8T49N241 / 8T49N242
Universal Frequency Translators

FEATURES

- Universal Frequency Translator (UFT™) with jitter attenuation
- Proven synchronous Ethernet line card synchronizer
- Supports SONET/SDH clocks including FEC rate conversions
- Four independently programmable outputs with up to three fractional output dividers
- 350 fs typical RMS jitter, 12 kHz to 20 MHz (including spurs)
- Accepts LVPECL, LVDS, LVHSTL, HCSL or LVCMOS input clocks
- Input frequencies from 8 kHz to 875 MHz
- Output frequencies from 8 kHZ to 1.0 GHz
- Small 40-VFQFPN package
- Ease of use with Timing Commander
- -40°C to 85°C ambient operating temperature

TARGET APPLICATIONS

- Ideal for synchronous Ethernet line cards in multi-board systems
- OTN or SONET / SDH equipment line cards
- OTN de-mapping (gapped clock and DCO mode)
- Gigabit and terabit IP switches / routers
- Wireless base station baseband
- Video broadcast
- Data communications

Simplify Complex Clock Trees

The 8T49N241/242 Universal Frequency Translator (UFT) timing devices offer up to four independently programmable clocking outputs with the flexibility to apply virtually any input frequency and select virtually any output frequency. The devices, offered in a small 40-VFQFPN package that optimizes board space, deliver reliably solid jitter performance to directly time 10G PHYs and interfaces up to 100G. They provide redundancy management, jitter attenuation and consistent phase noise performance at any loop bandwidth settings.

The IDT technology allows highly flexible frequency plans, including any rate conversion to unrelated output frequencies, helping engineers simplify complex clock trees. Flexibility and ease of programmability allow the power efficient UFT devices to be used in a variety of clock trees while reducing engineering effort. IDT's Timing Commander™ software tool enables a fast and easy reconfiguration of the devices.

Part Number	Description
8T49N241	Single channel UFT with 2 inputs and 4 outputs generating up to 4 frequency domains (1 integer and 3 fractional output dividers)
8T49N242	Single channel UFT with 2 inputs and 4 outputs generating one frequency domain (4 integer output dividers)

To learn more about IDT's UFT devices, visit: **idt.com/go/UFT**

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