

# VSC8115-05, VSC8115-06

## 155 Mbps and 622 Mbps Clock and Data Recovery Units

Microsemi's newly improved multirate clock and data recovery (CDR) devices provide exceptional input sensitivity, jitter tolerance, and jitter transfer performance.

The VSC8115-05 and VSC8115-06 devices derive high-speed timing signals for SONET/SDH-based equipment. The devices are designed to operate with SONET framer or ASIC devices to provide a low-power, high-speed clock and data recovery interface for optical networks.

The devices achieve impressive jitter tolerance of 0.45 UI, jitter input sensitivity of 150 mV, and jitter transfer compliance in JMODE. Meets all Telcordia, ANSI, ITU-T, and SONET jitter requirements.

The VSC8115-05 and VSC8115-06 feature signal and lock-detect status outputs, automatic lock-to-reference, and PLL bypass for on-board debugging. High-speed outputs are configurable for either LVPECL or LVDS.

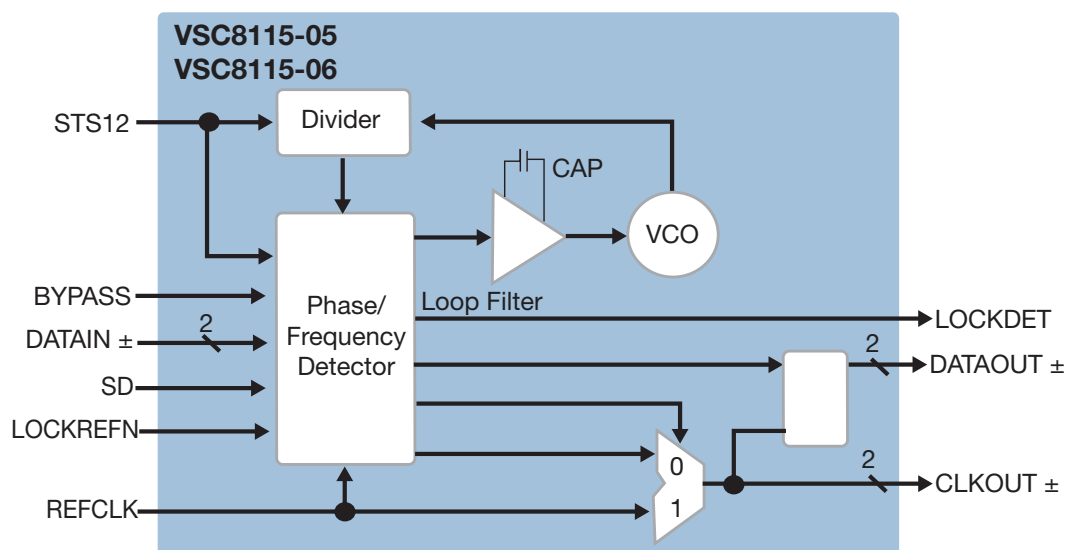
Available in a 20-pin TSSOP package for flexible implementation and simplified layout, the VSC8115-05 device supports commercial temperature ranges, and the VSC8115-06 supports industrial temperature ranges. Both devices come in tape and reel form and are available in lead(Pb)-free versions.

### Applications

- SONET/SDH and DWDM transport systems
- Multiservice access platforms and add/drop multiplexers
- ATM switches and routers
- Digital cross-connect systems
- Optical test equipment

### Highlights

- Superior jitter tolerance and transfer jitter performance
- Low power dissipation
- Single CDR unit for both 155 Mbps and 622 Mbps applications



# VSC8115-05, VSC8115-06

## 155 Mbps and 622 Mbps Clock and Data Recovery Units

### Features

- Automatic lock-to-reference
- Signal and lock-detect status outputs
- PLL bypass for on-board debugging
- High-speed LVPECL or LVDS outputs

### Requirements

- Telcordia, ANSI, ITU-T G.783, and G.825 SDH
- GR-253 CORE and GR-253 ILR SONET
- T1.105.03-2002 SONET

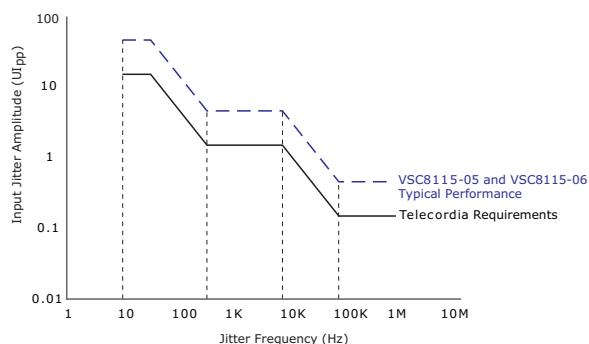
### Key Specifications

- 3.3 V power supply
- 155 mW typical power dissipation
- Commercial temperature range: 0°C to 85°C
- Industrial temperature range: -40°C to 95°C
- 20-pin, 4.4 mm × 6.5 mm TSSOP package

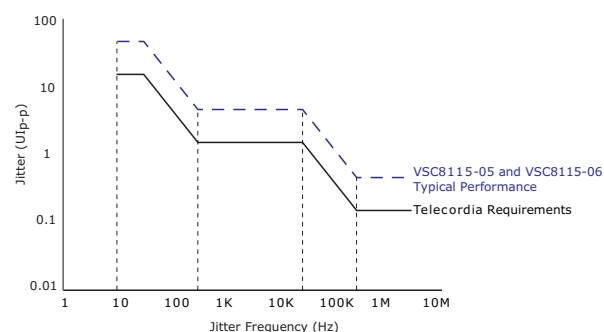
### Related Products

Visit [www.microsemi.com](http://www.microsemi.com) for information about other related products.

OC-3 Jitter Tolerance Minimum Specifications



OC-12 Jitter Tolerance Minimum Specifications



**Microsemi**

**Microsemi Corporate Headquarters**  
 One Enterprise, Aliso Viejo, CA 92656 USA  
 Within the USA: +1 (800) 713-4113  
 Outside the USA: +1 (949) 380-6100  
 Sales: +1 (949) 380-6136  
 Fax: +1 (949) 215-4996  
 email: [sales.support@microsemi.com](mailto:sales.support@microsemi.com)  
[www.microsemi.com](http://www.microsemi.com)

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for communications, defense and security, aerospace, and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs, and ASICs; power management products; timing and synchronization devices and precise time solutions; voice processing devices; RF solutions; discrete components; enterprise storage and communications solutions, security technologies, and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California, and has approximately 4,800 employees worldwide. Learn more at [www.microsemi.com](http://www.microsemi.com).