

Phase Lock Detector Synchronizes PLLs and Datacom Systems

Raltron's new detector simplifies the design of signal generation and recovery circuits for systems that are phase- or frequency-locked,

Raltron Electronics Corp. has just announced the availability of its new Model SY13 Frequency and Phase Lock Detector. The unit is designed as an SMD packaged 8 pad

component for integration into telecommunications equipment.

The unit is particularly suited for synchronization of optical networking equipment, PLLs, synthesizers, and other telecom applications. The SY13 compares two external input signals and determines if they are synchronized in phase or in frequency. The module has been designed to show synchronization status (LVCMOS logic high) if the phase difference of the two signals is constant. Out of sync indication is steady if the two frequencies are separated by more than ± 500 ppb (parts per billion). Output is logic high if signals are in sync or logic low if signals are out of sync, or if one

- 3.3 VDC <100 mA power
- Operating temperature -20°C to 70°C
- Storage temperature -40° to 85°C
- Standard reference frequencies: 77.76 MHz or 155.52 MHz, other frequencies are available
- Input Signal Level: LVPECL
- Output: Logic High if signals in sync
- Logic Low if signals out if sync or one/both signals missing
- Output signal level: LVCMOS
- Output time response for loss of signal (LOS): <15 ms.

SY13 features and specifications.



Raltron's SY13 Frequency and Phase Detector is provided in an 8-lead SMT package with 0.1 inch lead spacing.

is missing. The input signals are LVPECL up to 155.52 MHz and can be adapted to LVCMOS (3.3V, 2.5V, 1.8V, 1.5V) for lower input frequencies.

The SY13 has supply voltage of 3.3 VDC. Typical current consumption is 75 mA with an input frequency of 155.52 MHz over -20°C to $+70^{\circ}\text{C}$. The unit's compact design and physical dimensions of $.420 \times .420$ inches make it a suitable choice for today's high density equipment designs.

Pricing for the SY13 is currently quoted below \$10 ea in quantities of 1000 pieces with delivery at 4 to 6 weeks ARO. For complete specifications, sample requests and for the latest price and availability quotations, contact the company at:

Raltron Electronics Corp.

Tel: 305-593-6033

www.raltron.com

HFeLink 301