OVERVIEW

The CP1121A is one of the OPTRANS series chips designed by Chiphomer Technology Limited. It is extended to provide a flexible, low cost System-on-chip (SOC) solution for fast growing metropolitan transmission market, especially in Multi-service Transport Platform (MSTP) and Customer Premises Equipment (CPE) applications. It integrated one SDH overhead processor for dual STM-4 or dual STM-1, one extend interface for dual STM-4s or dual STM-1s, a tributary unit payload processor for 8 STM-1, E1 mapper for asynchronous mapping and demapping of 21 port E1, a 18 X 18 high and low order cross connector.

FEATURES

- SDH Overhead Processor
  - Dual channel SDH STM-4 or STM-1 Serial LVDS interfaces
  - Dual channel multi-rate CDR macro is integrated
  - High jitter performance complies with ITU-T specification
  - Regenerator and multiplex section overheads are terminated
  - High order AU-4 pointer interpretation and generation
  - VC-4 path overheads termination
  - Full access SOH through external serial interfaces
  - Support path loop-back
  - Support Multiplex Section Protection Switch
- TUPP

![Diagram of CP1121A](image)
STM-1/4 Single Chip Add/Drop Multiplexer System device

- Process TU-12/TU-3 Pointer
- Aligns SDH tributary unit within 8 STM-1.
- TU3 or TU12 mode for every TUG3 in AU4
- Bypass mode for VC-4 Applications
- Extended interface supports
  - Two byte-width 19.44 Telecom Bus, or two byte-wide 77.76MHz Telecom Bus, or
  - Two 2bit-width 77.76MHz Telecom Bus
- 21 channel E1 mapper
  - 21 channels E1 asynchronous mapping and de-mapping to/from a STM-1.
  - 1+1 path protection, re-timing mode for channel #0 to #7
- High and low order cross connecter
  - 18 X 18 STM-1 non-blocking switching for high order or low order
- Provides 16-bit Intel/Motorola microprocessor interface
- 1.8V/3.3V power supply. 3.3V CMOS I/O. LVDS I/O
- Supports IEEE 1149.1 boundary scan
- Operating Industrial temperature range: -40°C ~ 85°C
- Maximum power consumption less than 2.9W
- TEBGA 421 package

APPLICATIONS

- SDH Add/Drop Multiplexers
- Multi-service Transport Platform (MSTP)
- Customer Premises Equipment (CPE)

TYPICAL APPLICATION

Related Products
CP5009 8ch E1/T1/J1 LIU
CP1181 21ch E1/T1 Mapper
CP1122A STM-1 single chip Add/Drop Multiplexer System Device