

General Description

The PEB 2091, IEC-Q, is a single chip full-duplex U-transceiver device meeting the latest American- (ANSI) and European (ETSI) specifications. It is based on a coding scheme reducing two binary information into a single quaternary code. This coding requires a reduced transmission rate of only 80 kbaud on a twisted copper pair, minimizing signal attenuation and guaranteeing the highest transmission rate of all defined U-interface standards.

The PEB 2091 was defined to operate in all ISDN (Line cards, Network Terminators, Terminals, PBXs and Repeaters) and non-ISDN (DAML) applications.

Features

- Full-duplex two-wire U-transceiver meeting the following layer-1 specifications:
ANSI T1.601-1991
CNET ST/LAA/ELR/DNP/822
ETSI DTR/TM 3002
Recommendation CCITT, G961
- 144-kbit/s user bit rate (2B+D)
- 160-kbit/s total bit rate including maintenance and synchronization
- Low transmission frequency of 80 kbaud by using the 2B1Q-block line code
- IOM interface compatible
- Adaptive echo cancellation and equalization using digital filtering

Type	Package
PEB 2091-N	P-LCC-44-1 (SMD)
PEF 2091-N	P-LCC-44-1 (SMD)

- Recovery of clock and frame signals from the data stream
- Handling of command/indication information during activation/deactivation procedure
- Switching of test loops
- Wake-up unit for activation from power-down state
- Several operating modes including trunk applications with frame alignment (LT, NT, TE, Repeater)
- Transmission range of 5.5 km (18 kft) with 0.4 mm (26 AWG) wire
- U-only activation
- Power feeding control
- Repeater mode
- Echo overload compensation to match ETSI and ANSI test loops
- Dynamic phase adaptation
- 1- μ m CMOS technology
standby: 70 mW
active: 350 mW

