

## Core Test Report for SGI 1.25 & GI 2.0EV

### 1. INTRODUCTION

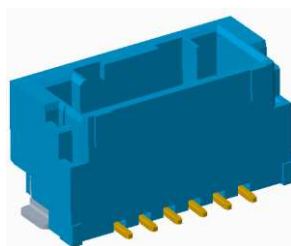
#### 1.1. Purpose

Testing was performed on the TE Connectivity (TE) SGI 1.25 & GI 2.0EV to determine its coplanarity conformance after reflow process.

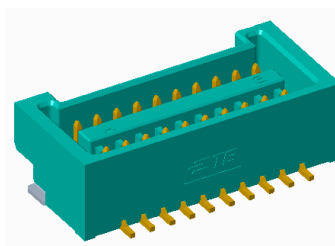
#### 1.2. Scope

This report covers the electrical, mechanical, and environmental performance of SGI 1.25 & GI 2.0EV. Testing was performed at the Shanghai Electrical Components Test Laboratory between 06Jan2021 and 26Jan2021. The test file number for this testing is TP-20-03110-RECORD.

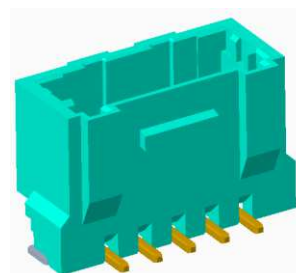
- SGI 1.25 single row header assembly
- SGI 1.25 dual row header assembly
- SGI 2.0 EV header assembly



SGI 1.25 Single Row



SGI 1.25 Dual Row



SGI 2.0 EV

Figure 1

#### 1.3. Conclusion

All part numbers listed in Paragraph 1.4 conformed to the minimum coplanarity requirement of 0.10mm max.

#### 1.4. Test Specimens

Test Set	Quantity	Part Number	Description
1	5	2360540-6	Header Assy, VT, SGI 1.25, 6pos, Key A
	5	2-2376974-0	Header Assy, 20pos, VT, Key A, SGI 1.25
	5	2367943-5	Header Assembly, SGI 2.0 EV, 5pos
2	3	2360540-6	Header Assy, VT, SGI 1.25, 6pos, Key A
	3	2-2376974-0	Header Assy, 20pos, VT, Key A, SGI 1.25
	3	2367943-5	Header Assembly, SGI 2.0 EV, 5pos

Figure 2

## 1.5. Test Sequence

Test or Examination	Test Groups (a)	
	1	2
	Test Sequence (b)	
Initial examination of product	1	1
Humidity and Temperature Cycling (Damp Heat)		2
Core test	2	3
Initial examination of product	3	4



### NOTE

- a) See Paragraph 1.4.  
b) Numbers indicate sequence in which tests shall be performed.

**Figure 3**

## 1.6. Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

- Temperature: 15°C to 35°C
- Relative Humidity: 20% to 80%

## 2. SUMMARY OF TESTING

### 2.1. Test Data

All part numbers listed in Paragraph 1.4 conformed to the minimum coplanarity requirement of 0.10mm max. See appendix for the detailed data.

## 3. TEST METHODS

### 3.1. Examination of Product

Testing is performed in accordance with EIA-364-18. Specimens were visually examined and no evidence of physical damage detrimental to product performance was observed.

### 3.2. Humidity and Temperature Cycling

Place specimens in a clean, dry, shallow container so that they do not touch or overlap each other. Subject the specimens to 85°C and 60% RH for 168 hours.

### 3.3. Core Test

Testing is performed in accordance with TEC-109-201 condition B. Specimens are subjected to coplanarity check for all solder leads during the required soldering heat. See below for temperature profile.

- Reflow soldering simulation condition (Peak temperature: 260 +0/-5°)
- Preheat temperature (minimum): 150°C, Preheat temperature (maximum): 200°C
- Preheat time: 60 to 180 seconds
- Ramp to peak: 3°C per second maximum
- Time over liquidus (217°C): 60 to 150 seconds
- Peak temperature: 260 +0/-5°C
- Time within 5°C of peak: 20 to 40 seconds
- Ramp - cool down: 6°C per second maximum

# Appendix

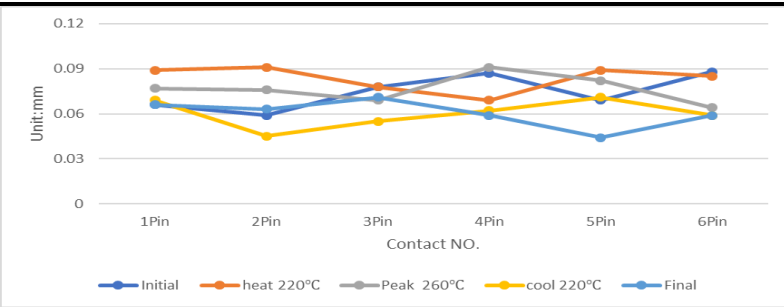
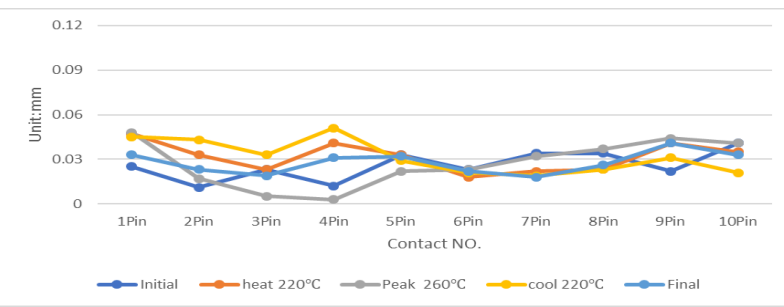
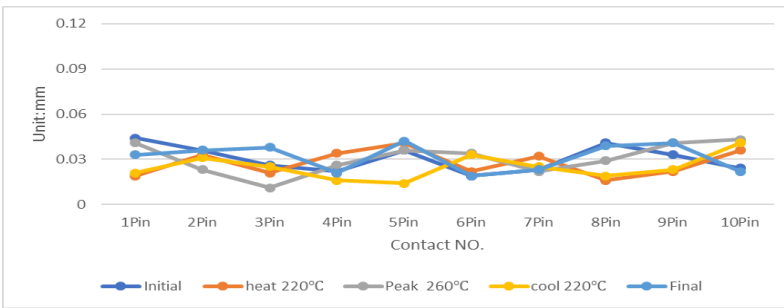
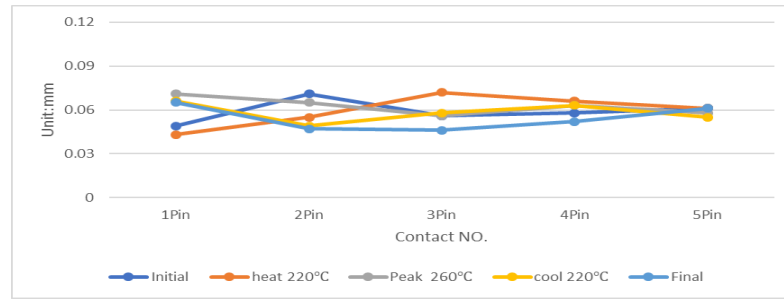
Test Group	Part Number	Test Data
1	2360540-6	
	2-2376974-0	 
	2367943-5	

Figure 4

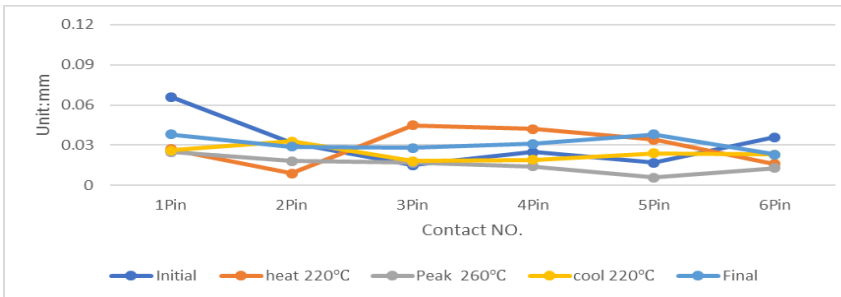
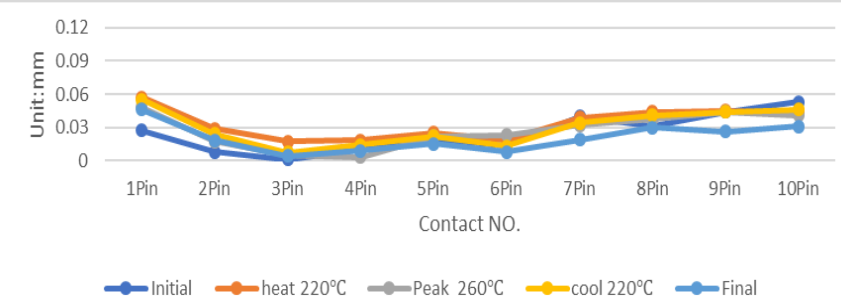
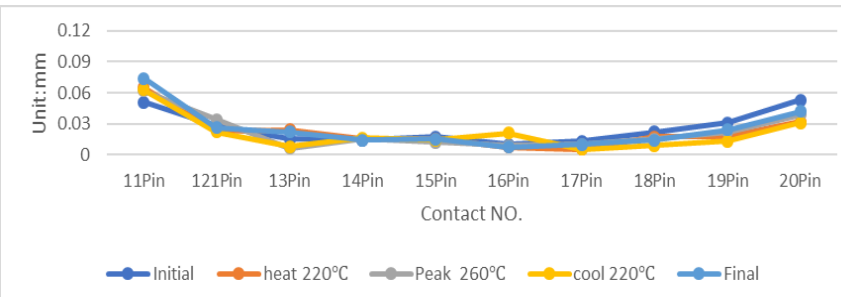
Test Group	Part Number	Test Data
2	2360540-6	 <p>Unit:mm</p> <p>0.12</p> <p>0.09</p> <p>0.06</p> <p>0.03</p> <p>0</p> <p>1Pin 2Pin 3Pin 4Pin 5Pin 6Pin</p> <p>Contact NO.</p> <p>Initial heat 220°C Peak 260°C cool 220°C Final</p>
	2-2376974-0	 <p>Unit:mm</p> <p>0.12</p> <p>0.09</p> <p>0.06</p> <p>0.03</p> <p>0</p> <p>1Pin 2Pin 3Pin 4Pin 5Pin 6Pin 7Pin 8Pin 9Pin 10Pin</p> <p>Contact NO.</p> <p>Initial heat 220°C Peak 260°C cool 220°C Final</p>
	2367943-5	 <p>Unit:mm</p> <p>0.12</p> <p>0.09</p> <p>0.06</p> <p>0.03</p> <p>0</p> <p>1Pin 2Pin 3Pin 4Pin 5Pin</p> <p>Contact NO.</p> <p>Initial heat 220°C Peak 260°C cool 220°C Final</p>

Figure 5