

Embedded Clocks

The new family of IDT clock products for embedded applications provides extended availability, guaranteeing product availability for up to 7 years.

Features

- Low power
- Integrated voltage regulators
- Integrated series resistors on differential outputs, except for CK410
- Industrial temperature available on many devices
- Some devices are available in AEQ Q100 Level 3 compliant versions
- Wide variety of packages available

Benefits

- IDT offers supply assurance and stability for your design needs
- Proven performance in high volume systems
- IDT is a reliable high volume supplier
- Supports both AMD and Intel chipsets in the embedded space
- Longer life cycle (5 to 7 years) compared to the 1 to 1.5 years life cycle of a PC
- Excellent product support from IDT

Description

PC technology is no longer limited to desktop, notebook or server applications—it is now being utilized in embedded applications at an increasing rate. These applications not only demand the smaller size, lower power and higher performance for which IDT clocks are known, but also demand extended availability to support their longer life cycles. The new embedded clock generators from IDT® support both AMD® and Intel® chipsets in the embedded space, by providing up to 7 years of availability to support the longer life cycle of these products. Applications that can make use of the embedded clocks include:

- Communication systems
- Energy and energy renewal systems
- Military, defense and aerospace
- Industrial automation
- Medical
- Transportation: airbags, temperature control
- Retail: point-of-sale terminals
- Automotive infotainment
- Outdoor communications equipment
- Home entertainment and home theatre
- Rugged notebooks

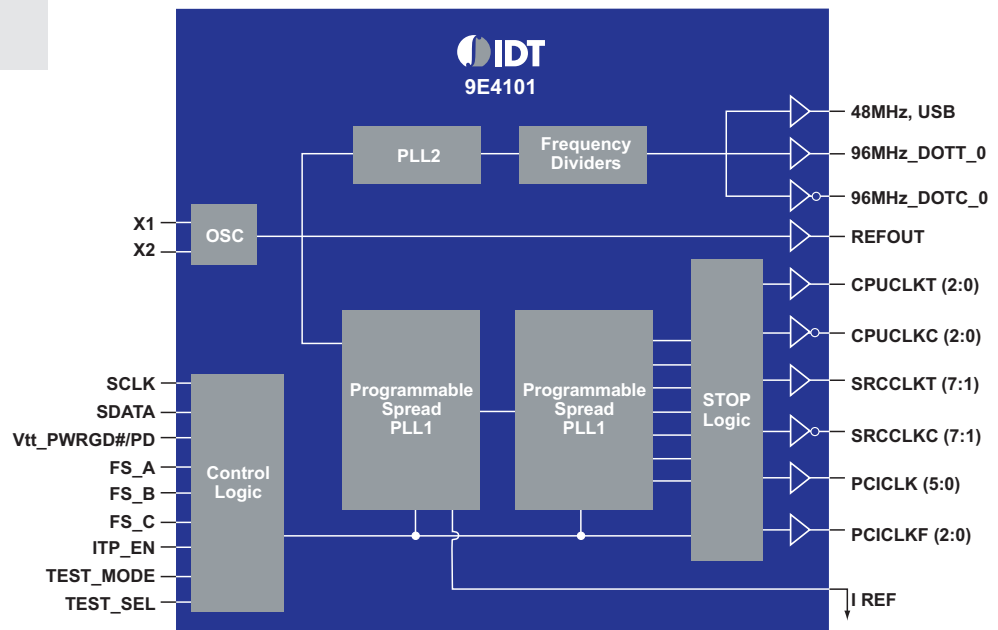


Figure 1. 9E4101 Embedded clock diagram

The 9E4101 was IDT's first clock dedicated to the embedded space. The 9E4101 chip diagram shown in figure 1 follows Intel CK410 Yellow Cover specifications. The 9E4101 is driven with a 14.318 MHz crystal. It generates CPU outputs up to 400 MHz and also provides PCI Express® Gen1 compliant SRC (serial reference clocks).

IDT embedded clock part information

If you do not see the part you are looking for in the chart below, contact IDT at pcclockhelp@idt.com, or visit www.IDT.com/go/embeddedclocks.

IDT Part Number	Description	Voltage	Package	Industrial Temp. Support	Availability
9ERS3125	Intel CK505 1.0 derivative for Montevina and Eaglelake	3.3V/ VDD_IO	56 QFN	Yes	Aug 2009
9ERS3165	Intel CK505 1.0 derivative for Montevina and Eaglelake	3.3V/ VDD_IO	64 QFN 64 TSSOP	Yes	Aug 2009
9EPRS525	Intel CK505 1.0 derivative for Eaglelake	3.3V/ VDD_IO	56 TSSOP	Yes	Aug 2009
9EPRS475	AMD M690T, 780E	3.3V/ VDD_IO	56 TSSOP	No	Aug 2009
9EPRS488	AMD M690T, 780E	3.3V/ VDD_IO	72 QFN	No	Aug 2009
9EMS9633	Intel CK610/CK633	3.3V/ VDD_IO	48 QFN 48 SSOP	Yes	Aug 2009
9E4101	Intel CK410	3.3V	56-SSOP	Yes	July 2009

You can count on IDT

We offer stability, results and support. In May 2010 IDT will be celebrating its 30th anniversary, making it one of an elite group of semiconductor companies that have survived and thrived in a rapidly changing, ultra-competitive business. IDT will continue to offer the highest level of supply stability and assurance for your clocking design needs.

Discover what IDT know-how can do for you.

www.IDT.com/go/embeddedclocks



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