NEWHAVEN DISPLAY INTERNATIONAL

Product Specification

TS-TFT3.5Z

4-Wire Resistive Touch Panel

TS-	Touch Panel
TFT3.5-	For 3.5" TFT Displays
Z-	Model

Newhaven Display International, Inc.
2661 Galvin Court, Elgin, IL 60124 USA

Ph: 847.844.8795 | Fx: 847.844.8796
www.newhavendisplay.com

REACH Compliant

RoHS Compliant

NEWHAVEN DISPLAY INTERNATIONAL

Table of Contents

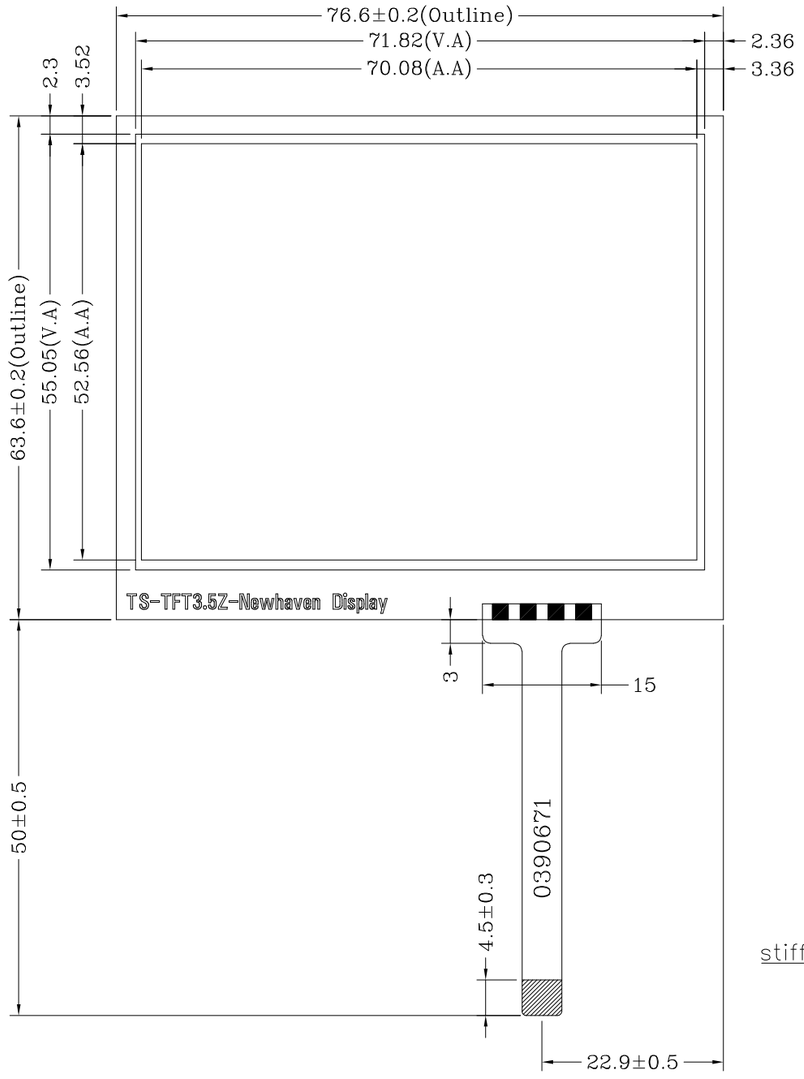
Additional Resources

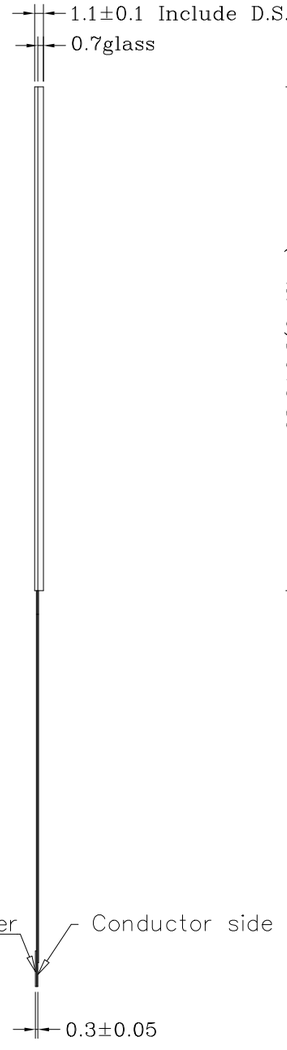
- **Support Forum:** https://support.newhavendisplay.com/hc/en-us/community/topics
- **GitHub:** https://github.com/newhavendisplay
- **Example Code:** https://support.newhavendisplay.com/hc/en-us/categories/4409527834135-Example-Code/
- **Knowledge Center:** https://www.newhavendisplay.com/knowledge_center.html
- **Quality Center:** https://www.newhavendisplay.com/quality_center.html
- **Precautions for using LCDs/LCMs:** https://www.newhavendisplay.com/specs/precautions.pdf
- **Warranty / Terms & Conditions:** https://www.newhavendisplay.com/terms.html

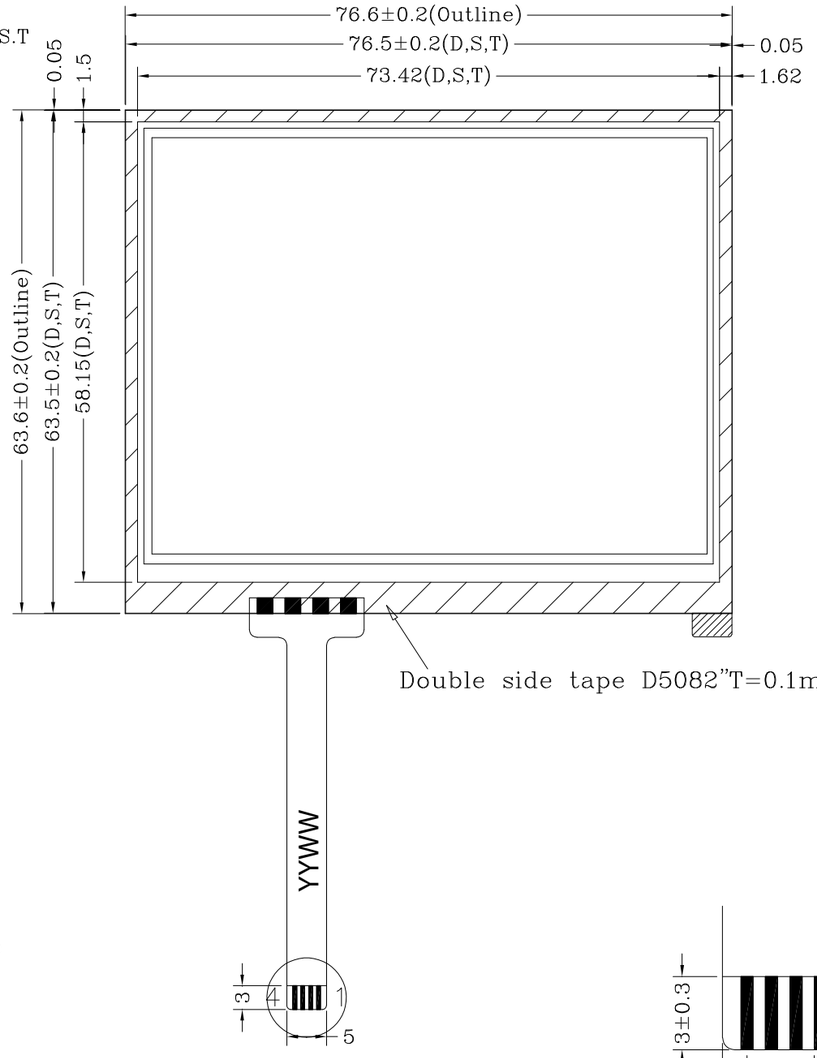
Document Revision History

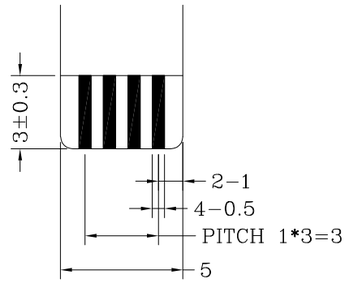
Revision	Date	Description	Changed By
0	11/19/2020	Initial Product Release	AS
1	01/10/2024	Date Code Updated on Mechanical Drawing	KL

Mechanical Drawing





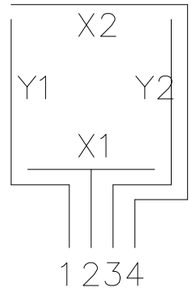




Detail A
SCALE 3:1

Notes:

1. Type: Film to Glass
2. Operating Voltage: ≤ 10.0V
3. Lifetime:
   - Pitting: ≥ 1,000,000
   - Pen Writing: ≥ 20,000
4. Connection: FPC-Pin 1mm Pitch
5. Response Time: ≤ 15ms
6. Linearity: ≤ 1.5%
7. Transmittance: ≥ 75%
8. Surface Hardness: ≥ 3H
9. Operating Force: 20g~80g
10. Resistance:
    -X: 150Ω ~ 550Ω
    -Y: 200Ω ~ 900Ω



Standard Tolerance: (Unless otherwise specified) Linear: ±0.3mm	NEWHAVEN DISPLAY INTERNATIONAL	
	Drawing/Part Number: TS-TFT3.5Z	Revision: -
Unless otherwise specified: • Dimensions are in Millimeters • Third Angle Projection	Drawn By: K. Lewis	Approved By: K. Lewis
	Drawn Date: 01/10/2024	Approved Date: 01/10/2024

Pin Description

Pin No.	Symbol	External Connection	Function Description
1	X1	Touch Controller	Bottom
2	X2	Touch Controller	Top
3	Y1	Touch Controller	Left
4	Y2	Touch Controller	Right

Touch Panel Characteristics

Item	Symbol	Condition	Min	Typ.	Max	Unit
Operating Temperature Range	-	-	-10	-	+60	˚C
Storage Temperature Rage	-	-	-20	-	+70	˚C
Terminal Resistance – X-Axis	-	-	150	-	550	Ω
Terminal Resistance – Y-Axis	-	-	200	-	900	Ω
Insulation Resistance	-	-	20	-	-	MΩ
Operating Voltage	VDD	-	-	-	10	V
Chattering	-	-	-	-	15	ms
Activation Force	-	-	20	-	80	g
Pitting Durability	-	-	1,000,000	-	-	Touches
Pen Writing Durability	-	-	20,000	-	-	Characters
Surface Hardness	-	-	3	-	-	H
Transmittance	-	-	78	-	-	%
Haze	-	-	2	4	6	%

Quality Information

Test Item	Content of Test	Test Condition
High Temperature	Test the endurance of the touch panel at high temperature	+70°C, 96 Hrs.
High Temperature / Humidity	Test the endurance of the touch panel with high heat and humidity	+50°C 90%RH, 96 Hrs.
Low Temperature	Test the endurance of the touch panel at a low temperature.	-20°C, 96 Hrs.
Thermal Cycle	Test the durability of the display through a range of temperatures	-20° C – 70°C (60 min/cycle) 10 Times.