

# OctaLIU

Eight-Channel E1/T1/J1 Line Interface Unit  
PEF 22508 E



THE OctaLIU is the latest addition to Infineon's family of sophisticated E1/T1/J1 components. Designed to support both long haul and short haul applications, the eight-channel OctaLIU provides support for all standard E1/T1/J1 Line Interface Unit functions.

AS AN EIGHT-CHANNEL LIU, the OctaLIU is ideally suited to high channel-count applications that do not require E1/T1/J1 framing, or require framing and LIU functions to be in separate devices, such as M13 multiplexers, wireless base stations and routers.

USING INFINEON'S EASY 22508 Reference Design System, system vendors can quickly develop OctaLIU-based applications.

## Applications

- M13 multiplexers
- Wireless base stations
- Routers
- Voice over packet gateways
- ATM and Frame Relay gateways
- Multi-service Access Platforms
- Digital Loop Carriers
- Digital cross connects
- Switches
- Remote access servers/concentrators
- SONET/SDH Add/Drop Multiplexers
- CSU/DSU equipment

## Features

- Eight independent E1/T1/J1 long haul/short haul LIUs
- Software programmable T1/E1/J1 for a single BOM for all applications
- Integrated analog switch for impedance matching or protection switching
- Crystal-less wander and jitter attenuation/compensation according to:
  - TR 62411
  - ETS-TBR 12/13

- Clock generation unit accepts any reference clock from 1.02 MHz to 20 MHz
- Programmable transmit pulse shape for standard and flexible pulse generation
- Supports automatic protection switching
- Integrated line termination tuning by additional analog switch
- Receiver sensitivity exceeds
  - 36 dB at 772 kHz, and -43 dB at 1024 kHz
- Rx and Tx line monitoring
- Versatile channel configurations
- Dual or single rail digital input and output to the framer interface
- Programmable in-band loop code according to TR62411
- Programmable elastic store for Rx and Tx clock wander and jitter compensation with controlled slip capability and slip indication
- PRBS generation and monitoring
- Detects and generates LOS and AIS alarms

## General Features

- Meets Japanese standards including JT G.703, 704, 706, I.431
- Intel® or Motorola® type 8/16-bit microcontroller interface
- Serial SPI bus and serial SCI bus
- Low power consumption (100 mW per channel)
- Dual voltage 1.8 V/3.3 V power supply
- 17x17 mm PG-LBGA-256 package with 1.0 mm ball pitch
- Operating range from -40°C to 85°C

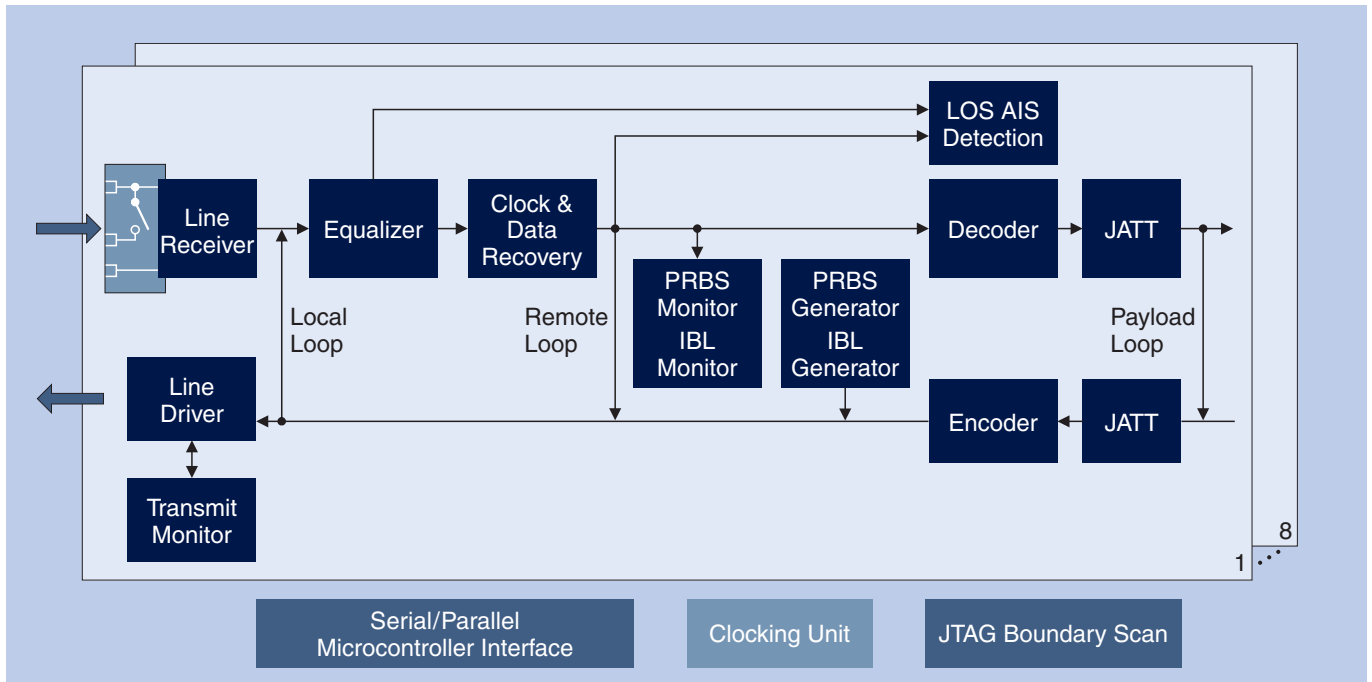
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Wireline Communications



Never stop thinking.

## Block Diagram OctaLIU



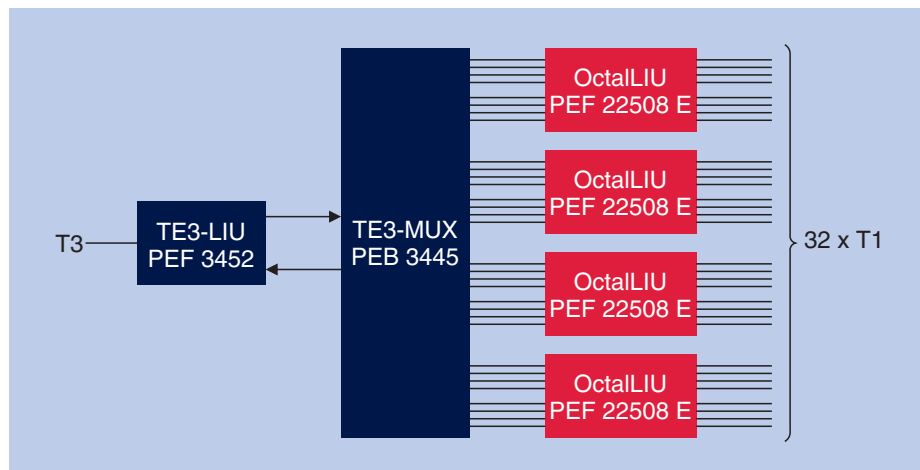
## Ordering Information

### OctaLIU IC

Product Sales Code	Description	Package
PEF 22508 E	OctaLIU Eight-Channel E1/T1/J1 Line Interface Unit	PG-LBGA-256

### OctaLIU Reference Design System

Product Sales Code	Description	Package
EASY 22508	OctaLIU Reference Design System	One board, software, and documentation



## Application Example 32-Channel E1/T1/J1 Line Card with OctaLIU

### How to reach us:

<http://www.infineon.com>

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