10.2" 4 wire Resistive Touch Screen / Resistive Touch Panel (RTP) TP102W4L1-A

1. Product Overview

Parameter	Specification
Part Number	TP102W4L1-A
Touch Technology	4 wires Resistive Touch Screen / Resistive Touch Panel (RTP)
Input Methods	Finger, Gloved Hand, Passive Stylus
Surface Treatment	Matte
Glass Thickness	1.3mm / 1.8mm (Customizable)
Agency Approvals	CE, FCC, RoHS Compliant

2. Mechanical Specifications

Parameter	Specification
Screen Diagonal	10.2"
Aspect Ratio	16:9
Overall Dimensions	Length: 235.00 mm,Width: 145.90 mm
View Area	Length: 224.90 mm,Width: 136.11 mm
Active Area	Length: 222.00 mm,Width: 132.50 mm
Sensor Construction	2 Layers
Surface Hardness	≥7H (Mohs Scale)
FPC Position	Long Side - Down Middle
Connector Pitch	pitch(1.0)
Sensor Thickness	18.00 mm
Total Thickness	2.10 mm

3. Touch Performance

Parameter	Specification
Activation Force	45g ~ 110g
Linearity Error	≤1.5%
Response Time	≤10ms
Surface Resistance	X-axis: 300Ω ~ 900Ω; Y-axis: 200Ω ~ 800Ω
Operating Life	Finger: >5M touches; Pen: >100K characters
Light Transmission	≥80% (ASTM D1003)

4. Environmental Specifications

Parameter	Specification
Operating Temperature	-20°C to +70°C (No condensation)
Storage Temperature	-30°C to +80°C (No condensation)
Operating Humidity	10% ~ 90% RH (at 60°C)
Storage Humidity	10% ~ 90% RH (at 40°C)
Chemical Resistance	Alcohol, Gasoline, Ammonia, Lipstick, etc.

5. Electrical Characteristics

Parameter	Specification
Operating Voltage	DC 3V ~ 7V (Typical 5V)
Current Consumption	≤25mA (Typical)

Interface Options	USB 2.0, RS-232 (9600 baud)
ESD Protection	±10kV (Air Discharge)
Isolation Resistance	>20MΩ (DC 25V)

6. Reliability Testing

Test	Condition	Standard
High Temperature	+70°C, 240 hours	IEC 60068-2-2
Low Temperature	-40°C, 240 hours	IEC 60068-2-1
Thermal Cycling	-40°C ↔ +70°C, 10 cycles	IEC 60068-2-14
Temperature Shock	Air-to-air, 5-minute transition	MIL-STD-810G

7. Software & Compatibility

OS	Support Details
Windows	Dos, Windows ME,Windows 95,Windows 98,Windows NT4.0,Windows XP, Windows 2000,Windows 7,Windows 8,Windows 10 (32/64-bit), WHQL Certified
Linux	Kernel 2.6+, HID Compliant
Mac OS	10.12+, Plug-and-Play
Android	4.4+ (USB Host Mode)
Others	DOS, QNX, VxWorks

8. Optional Customizations

Option	Description
Surface Treatments	Anti-Newton Ring, Anti-Glare, Anti-Fingerprint
Connector Types	ZIF, FPC, USB, RS-232
Special Shapes	Custom designs available