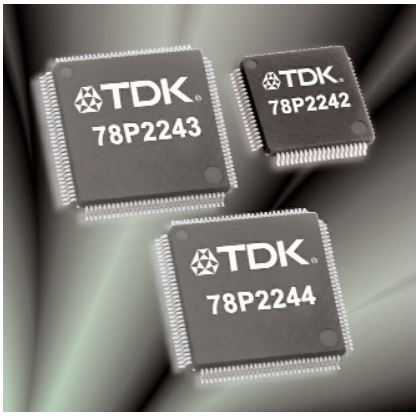
Industry's First Single-Chip Multiport Line Interface Unit from TDK Semiconductor



Multiport Family of Line Interface Unit with Line Code Violation

TDK SEMICONDUCTOR CORP.

SO MUCH DATA, SO LITTLE TIME.

78P224X

FEATURES

- Interface to 75 ohm coaxial cable over 1100 feet at speeds up to 51.84 Mbit/s
- Compliant with ANSI T1.102-1993, Telcordia GR-499-CORE and GR-253-CORE, ITU-T G.703, G.823 and G.824 for jitter tolerance and G.775 for loss of signal
- Compliant with ATM FORUM af-phy-0034 (E3 public UNI) and af-phy-0054 (DS3 public UNI)
- Easily Interfaced to ATM framer ICs such as PMC-Sierra 7346 QJET
- Receive DS3-high and DSX3 monitor signals
- Diagnostic loop-back for AMI and digital signals
- Input receive MUX can select redundant channel for higher reliability
- Selectable B3ZS/HDB3 ENDEC
- Receive Line Code Violation Detector
- Receive Input circuit works transformer or AC coupled

APPLICATIONS

- DSLAMs,
- T3/E3 digital multiplexers,
- SONET Add/Drop multiplexers,
- PDH equipment,
- DS3 to Fiber optic microwave modems
- ATM WAN access for routers and switches.

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TDK Semiconductor is now offering a broad line up of Line Interface Unit family solution for E3, DS3, STS-1, and ATM applications.

78P2241B = single channel
78P2242 = dual channel
78P2243 = triple channel
78P2244 = quad channel

The 78P224x is manufactured in an advanced BiCMOS process technology, delivering the industry's lowest power consumption line interface transceiver to the market. These devices provide the greatest flexibility, and offer a lower cost solution to the network system designer.

Functional Description

The 78P224x family consist of a complete line of interface transceiver ICs for DS3 (44.736Mbit/s), E3 (34.368 Mbit/s), STS-1 (51.84Mit/s). Each channel is a line interface transceiver for E3, DS3, STS-1, NA T3 and ATM applications. It includes clock recovery and transmitter pulse shaping functions for applications using 75-ohm coaxial cable at distances up to 1100 feet.

Each receiver recovers clock and data from a B3ZS or HDB3 coded AMI signal. It can compensate for over 12dB of cable and 6dB of flat loss.

Each transmitter generates a signal that meets the standard pulse shape requirements. Each channel includes a selectable B3ZS/HDB3 ENDEC with a receive line code violation detector, a loop-back mode, a clock polarity selection mode, and the ability to receive a DSX3 monitor signal.

The dual/triple/quad channel LIU feature an input receive MUX that can select a redundant channel, alarms for coding violations and loss of signal, a built in B3ZS/HDB3 ENDEC, and loop-back capability.

The single channel LIU operates at both 5V and 3.3V power supply voltage, while the multi-channel LIU operates at 3.3V power supply voltage with 5 volt I/O tolerance.

For additional information and the name of your local sales representative please visit our website at www.tdksemiconductor.com, call us at (714) 508-8800, or e-mail support@tsc.tdk.com.

Block Diagram