General Information

The ISDN Primary Access Transceiver IPAT-2 (PEB 2236) is a monolithic CMOS device which implements the analog receive and transmit line interface functions to primary rate PCM carriers. It may be programmed or hardwired to operate in PCM30 (2.048 Mbit/s) and PCM24 (1.544 Mbit/s) carrier systems.

The IPAT-2 recovers clock and data using an adaptively controlled receiver threshold. It is transparent to ternary codes and shapes the output pulse according to the AT&T Technical Advisory #34 or CCITT G.703. The jitter tolerance of the device meets the latest CCITT recommendations (I.431) and many other specifications by AT&T/Bellcore. Diagnostic facilities are included.

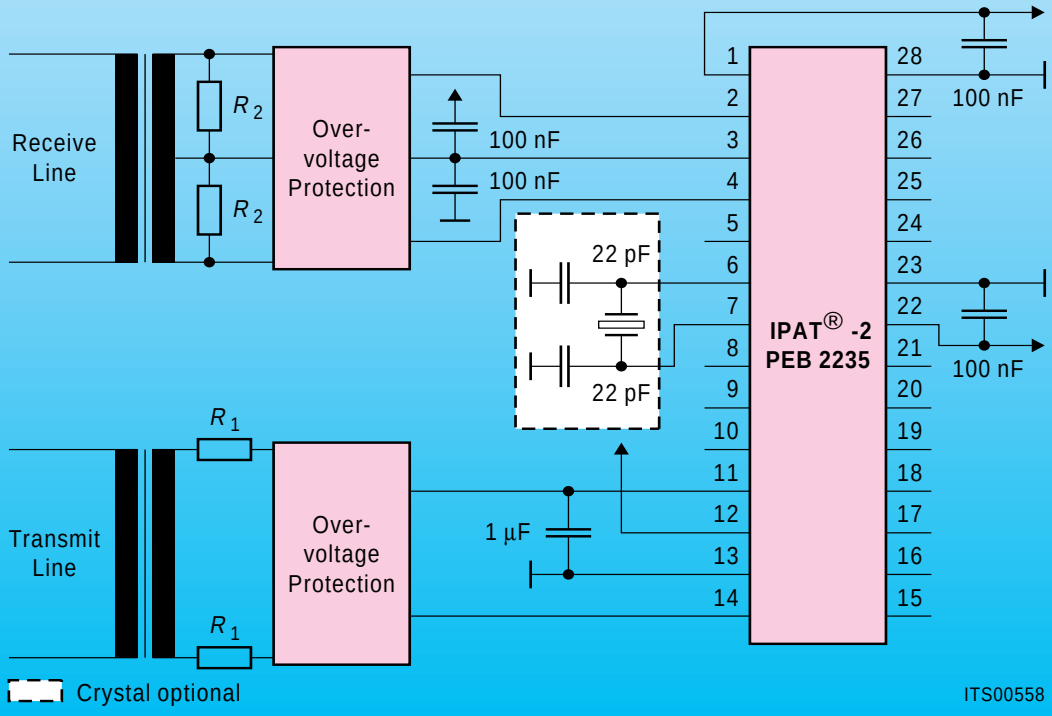
Specially designed line interface circuits simplify the tedious task of protecting the device against overvoltage damage while still meeting the return loss requirements.

The IPAT-2 is suitable for use in a wide range of voice and data applications such as for connections of digital switches and PBXs to host computers, for implementations of primary ISDN subscriber loops as well as for terminal applications. The maximum range is determined by the maximum allowable attenuation.

Type	Package
PEB 2236-N	P-LCC-28-1 (SMD)
PEB 2236-P	P-DIP-28-1
PEF 2236-N	P-LCC-28-1 (SMD)
PEF 2236-P	P-DIP-28-1

Features

- ISDN line interface for 1544 and 2048 kbit/s (T1 and CEPT)
- Data and clock recovery
- Transparent to ternary codes
- Low transmitter output impedance for a high return loss with reasonable protection resistors (CCITT G.703 requirements for the line input return loss fulfilled).
- Adaptively controlled receiver threshold
- Programmable pulse shape for T1 applications
- Jitter specifications of CCITT I.431 and many AT&T/Bellcore publications met
- Implements local and remote loops for diagnostic purposes
- Monolithic line driver for a minimum of external components
- Low power, reliable advanced CMOS technology



External Wiring of the IPAT