



## FEATURES

### 8T49N241/242

- Universal Frequency Translator (UFT™) with jitter attenuation and programmable PLL bandwidths
- Four independently programmable outputs
- 350 fs Typical RMS Jitter
- Input frequencies from 8 kHz to 875 MHz
- Hitless switching or phase-slope limiting
- Output frequencies from 8 kHz to 1.0 GHz
- Operates from a 10 MHz to 50 MHz fundamental mode crystal
- Small 40-VFQFPN package

### 82P33714/31

- G.8262 compliant SETS for SyncE
- Lock to a wide range of reference clock frequencies including 1G/10G Ethernet, CPRI, OTN, SONET/SDH and GNSS frequencies including 1PPS
- Highly flexible reference monitoring and hitless switching capabilities
- 82P33731 supports sub 300 fs RMS jitter
- Sync pulse inputs and outputs
- Choice of eight common TCXO/OCXO frequencies
- Input to output programmable phase delay
- Independent programmable input delays
- Programmable output phase capabilities

## SETS and UFT Line Card Synchronizers for High-Speed SyncE Systems

The 82P33714/31 and 8T49N241/242 provide solutions to support ITU-T G.8262 SyncE compliance in single or multi-board architectures with network interfaces operating at up to 100 Gigabit/s. The Synchronous Equipment Timing Source (SETS) devices generate SyncE compliant timing references for an entire system. The small and power efficient Universal Frequency Translator devices are ideal for line cards in multi-board systems to adapt SETS timing signals for local interfaces while preserving SyncE compliance. The two families have been tested together and are proven to provide SyncE-compliant clocks.

### Combine Compliance and Versatility

The SETS devices provide flexibility to accept network synchronization references from virtually any source, including 1 PPS (pulse per second) signals from GPS (Global Positioning System) receivers. The 82P33714 can directly time 1G PHYs; while the 82P33731 can directly time 10G PHYs. In line card applications, the UFT devices deliver reliably solid jitter performance to directly time 10G PHYs and interfaces up to 100G. They provide redundancy management, jitter attenuation, low jitter generation and flexible output formats. The IDT technology allows highly flexible frequency plans, including any rate conversion to unrelated output frequencies, helping engineers simplify complex clock trees. IDT's Timing Commander™ GUI (Graphical User Interface) enables a fast and easy reconfiguration of the devices for use and reuse of these devices in many different clock trees while reducing engineering effort.

SyncE Application	Recommended Devices
SyncE Line Card	8T49N241/2 or 8T49N285/6/7
SyncE Timing Card	82P33714
SyncE Blade (single board system)	82P33731

For more information visit [IDT.com/go/UFT](http://IDT.com/go/UFT) and [IDT.com/go/Sync](http://IDT.com/go/Sync)