

鐵路列車車載電子設備 EN50155 型式認可測試



鐵路電子設備必須適應不同的運作環境要求例如、溫度、濕度、衝擊、震動和電性能差異。此類電子設備必須通過符合 EN50155 標準的一套嚴格的測試，以確保整個系統能在嚴苛的鐵路環境下正常地運作。

香港生產力促進局轄下的可靠性測試中心擁有符合 EN50155 型式認可測試能力，可為業界提供有關之服務。

針對一般鐵路電子儀器，可靠性測試中心具備完整的測試能力。

| | 測試項目 | 型式試驗 | 中心能力 |
|----|--------------------|------|------|
| 1 | 目視檢驗 | ☑ | ☑ |
| 2 | 性能試驗 | ☑ | ☑ |
| 3 | 冷卻試驗 | ☑ | ☑ |
| 4 | 乾熱試驗 | ☑ | ☑ |
| 5 | 循環濕熱試驗 | | ☑ |
| 6 | 過電壓試驗 | ☑ | ☑ |
| 7 | 靜電測試, 浪湧及瞬態脈衝敏感度試驗 | ☑ | ☑ |
| 8 | 無線電干擾試驗 | | ☑ |
| 9 | 絕緣試驗 | ☑ | ☑ |
| 10 | 鹽霧試驗 | | ☑ |
| 11 | 振動及衝擊試驗 | ☑ | ☑ |
| 12 | 水密性試驗 | | ☑ |
| 13 | 設備應力篩選 | | ☑ |
| 14 | 低溫儲存試驗 | | ☑ |

EN50155 Type Approval Test on Electronic Equipment for Railway Applications



Electronic equipment for railway applications must adapt to different operational environmental requirements such as temperature, humidity, shock, vibration, and electrical characteristic differences. Such electronic devices must comply with the EN50155 standard set of rigorous tests to ensure that the entire system can function properly in the harsh environment of the railway. The Reliability Testing Centre of the Hong Kong Productivity Council is equipped with the capability to meet requirements of the EN50155 Type Approval Test, and can provide related test services for the industry.

Reliability Testing Centre has complete testing capability for EN50155 Type Approval Test for a typical railway component.

| | Test Item | Type Test | Our Capability |
|----|---|-------------------------------------|-------------------------------------|
| 1 | Visual Inspection | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2 | Performance Test | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3 | Cooling Test | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4 | Dry Heat Test | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5 | Damp Heat Test, Cyclic | | <input checked="" type="checkbox"/> |
| 6 | Supply Over Voltages | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7 | Electrostatic Discharge (ESD), Surges and Fast Transient Susceptibility Tests | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 | Radio Interference Test | | <input checked="" type="checkbox"/> |
| 9 | Insulation Test | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 | Salt Mist Test | | <input checked="" type="checkbox"/> |
| 11 | Vibration and Shock Test | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12 | Watertightness Test | | <input checked="" type="checkbox"/> |
| 13 | Equipment Stress Screening | | <input checked="" type="checkbox"/> |
| 14 | Low Temperature Storage Test | | <input checked="" type="checkbox"/> |