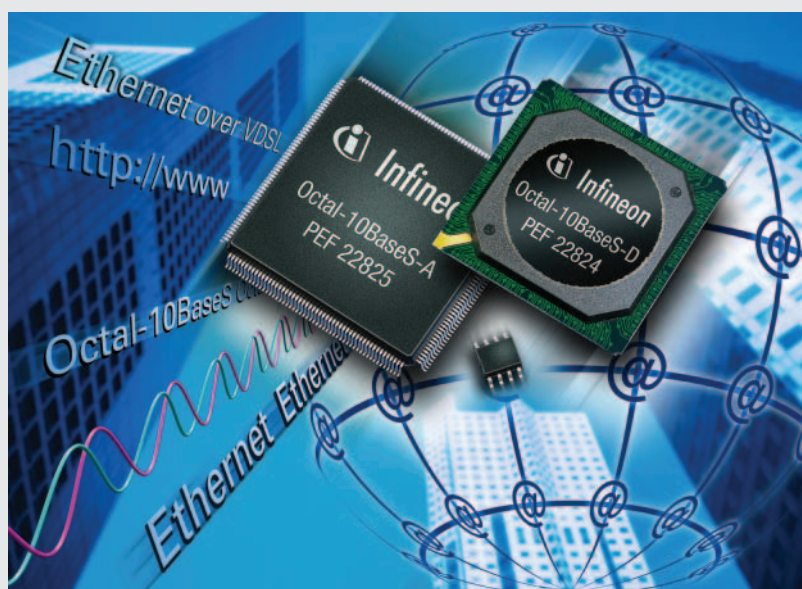


Infineon's innovative Octal-10BaseS chipset is a very high density 8-port 10BaseS™ solution for the design of switches and IP-DSLAMs. The chipset combines the structural simplicity of Ethernet with the high performance of VDSL communications. It supports transmission of 10 Mbit/s, full-duplex Ethernet packets over existing copper wires for distances up to 4000 ft. (1200 m). The chipset also supports transmission of legacy communication services without disruption.

Ethernet PHY functionality is fully integrated into the Octal-10BaseS chipset for direct connectivity to standard Ethernet switching devices. Infineon's VDSL technology uses frequency duplexing and QAM modulation to ensure robust operation. Its spectral allocation allows noise-free coexistence with other xDSL technologies in the same bundle.

The Octal-10BaseS chipset is a very economical solution for distribution of broadband services in MDU/MTU markets and a most suitable solution for broadband LAN extension applications.



Octal-10BaseS

Applications

- Ethernet Switch and DSL Access Multiplexer (IP-DSLAM) systems
- Multiple Dwelling/Tenant Units (MDU/MTU) networking
- 10 Mbit/s or 100 Mbit/s MII configuration in full-duplex or half-duplex modes are supported
- Hospitality networking
- Multi-building campus networking
- High-speed industrial network environment
- Fiber, broadband wireless, and cable extensions over copper

Features

- A single 10BaseS chipset equipped with 8 integrated ports
- Configurable as a standard 8-port Ethernet PHY for use in switch/IP-DSLAM applications
- RMII, SMII and SS/SMII Interfaces are compliant with IEEE 802.3 Ethernet specifications
- MII Serial Management Interface supports full access to all internal registers and control of both local and remote devices
- Internal buffering, back pressure and IEEE 802.3x flow control capabilities
- Uses Quadrature Amplitude Modulation (QAM)
- Employs Frequency Division Duplexing (FDD)
- Delivers symmetrical 10 Mbit/s payload for distances up to 4000 ft./1200 m

- Symmetrical/asymmetrical line rates from less than 1 Mbit/s to 25 Mbit/s
- Robust operation over severely noise-distorted lines
- Spectral allocation for noise-free operation with xDSL, ISDN, and "Smartphone" digital PBX devices
- Transmit Notch filter, Scrambler, Reed-Solomon Forward Error Correction (FEC) and Convolutional Interleaver with internal SRAM
- Link WatchDog combined with robust link configuration ensures link establishment
- Transmit power management
- Low power consumption: 0.85 W per port including line driver
- Power boost for extended reach
- Embedded microcontroller for stand-alone operation
- JTAG for chip level and board level testing

Octal-10BaseS

8-Port 10BaseS™ Chipset

PEF 22810 (VDSL-L)

PEF 22825 (Octal-10BaseS-A)

PEF 22824 (Octal-10BaseS-D)



Never stop thinking.

