

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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

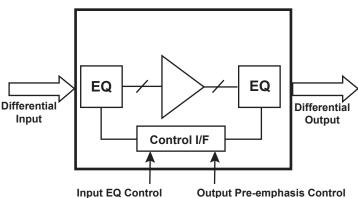
BENEFITS:

- ▶ 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
- ▶ 50\(\Omega\) 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:



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GENERAL DESCRIPTION:



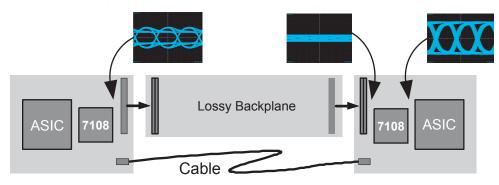
The VSC7108 and VSC7104 are Signal Conditioners designed to carry broadband data streams, enabling next generation backplane designs and extending the life of existing backplanes. The function of these devices is simple yet powerful,

creating multiple applications just about anywhere highspeed signals are present.

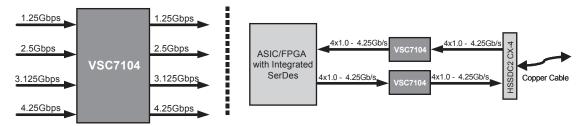
The integrated equalization capabilities at both the input and

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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