Key Features :

Dual SDSL2/HDSL2 Transceiver
Metalink's MtH2405 Chipset Solution implements a low power Dual SDSL2/HDSL2 transceiver. Each transceiver implements PAM 4, 8, 16 line codes with trellis coded modulation and by-passable OPTIS spectral mask shaping.

Optimized for High Density SDSL2 Line Card Designs
Metalink's MtH2405 has a high level of functionality and interface integration, minimal power consumption and a small real estate.

Superior Performance
The Metalink Dual SDSL2/HDSL2 Chipset Solution enjoys a performance improvement of up to 6db compared to HDSL1 chipsets, and reaches the full CSA loop coverage over a single copper pair. This performance improvement translates into an improved system distance reach of more than 2000 feet (650 meters) at 2,320 Kbps, and of more than 6500 feet (2000 meters) at the lower transmission rates.

Suitable for the Transport of Both Voice and Data
With a minimal transmission delay of less than 0.5 msec., Metalink's SDSL2/HDSL2 Dual Transceiver is ideally suited for the transport of voice, data or a mix of voice and data communications.

Advanced Multi-Mode DSL™ Integration
The MtH2405 chipset solution is integrated in Metalink's Multi-Mode DSL™, and can operate in the following DSL modes: Multirate SDSL2, HDSL2, Multirate SDSL and HDSL.

ANSI, ETSI and ITU Standards Compliant
Flexible internal architecture that enables the MtH2405 to be compliant to both the ANSI HDSL2 (PAM16 line code with Trellis Coded Modulation and OPTIS spectral mask) and the emerging ETSI-SDSL standards.
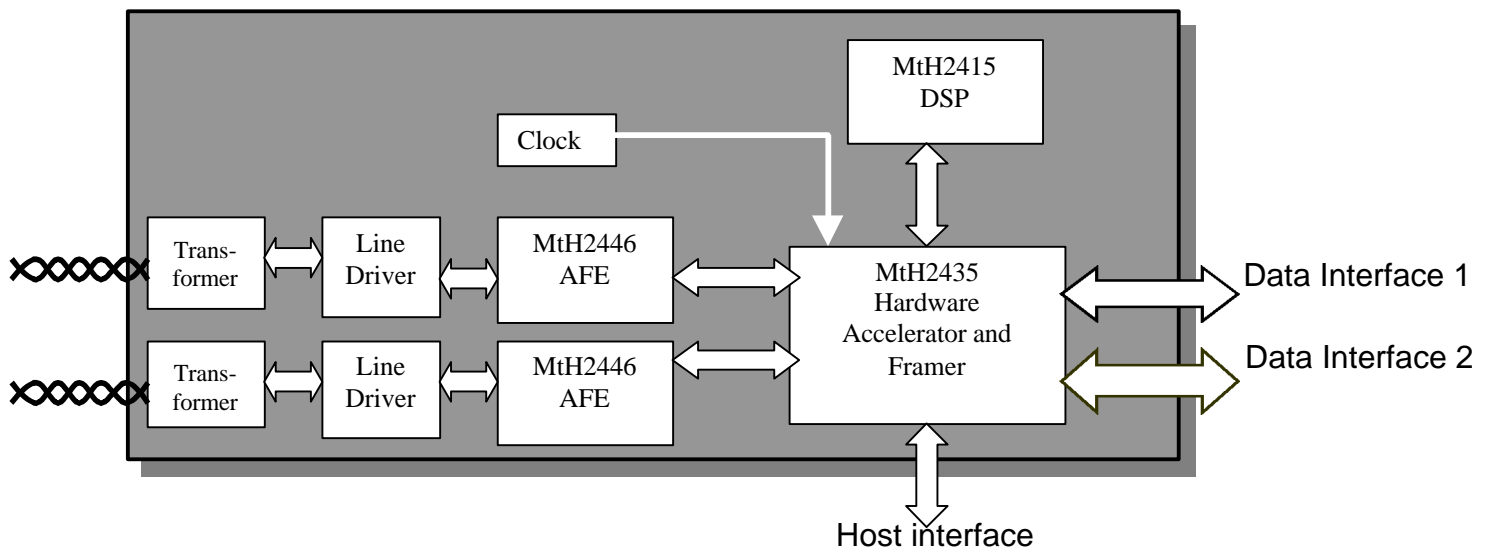
2B1Q Backward Compatibility
Backwards compatible 2B1Q mode fully interoperable with Metalink's 2B1Q SDSL chipsets. Supports all the Metalink software features already available in the Metalink SDSL1/HDSL1 solutions and uses same API.

Applications:

- ◆ SDSL2 line cards in Broadband access DSLAMs
- ◆ CPE SDSL2 Routers
- ◆ HDSL2 systems for T1 replacement lines
- ◆ Frame Relay or ATM access multiplexers
- ◆ Cellular Base Station access

MtH2405 Dual SDSL2/HDSL2 Transceiver

MtH2405 Solution

MtH2415 – Metalink's Dual SDSL2/HDSL2 DSP

The MtH2415 SDSL2/HDSL2 DSP is a dual SDSL2/HDSL2 transceiver on chip. It performs digital functions such as channel precoding of the SDSL2/HDSL2 Transceiver to achieve a high quality echo free signal, with optimal decoding. The DSP includes Metalink's proprietary algorithmic innovations for optimal decoding with reduced power consumption.

Features:

- ❑ Dual trunks with multirate operation from 160 to 2,320 Kbps
- ❑ Internal clock synthesizer and DSL clock recovery functionality the full T1 data rate

- ❑ Low power consumption of 1W/trunk at 1.8 V operation, 3.3 V interfaces
- ❑ 352-pin BGA package
- ❑ Industrial temperature operating range: -40°C to +85°C

MtH2446 – Metalink's SDSL2/HDSL2

Metalink's MtH2446 Analog Front End provides the analog interface to the copper pair. The MtH2446 AFE transmit and receive filters can be user programmed for upstream or downstream operation for the generation of a standards compliant OPTIS spectral mask. The MtH2446 AFE is particularly suitable for multirate DSL operation and enables the MtH2405 SDSL2/HDSL2 Transceiver to transmit at up to 16.5 dBm over the copper pair.

Features:

- ❑ Multi-rate operation from 160 to 2,320 Kbps
- ❑ 5 V Operation, 3.3 V dig. Interface
- ❑ Extremely low power consumption of 1W at the T1

- ❑ 44-pin MQFP package
- ❑ Industrial temperature operating range: -40°C to +85°C

MtH2435 – Metalink's SDSL2/HDSL2 Framer and Hardware Accelerator

The MtH2435 implements a DSP hardware accelerator that includes the following functions: Trellis coding and decoding, OPTIS spectral shaping and filtering, and system clock generation. The MtH2435 also implements standard HDSL2 framing as well as flexible framing functions.

Features:

- ❑ DSP, Host, AFE, PCM interfaces
- ❑ Multirate timing unit
- ❑ Trellis encoder decoder
- ❑ SDSL, HDSL, SDSL2 and HDSL2 Framer

- ❑ Flexible Framer
- ❑ 256-pin BGA package
- ❑ Industrial temperature operating range: -40°C to +85

Metalink
Transmission Devices