

## Bluetooth ä LSE 019 Printer Adapter



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### **LSE 019 Printer Adapter, *Revision R1D*:**

The “LSE 019 printer adapter” is a proprietary wireless printer module that provides a parallel interface to a printer. This adapter works with Bluetooth products that supports WSS proprietary wireless printing (patent pending). The maximum distance for error free printing is up to 10 m, a PC based printer installation is required.

#### **Features:**

- Bluetooth V1.0B + Critical Errata compliant
- Upgradeable to V1.1 specification
- Parallel Centronics printer interface
- Data rates up to 460 kbs
- WSS Proprietary wireless printing supported
- The antenna is integrated into the Printer module

#### **Application Profiles:**

- Generic Access profile
- WSS Proprietary wireless printing

The LSE 019 Printer Adapter is certified by the Bluetooth SIG and compliant with the Bluetooth 1.0B specification. The Printer Adapter is designed to comply with the Bluetooth 1.1 Draft specification. Further moore, the product complies with the regulatory national requirements (safety, EMC and radio type approval) according to the “Wireless Solutions Product Approval sheet” appendix A.

*WSS stands for Wireless Solutions Sweden AB*

**Note!** Bluetooth™ is a trade mark owned by Telefonaktiebolaget L M Ericsson, Sweden and licensed to Wireless Solutions Sweden AB.

## **Technical Specification, LSE 019 Printer Adapter:**

### **Radio Specifications:**

|                                |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| Frequency range                | 2.402 – 2.4800 GHz<br>Programmable for specific national regulations     |
| Supported Specification        | Bluetooth 1.0B specification                                             |
| RF output power                | 0 dBm, Power Class 3                                                     |
| Power management               | Active and passive power saving modes                                    |
| Receiver sensitivity           | Better than -70 dBm at 0.1% BER                                          |
| Frequency spectrum utilization | Frequency Hopping Spread Spectrum (FHSS)                                 |
| Modulation                     | Gaussian Frequency Shift Keying (GFSK)                                   |
| Bit-rate                       | 1 Mbs                                                                    |
| Antenna                        | Integrated                                                               |
| Regulative compliance          | FCC part 15, UL 1950 (US), ETS 300 328, ETS 300 826, EN 60 950 (EUROPE). |

### **Electrical Characteristics:**

|                       |                                      |
|-----------------------|--------------------------------------|
| Power supply          | + 5V external or from printer pin 18 |
| Max power consumption | 70 mA                                |
| Min power consumption | 40 mA                                |
| Physical interface    | Centronics connector                 |
| Visual indicators     | Power (LED)<br>Data traffic (LED)    |

### **Security:**

|                |                           |
|----------------|---------------------------|
| Initialization | 4 digit PIN code          |
| Authentication | Security mode 2 supported |
| Encryption     | Supported                 |

### **Mechanical Specifications:**

|                     |                 |
|---------------------|-----------------|
| Physical dimensions | 50 x 60 x 19 mm |
|---------------------|-----------------|

### **Environment:**

|                       |                        |
|-----------------------|------------------------|
| Operating temperature | 0 to 55°C              |
| Storage temperature   | -20 to 70°C            |
| Humidity              | 5 – 95% non condensing |

### **Configuration:**

|                                   |                            |
|-----------------------------------|----------------------------|
| Drivers, set-up and configuration | Via a PC connected adapter |
|-----------------------------------|----------------------------|

### **Software maintainability:**

|                                  |                            |
|----------------------------------|----------------------------|
| Printer Adapter software upgrade | Via a PC connected adapter |
|----------------------------------|----------------------------|

## **Appendix A**

### **Wireless Solutions Sweden AB Product Approval Sheet**

The LSE 019 Printer Adapter is tested and compliant with the national regulatory requirements according to the standards mentioned below.

#### **European Union:**

- EMC ETS 300 826 (EMC standard for 2,4 GHz wide band transmission systems and hiperlan)
- Radio ETSI EN 300 328-1 (EMC and radio spectrum matters for 2,4 GHz ISM band)
- Safety EN 60 950 (Safety of Information technology equipment)

*Compliance with this standards covering essential requirements under the 1999/5/EG R&TTE directive is necessary for placing the product on the EU market.*

#### **U.S / Canadian market:**

- EMC FCC CFR47 part 15.C (Emission requirements for product operating within 2.4 GHz ISM band)
- Radio FCC CFR47 part 15.247 (Radio spectrum requirements for FHSS systems operating within the 2.4 GHz ISM band)
- Safety UL 1950 (Safety of information technology equipment)

*Compliance with this standards, UL-listing and FCC-registration is necessary for placing the product on the U.S / Canadian market.*