



## Sec-Line Phone Fax 2000Xe

### Digital Encryption Unit for Phone and Fax



**SLPF2000Xe** is a **high-secure digital encryption** system from Ardy Electronics Ltd. This encryption unit can be installed to analogue phone lines world wide to encrypt voice and fax communication. Any quality analogue or digital phone can be connected to the Voice encryption module. Green or Red indication for Secure or Insecure connection.

**SLPF2000Xe voice encryption unit** uses Diffie Hellman with 1024 bit PKI handshake to start the secure connection and triple DES as per ANSI specification X9.52 as encryption algorithm with a 168-bit unique random synchronous encryption key negotiated for each call. The voice module uses key fingerprint display that prevents man-in-the-middle attacks with an Optional PIN-based access control possibility. **SLPF2000Xe** connects in moments to the handset and offers the following features: Strong Encryption Technology, Clear Voice Quality, One Button Operation, Universal Telephone Compatibility.

**SLPF2000Xe fax encryption unit** uses a proprietary symmetric algorithm with 480 bit key with key management according to ANSI standard with input of encryption keys from smart cards or manually from system keyboard. User smart card contains 100 encryption keys, which can be loaded to the encryption processor from the smart card reader. The fax module is installed between the telephone line and the Telefax terminal, and can be installed at all Telefax types with group 3 communication.

**SLPF2000Xe** has to be installed at both sides of the communication in order to establish a secure connection. The unit can be used for both secure and clear phone/fax calls. The SLPF2000Xe is fully compatible to the stand alone SLR2000Xe voice encryption unit and fully compatible with the stand alone SLF2000Xe fax encryption unit.



## SLPF 2000Xe

### Technical Voice Data

Modem:.....9600 bps CCITT V.32 full duplex, echo canceling  
Voice encoder:..... ITU G.729 AS-CELP at 8kbps  
Connection: ..... analogue telephone line  
Operation: ..... full duplex  
AC-power requirements: ..... adapter 240/110VAC 50/60 Hz  
DC-power requirements: ..... 12 VDC 1000 mA

### Encryption Voice Data

Algorithm:..... Triple DES as per ANSI specification X9.52  
Symmetric key length: ..... 168-bit unique, random key  
Symmetric key combinations:.....  $10^{51}$   
PKI algorithm: ..... Diffie-Hellman exponentiation  
PKI encryption key length:..... 1024 bits  
Public Key length:..... 256 bits  
PKI Key combinations: .....  $10^{308}$

### Technical Fax Data

Transmission: ..... according to CCITT group 3,T30.  
Synchronous speed:..... 2400, 4800, 7200, 9600,14400 bps.  
Communication fully : .....transparent, or encrypted.  
Display:..... 2x16 character.  
Electrical interface: ..... phone-line.

### Encryption Fax Data

Encryption:..... Ardy hardware encryption processor.  
Algorithm:..... Ardy stream cipher.  
Key management: ..... manual/ (auto as option).  
Key distribution: ..... smart cards.  
Key length:.....continuously changed 480 bits.  
Key input:..... manual or smart card.  
Synchronization: ..... encrypted initialization vector.  
Tamper protection: ..... automatic internal protection.

### Other Data

Temperature range operating:.....0 to 50 C  
Temperature range storage:..... -20 to 75 C  
Size:.....280 x 190 x 60 mm  
Weight:.....2.0 kg  
Cover: .....Plastic  
For more information see: ..... data sheet for SLF2000Xe and SLR2000Xe  
Technical information refer to:..... Users manual for SLF and SLR units