



Integrated Device Technology

# 5P49V5933 / 5P49V5935 VersaClock® 5

## Programmable Clocks with Integrated Crystal

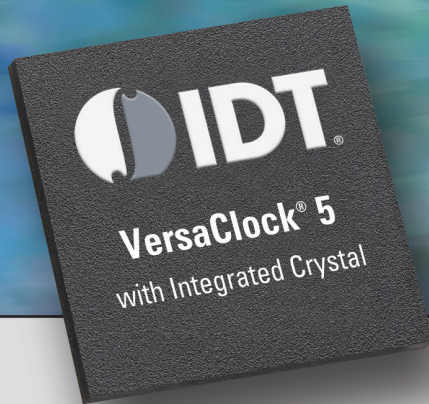
CLOCKS AND TIMING

INTERFACE AND CONNECTIVITY

MEMORY AND LOGIC

POWER MANAGEMENT

RF PRODUCTS



### FEATURES

- Integrated 25 MHz crystal or one differential input (selectable).
- Four or two universal output pairs: each pair configurable as one differential pair (LVDS, LVPECL, HCSL) or two LVCMOS outputs. In addition there is an LVCMOS reference clock output.
- PLL driving four or two fractional output dividers: generates 4 / 2 independent output frequencies.
- Output frequency ranges: LVCMOS - from 1 MHz to 200 MHz, differential - from 1 MHz to 350 MHz
- Individually selectable output voltage (1.8 V, 2.5 V, 3.3 V) for each output
- Individually programmable output enable, slew rate control, spread spectrum capability
- Available in 4 x 4 mm 24-pin VFQFPN

The 5P49V5933 and 5P49V5935 are programmable clocks with an integrated crystal. The low-power clock generators have excellent jitter performance and design flexibility. The integrated crystal saves board space and eliminates crystal tuning challenges. In addition, the devices resolve issues associated with external crystals, improving system reliability. With RMS phase jitter less than 0.7 picoseconds over the full 12 kHz to 20 MHz integration range, the new device meets the stringent jitter requirements of PCI Express® Gen 1/2/3, USB 3.0, and 1G/10G Ethernet. The high-performance clock generator operates at less than 100 mW core power (50 percent lower than competing devices), helping to ease system thermal constraints, reduce operating power expenses, and maximize battery life.

Part Number	Description
5P49V5933	2 configurable output pairs + reference output
5P49V5935	4 configurable output pairs + reference output

To learn more, download software, or to order a sample visit:  
[idt.com/go/versaclock5](http://idt.com/go/versaclock5)

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