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
- Calculation of Spare Parts Inventory
- Weibull Analysis
- MTTF Prediction
- Accelerated Life Test Planning
- Quantitative Accelerated Life Testing Analysis
- System Reliability Analysis

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"
Testing Centre Facilities

High Reliability Reflow Simulation System
Model: 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

Climatic Cycling Chamber
Model: Weiss WK-270/70/15
- Temperature Range: -70°C to +180°C
- Temperature Change: 15°C/minute
- Humidity Range: 10% to 95% RH
- Climate Temperature Range: 10°C to 95°C

Highly Accelerated Life Test (HALT)
Model: Qualmark Typhoon 2.0
- Temperature Range: -100°C to +200°C
- Thermal Ramp Rate: 70°C to 100°C/minute
- Vibration Range: 5 to 75g, 5 to 5000Hz
- Six Degree of Freedom

Air Thermal Shock Chamber
Model: Votsch VT7012
- Air to Air Thermal Shock Test Range: -80°C to +220°C

Combined Climatic Vibration Test System
Model: CEPREEI CEEC-THV-500B
- Vibration with Temperature and Humidity Change
- Temperature & Humidity Range: -40°C to +150°C, 25% to 98% RH
- Frequency Range: 5 to 15000Hz
- Acceleration Range up to 98g
- Displacement Range Up to 25mm Peak to Peak
- Vertical and Horizontal Vibration

Automatic Surface Insulation Resistance Test System
Model: GEN3 AUTOSIR 128
- Measure Range: 10Ω – 1015Ω
- Bias Voltage: 5V, 10V, 50V, 100V or External Voltage Supply
- Measurement Channels: 128

X-ray Inspection System
Model: Glenbrook JewelBox-90T
- Five-axis Control Over the Inspected Product, Including 360° Rotation and Tilt
- Magnification: 7X to 2000X

Solder Joint Shear Tester
Model: Dage 4000+
- Accuracy: ±0.1%
- Maximum Force: 50kg
- Maximum Speed: 2mm/second
- Shear Width: 1, 2, 3, 4, 5, 9mm

Vibration Test System
Model: 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: Half-sine wave, Sawtooth wave, Trapezoidal wave, Triangle wave, Synthesized Wave and Haversine wave)

Air Thermal Shock Chamber
Model: Weiss WK-480/70/15
- Temperature Range: -70°C to +180°C
- Temperature Change: 15°C/minute
- Humidity Range: 10% to 95% RH
- Climate Temperature Range: 10°C to 95°C

Climatic Cycling Chamber
Model: Weiss WK-600/70/15
- Temperature Range: -70°C to +180°C
- Temperature Change: 15°C/minute
- Humidity Range: 10% to 95% RH
- Climate Temperature Range: 10°C to 95°C

Lead Free Wave Soldering System
Model: SunEast SAC-3JS
- Dual Wave System
- Maximum Solder Bath Temperature of 300°C
- Conveyor Speed Range: 0.5~1.8m/minute

For further information, please contact
+852 2788-5793/2788-6064/2788-5783  reliability@hkpc.org