

CMOS HDB3 (High Density Bipolar 3) Transcoder for 2.048/8.448Mb/s Transmission Applications

The CD22103A is an LSI SOS integrated circuit which performs the HDB3 transmission coding and reception decoding functions with error detection. It is used in 2.048Mb/s and 8.448Mb/s transmission applications. The CD22103A performs HDB3 coding and decoding for data rates from 50Kb/s to 10Mb/s in a manner consistent with CCITT G703 recommendations.

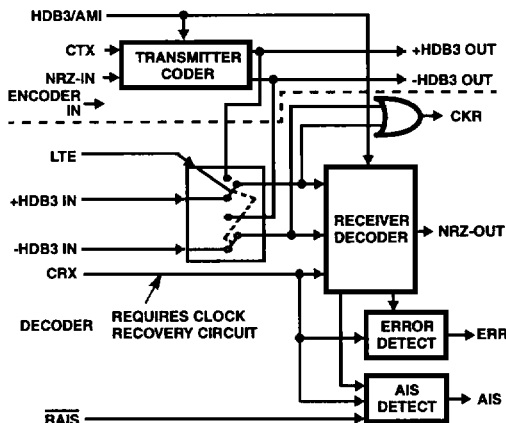
HDB3 transmission coding/reception decoding with code error detection is performed in independent coder and decoder sections. All transmitter and receiver inputs/outputs are TTL compatible.

The HDB3 transmitter coder codes an NRZ binary unipolar input signal (NRZ-IN) and a synchronous transmission clock (CTX) into two HDB3 binary unipolar RZ output signals (+HDB3 OUT, -HDB3 OUT). The TTL compatible output signals +HDB3 OUT, -HDB3 OUT are externally mixed to generate ternary bipolar HDB3 signals for driving transmission lines.

The receiver decoder converts binary unipolar inputs (+HDB3 IN, -HDB3 IN), which were externally split from ternary bipolar HDB3 signals, and a synchronous clock signal (CRX) into binary unipolar NRZ signals (NRZ-OUT).

The CD22103A operates with a 5V ±10% power supply voltage over the full military temperature range at data rates from 50Kb/s up to 10Mb/s.

Block Diagram



Features

- HDB3 Coding and Decoding for Data Rates from 50Kb/s to 10Mb/s in a Manner Consistent with CCITT G703 Recommendations
- HDB3/AMI Transmission Coding/Reception Decoding with Code Error Detection is Performed in Independent Coder and Decoder Sections
- All Transmitter and Receiver Inputs/Outputs are TTL Compatible
- Internal Loop Test Capability
- Pin and Functionally Compatible with Type MJ1471

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
CD22103AD	-55 to 125	16 Ld SBDIP	D16.3
CD22103AE	-40 to 85	16 Ld PDIP	E16.3

Pinout

CD22103A (PDIP, SBDIP)
TOP VIEW

