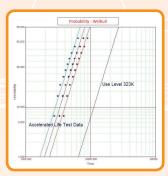
Reliability Engineering Service

Reliability is the key factor to success in today's high reliability electronic product market. Our Reliability Engineering Team provides customers with cost-effective engineering consultancy services like "Reliability Prediction" and "Life Data Analysis" to ensure that their product's reliability requirements are achieved.

Product Life Data Analysis:

- Life Prediction
- Accelerated Life Test Planning
 - Quantitative Accelerated Life Testing Analysis
 - System Reliability Analysis



- Calculation of Spare Parts Inventory
- Weibull Analysis
- MTTF Prediction



Reliability Testing Centre

Through upgrading its testing facilities, the Reliability Testing Centre is offering new services to assist local electronics practitioners to shorten the product production cycle, reduce product development time and cost, discover potential product defects at early stage to enhance the reliability of their products effectively.

The Centre is also qualified by IBM to act as its first testing centre in Asia to conduct printed circuit board (PCB) testing at the IBM Mixed Soldering Assembly (MSA) Level.

Service On Offer

- HALT Test
- High Low Temperature Test
- Temperature & Humidity Test
- Thermal Shock Test
- (Air Type / Liquid Type)Vibration and Shock Test
- Combined Climatic Vibration Test
- Printed Circuit Board Qualification Test

- High Reliability Reflow Simulation
- Printed Circuit Board Resistance to Soldering Heat Test
- Push and Pull Test
- Dye and Pry Test
- Autoclave Test
- Infrared Thermography
- Railway & Automotive Electronics Device Test

"Our Centre can help you Improve Product Quality"



汽車及電子部 AUTOMOTIVE AND ELECTRONICS (AED)

Testing Centre Facilities

High Reliability Reflow Simulation System

Vitronics Soltec XPM3 1240

- 12 Top and Bottom Heating Zones
- 4 Cooling Zones
- 350 °C Maximum Operation Temperature
- ± 1 °C Temperature Control Accuracy
- Lead Free Application



Highly Accelerated Life Test (HALT)

Qualmark Typhoon 2.0

- Temperature Range : -100°C to +200°C
- Thermal Ramp Rate : 70°C to 100°C /min
- Vibration Range: 5 to 75grms, 5 to 5000Hz
- Six Degree of Freedom



Combined Climatic Vibration Test System

CEPREI CEEC-THV-500B STI S-0404 STI D-300-3

- Vibration with Temperature and **Humidity Change**
- Temperature & Humidity Range : -40°C to +150°C; 25% to 98%RH
- Frequency Range : 5 to 1500Hz
- Acceleration Range up • to 98g
- Displacement Range Up to 25mm Peak to Peak
- Vertical and Horizontal Vibration



Weiss WK-270/70/15

Weiss WK-480/70/15

Weiss WK-800/70/15

Temperature Change : 15°C /min

Climatic Cycling Chamber

- Humidity Range : 10% to 95% RH
- Climate Temperture Range : 10°C to 95°C



Air Thermal Shock Chamber

Votsch VT7012

- Air to Air Thermal Shock Test Range : -80°C to +220°C
- Can Perform Various International Test Standards, Including MIL-STD-883,

MIL-STD-810, MIL-STD-202, IEC 60068-2-14, IPC-TM-650 etc.



X-ray Inspection System

Glenbrook JewelBox-90T

Five-axis Control Over the Inspected Product, Including 360° Rotation and Tilt Magnification : 7X to 2000X



Automatic Surface Insulation Resistance Test System

GEN3 AUTOSIR 128

- Measure Range : $10^6 \Omega \simeq 10^{13} \Omega$
- Bias Voltage : 5V, 10V, 50V, 100V or External Voltage Supply
- Measurement Channels : 128



Solder Joint Shear Tester

Dage 4000+

- Accuracy: ±0.1%
- Maximum Force : 50kg
- Maximum Speed : 2mm/s
- Shear Width : 1, 2, 3, 4, 5, 9mm

Vibration Test System

IMV VS-500-4

- Frequency : 5~3000Hz Maximum Acceleration :
- 91G Maximum Rated Force :
- 500kg Can Perform Sine or
- Random Vibration Tests Frequency Sweep Test,
- **Resonance Dwell Test** Can Perform Shock Test/
 - Bump Test (Reference waveforms: Halfsine wave, Sawtooth wave, Trapezoidal wave, Triangle wave, Synthesized Wave and Haversinewave)

Lead Free Wave Soldering System

SunEast SAC-3JS

- **Dual Wave System** •
- Maximum Solder Bath Temperature of 300°C
- Conveyor Speed Range : 0.5~1.8m /min



+852 2788-5793/ 2788-6064/ 2788-5783

