

4 x E1/T1 Fiber Mux/De-mux over One Fiber Optic Cable

DESCRIPTION

The ACS406CS comprises a chip set of two highly integrated devices, the ACS9010 and ACS4060. The ACS9010 is an analog transceiver device and the ACS4060 is a mixed signal device.

The ACS406CS supports full duplex serial data of up to 8.448Mbps over one fiber with link lengths up to 25km. The available bandwidth can be shared over 1 to 8 channels of 1 x E2/T2, 4 x E1/T1, 8 x 1.024Mbps plus separate maintenance channel(s). The ACS406CS provides five transmit/receive clock domains enabling four independent E1/T1 channels and a maintenance channel to be supported at one time.

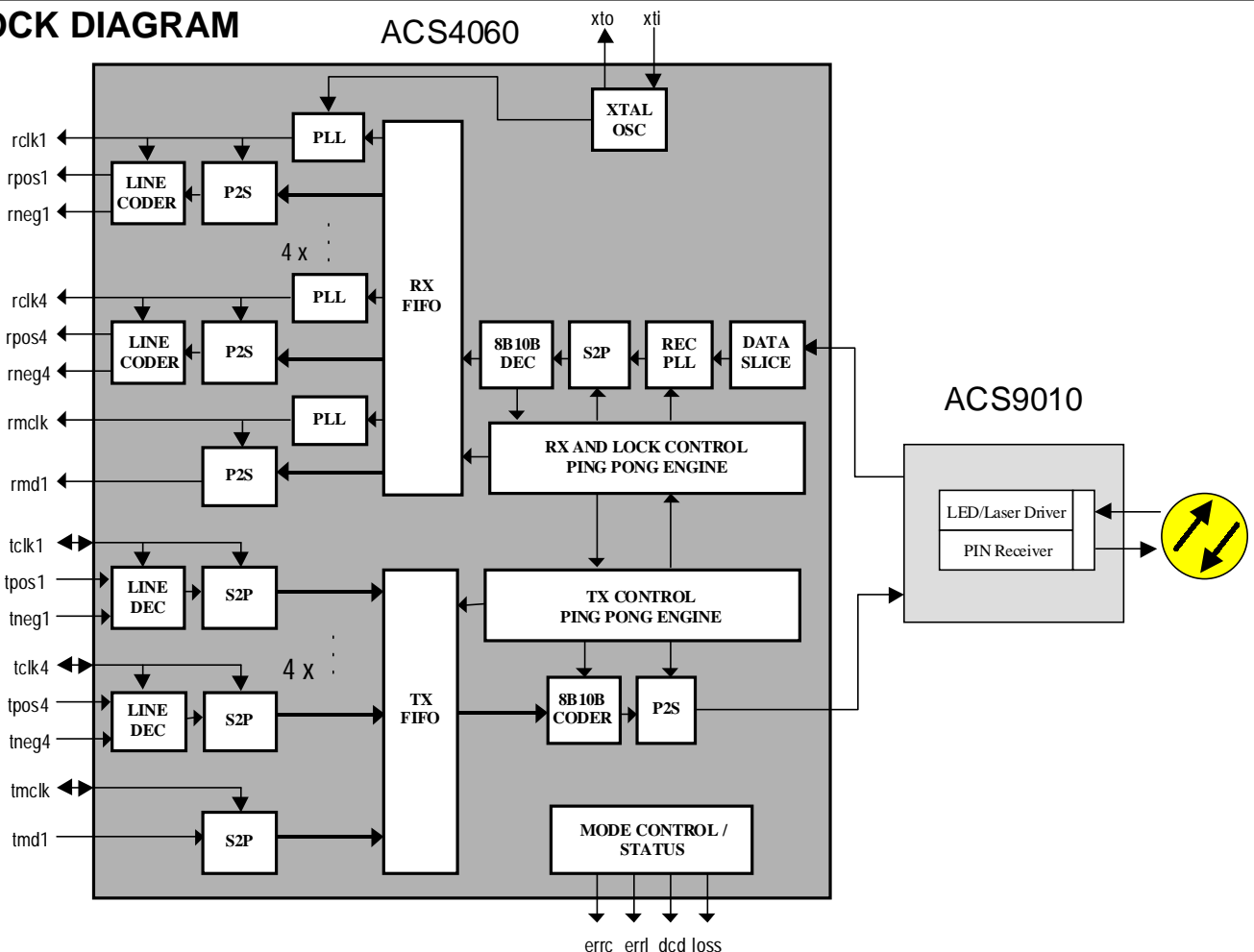
The ACS9010 is a transceiver which integrates the Laser/LED driver as well as the PIN receiver circuitry including the TIA and post amplifier.

The ACS4060 integrates the multi-channel mux/de-mux logic with de-jittering circuits for each channel, plus the clock and data recovery. Communicating modems automatically maintain synchronisation with each other even when no data is being transmitted/received. Link lengths from zero to maximum distance are catered for automatically during system synchronisation.

FEATURES

- Two chip set supporting full duplex serial data transmission up to 8.448Mbps over one fiber
- Multi-channel operation with full loopback diagnostics per channel
- Up to 8 independent synchronous data channels:
 - 1 x E2/T2
 - 4 x E1/T1
 - 8 x 1.024Mbps
- Additional 64kpbs maintenance channel with option of 4 x 16kpbs multi-channel operation and framing signal for main channels
- Standard interfaces for Line Interface Units (LIU) or Framers
- Select between NRZ and pseudo-bipolar HDB3/AMI/B8ZS input data coding types
- Support for Bi-Directional, single wavelength duplexers and LED/Laser + PIN
- Link lengths up to 25km on single mode fiber
- Typical latency of 0.75ms
- Bit Error Rate (BER) of 10^{-10}
- Low power, single 5V supply
- Operating temperature (ambient) of -40 to 85°C
- ACS9010 available in TQFP44 package, ACS4060 available in TQFP100 package.

BLOCK DIAGRAM

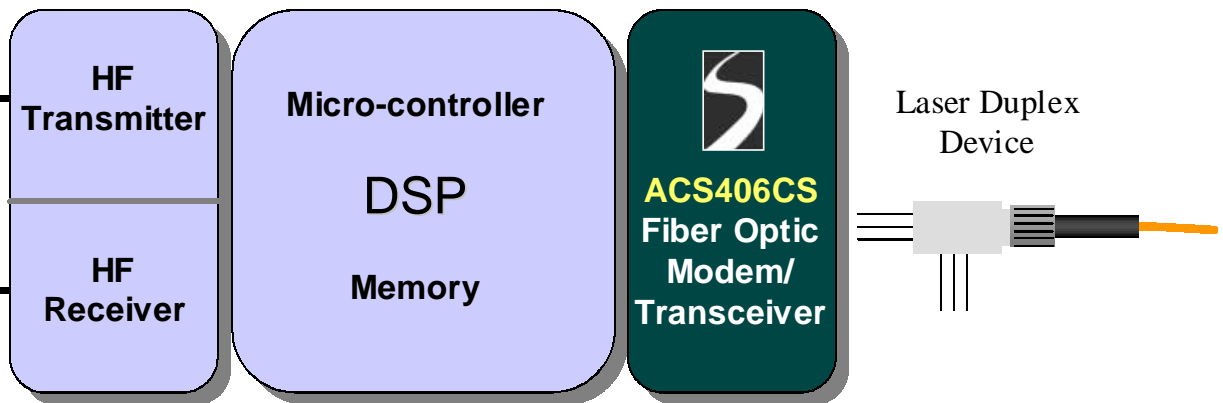




APPLICATIONS

- Add/Drop Multiplexers
- Point to point FOM
- ISDN fiber extender
- N x E1/T1 Fiber Mux/Demux - 2G+ and 3G Base Station interconnect.

Radio Base Station



Up to 4 x E1/T1 + maintenance
Single fiber link up to 25km

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