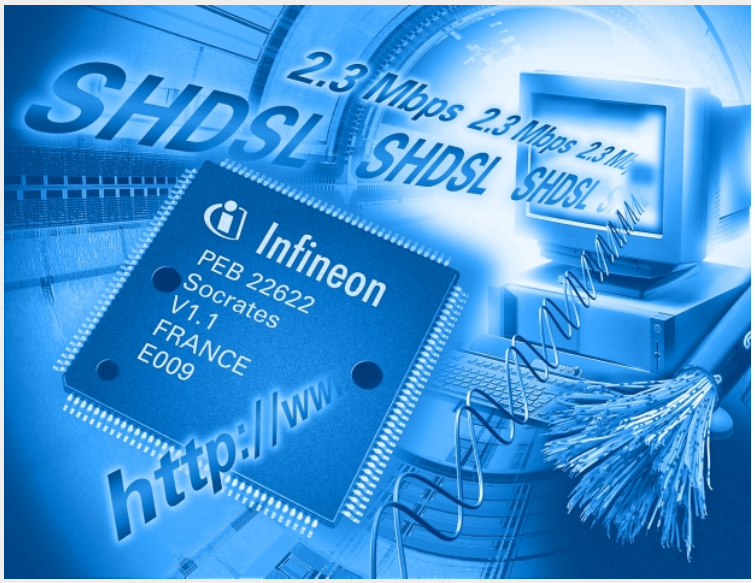
SDSL One Chip Rate Adaptive Transceiver with Embedded Start-up

The one chip transceiver IC SOCRATES™ integrates all functions of a SDSL transceiver according to the emerging ETSI and ITU standards. It can operate at all data rates from 144 kBit/s up to 2.3 MBit/s in 8 kBit/s granularity. Its small package and low power consumption make it especially useful in linecard and remote feed applications. The integrated microcontroller and HDLC controller make it easy to use in a variety of applications. The built-in 2B1Q mode keeps it interoperable with HDSL solutions. All features required for operation in WLL/RITL systems are available. The device is also interoperable with the MuBIC MDSL chip. Infineon also supplies a wide range of other telecom ICs to offer complete system solutions for different applications.



SDSL

Potential Applications

- High speed subscriber access
- N-channel DAML systems
- Extended range full and fractional T1/E1
- Internet connections
- ISDN H0 transport
- ISDN Primary rate access replacement
- Remote LAN Access (Home office)
- Videoconferencing
- Cellular base stations
- RITL and WLL systems
- SDH and SONET termination
- Leased line services
- Frame Relay services
- PBX trunk lines

Features

- Single chip SDSL transceiver
- Plastic TQFP-144 package
- Lowest power consumption
- TCPAM linecode with 2, 3 or 4 Bits/symbol
- Synchronous or plesiochronous operation
- 8-Bit µC parallel interface of Infineon/Intel and Motorola multiplexed/demuliplexed type
- Transparent transmission or built-in Framer with MuBIC or SDSL framing
- Embedded µC also usable for board control
- Two integrated HDLC controllers for payload and EOC
- Warmstart capability
- G. handshake start-up
- Central office (COT) and remote (RT) operation (master/slave)
- 2 MBit/s and 4 MBit/s TDM interface in RT mode
- 2 MBit/s to 10 MBit/s TDM interface in COT mode
- 1544 kBits/s TDM interface (T1)
- DECT base station synchronization
- Delay measurement
- 2B1Q mode
- Single 2.0 V, 3.3 V and +5 V power supply
- Inputs and Outputs TTL level
- Capable of transmitting on ETSI and ANSI HDSL testloops
- JTAG boundary scan

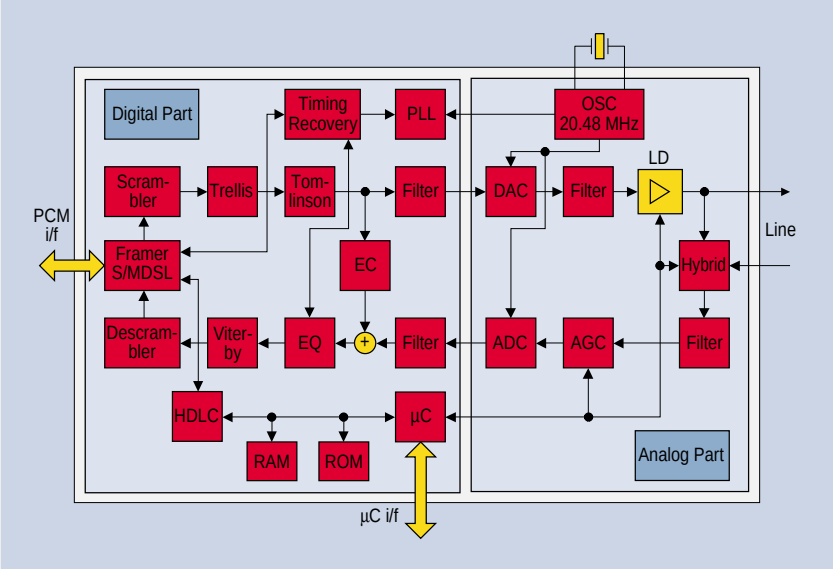
Development and Support Tools

- SMART 2000 Evaluation package

SOCRATES PEB 22622

Infineon technologies

Never stop thinking.



SOCRATES PEB 22622 Block Diagram

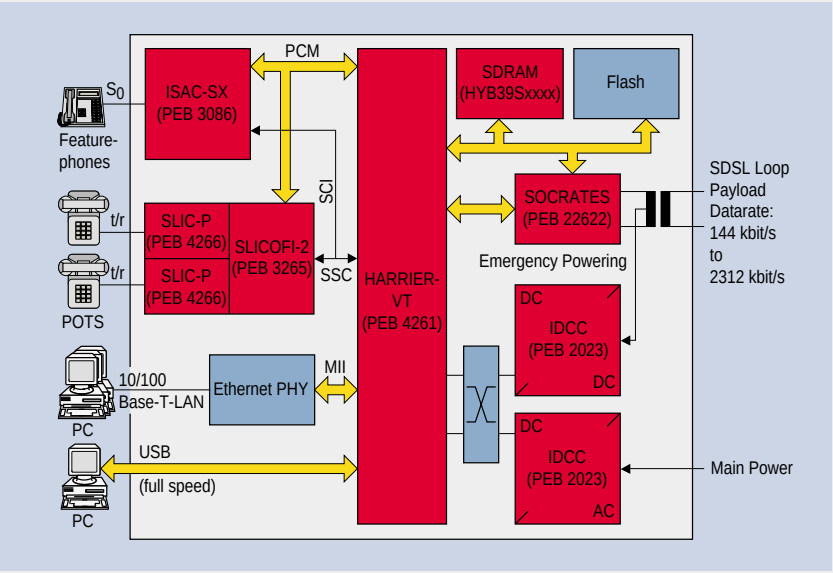
2B1Q Data Path not Shown

Documentation

Type	Date of Issue/Version
PEB 22622 V1.1 Product Overview	07.99
PEB 22622 V1.1 Preliminary Data Sheet	03.00

Packing

Type	Ordering Code	Package	Availability
PEB 22622F	Q67233-H1202	P-TQFP-144	ES
Socrates Demoboard	Q67230-H1204		4/2000



Application Example Fully Featured NT

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