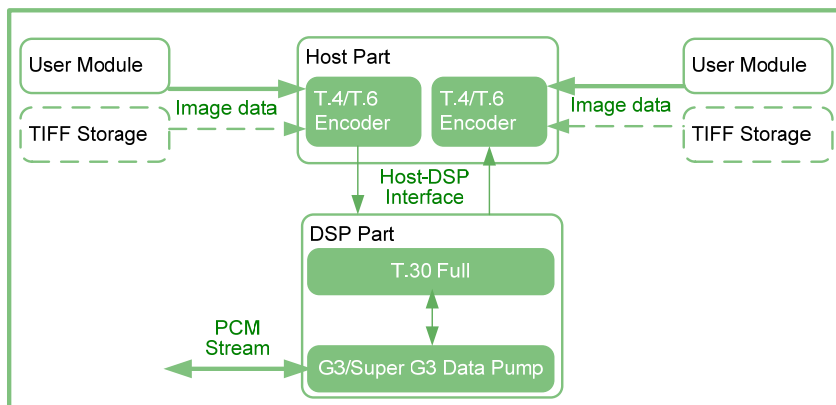


SPIRIT G3/Super G3 Fax

SPIRIT G3/Super G3 Fax enables sending and receiving fax images over regular telephone lines. SPIRIT G3/Super G3 Fax solution includes ITU-T V.8, V.17, V.27ter, V.29, V.21, V.34 data pumps and G3 Fax logic according to T.30, and is used to transmit and receive facsimile data at rates up to 33.6 kbps for Super G3 Fax and up to 14.4 for G3 Fax. T.4/T.6 encoder and decoder are also included in the bundle as the source code, allowing to run SPIRIT fax solution on virtually any host CPU.

SPIRIT offers flexible fax solution that can be delivered as Super G3 Fax (V.34 included) or as G.3 Fax (V.34 excluded).



The solution can be used in ordinary fax machines as well as in store-and-forward fax relays using e-mail (e.g. T.37), FTP services, or even in call centers capable of storing voice & fax mail.

SPIRIT G3/Super G3 Fax contains Error Correction Mode enabled to eliminate artifacts and distortions common for fax documents, so quality of transmitted text and images does not deteriorate. Data transmission becomes faster and more reliable thanks to superior V.34 protocol implemented in SPIRIT Super G3 Fax; fax-to-fax connection procedure is also accelerated. The solution adjusts fax transmission speed to optimize performance and transmission times, providing businesses of all sizes with performance, reliability and security suitable for mission-critical fax server deployments.

SPIRIT offers two versions of Super G3 Fax: Standard Super G3 Fax and MIPS Economy Super G3 Fax

Version	Standard	MIPS Economy
Peak MIPS*	15	10
Robustness to distortions in the line	Highest	High

*Super G3 Fax mode for the C64x platform

Benefits

- Able to operate on the poorest telephone lines
- Hardware independent
- Two versions are available: standard and MIPS economy

Key Features

- Support for all standard resolutions
- Support for all standard features out-of-the-box
- The code can be easily extended
- Fully xDAIS compatible

Availability

- TMS320C54xx
- TMS320C55xx
- TMS320C64xx
- MS Windows (DLL library)

Features

- G3 Fax is available as a separate product
- ECM (error correction mode) support
- T.30 fax supports both ECM (Error Correcting Mode) and non-ECM modes
- Direct interface with PCM 8KHz sampled data. Both sample-by-sample and block based processing supported
- Reliable fax data pump capable of operating on the poorest telephone lines
- Easily extendable T.30 code supporting the majority of standard features out-of-the-box
- T.4 1D (MH), T.4 2D (MR), T.6 (MMR) image compression supported
- All standard resolutions supported
- True multi-channel code
- Hardware independent

Performance

Dynamic range	>50 dB
Distortions compensation	CONUS Poor Voice and all other TAS channels
Phase Jitter	40 deg for V.17, 20 deg for V.29 (G3 mode only)
Frequency offset	+/-10 Hz
Baud frequency offset	+/-100 ppm

BER= 10⁻⁵ at Flat Channel:

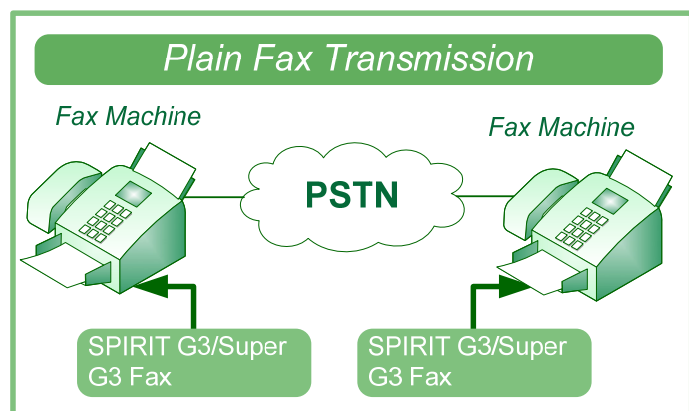
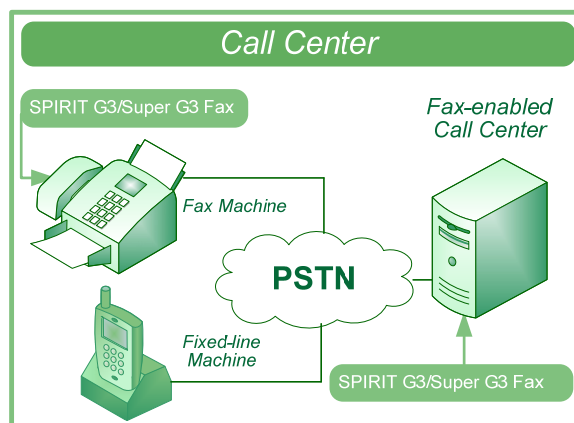
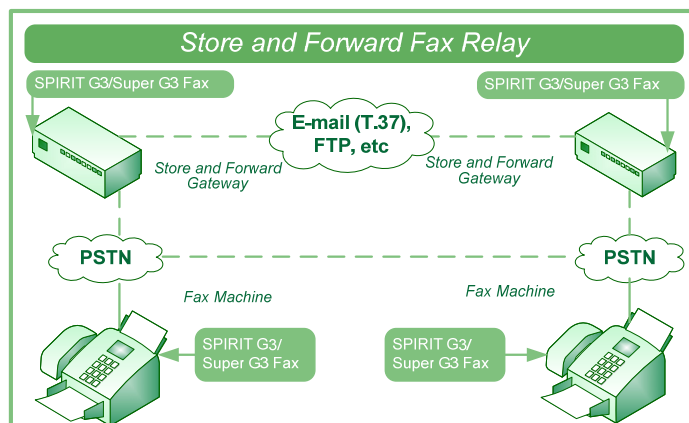
G3 Mode

Protocol	V.17 14400	V.17 12000	V.17 9600	V.17 7200	V.29 9600	V.29 7200	V.27 4800	V.27 2400
SNR	23 dB	20 dB	16 dB	13 dB	18 dB	15 dB	15 dB	10 dB

Super G3 Mode

Protocol	V.34 33600	V.34 31200	V.34 28800	V.34 26400	V.34 24000	V.34 21600	V.34 19200	V.34 16800	V.34 14400	V.34 12000	V.34 9600	V.34 7200
SNR	33 dB	31 dB	29 dB	27 dB	25 dB	23 dB	21 dB	19 dB	17 dB	15 dB	13 dB	11 dB

G3/Super G3 Applications



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