

### 3.3-V CLOCK PHASE-LOCKED LOOP CLOCK DRIVER



Images are for reference only

[Inquiry](#)

**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOP8

**Product Type:** Clock & Timer ICs

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

#### General Description

The CDCVF2505 is a high-performance, low-skew, low-jitter, phase-lock loop (PLL) clock driver. This device uses a PLL to precisely align the output clocks (1Y[0-3] and CLKOUT) to the input clock signal (CLKIN) in both frequency and phase. The CDCVF2505 operates at 3.3 V and also provides integrated series-damping resistors that make it ideal for driving point-to-point loads.

One bank of five outputs provides low-skew, low-jitter copies of CLKIN. Output duty cycles are adjusted to 50 percent, independent of duty cycle at CLKIN. The device automatically goes into power-down mode when no input signal is applied to CLKIN.

The loop filter for the PLLs is included on-chip. This minimizes the component count, space, and cost.

The CDCVF2505 is characterized for operation from  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ .

Because it is based on the PLL circuitry, the CDCVF2505 requires a stabilization time to achieve phase lock of the feedback signal to the reference signal. This stabilization is required following power up and application of a fixed-frequency, fixed-phase signal at CLKIN, and following any changes to the PLL reference.

## Key Features

Phase-Lock Loop Clock Driver for Synchronous DRAM and General-Purpose Applications

Spread Spectrum Clock Compatible

Operating Frequency: 24 MHz to 200 MHz

Low Jitter (Cycle-to-Cycle): < |150 ps| (Over 66 MHz to 200 MHz Range)

Distributes One Clock Input to One Bank of Five Outputs (CLKOUT Used to Tune the Input-Output Delay)

Three-States Outputs When There Is No Input Clock

Operates From Single 3.3-V Supply

Available in 8-Pin TSSOP and 8-Pin SOIC Packages

Consumes Less Than 100 mA (Typical) in Power-Down Mode

Internal Feedback Loop Is Used to Synchronize the Outputs to the Input Clock

25-Ω On-Chip Series Damping Resistors

Integrated RC PLL Loop Filter Eliminates the Need for External Components

## Recommended For You

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### CD4541BE

Texas Instruments, Inc

DIP14

### CDCV304PW

Texas Instruments, Inc

TSSOP8

### CDCV857ADGGR

Texas Instruments, Inc

TSSOP48

### CDCV304PWR

Texas Instruments, Inc

TSSOP8

### CDCVF2505PWR

Texas Instruments, Inc

TSSOP8

### CDCE937PW

Texas Instruments, Inc

TSSOP20

### CDCVF2310PWR

Texas Instruments, Inc

TSSOP24

### CDCE62002RHBT

Texas Instruments, Inc

VQFN-32

### CDCLVP110VF

Texas Instruments, Inc

QFP32

### CDCLVD110ARHBT

Texas Instruments, Inc

VQFN-32

### CDCDB803RSLR

Texas Instruments, Inc

VQFN-48

### CDCP1803RGET

Texas Instruments, Inc

VQFN-24

### CDCEL925PW

Texas Instruments, Inc

TSSOP16

### CDCLVC1102PW

Texas Instruments, Inc

TSSOP8

### CDCLVD1212RHAR

Texas Instruments, Inc

VQFN40