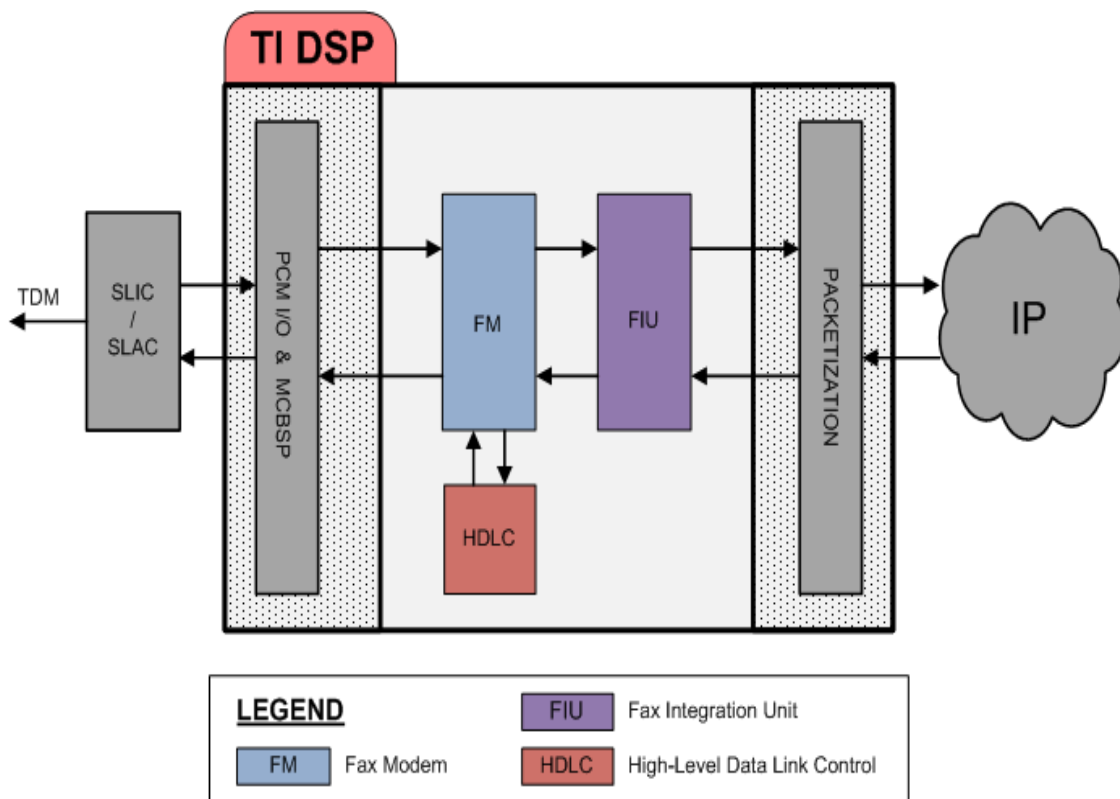# Fax Library (FAXLIB) Release 2.0.0

Overview

The Texas Instruments Fax Library (FAXLIB) provides components that, together, facilitate the development of the signal processing chain for Fax over IP applications. FAXLIB provides fundamental building blocks required to develop a complete Fax Processing solution.

The FAXLIB library is composed of 3 independent component packages, each of which performs a specific fax processing task (or tasks). Each component adheres to TI's Embedded Communication Object (ECO) standard, thus providing a consistent, C callable, model for the object lifecycle.

Functionality

FAXLIB components provide the following functionality:
• T.30 protocol processing
• Packet network facsimile protocol processing
• Compensation for network impairments: packet loss, jitter and delay
• FAXMON™ real-time debug tracing
• V.21 300 bps channel 2 (1750 Hz nominal frequency) binary signal modulation and demodulation
• HDLC framing / deframing (0 bit insertion & removal, CRC generation & checking)
• V.27ter (2400 / 4800 bps),
• V.29 (7200 / 9600 bps),
• V.17 (7200 / 9600 / 12000 / 14400 bps),
• V.33 (12000 / 14400 bps) high-speed data modulation and demodulation

Supported Architectures

• C55x (COFF)
• C64x (little-endian, big-endian, COFF)
• C64x+ (little-endian, big-endian, COFF, ELF)
• C66x (little-endian, big-endian, COFF, ELF)

Technical Specifications

Fax Modem (FM)
▪ Standard Compliance with CCITT Recommendation T.30
▪ Standard Compliance with CCITT Recommendation T.4
▪ Standard Compliance with CCITT Recommendation T.6
▪ Standard Compliance with ITU-T Recommendation V.21
▪ Standard Compliance with ITU-T Recommendation V.27 ter
▪ Standard Compliance with ITU-T Recommendation V.29,
▪ Standard Compliance with ITU-T Recommendation V.33
▪ Standard Compliance with ITU-T Recommendation V.17

High Level Data Link Control (HDLC)
• Standard Compliance with ITU X.25 LAPB
• Standard Compliance with ISO Standard 4435:1979 [1].

Fax Interface Unit (FIU)
• Standard Compliance with ITU-T Recommendation T.38