

Tram Project in Finland



Project Introduction

As the main means of transport in the city centre, Helsinki tram system delivers up to 54.9 million passengers per year (2009). Being one of the oldest electrified tram networks in the world, the company keeps upgrading its system with the latest IP technology. The weather of Helsinki has extreme differences between seasons, which may over 30°C in summer and lower than -35°C in winter. Thus, the most rugged design is one of the key factors to this project.

System Requirements

1. Support PoE at/af standard
2. EN50155 certified
3. Waterproof and dustproof enclosure
4. Sustain from long term shock and vibration
5. Sustain from extreme temperature from -35°C to over 35°C
6. Support low voltage power input for vehicle

The project adopted 105 pieces Lantech IPES-5416T-8-67 EN50155 industrial switch and each tram installed 3 or 2 switches. The switch connects PIS process computers, LCD displays, passenger info system, ticket system, video surveillance system, fire alarm system, etc. All the ticket, video, system data is transmitted via the reliable IP networks built by Lantech IPES-5416T-8-67.

Lantech Solution: IPES-5416T-8-67

1. Gigabit uplink connection not only satisfy current bandwidth requirement, but also ensure the ability of covering future requirement
2. 8 x 802.3at PoE injectors of up to 30W per port
3. 12VDC booster is able to ensure 30W PoE output, even in vehicle
4. IP67-rated aluminum housing with waterproof and dustproof ability
5. M12/M23 connector for hardened cable connectivity
6. EN50155 certified for vehicle applications
7. Wide operating temperature from -40°C to 75°C

