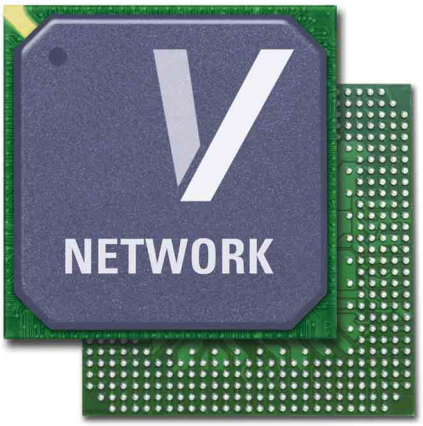
VSC7104, VSC7108

VITESSE

VSC7104 – Quad Signal Conditioner, VSC7108 – Octal Signal Conditioner



APPLICATIONS:

- Backplane Signal Enhancement
- Wideband Signal Clean-up
- Line Driver/receiver

FEATURES:

- High Data Rate Support, up to 6.5 Gbps
- Integrated Equalization
- Global Programmable Input Signal Equalization (ISE) and Output Drive Levels
- Soft Power-down for Unused Channels
- Compact Form Factor
- Single Supply Operation
- Highly Programmable
- Robust Operation Across Voltage and Temperature
- Fully Asynchronous Operation
- Excellent Crosstalk and Noise Immunity

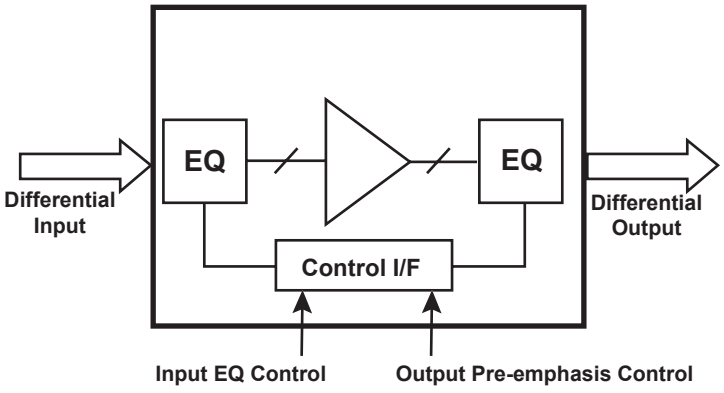
BENEFITS:

- Enables Operation at Higher Data Rates and/or Improves Operating Margins
- Controls Difficult Signal Integrity Problems
- Asynchronous Operation Allows Application Across any Data Format and Rate
- Low Skew Enables Precision Fan-out Buffering

SPECIFICATIONS:

- 0 to 6.5 Gbps Data Rate
- 20ps Added Jitter
- 20ps Channel to Channel Skew
- 2.5V Power Supply with a 3.3V Option
- 50ps Output Rise/Fall Time
- 50Ω Output Source Termination
- 100Ω Input Differential Termination
- 250mW Per Channel Power Dissipation
- 100mV – 2400mV Input Signal Range
- 550mV – 1100mV Programmable Output Swing

VSC7108 BLOCK DIAGRAM:



VSC7104,VSC7108

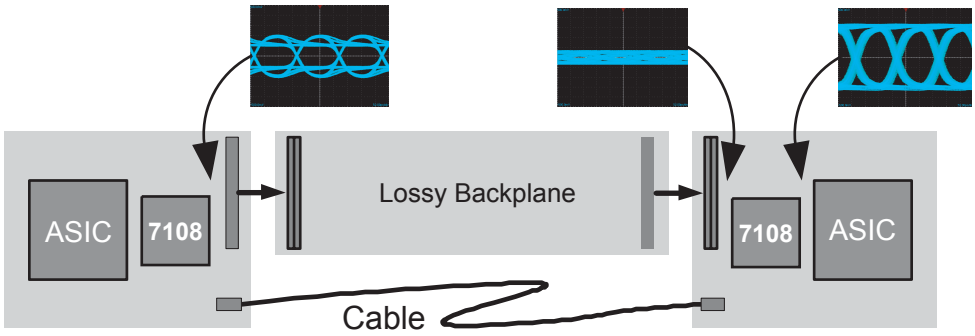
VSC7104 – Quad Signal Conditioner, VSC7108 – Octal Signal Conditioner

GENERAL DESCRIPTION:

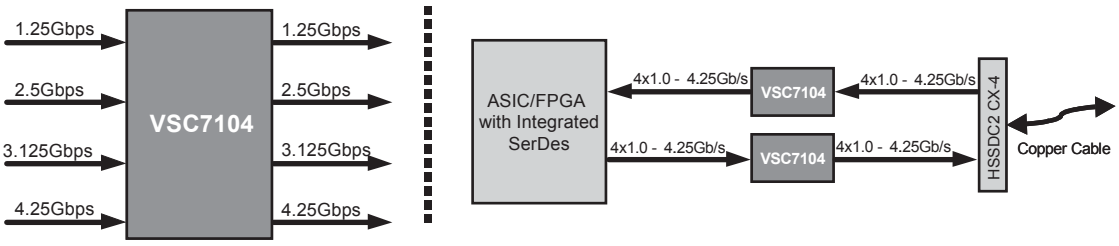
The VSC7108 and VSC7104 are Signal Conditioners designed to carry broadband data streams, enabling next generation backplane designs and extending the life of existing backplanes. The function of these devices is simple yet powerful, creating multiple applications just about anywhere high-speed signals are present.

The integrated equalization capabilities at both the input and output effectively absorb the effects of signal loss through copper interconnect, either printed circuit board traces or cable. A high degree of signal integrity is maintained throughout the chip by fully differential signal paths. The signal path is unregistered and fully asynchronous so that there are no restrictions on the phase, frequency, or signal pattern on any input. Each high-speed output is a fully differential switched current driver with on-die terminations for maximum signal integrity.

Signal Conditioning Application



Serial Repeater as a Multiple Rate/Multiple Protocol Serializer with Signal Clean-Up



For more information on Vitesse Products visit the Vitesse web site at www.vitesse.com or contact Vitesse Sales at (800) VITESSE or sales@vitesse.com

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