



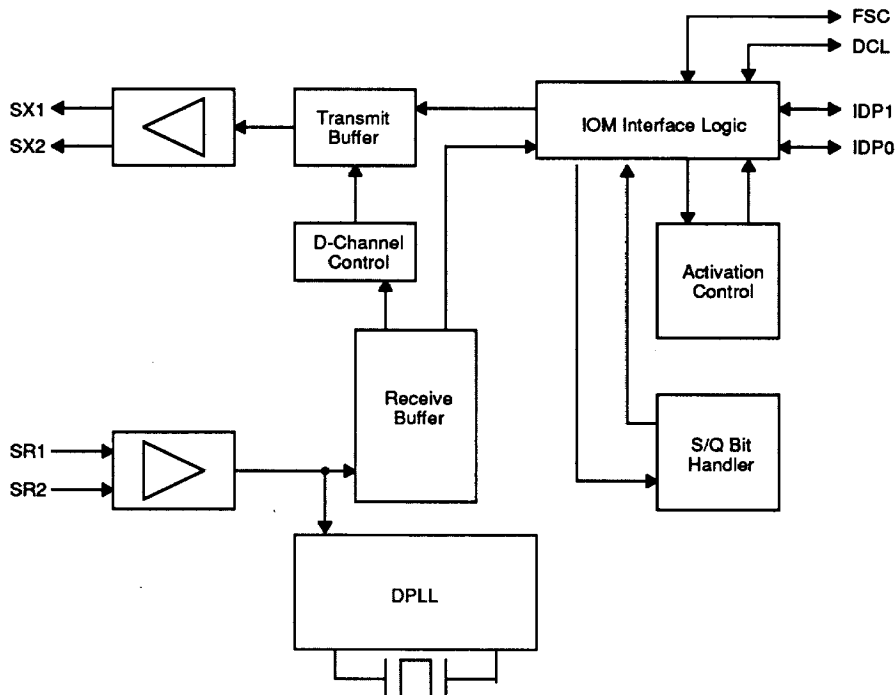
Am2081

S/T Bus Interface Circuit Extended (SBCX)

DISTINCTIVE CHARACTERISTICS

- Full duplex 2B + D S/T interface transceiver according to CCITT I.430
- Adaptive equalizer
- Receive timing recovery
- Built-in wake-up unit for activation from power-down state
- Conversion of the frame structure between the S/T interface and IOM™ Rev.2 Interface
- Activation and deactivation procedures according to CCITT I.430
- D-channel access control, also in trunk application
- Access to S and Q bits of S/T interface
- Automatic handling of S and Q bit messages
- Software controlled maintenance interface (I/O ports)
- Frame alignment with absorption of phase wander in NT2 network side applications
- Switching of test loops
- Several operating modes
- Advanced CMOS technology
- Low power consumption:
 - standby less than 6 mW
 - active max 80 mW

BLOCK DIAGRAM



GENERAL DESCRIPTION

The S/T Interface Circuit Extended (SBCX) Am2081 implements the four-wire S/T interface used to link voice/data ISDN terminals, network termination (Central Office and PABX applications), and PABX trunk lines to Central Office. Through selection of operating modes, the device may be employed in all types of applications involving an S/T interface. Two or more Am2081 SBCX can be used to build a point-to-point, passive bus, extended passive bus or star configuration.

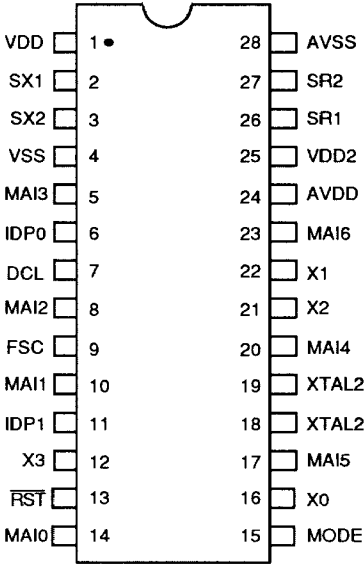
The Am2081 SBCX provides the electrical and functional link between the analog S/T interface according to CCITT recommendation I.430 and T1D1 Basic User Network Interface Specification, respectively, and the ISDN Oriented Modular (IOM) interface Rev. 2.

The Am2081 SBCX exceeds both the electrical and functional requirements of the S/T interface in order to provide high flexibility to the user with respect of S/T interface wiring configuration and implementation of layer-1 maintenance functions. By provision of some additional features at the IOM Rev. 2 interface the user is able to combine the SBCX with other IOM Rev. 2 devices in various configurations.

The Am2081 SBCX is a 28-pin CMOS device offered in both DIP and PLCC packages. It operates from a single 5 V supply and features a power-down state with very low power consumption.

CONNECTION DIAGRAMS
Top View

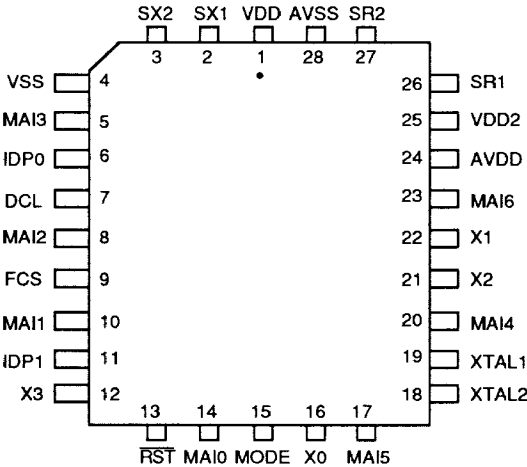
28-Pin DIP



2

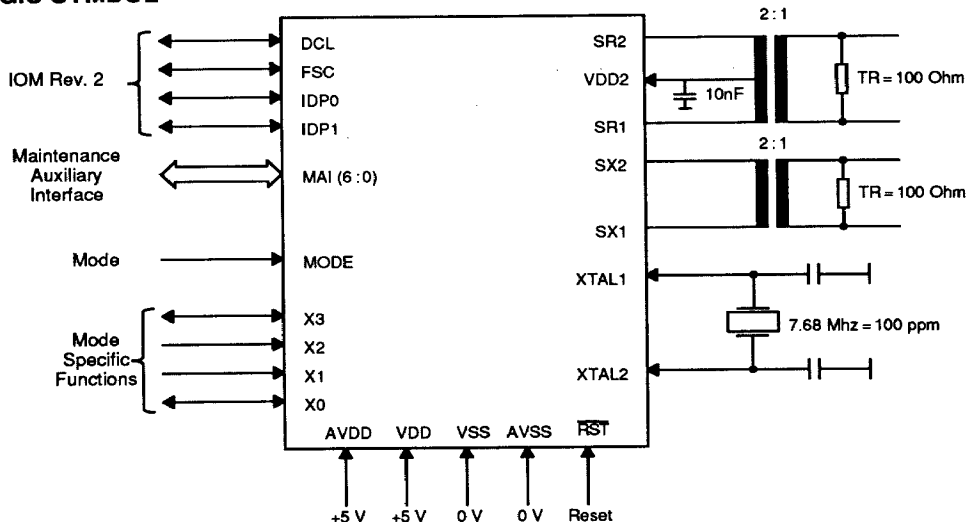
11134-002B

28-Pin PLCC



Note: Pin 1 is marked for orientation.

LOGIC SYMBOL



ORDERING INFORMATION

Standard Products

AMD standard products are available in several packages and operating ranges. The ordering number (Valid Combination) is formed by a combination of:

- Device Number
- Speed Option (If applicable)
- Package Type
- Temperature Range
- Optional Processing

AM2081

J

C

B

e. OPTIONAL PROCESSING

Blank = Standard Processing
B = Burn-in

d. TEMPERATURE RANGE

C = Commercial (0 to +70°C)

c. PACKAGE TYPE

J = 28-Pin Plastic Leaded Chip Carrier (PL 028)
P = 28-Pin Plastic DIP (PD 028)

b. SPEED OPTION

Not Applicable

a. DEVICE NUMBER/DESCRIPTION

Am2081
S/T Bus Interface Circuit Extended (SBCX)

Valid Combinations

Valid Combinations	
AM2081	JC, JCB, PC, PCB

Valid Combinations

Valid Combinations list configurations planned to be supported in volume for this device. Consult the local AMD sales office to confirm availability of specific valid combinations, to check on newly released combinations, and to obtain additional data on AMD's standard military grade products.