

杭州凡诺电子有限公司
FANNAL ELECTRONICS CO., LTD

Specifications for Touch Panel

Model NO: FN101A029-V1.0

Revision: V1.0

Approved For Specifications Only

Approved For Specifications And Sample

FANNAL			CUSTOMER
PREPARED	CHECKED	APPROVED	APPROVED

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1. Record of Revision

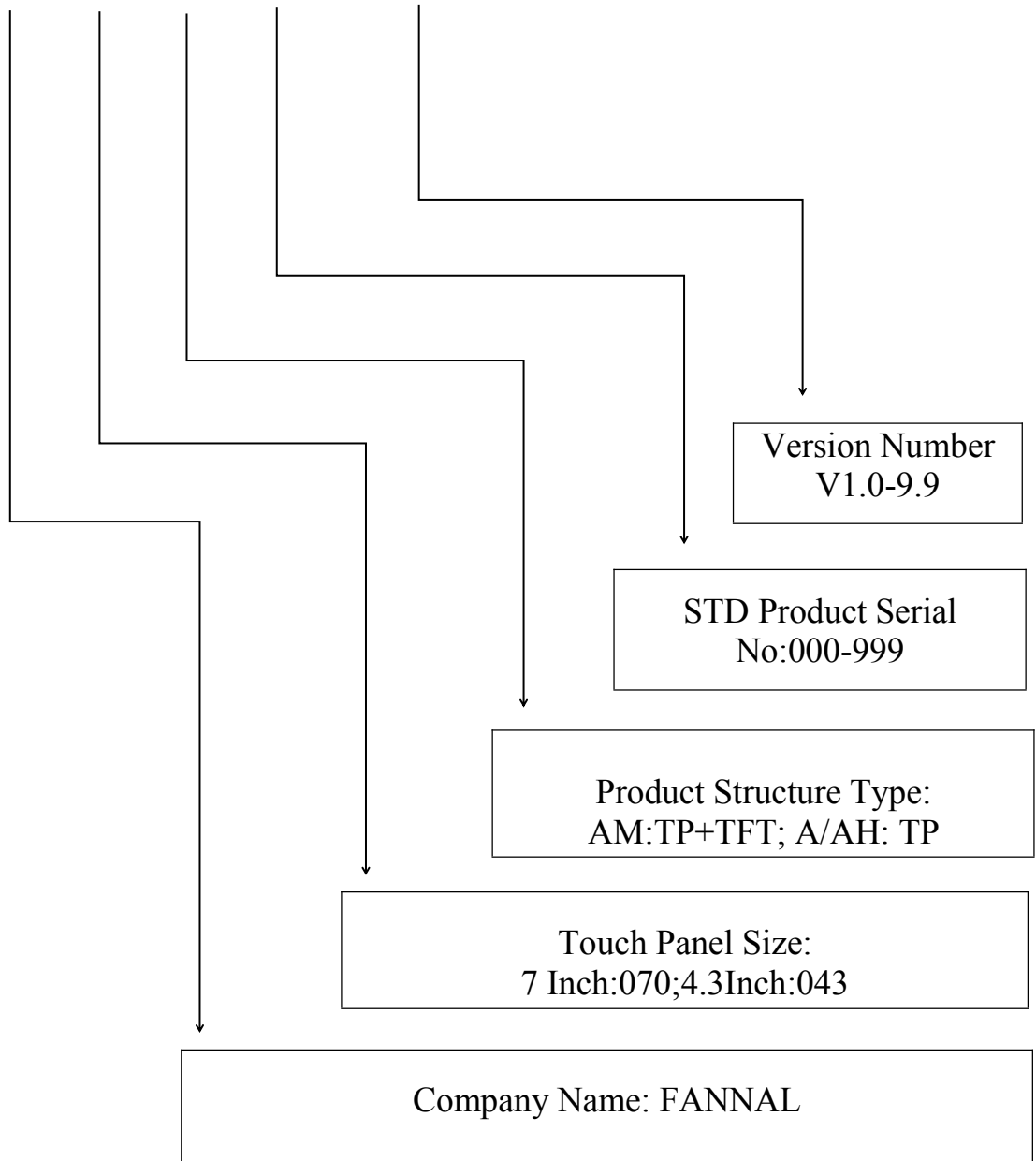
NO.	Content	Page	Date
1	Preliminary Specification was first issued	2	2016/12/2

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3. Module Numbering System

FN 101 A 029 - V1.0



4. Application

This improved projected capacitive touch panel module is applied to industrial applications which required touch input.

Industrial control, medical devices and automation industries (transportation, military, smart home, and others)

5. Feature

NO.	Item	Specifications
1	Type	Projected Capacitive
2	Input Mode	Finger
3	Connector	COF-FPC

6. General Specification

NO.	Item	Specifications	Unit
1	Touch Panel Size	10.1(Diagonal)	inch
2	Structure	G+G	
3	View Area	223.52(H)x126.08(V)	mm
4	Outline Dimension	234.00(H)x142.00(V)x1.45(D)	mm

7. Environmental Characteristic

NO.	Item	Specifications	
		Temperature	Humidity (Non-Condensing)
1	Operation	-20~70 °C	45%-90%RH
2	Storage	-30~80 °C	5%-95%RH

Note: Testing environment is under normal atmospheric pressure. When the ambient temperature is above 65°C, the humidity is allowed to be below 50%RH

8. Optical Characteristic

NO.	Item	Specifications
1	Transparency	87%±5%
2	Haze	>3%

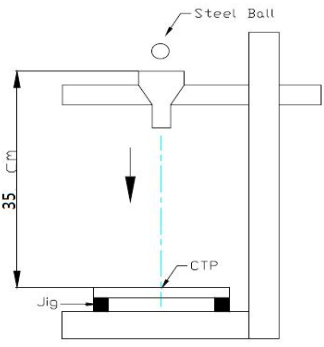
9. IC Specification

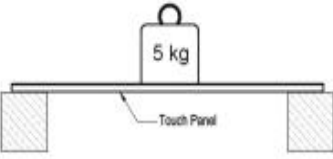
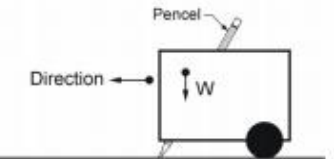
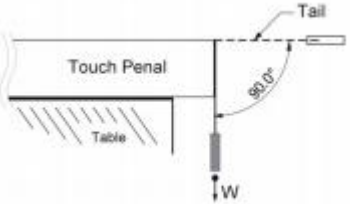
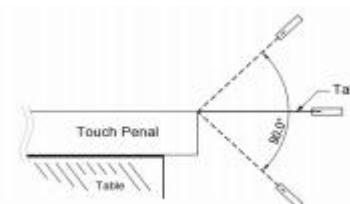
NO.	Item	Specifications
1	Driver IC	FT5426
2	Detect Points	5
3	Interface	I ² C
4	Power Supply	2.8-3.3V

10. Pin Assignment

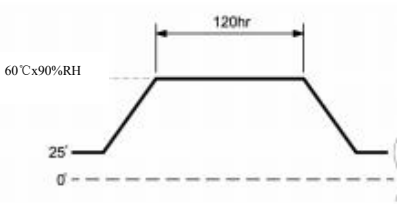
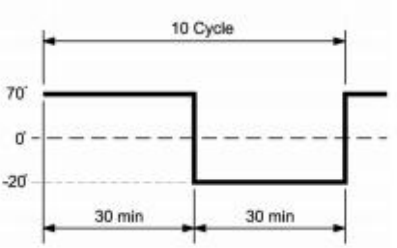
Pin No.	Symbol	I/O	Description
1	GND	---	System ground
2	NC	---	NO Connection
3	NC	---	NO Connection
4	NC	---	NO Connection
5	NC	---	NO Connection
6	GND	---	System ground
7	SDA(3.3V)	I/O	I ² C data signal
8	SCL(3.3V)	I/O	I ² C clock signal
9	RST	I	External reset signal, active low
10	INT(3.3V)	O	Interrupt signal, active low, asserted to request Host start a new transaction
11	VCC(3.3V)	---	Power supply
12	VCC(3.3V)	---	Power supply

11. Mechanical Characteristic

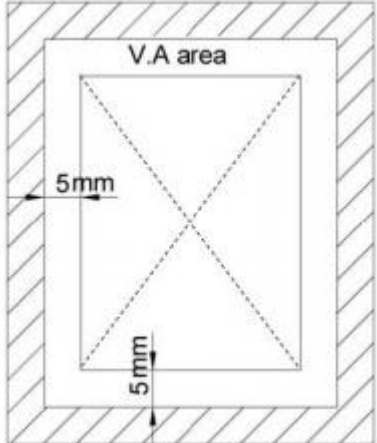
NO.	Item	Condition	Specifications
1	Operating Force	Finger \leq 10g	<p>Satisfy-</p> <ol style="list-style-type: none"> 1.Optical Characteristics 2.Electrical Characteristics <p>Appearance-</p> <ol style="list-style-type: none"> 1.Ignore test area 2.No mechanical damage
2	Impact	<p>30.0ΦDIA.Steel Ball/132g/Height=35cm/1 time, Impact at center area</p> 	

NO.	Item	Condition	Specifications
3	Static Load	5000g within 10cmΦ area for 30sec 	Satisfy- 1. Optical Characteristics 2. Electrical Characteristics Appearance- 1. Ignore test area 2. No mechanical damage
4	Hardness	6H pencil, pressure 750g/45° 	
5	Tail Peeling	500g/cm by vertical 90° for 30sec 	
6	Tail Bending	90° 10times left & right 	

12. Reliability Test

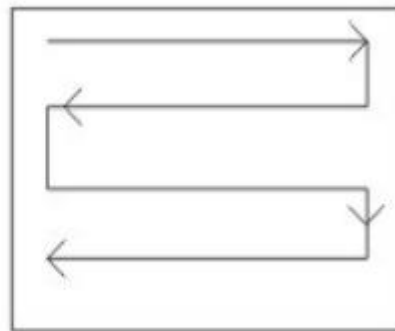
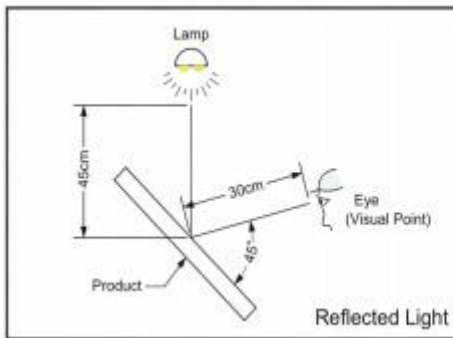
NO.	Item	Condition	Specifications
1	Constant Temperature/Humidity	<p>60°C X 90%RH, 120hrs and normalized for 24hrs</p> 	<p>Satisfy-</p> <p>1、Electrical Characteristics</p>
2	Heat Cycle	80°C/120hrs and normalized for 24hrs	
3	Cold Cycle	-30°C/120hrs and normalized for 24hrs	
4	Thermal Cycle	<p>-20°C~70°C [30min/cycle]*10cycles and normalized for 24hrs</p> 	

13. Function test

<p>Function Test</p>	<p>Test Method: Use $\Phi 8$ copper stick to draw the square diagonal line.</p> <p>Test Area: 5mm inward view area.</p> <p>Disapproval Criteria: It is NG when we see the off-liner or jumping out spec shift.</p>	
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14. Appearance Inspection

The inspection is to be performed with two 20W(1800±500 LUX)fluorescent lamp lighting from the back or side.The panel is to be placed 30cm away from eyes.(Figure 13-1)



15. Appearance Specification

NO.	Item	Specifications	Judgment
1	Dot Contamination	1) $D \leq 0.3\text{mm}$, $DS \geq 10\text{mm}$, 2) $0.30\text{mm} < D \leq 0.50\text{mm}$, $DS > 10\text{mm}$ 3) $D > 0.50\text{mm}$	1) Ignore 2) OK with 5 3) NG
2	Linear Contamination	1) $W < 0.05\text{mm}$ 2) $0.05\text{mm} \leq W \leq 0.20\text{mm}$ $L \leq 5\text{mm}$ 3) $W \geq 0.20\text{mm}$ or $L \geq 5\text{mm}$	1) Ignore 2) OK with 5 3) NG
3	Cracks and Chips(Surface)	$X < 0.3\text{mm}$, $Y < 0.3\text{mm}$, $Z < \frac{1}{2}T$	Ignore

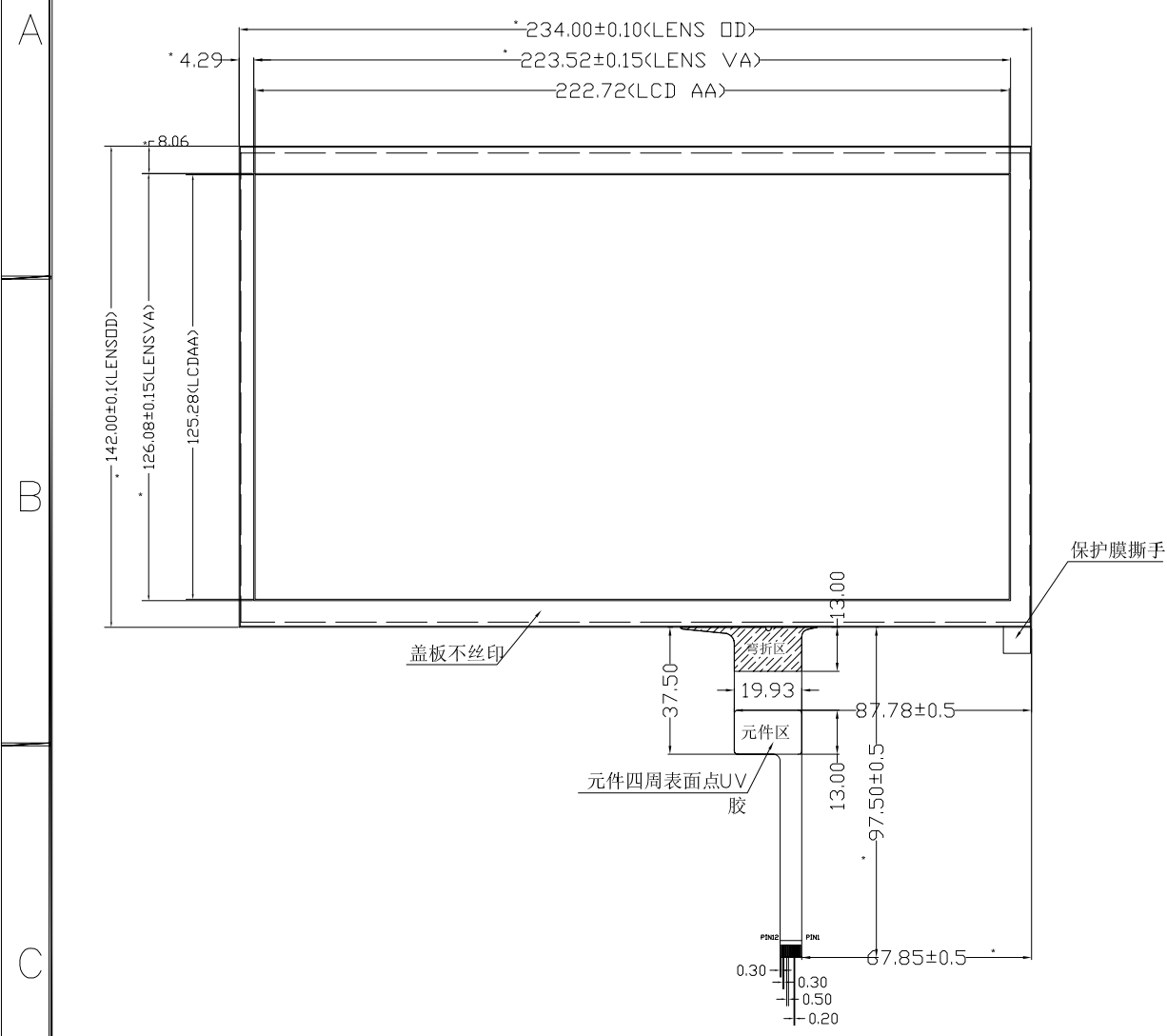
<Endorse>

1. All cosmetic defects are not accounted if found outside Active Area.
(except for glass breakage, corner flaw, edge flaw, crack, etc. Please follow Appearance Inspection criteria upon inspection)
2. D =Diameter / W =Width / L =Length
3. Tail: Slight bend mark is allowed on the tail; crack or tear is not allowed.
4. Particle Spots: Flaws found coating if transparent, please follow Particle Spots specification.

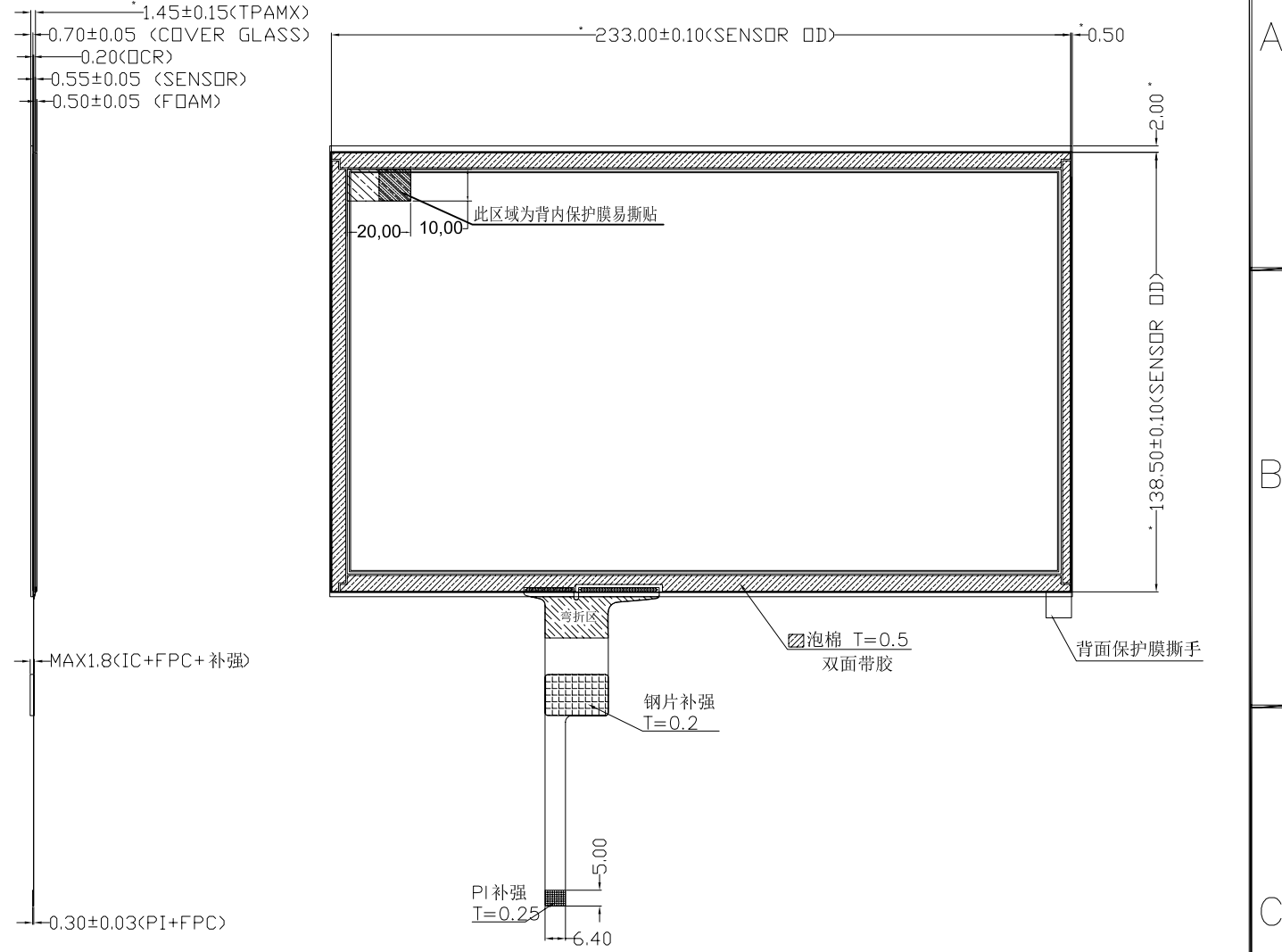
16. Mechanical Drawing

THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO FANNAL AND SHALL NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF FANNAL

ISSUE	AMENDMENT	DATE
V1.0	First Release	2016-11-08



Front view



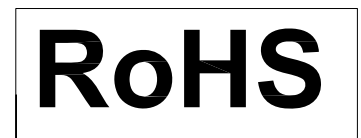
Side view

Back view

TECHNOLOGY CHARACTERISTICS CTP/TFT	
PROPERTY	Requirement
IC	FT5426
NO OF TOUCH	5
COVER GLASS Thickness	0.70mm
ITO GLASS Thickness	0.55mm
Surface Hardness	6H
Light transmission	87±5%
Operating temperature	-20-70C*
Storage temperature	-30-80C*
Operating Humidity	45-85RH
Storage Humidity	5-95RH

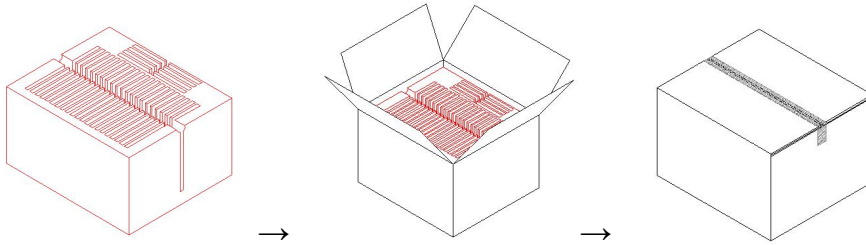
PIN	定义
1	GND
2	NC
3	NC
4	NC
5	NC
6	GND
7	SDA(3.3V)
8	SCL(3.3V)
9	RST
10	INT(3.3V)
11	VCC(3.3V)
12	VCC(3.3V)

NOTES:
 TOLERANCE UNLESS: x.x ±0.3
 OTHERWISE SPECIFIED: x.xx ±0.1
 DIMENSIONS IN MM: ANGULAR±1°



MODEL NO: FN101A029-V1.0			
THIRD ANGLE PROJECTION			
	NAME	SIGN	DATE
DRAWN:	Jevon		2016-11-08
CHECKED:			
APPROVED:			
PROJECT NO:			
CUSTOMER NO:			
FILE NO:			
SHEET 1 OF 1			

17. Packaging



SIZE: 53X36X27.5cm