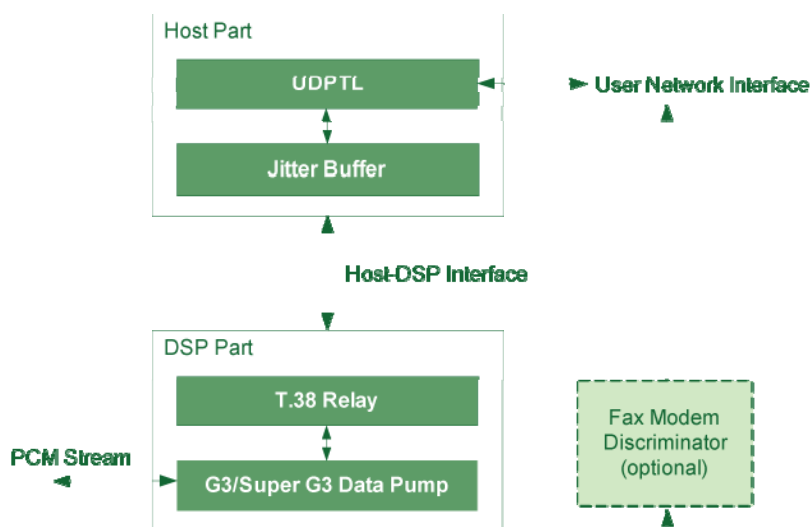


SPIRIT Realtime T.38 Fax Gateway

SPIRIT Realtime T.38 Fax Gateway allows users to forward common fax calls via generic packet networks (e.g. Internet). It implements real-time gateway according to F.185 Recommendation definitions. This makes it possible to utilize an existing data network for economical fax transmissions, because packet-switched networks are normally much cheaper than PSTN. VoIP Gateways are hardly useful in such conditions, since low-bit-rate vocoders are poorly suitable for fax message coding. On the other hand, high-speed vocoders (such as G.711) have issues with continuity and synchronization. The solution proposed by ITU-T is described in T.38 recommendation; it allows to implement reliable real-time fax relay over packet networks.



Benefits

- Low MIPS requirements
- Easy integration

Key Features

- Fully compliant with ITU-T standards
- Advanced jitter buffer management
- Highly optimized code

Applications

- IP-PBX
- Media gateways
- Access gateways
- Fax over IP gateways

Availability

- TI C54xx
- TI C55xx
- TI 64xx
- MS Windows (DLL library)

The key elements of the relay are Fax Gateways that are bridged between switched and packet networks. Incoming analog fax signal is demodulated into its digital form using a fax modem, the data is analyzed, converted to packets and transferred via packet network to the remote gateway. The latter gathers network packets, reconstructs and transmits fax message into telephone network using appropriate modulation protocol.

SPIRIT Realtime T.38 Fax Gateway performs fax relay operations required for real-time Group 3 facsimile communication over IP or any other packet network, for example for secure communications (secure phone) running over regular telephone line using ordinary modem as a transport.

Features and Benefits

- Supports all features of Group 3 faxes, including ECM mode
- Tolerant toward high jitter in packet network
- IP bandwidth can be split to send/receive multiple faxes at the same time
- Redundancy mechanism providing packet loss prevention
- Advanced jitter buffer management
- Optimized for performance and memory usage
- Reduced connection costs

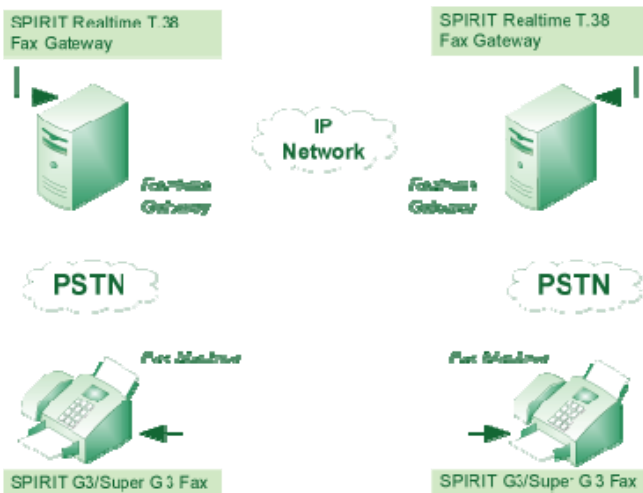
Resource requirements

PLATFORM	TI C55xx	
	Fax Data Pump	FDP + T.38
Peak MIPS	8.4	10
Program Memory, KB	21.2	34.6 (30 without anti-collision logic)
Constant Memory, KB	5.6	6.8
Dynamic Memory, KB	2.4 per channel	2.6 (+ Jitter Buffer Size) per channel

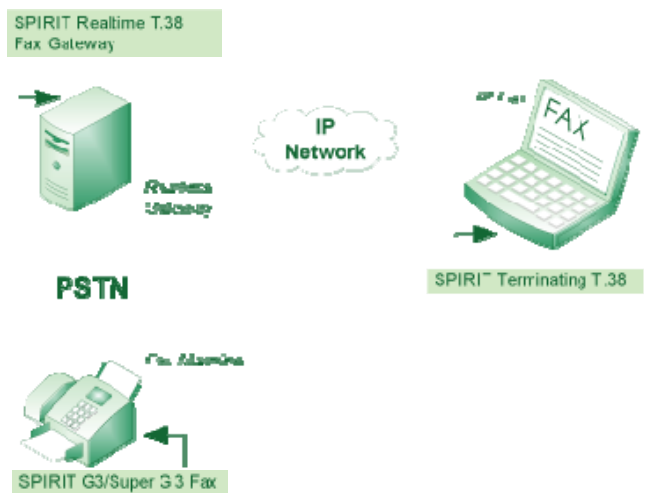
PLATFORM	TI C64xx	
	Fax Data Pump	FDP + T.38
Peak MIPS	10	11
Program Memory, KB	46.5	71.5
Constant Memory, KB	5.7	6.2
Dynamic Memory, KB	3.2 per channel	3.75 (+ Jitter Buffer Size) per channel

Realtime T.38 Fax Gateway Applications

Realtime Fax Relay



G3 Fax – IP Fax Interconnection



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