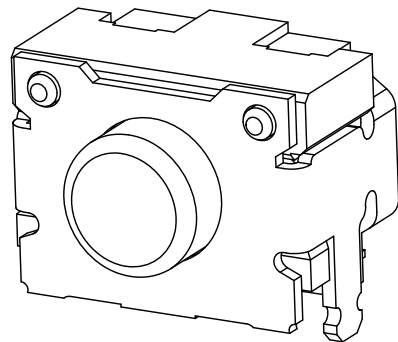
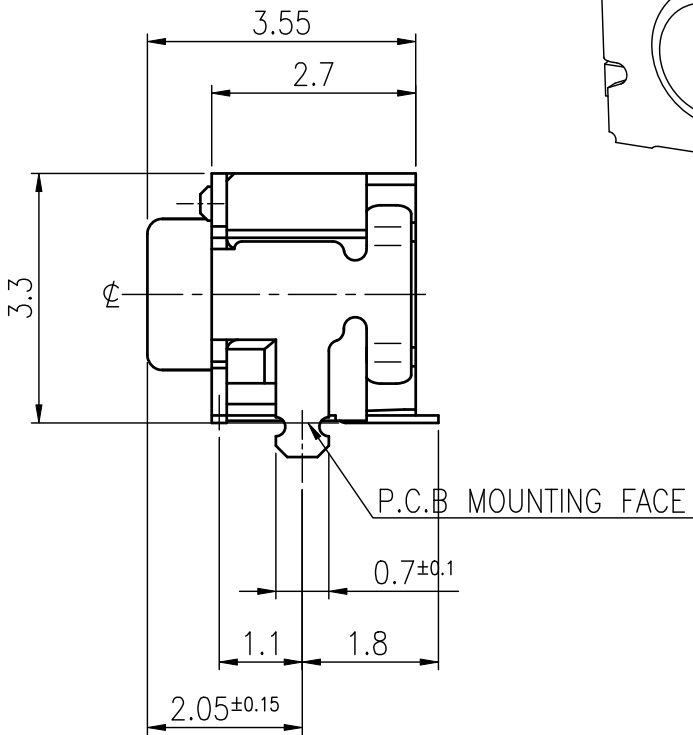
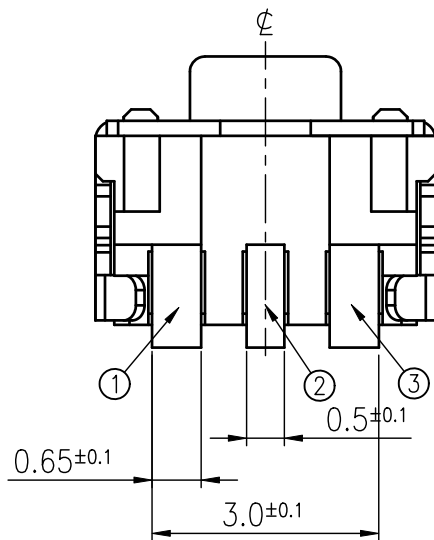
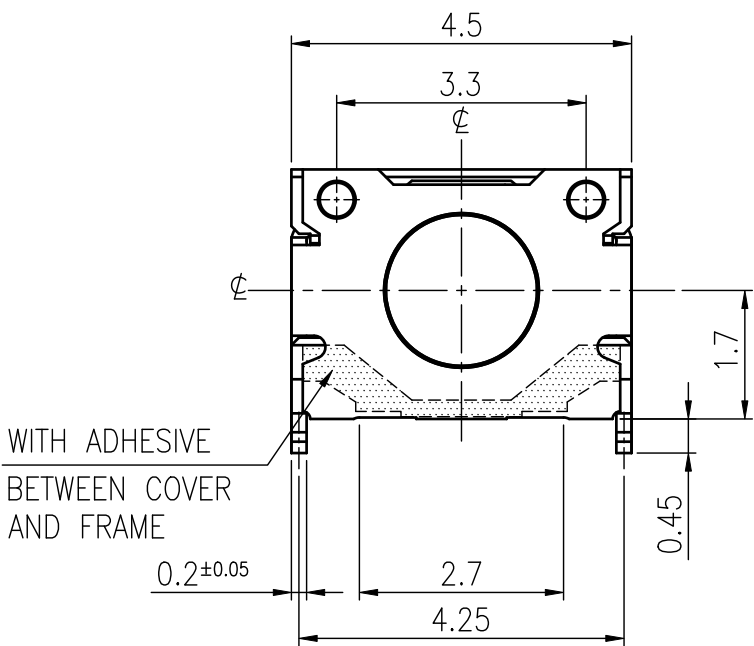
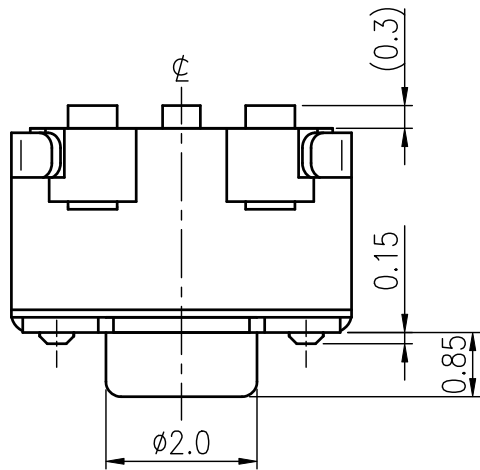


RoHS Compliant

T-MEC  
TAIWAN MISAKI ELECTRONICS CO., LTD.  
ISSUED  
2015.10.20  
RD DCC

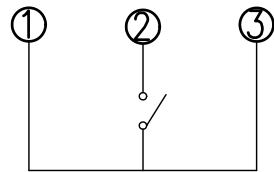
T-MEC  
作廢章  
2016.07.26  
文管中心 TW



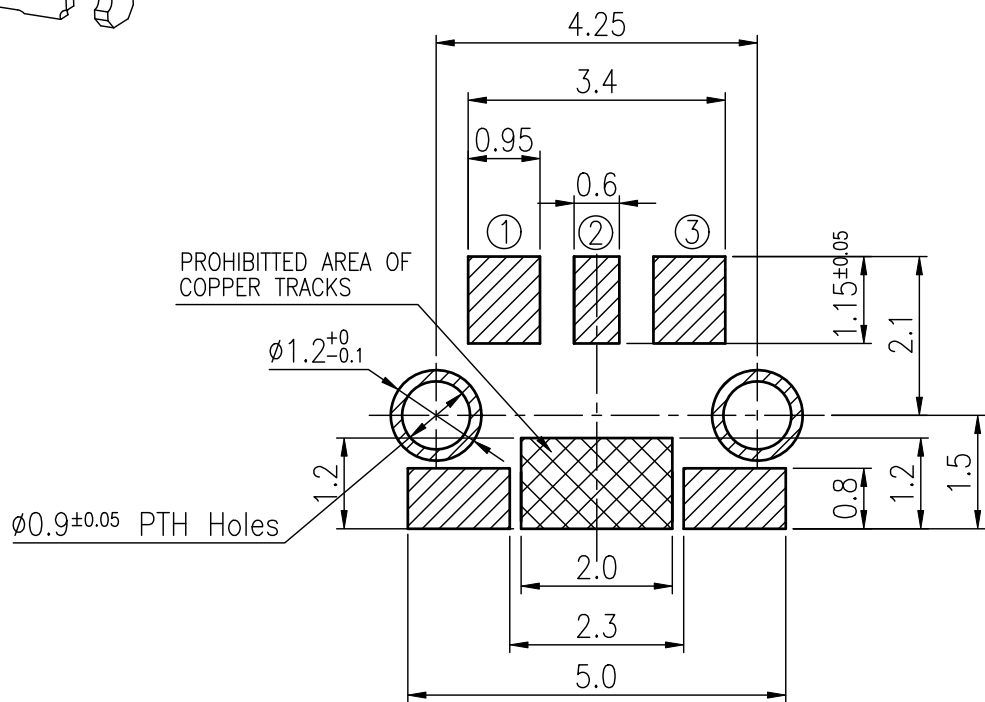
REVISIONS							
Rev	DESCRIPTION	DATE	DRAWER	REV	DESCRIPTION	DATE	DRAWER
A	Initial Drawing	2015.04.07	Jamie Li	C			
B				D			

SPECIFICATIONS			
RATING	DC12V 50mA	TIMING	
CONTACT RESISTANCE	500mΩ MAX.	OPERATION (TORQUE)	160±50 gf
INSULATION RESISTANCE	DC500V-100MΩ MIN.	STROKE (ANGLE)	0.2±0.1mm
WITHSTAND VOLTAGE	AC250V-1 MINUTE	CONTACT RESISTANCE	1Ω MAX.
REMARKS:		(AFTER 100,000 CYCLES LIFE TEST)	

SCHEMATIC



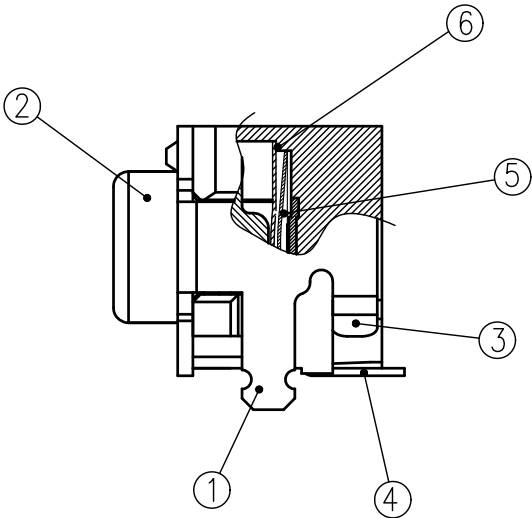
P.C.B. LAYOUT

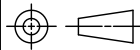


HATCHED AREA SHOWS SOLDERING LAND  
(TOLERANCES UNLESS OTHERWISE SPECIFIED ±0.1)

TOLERANCES UNLESS OTHERWISE SPECIFIED ±0.2			SIGNATURES	DATE	MODEL
			DRAWN Jane Shen	2015.10.06	TITLE TACT SWITCH
			CHECKED		
			REVIEWED		NO. NTC325-CK1J-A160T
			APPROVALS Dennis Hung	2015.10.06	

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6	TAPE	1	POLYIMIDE			
5	CONTACT PLATE	1	STAINLESS STEEL PLATE	Ni-Ag-PLATING		
4	TERMINAL	3	COPPER ALLOY	Ag PLATING OVER Ni PLATING		
3	FRAME	1	POLYAMIDE RESIN	BLACK COLOR		
2	STEM	1	LIQUID CRYSTAL POLYMER	NATURE COLOR		
1	COVER	1	COPPER ALLOY	GOLD FLASH OVER Ni PLATING AT SOLDER TAIL		
NO.	PART NAME	Q'TY	MATERIAL	SPECIFICATION		
				SIGNATURES	DATE	M O D E L
				DRAWN    Jamie Li	2015.04.08	TITLE TACT SWITCH
				CHK'D		
				REV'D		
				APP'D    Dennis Hung	2015.04.08	NO. NTC325-CK1J-A160T
SYM	DESCRIPTION	DATE	APPROVED			
TAIWAN MISAKI ELECTRONICS CO.,LTD.						DWG NO. NTC325-CK01

# SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

Model: NTC325- \_K1J \_Series

## 1. Test condition:

Standard test conditions shall be 5~35°C in temperature, 45~85%RH in humidity and 86~106Kpa in atmospheric pressure. Should any doubt arise in judgment, tests shall be conducted at 20±2°C in temperature, 60~70% RH in Humidity and 86~106 kpa in atmospheric pressure.

## 2. Operating temperature range: -40 ~ +85°C

Preservative temperature range: Single condition: -40 ~ +85°C ; Taping condition: -20 ~ +60°C

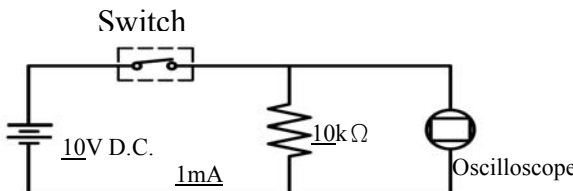
## 3. Construction:

3.1 Shape and dimension are subject to attached drawing regulation.

3.2 Appearance: Whole should be a good completion, no rust, no crack and good plating.

## 4. Rating: 12V D.C. , 50mA.

## 5. Electrical Performance:

No.	Items	Test conditions	Specifications
5.1	Contact Resistance	Shall be measure at 1kHz±200Hz (MAX. 20mV, MAX. 50mA.) or 1 A, 5V D.C. By voltage drop method.	500mΩ Max.
5.2	Insulation Resistance	Shall be measured by applying 500V D.C. Between all terminals and between the terminals and the frame for 1 minute ± 5 seconds.	100MΩ Min.
5.3	Withstand Voltage	250V A.C. (50~60Hz 2mA) shall be applied between all terminals and between the terminals and the frame for 1 minute.	No dielectric breakdown shall be occurred.
5.4	Bounce	<p>Lightly striking the center of the stem at a rate encountered in normal use ( 3 to 4 operations per sec.)</p> 	<p>ON: 10m sec Max. OFF: 10m sec Max.</p>

APPROVED BY

REVIEWED BY

CHECKED BY

DESIGNED BY

SPEC NO.

*Dennis Hung*

Jane Shen  
2015.10.20

SE-TC52N

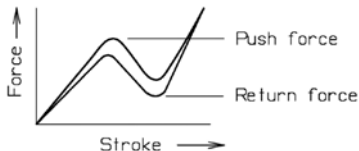
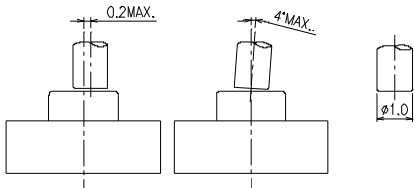
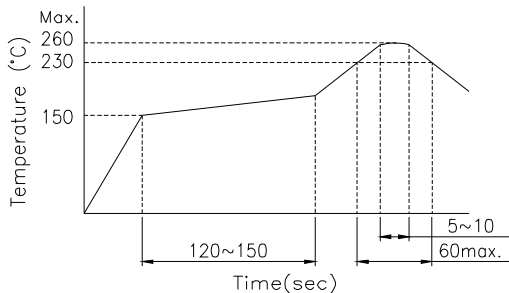
PAGINATE

1/3

# SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

## 6. Mechanical Performance:

No.	Items	Test conditions	Specifications
6.1	Operating Force	<p>Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the center of the stem, the maximum load required for the switch to come to a stop shall be measured.</p> 	$160 \pm 50$ gf. $250 \pm 60$ gf.
6.2	Travel	<p>Placing the switch such that the direction of switch operation is vertical and then applying a below static load to the center of the stem, the travel distance for the switch to come to a stop shall be measured.</p> 	$0.2 \pm 0.1$ mm.
6.3	Control Strength	<p>The static load of <u>2kgf</u> shall be applied on top of the terminal in every direction for 15 seconds in any direction on condition of once for one terminal.</p>	<p>Shall be free from extreme wobble, vent or electrical and mechanical abnormality. Not deformation of the appearance.</p>
6.4	Solderability	<p>Soldering temperature: <math>235 \pm 5^\circ\text{C}</math>.  Soldering time: <math>2 \pm 0.5</math> seconds.</p>	<p>75% or more of surface area of the portion immersed in solder shall be satisfied.</p>
6.4	Solder Heat Resistance	<p>(1) Manual soldering temperature:  Temperature: <math>350^\circ\text{C}</math> Max.  Time: 3 Sec. Max.  (2) Reflow Soldering:  Number of reflow pass: 2 cycles.</p> 	<p>Shall be free from pronounced deforming in appearance. Of item 5.1~5.4 shall be satisfied.  Of item 6.1~6.2 shall be satisfied.</p>

APPROVED BY

REVIEWED BY

CHECKED BY

DESIGNED BY

SPEC NO.

*Dennis Hung*

Jane Shen  
2015.10.20

SE-TC52N  
PAGINATE

SYM DISCRIPTION

DATE

2/3

TAIWAN MISAKI ELECTRONICS CO., LTD.

# SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

## 7. Weather Performance:

No.	Items	Test conditions	Specifications											
7.1	Humidity Test	(1) Temperature: 60±2℃ . (2) Relative humidity: 90~95% (3) Duration of test: 500 Hour. (4) Take off a drop water. (5) Standard conditions after test: 1 Hour.	Contact resistance: 500mΩ Max Of item 5.2~5.4 shall be satisfied. Of item 6.1~6.2 shall be satisfied.											
7.2	Heat Test	(1) Temperature: 85±2℃ . (2) Duration of test: 500 Hour. (3) Standard conditions after test: 1 Hour.												
7.3	Cold Test	(1) Temperature: -40±2℃ . (2) Duration of test: 500 Hour. (3) Take off a drop water. (4) Standard conditions after test: 1 Hour.												
7.4	Temperature cycle	(1) Test cycle: <u>20</u> cycles. (2) Standard conditions after test: 1 Hour. <table><tr><td></td><td>Temperature</td><td>Duration of test</td></tr><tr><td rowspan="4">1 cycles</td><td>20±5℃</td><td>1 Hour</td></tr><tr><td>-40±2℃</td><td>1 Hour</td></tr><tr><td>20±5℃</td><td>1 Hour</td></tr><tr><td>85±2℃</td><td>1 Hour</td></tr></table>			Temperature	Duration of test	1 cycles	20±5℃	1 Hour	-40±2℃	1 Hour	20±5℃	1 Hour	85±2℃
	Temperature	Duration of test												
1 cycles	20±5℃	1 Hour												
	-40±2℃	1 Hour												
	20±5℃	1 Hour												
	85±2℃	1 Hour												

## 8. Durability:

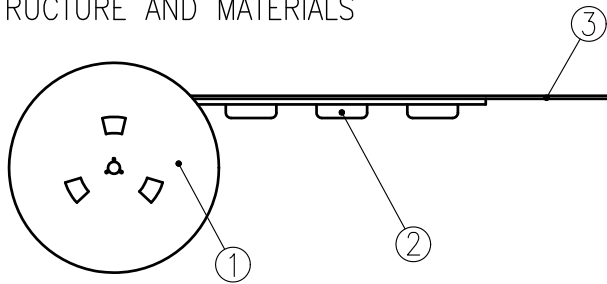
No.	Items	Test conditions	Specifications
8.1	Life Test	(1) Operating speed: 120 cycles/minute. (2) Push force: Maximum value of operation force. (3) Operation number: 160gf: 100,000 times. 250gf: 80,000 times.	Contact Resistance: 1Ω MAX.  Operating Force: Within $\pm 30\%$ of specifications. Of item 5.2 shall be satisfied. Of item 6.2 shall be satisfied.

			APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	SPEC NO.
			Dennis Hung			Jane Shen	SE-TC52N
B						2015.10.20	PAGINATE
A							
SYM	DISCRIPTION	DATE					3/3

# THE PACKING SPECIFICATIONS

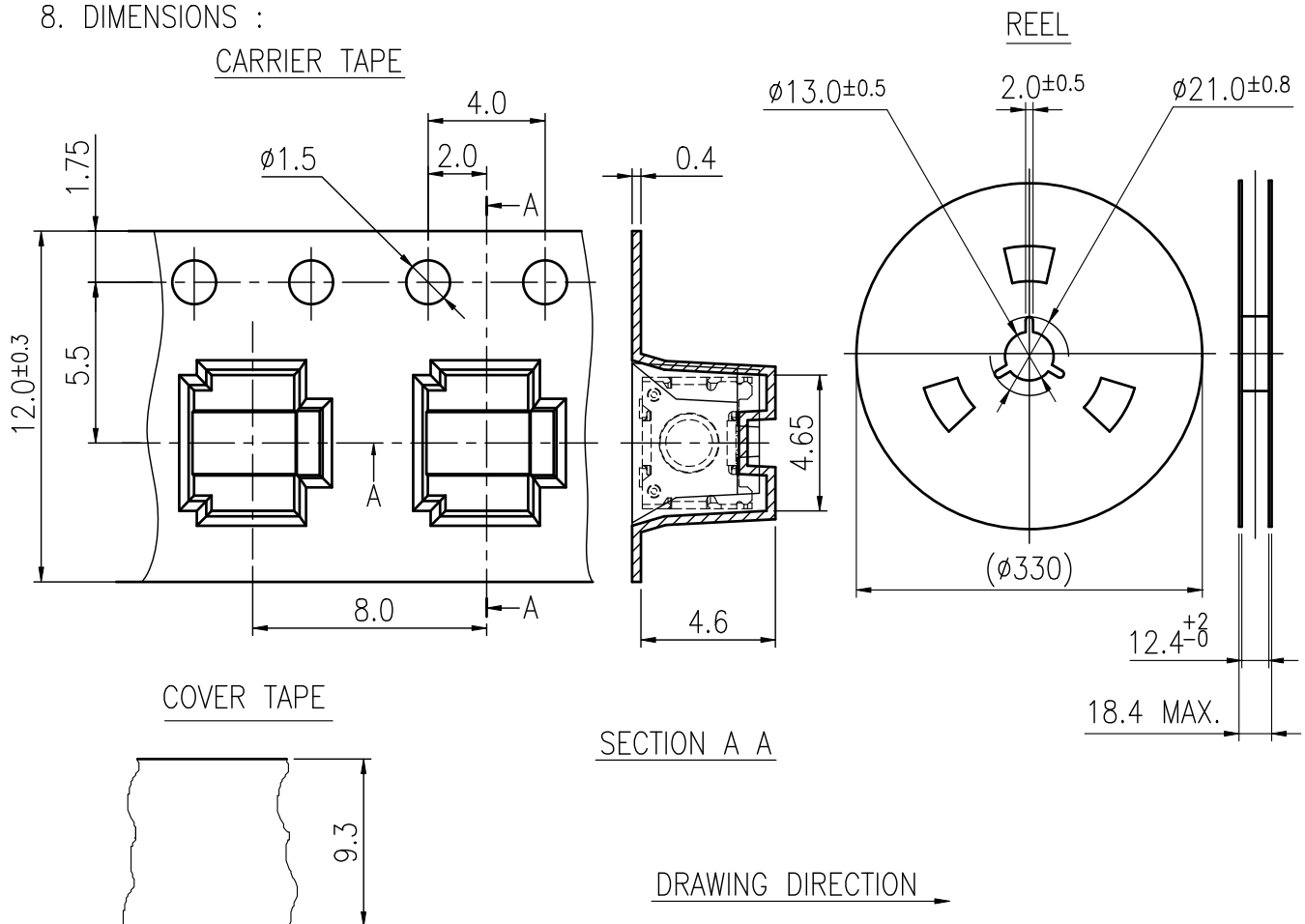
RoHS Compliant

## 1. STRUCTURE AND MATERIALS



③	COVER TAPE	POLYESTER
②	CARRIER TAPE	POLYSTYRENE
①	REEL	POLYSTYRENE
NO.	PARTS NAME	MATERIALS

- PACKAGING QUANTITY : 1,800 PCS/REEL
- MORE THAN 10 EMPTY POCKETS SHOULD BE REMAINED AT BOTH ENDS OF THE CARRIER TAPE FOR EACH REEL.
- SHORTAGE LESS THAN 10 PCS A REEL IS ACCEPTABLE BUT MORE THAN 3 RUNNING POCKETS SHORTAGE IS NOT ALLOWED.
- STRIPPING STRENGTH OF COVER TAPE IS BETWEEN 10 gf TO **130 gf** AND STRIPPING ANGLE SHOULD BE WITHIN 165° ~ 180°.
- THE PRODUCT IN THE POCKET OF CARRIER TAPE SHOULD BE PLACED IN A SPECIFIED CORRECT POSITION.
- TAPE AND REEL PER EIA-481
- DIMENSIONS :



				APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	MODEL NO.
							Jamie Li	NTC325--_K1J SEIRES
							2015.04.08	PAGINATE.
								1/1
								SPEC NO.
								P-753
SYM	DISCRPTION	DATE	APPROVED					

TAIWAN MISAKI ELECTRONICS CO.,LTD.