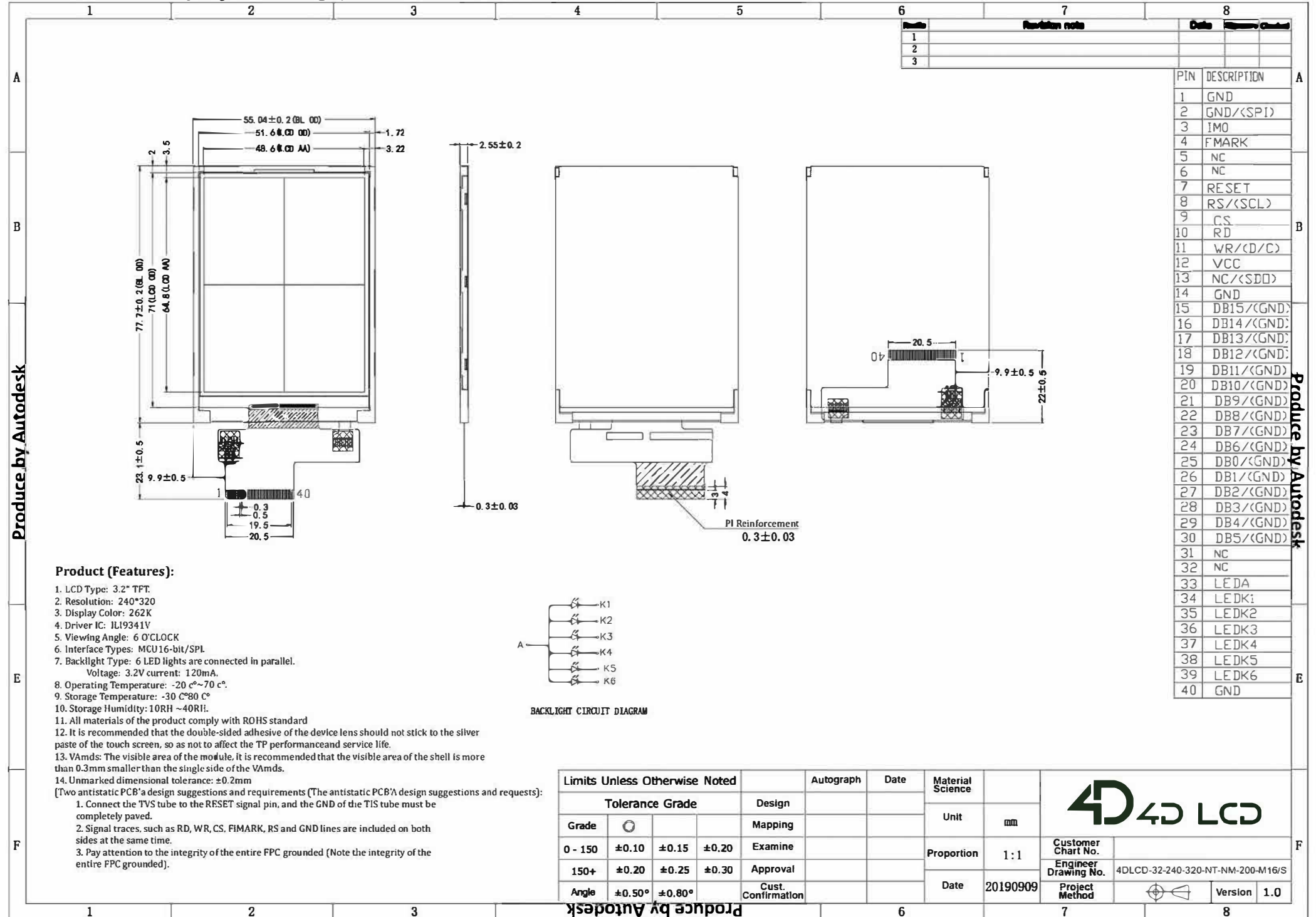


# 3.2 TFT LCD Display Drawing (Non-Touch Version)



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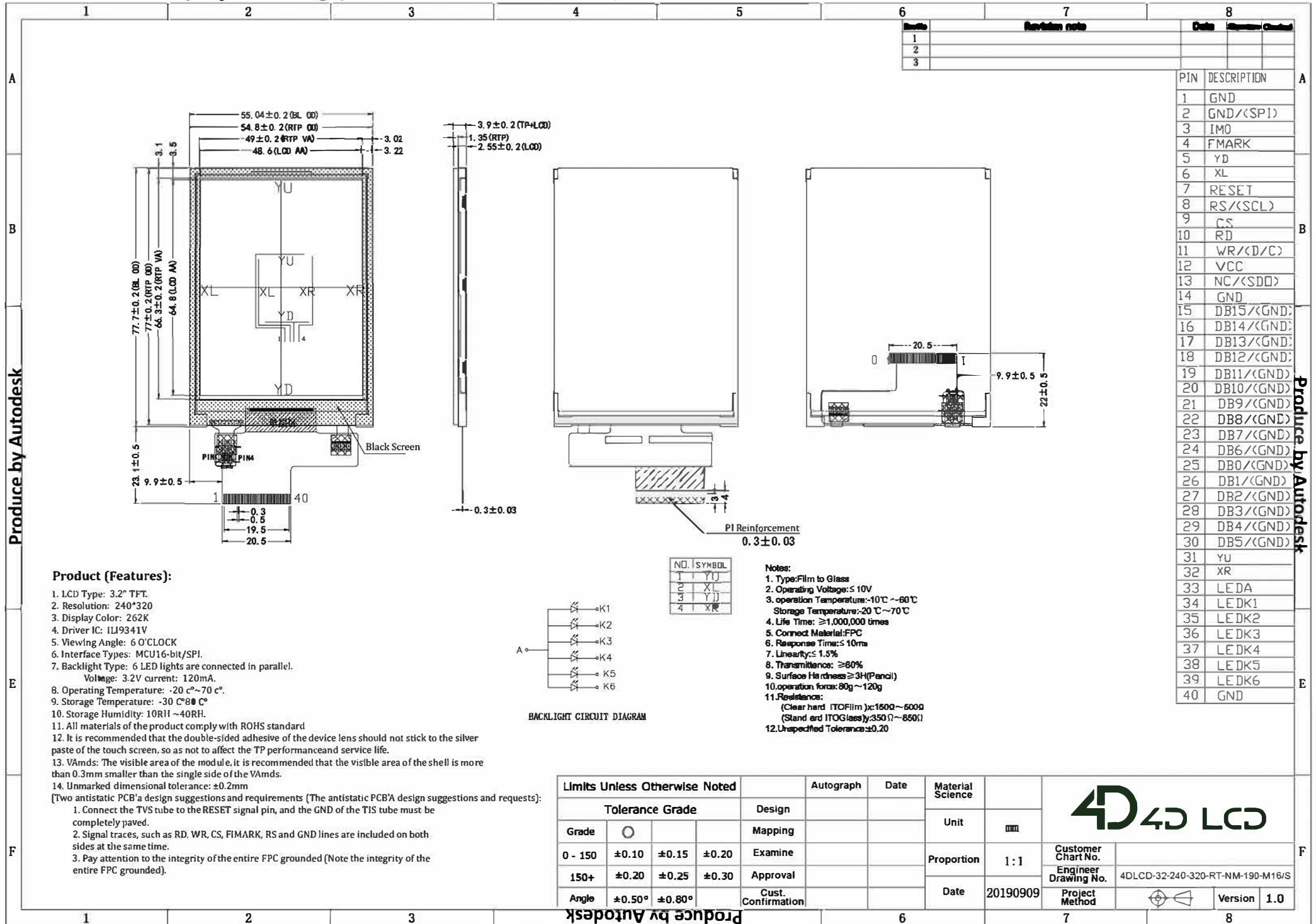
Produce by Autodesk



Customer Chart No.  
 Engineer Drawing No. 4DLCD-32-240-320-NT-NM-200-M16/S  
 Project Method  
 Version 1.0

Limits Unless Otherwise Noted				Autograph	Date	Material Science	4D LCD	
Tolerance Grade				Design		Unit	mm	
Grade	○			Mapping		Proportion	1:1	
0 - 150	±0.10	±0.15	±0.20	Examine		Date	20190909	
150+	±0.20	±0.25	±0.30	Approval		Project Method		
Angle	±0.50°	±0.80°		Cust. Confirmation				

### 3.2 TFT LCD Display Drawing (Resistive Touch Version)



Rev	Revision note	Date	Drawn	Checked
1				
2				
3				

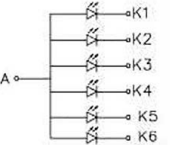
PIN	DESCRIPTION
1	GND
2	GND/(SPI)
3	IMO
4	FMARK
5	YD
6	XL
7	RESET
8	RS/(SCL)
9	CS
10	RD
11	WR/(D/C)
12	VCC
13	NC/(SSD)
14	GND
15	DB15/(GND)
16	DB14/(GND)
17	DB13/(GND)
18	DB12/(GND)
19	DB11/(GND)
20	DB10/(GND)
21	DB9/(GND)
22	DB8/(GND)
23	DB7/(GND)
24	DB6/(GND)
25	DB0/(GND)
26	DB1/(GND)
27	DB2/(GND)
28	DB3/(GND)
29	DB4/(GND)
30	DB5/(GND)
31	YU
32	XR
33	LEDA
34	LEDK1
35	LEDK2
36	LEDK3
37	LEDK4
38	LEDK5
39	LEDK6
40	GND

**Product (Features):**

- LCD Type: 3.2" TFT.
  - Resolution: 240\*320
  - Display Color: 262K
  - Driver IC: ILI9341V
  - Viewing Angle: 6 O'CLOCK
  - Interface Types: MCU16-bit/SPI.
  - Backlight Type: 6 LED lights are connected in parallel. Voltage: 3.2V current: 120mA.
  - Operating Temperature: -20 c°~70 c°.
  - Storage Temperature: -30 C°~80 C°
  - Storage Humidity: 10RH~40RH.
  - All materials of the product comply with ROHS standard
  - It is recommended that the double-sided adhesive of the device lens should not stick to the silver paste of the touch screen, so as not to affect the TP performance and service life.
  - VAmDs: The visible area of the module, it is recommended that the visible area of the shell is more than 0.3mm smaller than the single side of the VAmDs.
  - Unmarked dimensional tolerance: ±0.2mm
- (Two antistatic PCB'a design suggestions and requirements (The antistatic PCB'A design suggestions and requests):
- Connect the TVS tube to the RESET signal pin, and the GND of the TIS tube must be completely paved.
  - Signal traces, such as RD, WR, CS, FIMARK, RS and GND lines are included on both sides at the same time.
  - Pay attention to the integrity of the entire FPC grounded (Note the integrity of the entire FPC grounded).

NO.	SYMBOL
1	YU
2	XL
3	YJ
4	XR

- Notes:**
- Type: Film to Glass
  - Operating Voltage: ≤ 10V
  - operation Temperature: -10°C ~ 70°C  
Storage Temperature: -20°C ~ 70°C
  - Life Time: ≥ 1,000,000 times
  - Connect Material: FPC
  - Response Time: ≤ 10ms
  - Linearity: ≤ 1.5%
  - Transmittance: ≥ 80%
  - Surface Hardness: ≥ 3H (Pencil)
  - operation force: 80g ~ 120g
  - Resistance:  
(Clear hard ITO Film): 150Ω ~ 600Ω  
(Stand ard ITO Glass): 350Ω ~ 850Ω
  - Unspecified Tolerance: ±0.20



BACKLIGHT CIRCUIT DIAGRAM

Limits Unless Otherwise Noted				Autograph	Date	Material Science		
Tolerance Grade				Design		Unit		
Grade	○			Mapping		mm		
0 - 150	±0.10	±0.15	±0.20	Examine		Proportion	1 : 1	
150+	±0.20	±0.25	±0.30	Approval		Date	20190909	
Angle	±0.50°	±0.80°		Cust. Confirmation		Project Method		

**4D LCD**

Customer Chart No. \_\_\_\_\_

Engineer Drawing No. 4DLCD-32-240-320-RT-NM-190-M16/S

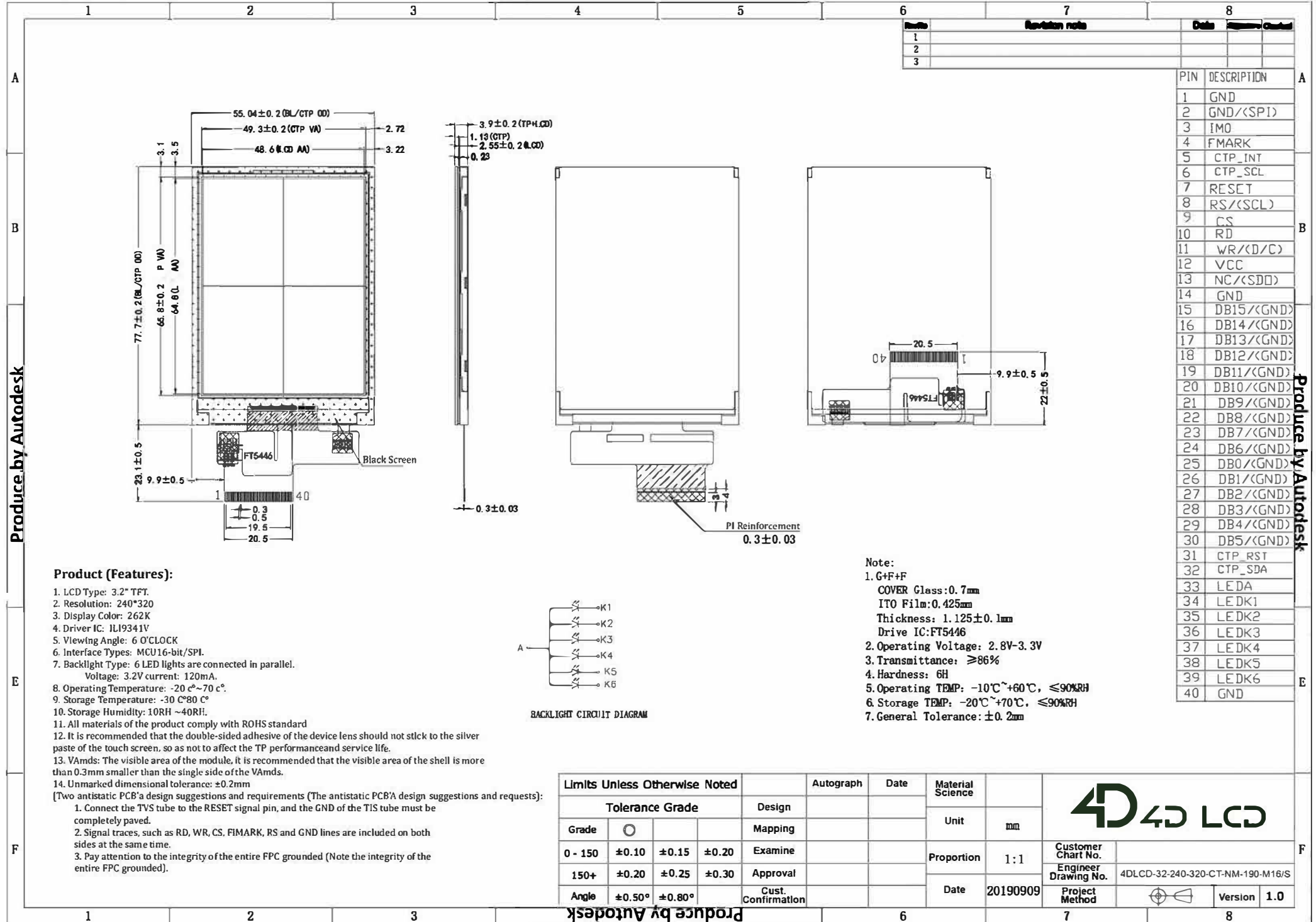
Version **1.0**

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# 3.2 TFT LCD Display Drawing (Capacitive Touch Version)



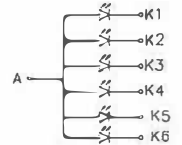
Rev	Revision note	Date	Signature	Checked
1				
2				
3				

PIN	DESCRIPTION
1	GND
2	GND/<SPI>
3	IMO
4	FMARK
5	CTP_INT
6	CTP_SCL
7	RESET
8	RS/<SCL>
9	CS
10	RD
11	WR/<D/C>
12	VCC
13	NC/<SSD>
14	GND
15	DB15/<GND>
16	DB14/<GND>
17	DB13/<GND>
18	DB12/<GND>
19	DB11/<GND>
20	DB10/<GND>
21	DB9/<GND>
22	DB8/<GND>
23	DB7/<GND>
24	DB6/<GND>
25	DB0/<GND>
26	DB1/<GND>
27	DB2/<GND>
28	DB3/<GND>
29	DB4/<GND>
30	DB5/<GND>
31	CTP_RST
32	CTP_SDA
33	LEDA
34	LEDK1
35	LEDK2
36	LEDK3
37	LEDK4
38	LEDK5
39	LEDK6
40	GND

### Product (Features):

- LCD Type: 3.2" TFT.
  - Resolution: 240\*320
  - Display Color: 262K
  - Driver IC: ILI9341V
  - Viewing Angle: 6 O'CLOCK
  - Interface Types: MCU16-bit/SPI.
  - Backlight Type: 6 LED lights are connected in parallel. Voltage: 3.2V current: 120mA.
  - Operating Temperature: -20 °C~70 °C.
  - Storage Temperature: -30 °C~80 °C.
  - Storage Humidity: 10RH ~40RH!
  - All materials of the product comply with ROHS standard
  - It is recommended that the double-sided adhesive of the device lens should not stick to the silver paste of the touch screen, so as not to affect the TP performance and service life.
  - VAMds: The visible area of the module, it is recommended that the visible area of the shell is more than 0.3mm smaller than the single side of the VAMds.
  - Unmarked dimensional tolerance: ±0.2mm
- (Two antistatic PCB's design suggestions and requirements (The antistatic PCB's design suggestions and requests):
- Connect the TVS tube to the RESET signal pin, and the GND of the TIS tube must be completely paved.
  - Signal traces, such as RD, WR, CS, FIMARK, RS and GND lines are included on both sides at the same time.
  - Pay attention to the integrity of the entire FPC grounded (Note the integrity of the entire FPC grounded).

- Note:
- G+F+F  
COVER Glass: 0.7mm  
ITO Film: 0.425mm  
Thickness: 1.125±0.1mm  
Drive IC: FTS446
  - Operating Voltage: 2.8V-3.3V
  - Transmittance: ≥86%
  - Hardness: 6H
  - Operating TEMP: -10°C~+60°C, ≤90%RH
  - Storage TEMP: -20°C~+70°C, ≤90%RH
  - General Tolerance: ±0.2mm



BACKLIGHT CIRCUIT DIAGRAM

Limits Unless Otherwise Noted				Autograph	Date	Material Science
Tolerance Grade				Design		Unit
Grade	○			Mapping		mm
0 - 150	±0.10	±0.15	±0.20	Examine		Proportion 1:1
150+	±0.20	±0.25	±0.30	Approval		Date 20190909
Angle	±0.50°	±0.80°		Cust. Confirmation		Project Method

**4D LCD**

Customer Chart No. \_\_\_\_\_

Engineer Drawing No. 4DLCD-32-240-320-CT-NM-190-M16/S

Version **1.0**

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Produce by Autodesk

Produce by Autodesk

### 3.2 TFT LCD Display Drawing (Capacitive Touch Version with Cover Lens Bezel)

