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# **A Survey of Commercially Available ADC Technology**

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# Overview

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- A key block in a mixed signal solution for 10GBASE-T will be the Analog-to-Digital Conversion (ADC)
- This presentation is for information only and is intended to highlight what's available in COTS components

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# 10 Bit Converters

# ADC Technology

- Manufacturer: TelASIC Communications
- Part Number: TC1200
- Technology: Silicon Germanium
- Device Specifications:
  - Sample Rate: 1 GSPS
  - Resolution: 10 bits
  - ENOB: 8 bits

# ADC Technology

- Manufacturer: Atmel Corporation
- Part Number: TS83102
- Technology: Silicon Germanium
- Device Specifications:
  - Bandwidth: 3 GHz
  - Sample Rate: 2 GSPS
  - Resolution: 10 bits
  - ENOB: 7.8 bits

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# 8 Bit Converters

# ADC Technology

- Manufacturer: Maxim Integrated Products
- Part Number: MAX108
- Technology: Bipolar
- Device Specifications:
  - Bandwidth: 2.2 GHz
  - Sample Rate: 1.5 GSPS
  - Resolution: 8 bits
  - ENOB: 7.5 bits

# ADC Technology

- Manufacturer: Maxim Integrated Products
- Part Number: MAX104
- Technology: Bipolar
- Device Specifications:
  - Bandwidth: 2.2 GHz
  - Sample Rate: 1 GSPS
  - Resolution: 8 bits
  - ENOB: 7.5 bits



# ADC Technology

- Manufacturer: Atmel Corporation
- Part Number: TS8388
- Technology: Bipolar
- Device Specifications:
  - Bandwidth: 1.5 GHz
  - Sample Rate: 1 GSPS
  - Resolution: 8 bits
  - ENOB: 7.1 bits

# Summary

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- **It appears at least feasible, that within the time the standard is ratified, an ADC will be available which can meet the requirements 10GBASE-T**