

Dual Port VDSL2 DMT+AFE Chip

“MT5302”



Introduction

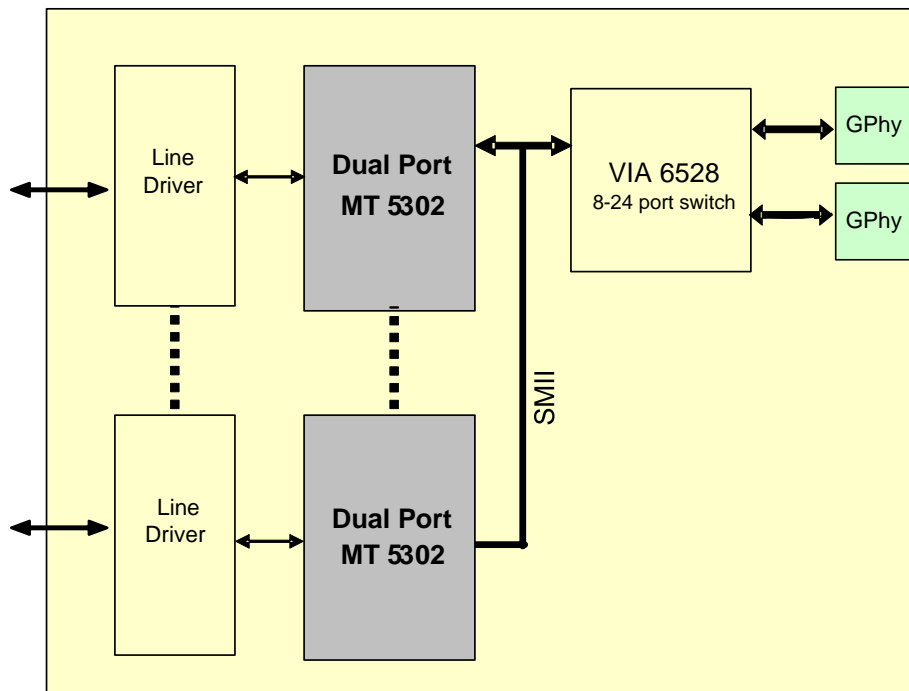
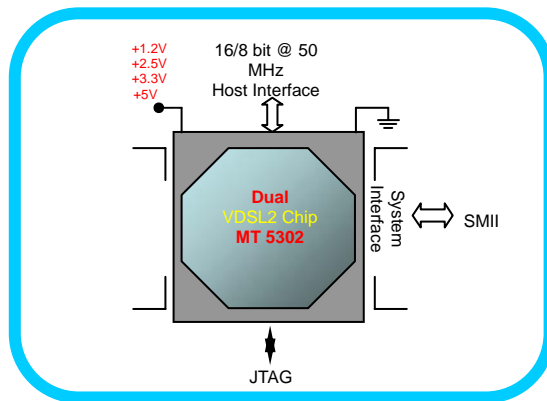
The MT5302 is part of the Metanoia VDSL2 chipset solution. It is a single chip programmable Discrete Multi-Tone (DMT) Digital Subscriber Loop (DSL) digital modulator/ demodulator processor units for broadband access. The Device supports all committee T1E1.4 and ITU-T G.993.2 DSL discrete multi-tone based specifications, as well as IEEE 802.3 10PASS-TS.

Key Features

- ◆ Single chip configurable DMT data pump supporting 100Mbps/100Mbps DS/US payload data rate.
- ◆ All 4096 DMT carriers can be used between U/DS, with four DMT pass-bands per direction
- ◆ Conformance to T1E1, ITU-T standards for VDSL2, and current IEEE 802.3ah draft for 10PASS-TS (EFM)
- ◆ Configurable band-plan, conforms to NA, EUR and Swedish Band-plans subject to the 3072/4096 and 8-band/4-passband constraints
- ◆ Trellis coding support for up to 3072 DMT carriers in any VDSL2 mode.
- ◆ Dual latency support with independent interleaver for each path and 128KB on-chip GCI memory
- ◆ Flexible QoS classification and queueing supports hardware based latency path routing
- ◆ Supports SMII dual port
- ◆ No external RAM required. Internal RAM booted from EEPROM, Flash, or external uP
- ◆ PHY software and management through IEEE 802.3 MDIO serial or a bi-directional octal interface
- ◆ Optimized to support low latency applications as required for voice
- ◆ 4 KHz and 8 KHz symbol rates allow variable bandwidth per bin
- ◆ VDSL2 profiles: 8a, 8b, 8c, 8d, 12a, 12b, 17a, 30a
- ◆ Annex A/B/C
- ◆ More than 300 Mbps aggregate data rate at profile 30a
- ◆ LDM(loop diagnostic mode)
- ◆ OLR, UPBO, DPBO and US0
- ◆ Compatible with POTS, ISDN
- ◆ Compliant with VDSL2 MIB
- ◆ Interoperable with modems from major VDSL2 chipset vendors
- ◆ 448 LBGA package

Applications

- ◆ IP digital Subscriber Loop Access Multiplexer solution
- ◆ Multi-Service Access Platforms (MSAP)
- ◆ Customer Premise/Located Equipment for Internet Access and VoIP



MTU/MDU IP DSLAM/ORD