

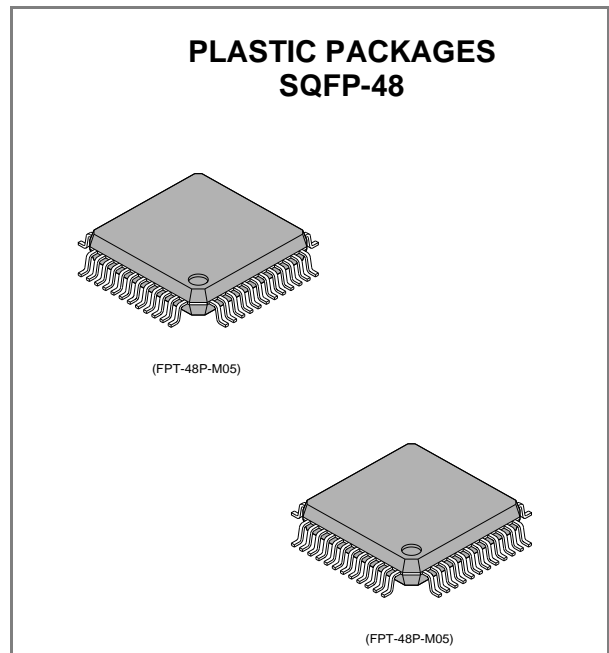
MB582A and MB583A 155-Mbps SDH/SONET ATM Transceiver

FML/NPD/XCVRS/FL/1320

The MB582A and MB583A form a transceiver chip set used for high-speed, point-to-point communications over optical fibers such as in ATM (Asynchronous Transfer Mode), SDH (Synchronous Digital Hierarchy), and SONET (Synchronous Optical Network).

The MB582A transmitter chip generates a high-frequency clock signal from a low-frequency reference clock signal using an internal phase-locked loop (PLL). With the generated clock, the MB582A multiplexes eight-channel parallel data into single-channel serial data.

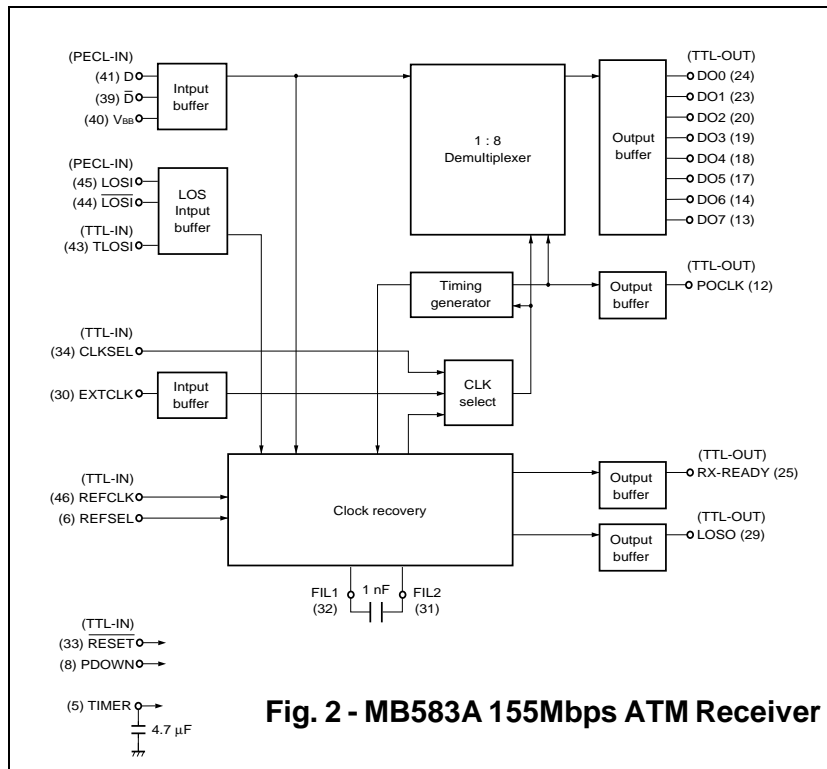
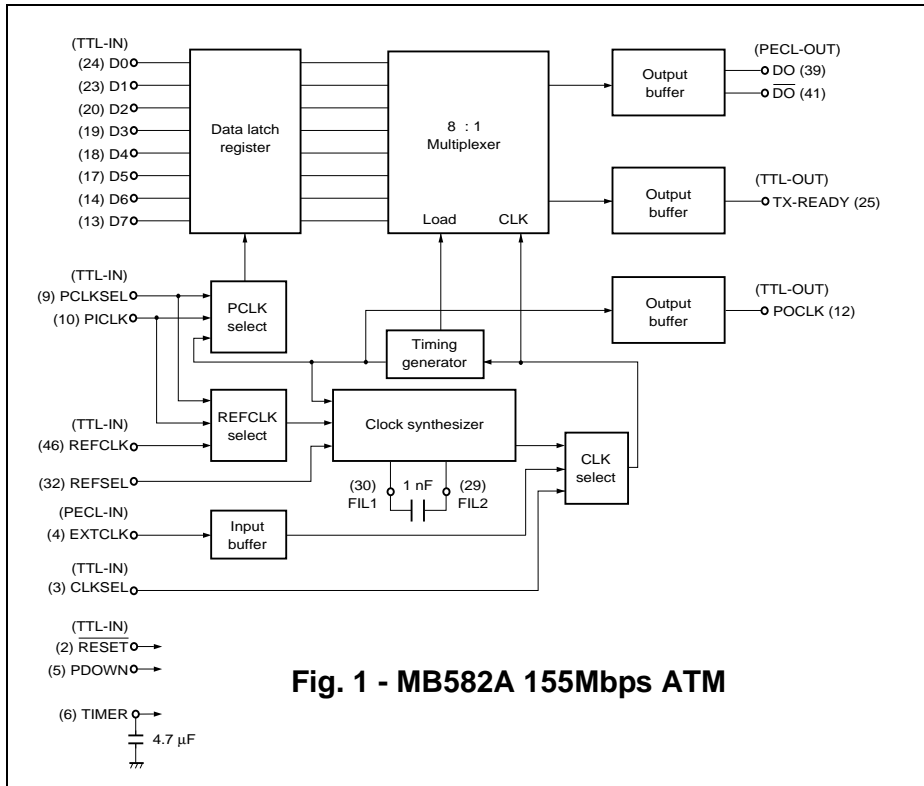
The MB583A receiver chip extracts and regenerates the regenerated clock signal from received serial data using an internal PLL. With the regenerated clock, the MB583A demultiplexes single-channel serial data into eight-channel parallel data.



FEATURES

- Applicable to ATM, SDH, and SONET
- 155.52-Mbps serial data transmission
- Internal PLL
- Two reference clocks available (19.44 MHz and 51.84 MHz)
- PECL serial interface plus TTL parallel interface
- Directly connectable to ATM network termination controller (MB86683B NTC)
- Sleep mode with no signal
- Low power consumption, extended operating temperature range (-40°C to $+85^{\circ}\text{C}$)
- High-speed bipolar technology
- Single +5 V power supply

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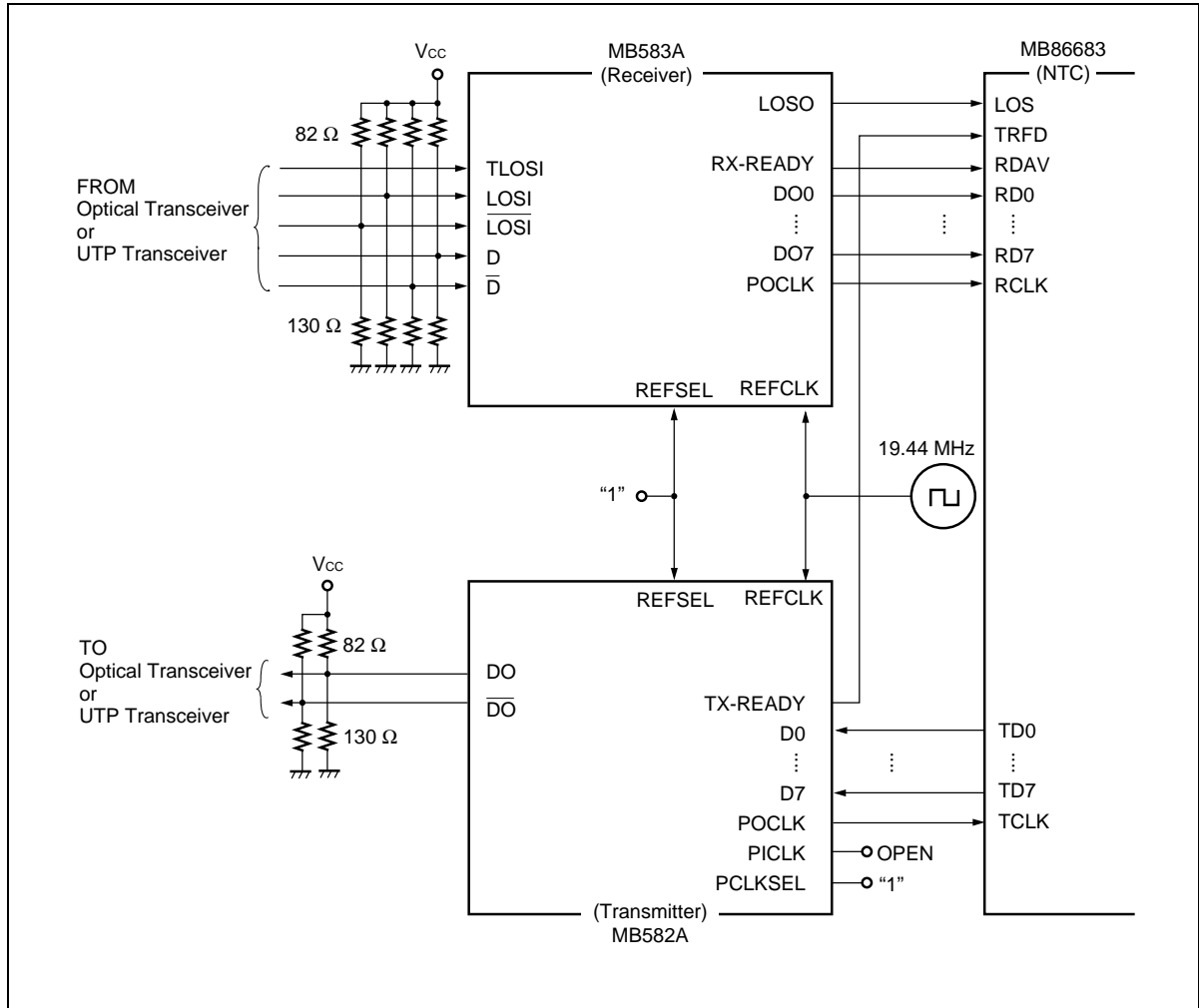


Fig. 3 - MB582A/583A Application Example

DEVICE SUMMARY

Part number	Function	Serial data transmission rate	Transmission code	Transmission medium	Power consumption
MB582A	Transmitter	155.52 Mbps	NRZ	Optical, UTP5	0.25 W
MB583A	Receiver	155.52 Mbps	NRZ	Optical, UTP5	0.3 W

This device contains circuitry to protect the inputs against damage due to high static voltages or electric fields. However, it is advised that normal precautions be taken to avoid application of any voltage higher than maximum rated voltages to this high impedance circuit.

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