

REG. DATE : 2015.03.16

SPECIFICATION

REV.NO : 1.0

REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : 1

SPECIFICATIONS FOR APPROVAL

PRODUCT NAME : Touch Sensor Module with Control Board (47")

LGIT MODEL NAME : TSTD-DR08A

Customer P/N :

APPROVAL		
LG Innotek Co., Ltd.		
Drafter	Quality Team Agreement	Final Approver

Appendix

REG. DATE : 2015.03.16

S P E C I F I C A T I O N

REV.NO : 1.0

REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **2**

Content

Revision History 3

1. General Description 4

2. Specification 6

3. Outline Dimension 7

4. Control Board 9

5. Inspection Standard 12

6. Packing 13

7. Cautions & Warranty 14

REG. DATE : 2015.03.16

S P E C I F I C A T I O N

REV.NO : 1.0

REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **4**

1. General Description

1-1. General Feature

Item		Spec	Remark
Window Glass	Viewing Area	1045mm x 590mm	View Area 47 inch
	Out Dimension Size	1084mm x 635.5mm	
	Thickness	5.0mm	
	Material	Sodalime	Thermal Strengthened
	Deco Printing	Black	
	Printing Hole	-	
	AG coating	Yes	Gloss 90~130unit
	Chamfer	C0.8±0.2	
	Protection Film	-	
	Logo	-	
	Silk	-	
Touch Sensor	Type	GFF, 2 mesh sensor(PET)	
	Sensor Size	1071.96mm X 620.184mm	
	Thickness	0.365mm	without Protect Film
	Sensing Type	Mutual Capacitance 2 layer	
	Channel No.	Rx(Top) : 126 Tx(Bottom) : 72	Trace single routing
	Protection Film	Yes (0.050t or 0.075t)	
Control Board	Response Time	16ms(TBD)	1~10point 기준 / CH141*78 / Repot rate 240Hz)
	Accuracy	±1.5mm	
	Separation	Min20mm	2-Point간 거리
FPCB	Type	COB Type	
	Connector	ZIF Type	FH30 Series
	Size	Rx : 257.49mm x 95mm Tx : 290.84mm x 57.2mm	
	Layer	Single Layer	

REG. DATE : 2015.03.16

SPECIFICATION

REV.NO : 1.0

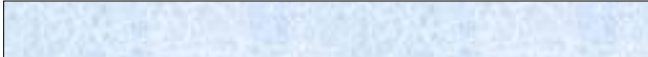




REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **5**

1. General Description

1-2. Stack up

No	Structure	Feature
1		Window Glass
2		Top OCA
3		Top Sensor
4		Bottom OCA
5		Bottom Sensor

REG. DATE : 2015.03.16

S P E C I F I C A T I O N

REV.NO : 1.0

REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **6**

2. Specification

2-1. Electrical Specification(TBD)

Feature	Judgment
Version Check	OK
Sensor Check	OK
Edge Draw Test	OK
Diagonal Draw Test	OK

2-2. Optical Specification

Feature	Specification
Transmittance (%)	Typ. 83% (Min 81%)
Haze	Typ. 4% (Max 6%)

2-3. Reference LCD Condition

Feature	Specification
Resolution	1920 x 1080 (FHD)
LCD Active Area(Size)	47"

REG. DATE : 2015.03.16

SPECIFICATION

REV.NO : 1.0

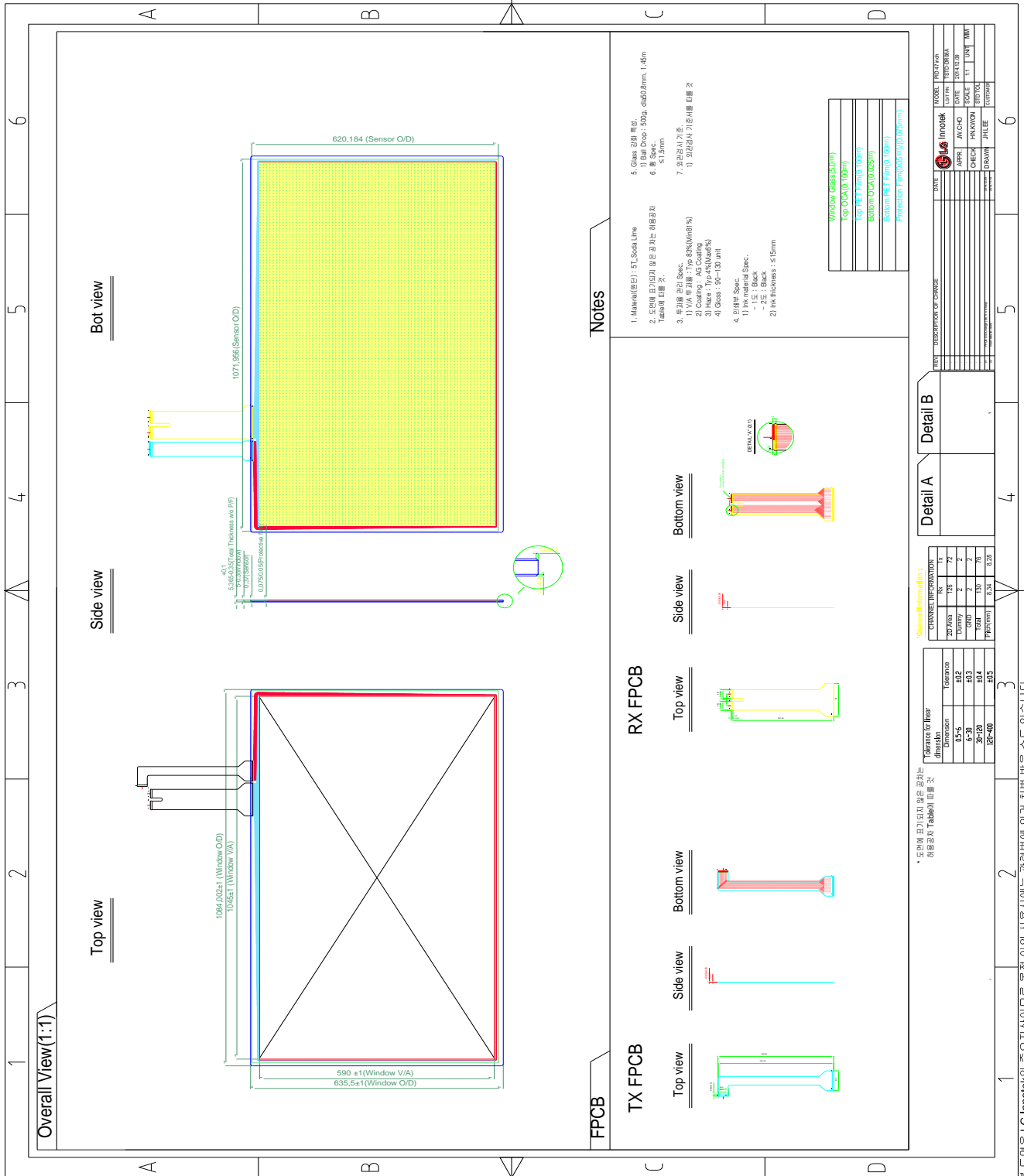
REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **7**

3. Outline Dimension

3-1. Touch Panel



Duplication of this document and the use or communication of the content thereof are strictly without express authority. Offenders are punishable and liable to the payment of damages. All rights are reserved in the event of the grant of a patent or the registration of a utility model.

REG. DATE : 2015.03.16

SPECIFICATION

REV.NO : 1.0

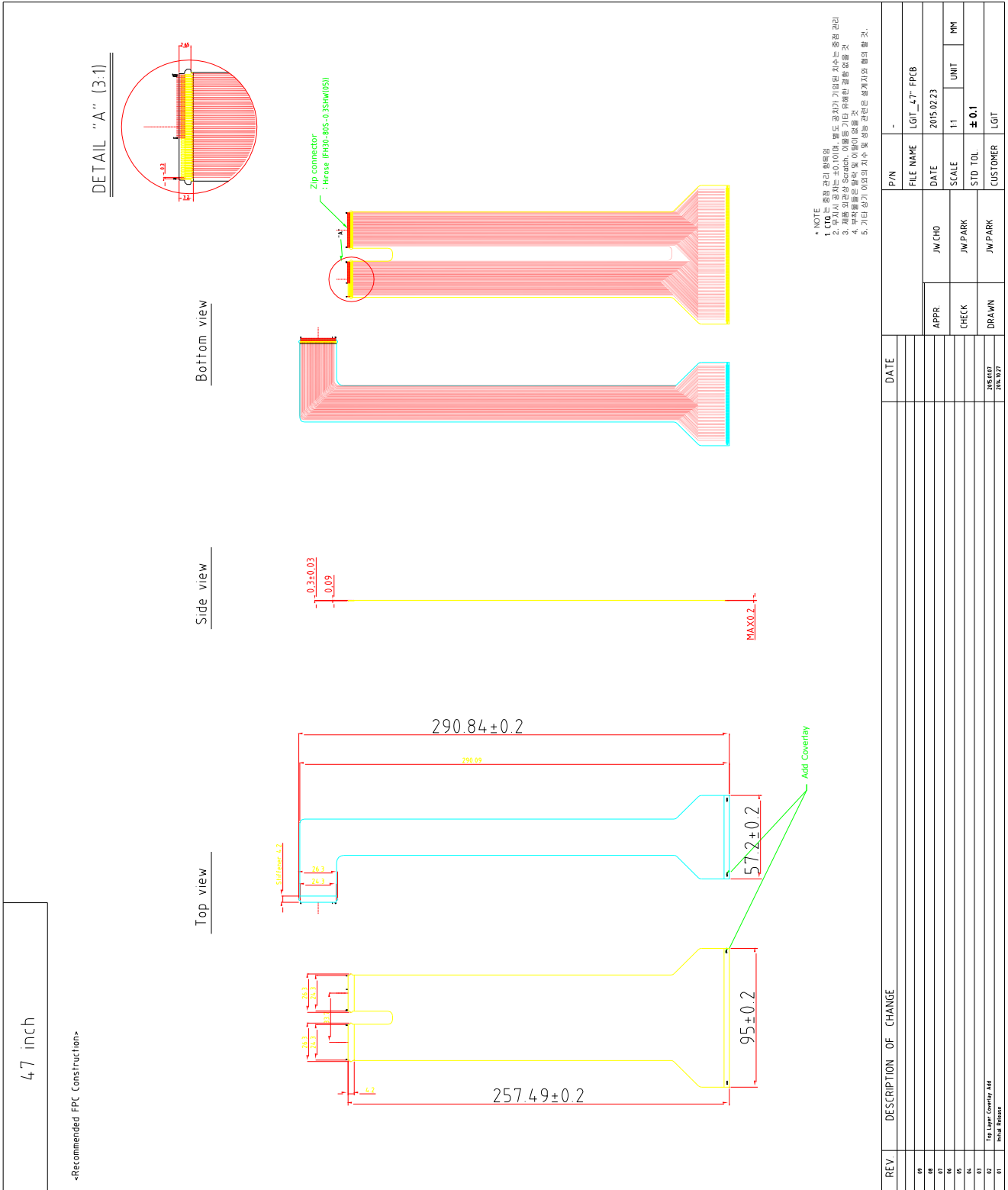
REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **8**

3. Outline Dimension

3-2. FPCB



REG. DATE : 2015.03.16

SPECIFICATION

REV.NO : 1.0

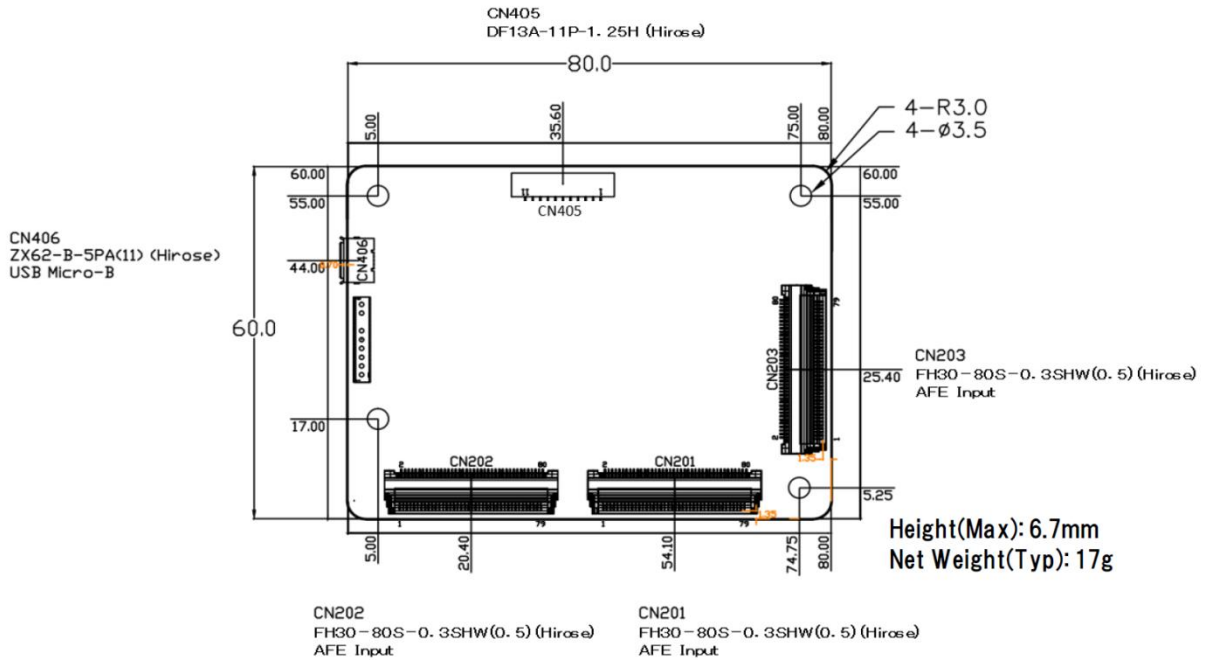
REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : 9

4. Control Board

4-1. Outline Dimension



Material Construction

		unit: mm	
	Material	thickness(Typ)	
solder resist	solder resist	0.020	
L1 Conductor	copper + copper plating	0.035	
L1-L2 Adhesive	prepreg	0.130	
L 2 Conductor	base + copper	0.018	
L2-L3 base		0.600	
L3 Conductor		0.018	
L3-L4 Adhesive	prepreg	0.130	
L4 Conductor	copper + copper plating	0.035	
solder resist	solder resist	0.020	
Final thickness		1.006 ± 10%	

3D view

REG. DATE : 2015.03.16

S P E C I F I C A T I O N

REV.NO : 1.0

REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

 PAGE : **10**

4. Control Board

4-2. Reliability

Test Items	Condition	
High Temp Storage	Ta = 70℃	96hrs
Low Temp Storage	Ta = -20℃	96hrs
High Temp & High Humi Storage	Ta = 40℃, 90%RH	96hrs
High Temp Operation	Ta = 50℃	96hrs
High Temp & High Humi Operation	Ta = 40℃, 90%RH	96hrs
Heat Shock	Ta = -20℃ ↔ 70℃ each 30 min	5cycles

REG. DATE : 2015.03.16

S P E C I F I C A T I O N

REV.NO : 1.0

REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **11**

4-3. Sharp Touch controller support OS(via USB)

	OS	Support	Driver	Remark
Windows	Windows 7	√	Windows USB/HID driver	
	Windows 8/8.1	√	Windows USB/HID driver	
Linux	Ubuntu 12.04	√	Linux USB/HID driver	-Kernel version 3.8 or above -Driver configuration might be modified to attach appropriate driver module.
	Ubuntu 13.04	√	Linux USB/HID driver	-Kernel version 3.8 or above -Driver configuration might be modified to attach appropriate driver module.
	Others			Contact us
Android	Gingerbread (2.3)	√	Available with custom HID driver provided by SHARP	
	Ice Cream Sandwich (4.0)	√	Android USB/HID driver	Driver configuration might be modified to attach appropriate driver module.
	Jelly Bean (4.3)	√	Android USB/HID driver	Driver configuration might be modified to attach appropriate driver module.
	KitKat (4.4)	√	Android USB/HID driver	Driver configuration might be modified to attach appropriate driver module.

REG. DATE : 2015.03.16

SPECIFICATION

REV.NO : 1.0

REV. DATE : 2015.03.16

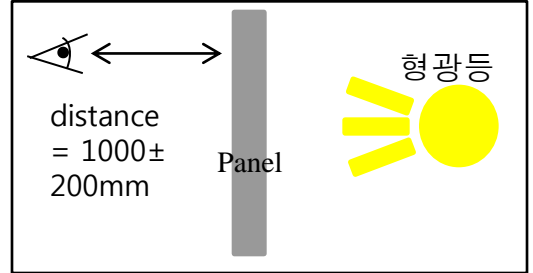
MODEL NAME : TSTD-DR08A

PAGE : 12

5. Inspection Standard

5-1. Cosmetic Inspection Condition

- Luminance : 600 ± 200 lux (diffused light source)
- Distance(With the unaided eye) : 1000 ± 200mm
- Light source : D65 (White-6,500K)
- Measurement method : With the unaided eye or the magnifying glass
- Viewing Angle : 90° (vertical)
- Duration : Up to 30 ~ 45sec



5-2. Cosmetic Inspection Standard

Item	Area	Judgment	47인치	비고
Circular defect ($D = (L + W) / 2$)	Active/Print	Ignore	$D \leq 0.7$ (결점간 거리 무시)	
		OK	$0.7 < D \leq 1.0\text{mm}$: 10ea (결점간 거리 10mm 이상)	
		NG	$D > 1.0\text{mm}$	
Linear defect	Active/Print	Ignore	$W \leq 0.2\text{mm}$ and $L \leq 25\text{mm}$ (결점간 거리 무시)	
		OK	$0.2 < W \leq 0.3\text{mm}$ and $25 < L \leq 50\text{mm}$: 10ea (결점간 거리 10mm 이상)	
		NG	$W > 0.3\text{mm}$ or $L > 50\text{mm}$	
Circular defect (translucent_반투명) ($D = (L + W) / 2$)	Active/Print	Ignore	$D \leq 0.7$	Bubble 포함
		OK	$0.7 < D \leq 1.8\text{mm}$: 10ea	
		NG	$D > 1.8\text{mm}$: NG	
Chipping (Corner, Side)	Print/Edge	OK	$D \leq 0.5\text{mm}$: OK	
		NG	$D > 0.5\text{mm}$: NG	
Dent (찍힘, 눌림)	Active/Print	OK	정면 검사 시 미시인 (Should not be viewed from the front, during inspection)	
Window Stain	Active/Print		지워지는 얼룩 무시	
인쇄 번짐/뜯김/Scratch	Glass out of edge	OK	L : Ignore, $W \leq 2.0\text{mm}$	
핀 홀	Print	Ignore	$\leq 0.2\text{mm}$	페인트 마카펜 재생 허용 번짐 뜯김
		OK	$0.2\text{mm} < \text{Pin hole} \leq 0.6\text{mm}$: 13pcs (결점간 거리 10mm 이상)	
		NG	$> 0.6\text{mm}$	
Protect film			Protect film defect Ignore	

REG. DATE : 2015.03.16

SPECIFICATION

REV.NO : 1.0

REV. DATE : 2015.03.16

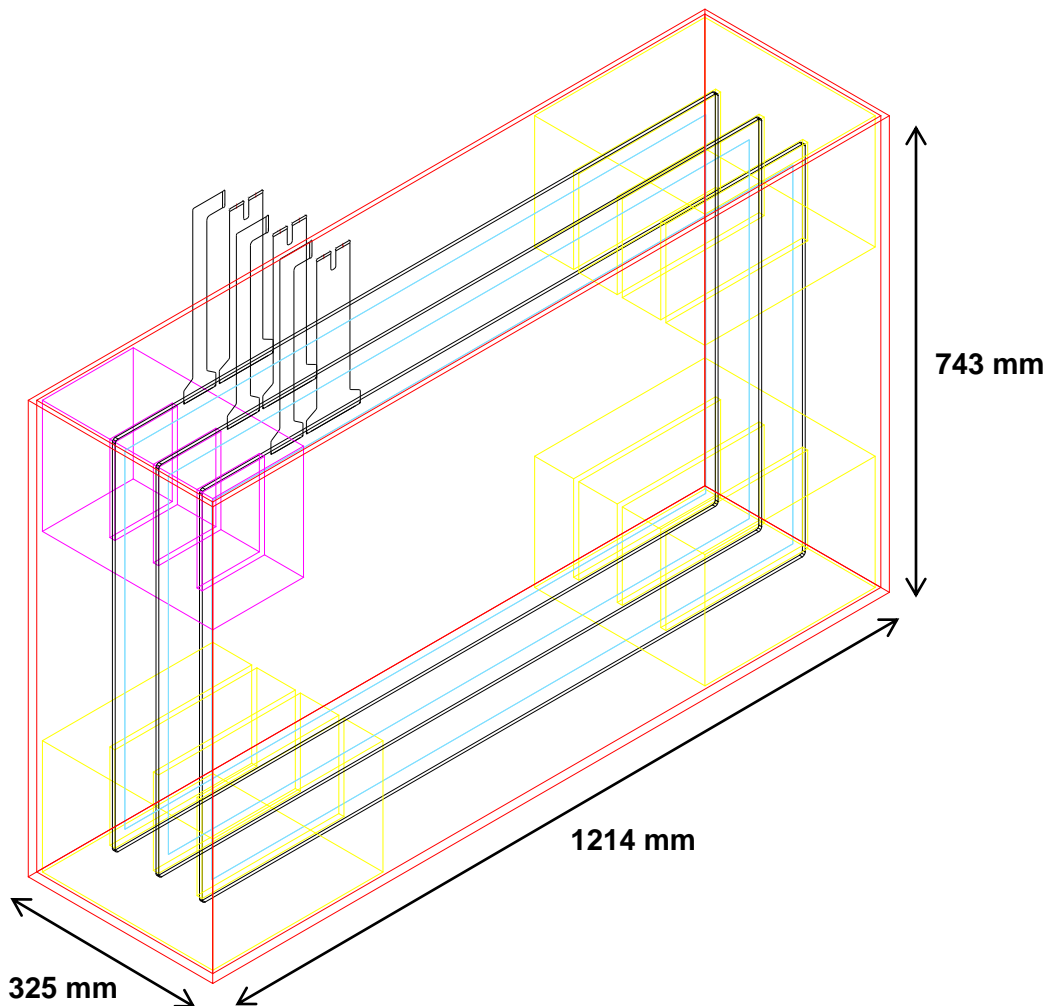
MODEL NAME : TSTD-DR08A

PAGE : **13**

6. Packing

Packing Information

- Box Size : 1214 x 325 x 743mm
- PE Form : 4pcs / 1-Box
- 3pcs / 1 Box



< Package Dimension >

REG. DATE : 2015.03.16

S P E C I F I C A T I O N

REV.NO : 1.0

REV. DATE : 2015.03.16

MODEL NAME : TSTD-DR08A

PAGE : **14**



Cautions & Warranty

⚠ Please pay attention to the following when you use this Touch Sensor Panel.

1) Storage

When storing the TSP(Touch Sensor Panel)s as spares for a long time, the following precautions are necessary.

- Store the TSPs in a dark place. Do not expose the TSPs to sunlight. Keep the temperature between 5℃ and 30℃ at normal humidity.

2) Protection Film

- When the protection film is peeled off, static electricity is generated between the protection film and the TSP's transparent electrical film(Ag Mesh PET film). This should be peeled off slowly and carefully by people who are electrically grounded and the well ion-blower equipment or in such a condition, etc.
- When the TSP with protection film attached is stored for a long time, sometimes there remains a small amount of glue still on the TSP's transparent electrical film(Ag Mesh PET film) after the protection film is peeled off.
- You can remove the glue easily. When the glue remains on the TSP's transparent electrical film(Ag Mesh PET film) surface or its vestige is recognized, please wipe them off with absorbent cotton waste or other soft material like chamois soaked with ethyl-acetate.

3) Electrostatic Discharge Control

- Since the TSP is composed of electronic circuits, it is not strong to electrostatic discharge. Make certain that treatment persons are connected to ground through wrist band etc.

4) Installing and Assembling

- Do not touch, push or rub the exposed TSP's film with glass, tweezers or anything harder than 3H pencil lead. And please do not rub with dust clothes with chemical treatment. Do not touch the surface of film for bare hand or greasy cloth. (Some cosmetics deteriorate the film.)
- When the surface becomes dusty, please wipe gently with absorbent cotton or other soft material like chamois soaked with ethyl-acetate. Do not use acetone and toluene.
- Do not put a heavy, hard or sharp objects on the TSP.
- Do not apply excessive forces to the FPCB.

⚠ Warranty

Touch Sensor Panel products shall be warranted for one year after shipping from LG Innotek Co. Ltd. (Storage condition : Between 5℃ and 30℃ at normal humidity)

The Netherlands



Elektrostraat 17
NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33
F: +31 (0)53 573 33 30
E: nl@texim-europe.com

Belgium



Zuiderlaan 14 bus 10
B-1731 Zellik

T: +32 (0)2 462 01 00
F: +32 (0)2 462 01 25
E: belgium@texim-europe.com

UK & Ireland



St. Mary's House, Church Lane
Carlton Le Moorland
Lincoln LN5 9HS

T: +44 (0)1522 789 555
F: +44 (0)845 299 22 26
E: uk@texim-europe.com

Germany North



Bahnhofstrasse 92
D-25451 Quickborn

T: +49 (0)4106 627 07-0
F: +49 (0)4106 627 07-20
E: germany@texim-europe.com

Germany South



Martin-Kollar-Strasse 9
D-81829 München

T: +49 (0)89 436 086-0
F: +49 (0)89 436 086-19
E: germany@texim-europe.com

Austria



Warwitzstrasse 9
A-5020 Salzburg

T: +43 (0)662 216 026
F: +43 (0)662 216 026-66
E: austria@texim-europe.com

Nordic region



Sdr. Jagtvej 12
DK-2970 Hørsholm

T: +45 88 20 26 30
F: +45 88 20 26 39
E: nordic@texim-europe.com

General information



info@texim-europe.com
www.texim-europe.com