



**Securing Group 3  
fax communications for  
mission-critical  
government, corporate  
and private applications**

**The CSD 3324 SPF connects to Group 3 fax machines providing secure fax communications using the AES 256-bit encryption algorithm and Diffie-Hellman public key exchange key management for proven cryptographic strength, and ease of deployment and operation.**

### Secure Fax Communications

Cryptographically secured fax transfers are automatically negotiated by initiating a fax exchange from any common Group 3 fax machine connected to the CSD 3324 SPF's modular RJ-11 two-wire serial fax interface. When the far end fax is also connected to a CSD 3324 SPF, the fax is automatically sent encrypted. The CSD 3324 SPF receiving the fax call automatically switches to the decryption function when it senses that the fax call was placed by another CSD 3324 SPF.

The CSD 3324 SPF has user-friendly and password protected menus to allow users to configure the device to accept only secured fax messages, or both plain and secure fax messages. Connection speeds are negotiated by the V.29 or the V.27/ter modem, based on line conditions.



### Cryptographic Strength

The CSD 3324 SPF combines the proven strength of the 256-bit Advanced Encryption Standard (AES-256) algorithm with the simplicity of deployment provided with 1,024-bit Diffie-Hellman public key exchange key management. A session key (256-bit key length), is auto-negotiated with every half-duplex fax call as well as a new 128-bit initialization vector. The CSD 3324 SPF also has anti-spoof protection and a tamper-resistant physical design.

### Benefits

- Strategic-level security
- Easily connects to any Group 3 fax machine via RJ-11 two-wire fax port
- AES-256 with Diffie-Hellman public key exchange for simplicity, cryptographic strength and ease of use
- Tamper-resistant physical design
- Interoperable with TCC's CSD 3324 SP secure telephone/fax system
- Auto-sensing incoming plain or secure fax
- User-friendly, password-protected menu configurations
- Auto-retraining to lower line rates to support degraded line conditions

## Technical Specifications

### Cryptographic

Key generator (half duplex):  
Encrypt/decrypt AES 256-bit engine

- Initialization vector
- Session key
- Same session key and IV for encrypt and decrypt
- 128-bit cipher block width
- Output feedback — No error extension

### Key Management

Diffie-Hellman public key exchange:  
1,024-bit modulus

Each exchange results in:  
Unique 256-bit key variable  
Unique 128-bit initialization vector  
Anti-spoof protection data

New exchange with each call  
Open architecture network; supports rapid deployments

### General Features

Auto-answer (fax sense)  
User-configurable - number of rings  
Auto-sense: plain or secure

Display & keypad:  
LCD display — two lines/16 characters  
20 push-button keypad:  
12 buttons standard keypad  
Eight function key buttons

Menu access password prevents unauthorized access to sensitive menus

### Environmental

Operational Temperature 0°C to +50°C  
Relative Humidity: 5% to 95% non-condensing

### Dimensions & Weight

Width: 31.3cm (12.3 inches)  
Depth: 27.2cm (10.7 inches)  
Height: 10.3cm (4.1 inches)  
Weight: 2.34kg (5.15 pounds)

### Prime Power Input:

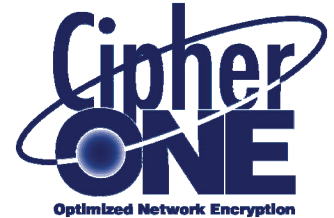
AC Power:  
100 - 240 VAC 50/60Hz  
9.5 watts  
Typically "primary" source  
DC Power:  
10 - 30VDC (8 watts)  
Primary or back-up source  
Can provide power back-up should AC power fail

### Black Interface

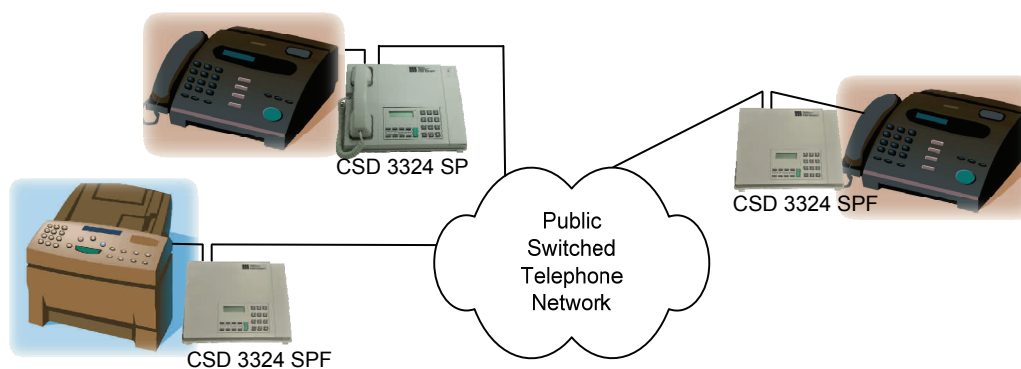
Telco line — 2-wire, RJ-11 modular

### Red Interface

Group 3 fax interface — 2-wire, RJ-11 modular



## Secure Fax Network



TCC's CSD 3324 SPF connects to any common Group 3 fax machine via the two-wire RJ-11 fax port and automatically secures fax communications between a receiving fax machine connected with another CSD 3324 SPF or a CSD 3324 SP secure telephone/fax encryptor.

For more than 50 years, Technical Communications Corporation has specialized in superior-grade secure communications systems and customized solutions, supporting our CipherONE® best-in-class criteria, to protect highly sensitive voice, data and video transmitted over a wide range of networks. Government entities, military agencies and corporate enterprises in over 115 countries have selected TCC's proven security to protect their communications.

