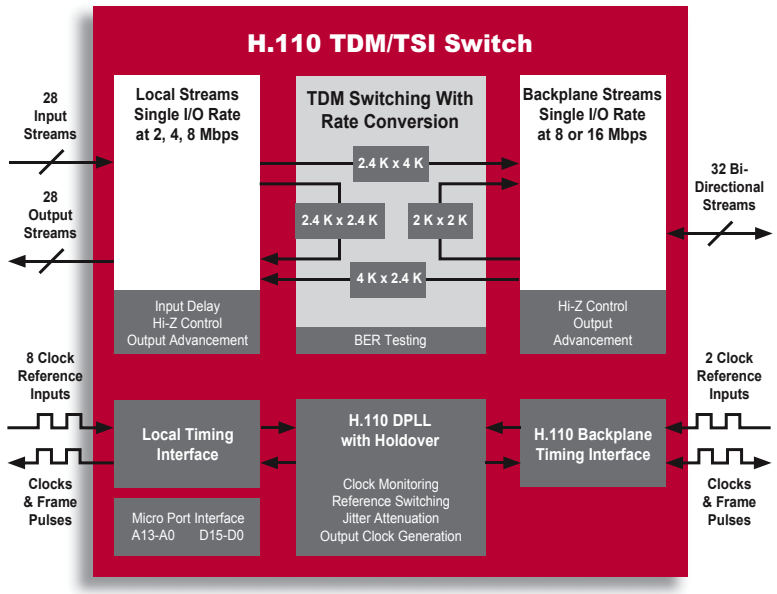
TDM/TSI SWITCHES **ZL50030/1 & MT90866**

PRODUCT PREVIEW

The ZL30030/1 and MT90866 are Zarlink's industry-leading H.110 digital switch family. Meeting all key H.110 data interface and timing requirements, the devices are ideal for carrier-grade applications that require medium bandwidth switching capability. The TDM switch family's four-in-one architecture allows switching between backplane-to-local, local-to-backplane, backplane-to-backplane, and local-to-local.

Zarlink's ZL50030/1 and MT90866 support data rates up to 16 Mbps on the backplane and 8 Mbps on the local interface. The TDM switch family integrates a high-performance DPLL to eliminate jitter and data loss when circuit and packet traffic converge of the network infrastructure.

MT90866 Simplified Block Diagram



Applications

- Carrier-grade VoIP Gateways
- CTI applications/cPCI platforms
- Access Servers and Concentrators
- Integrated Access Devices, IP-PBX and PABX
- H.110, H.100, ST-Bus and proprietary backplane applications

H.110 Digital Switch Family

- Industry's only H.110 digital switches with the option to run 16 bi-directional streams operating at 16 Mbps
- Flexible four-in-one architecture supports switching between:
  - backplane-to-local
  - local-to-backplane
  - backplane-to-backplane
  - local-to-local
- Switching family meets all key H.110 data interface and timing requirements

Integrated H.110 DPLL

- All switches feature integrated, high-performance Stratum 4E DPLL
- Provides holdover mode with 0.07 ppm frequency stability
- Offers an MTIE circuit with less than 21 ns per reference switch
- Reduces component count, eases board layout, lowers overall cost

Standards Compliant

- Meets all ECTF H.110 key data interface and timing requirements
- Telcordia GR-1244-CORE
- IEEE-1149.1 (JTAG) standard

Customer Support

An evaluation board, API drivers, application notes, BSDL and IBIS files are available.

Part	Local Streams	Backplane Streams	Switching Configuration				Package
			Local to Local	Local to Backplane	Backplane to Local	Backplane to Backplane	
ZL50030	16 Bi-directional	32 Bi-directional	1 K x 1 K	2 K x 4 K	4 K x 2 K	2 K x 2 K	220 PBGA (17 x 17 mm)
ZL50031	16 Inputs 16 Outputs	32 Bi-directional	2 K x 2 K	2 K x 4 K	4 K x 2 K	2 K x 2 K	256 HQFP (28 x 28 mm)
MT90866	28 Inputs 28 Outputs	32 Bi-directional	2.4 K x 2.4 K	2.4 K x 4 K	4 K x 2.4 K	2 K x 2 K	344 PBGA (27 x 27 mm)

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ZL50030/1 & MT90866 TDM/TSI SWITCHES

APPLICATION

Carrier-Grade Voice Gateway

The ZL50030/1 and MT90866 are digital switches compatible with the ECTF H.110 Specification (CT Bus standard) suitable for Compact PCI applications. As illustrated below, the devices manage voice, data and video traffic as well as timing signals on the H.110 backplane. These devices are ideal for carrier-grade equipment, where TDM, ATM and IP traffic converge.

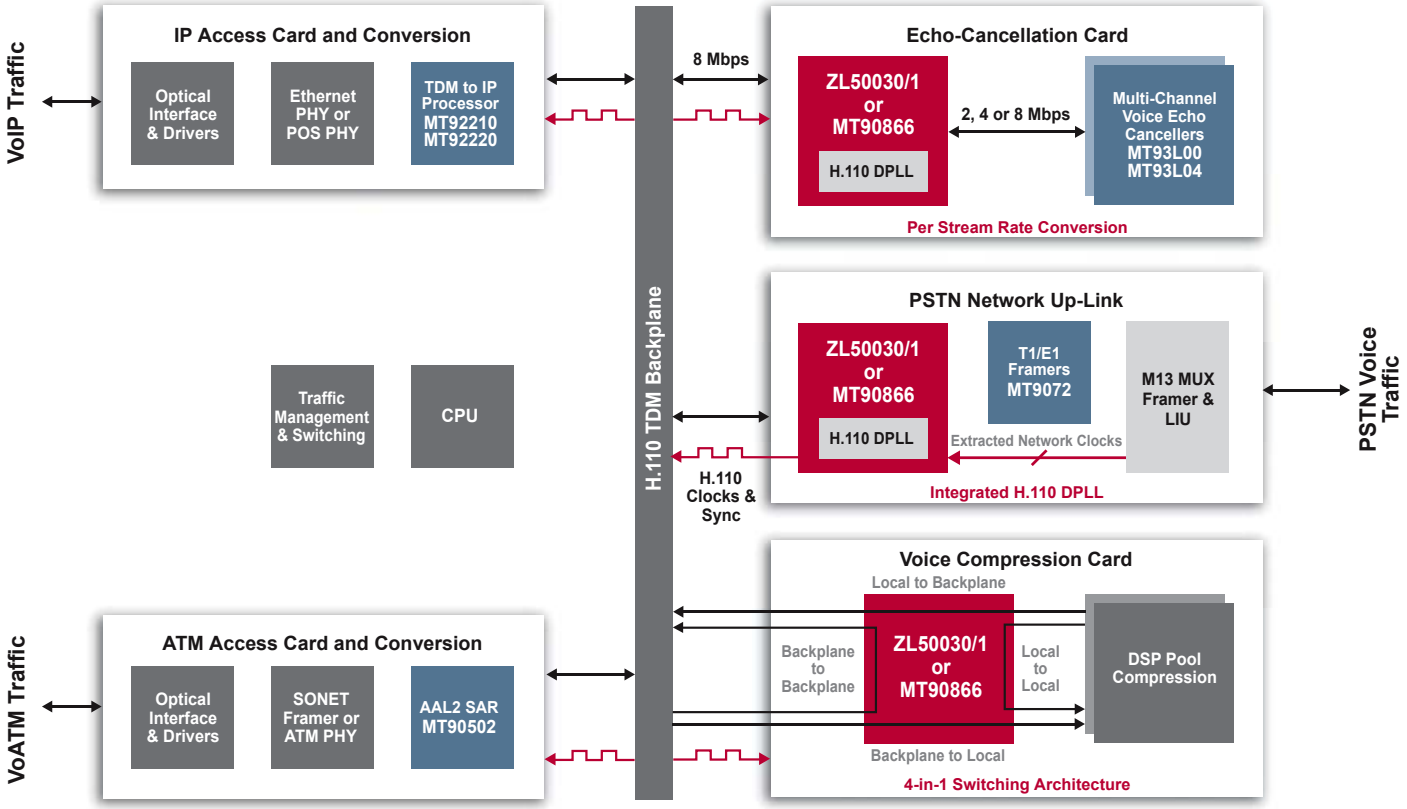
The ZL50030/1 and MT90866 provide bi-directional channel switching capabilities with rate conversion between the backplane and the local streams. The devices offer additional switching flexibility supporting 2,048 x 2,048 channels among backplane streams and 2,432 x 2,432 channels among local streams (MT90866). The ZL50030 offers a cost-effective solution for applications that require only 1 K x 1 K switching among local streams.

Zarlink's TDM switches are the industry's only devices to provide a standard H.110 interface with 32 bi-directional streams operating at 8 Mbps, with the option to run 16 bi-directional streams operating at 16 Mbps. This unique 16 Mbps mode allows designers to double the capacity of the H.110 backplane using half the streams, while maintaining all H.110 timing requirements. For equipment manufacturers not needing to meet H.110 requirements, the unique 16 Mbps mode can be used to simplify design and lower costs by reducing backplane connections.

The ZL50030/1 and MT90866 meet all key H.110 data interface and timing signal requirements. Able to serve as the primary, secondary or slave clock, they ensure synchronization, even when the trunk carrying the primary timing reference is disabled or lost. The DPLL provides jitter attenuation, hold-over mode and an MTIE circuit with maximum time interval error of less than 21 ns per reference switching, which allows seamless transition between the primary and secondary clock inputs.

The ZL50030/1 and MT90866 have programmable per-stream and per-channel features such as message mode, input delay offset, output advancement offset and constant or variable delay, allowing maximum design flexibility.

The switches can also be used in proprietary backplane applications where switching flexibility, I/O stream control and embedded timing in a small form factor is required.



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