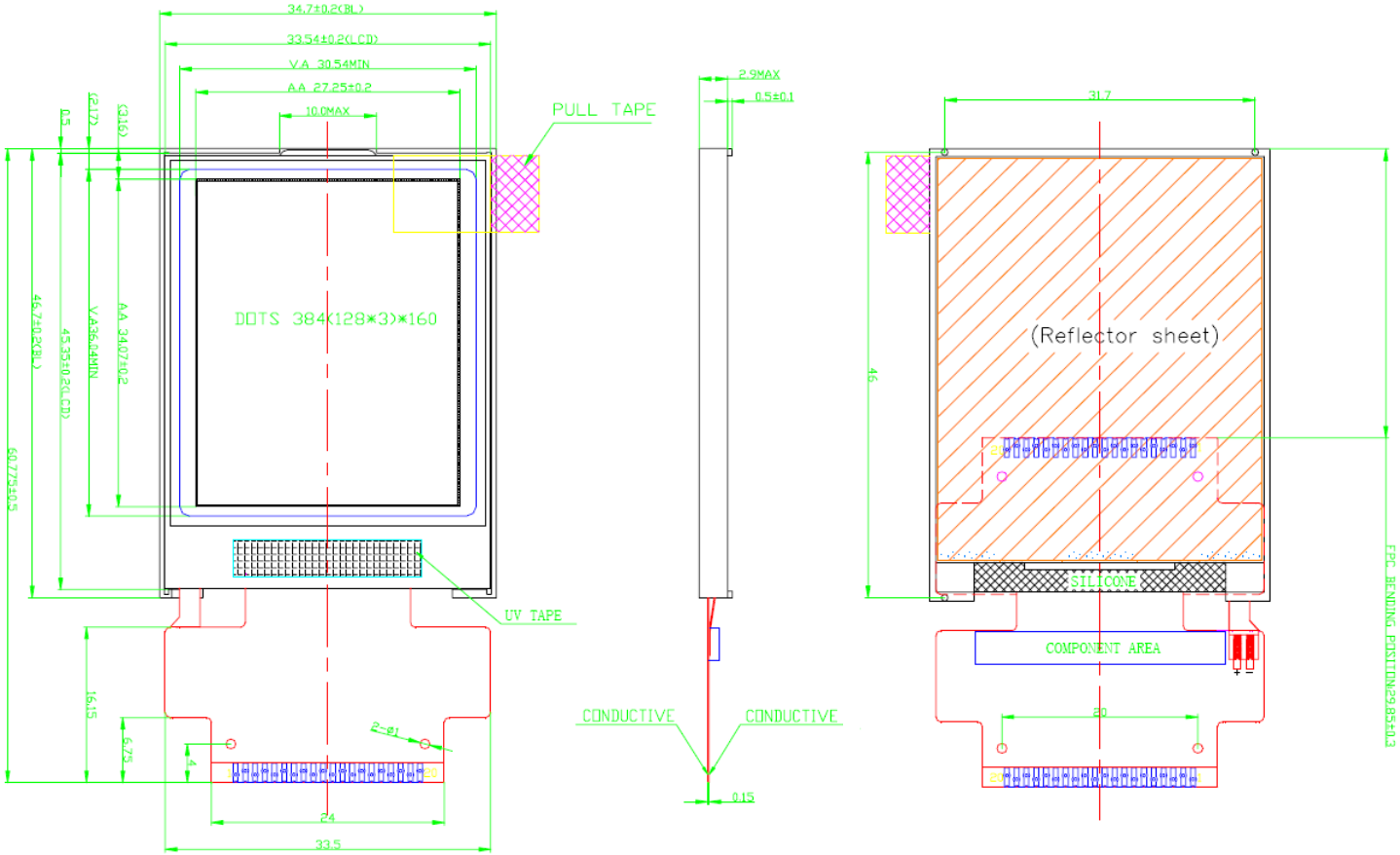
Module Name: CM50010ACT6-01AL



PIN	SYMBOL
1	LED-K
2	LED+A
3	VSS
4	VDD
5	CDIR
6	NC
7	/CS
8	/RST
9	A0
10	/WRB
11	/RDB
12	D7
13	D6
14	D5
15	D4
16	D3
17	D2
18	D1
19	D0
20	VSS

NOTES:

1. DISPLAY TYPE:	COLOR STN
2. OPERATING VOLTAGE:	16.0V
3. OPERATING TEMPERATURE:	-20°C ~ 70°C
4. STORAGE TEMPERATURE:	-30°C ~ 80°C
5. DRIVE MODE:	1/160, 1/12Bias
6. VIEWING DIRECTION:	6:00
7. POLARIZER TYPE:	TRANSMISSIVE, NEGATIVE
8. CONNECTOR:	COG/ HDC1600
9. LED DRIVER CONDITION:	15MA / TYPICAL
10. GENERAL TOLERANCE:	± 0.2

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		FILE : CM50010ACT6-01AL-ML
		DESIGNED BY:
		CHECKED BY:
SHEET: 1 OF 1		APPROVED BY: