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Transparent Signaling Channel

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The following companies have indicated their support for the concepts outlined in this proposal:

XaQti / Algol
Amdahl
HP
Madge

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Transparent Signaling Channel

- Benefits
  - Expands application space for Gig Ethernet
  - Provides expansion for multi gig speeds
  - Link level communication between ports
- Costs
  - NO burden for NON implementors
  - No additional overhead on channel
  - No additional complexity to port design
  - Minimal use of code space - one word
  - Additional interface for control purposes

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What to Standardize?

- TSC support bit in the configuration register
- TSC Signal format
- Rules of engagement

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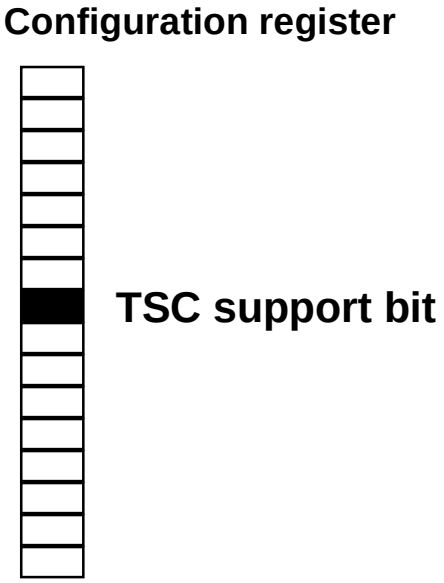
Advertising Support for TSC



- Use Link Configuration Register
- TSC is supported if the bit is set
- TSC is activated only if both ends of the link support it
- This is part of the standard link startup procedure

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TSC Signal Format

- K28.0 - escape character
- PID - Protocol ID
- DATA - anything

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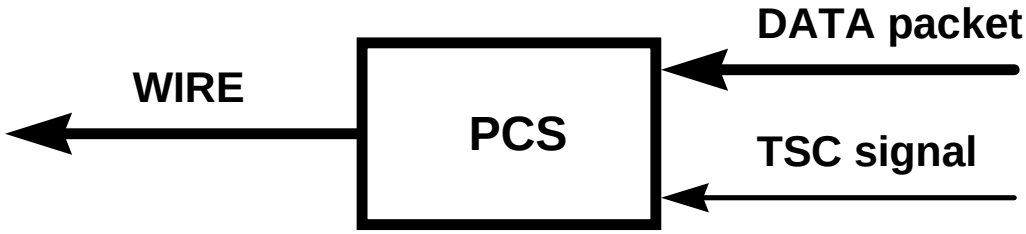
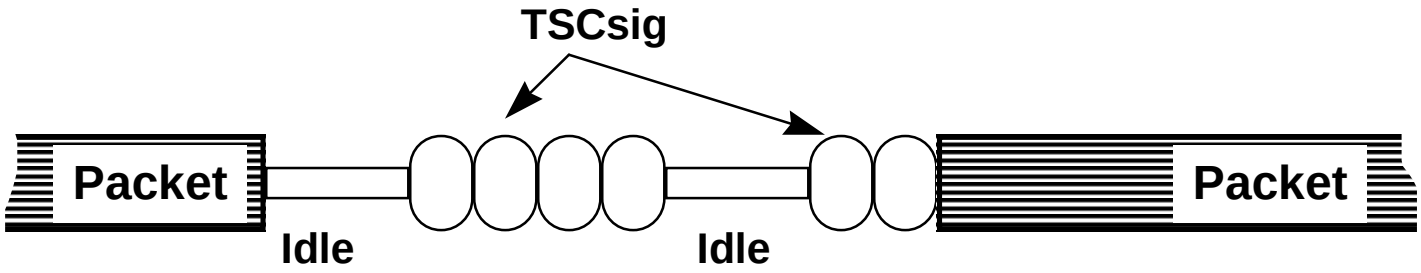
Rules of Engagement





- Transmitted only during IPG (IDLE)
- At least two TSCs can be sent in minimum IPG
- Can be terminated after two bytes if MAC has Data Packet to send

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Possible applications

- Slow clock distribution
- Fault signaling
- Link maintenance
- Security functions
- Redundancy management

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