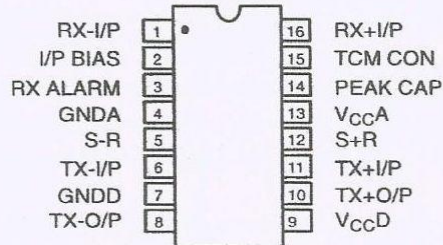
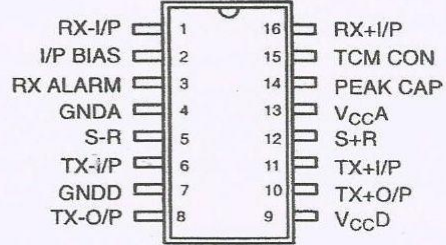


PIN CONFIGURATION



16 Lead PDIP (0.300")



16 Lead SOIC (Jedec, 0.300")

PIN DESCRIPTION

Pin#	Symbol	Type	Description
1	RX-I/P	I	Receiver Negative Bipolar Input. Line analog input.
2	I/P BIAS	O	Receive Input Bias. Connects to center tap of input transformer secondary winding.
3	RX ALARM	O	Loss of Signal Alarm. Active low.
4	GNDA		Analog Ground.
5	S-R	O	Receive Negative Data Output. Output from negative bipolar input pulses (active low).
6	TX-I/P	I	Transmit Negative Input Data. Input for negative output driver (active high).
7	GNDD		Digital Ground.
8	TX-O/P	O	Transmit Negative Output Driver. Open collector, drives output transformer primary.
9	V _{CCD}		+5V +/-5% Digital Supply.
10	TX+O/P	O	Transmit Positive Output Driver. Open collector, drives output transformer primary.
11	TX+I/P	I	Transmit Positive Input Data. Input for positive output driver (active high).
12	S+R	O	Receive Positive Data Output. Output from positive bipolar input pulses (active low).
13	V _{CCA}		+5V +/-5% Analog Supply.
14	PEAKCAP		Peak Detector Capacitor. Stores peak detector voltage.
15	TCM CON	I	Time Compression Multiplex Control. When active, disconnects peak detector charge and discharge paths (active low).
16	RX+I/P	I	Receiver Positive Bipolar Input. Line analog input.

ELECTRICAL CHARACTERISTIC (CONT'D)

Parameters	Min.	Typ.	Max.	Units	Conditions
AC Electrical Characteristics (Cont'd)					
Transmitter					
Output Rise Time			50	ns	Pins 8, 10; R L = 130, C L = 15pF, 10% to 90%
Output Fall Time			50	ns	Pins 8, 10; R L = 130, C L = 15pF, 90% to 10%
Rising Edge Delay			100	ns	Pins 8, 10; R L = 130, C L = 15pF, 50% to 50% (I/P to O/P)
Falling Edge Delay			100	ns	Pins 8, 10; R L = 130, C L = 15pF, 50% to 50% (I/P to O/P)

Notes:

*Bold face parameters are covered by production test and guaranteed over operating temperature range.
Specifications are subject to change without notice*

ABSOLUTE MAXIMUM RATINGS

Supply Voltage 20V Storage Temperature -65°C to +150°C
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ELECTRICAL CHARACTERISTICS

Test Conditions: $V_{CC} = 5V \pm 5\%$, $T_A = 25^\circ C$, Unless Otherwise Specified

Parameters	Min.	Typ.	Max.	Units	Conditions
DC Electrical Characteristics					
Supply Voltage	4.75	5	5.25	V	
Analog Supply Current	4		8	mA	
Digital Supply Current	13		20	mA	
Receiver					
Input Signal		1	2.2	Vp	Measured from Pins 1 or 16 with Respect to Pin 2
Dynamic Range			10	dB	Maximum Cable Loss Range
Input Impedance		20		k Ω	Measured Between Pins 1 and 16
Input Slicing Threshold		50		%	Percent of Peak Input Signal Amplitude
Input Bias Voltage		1.45		V	Measured at Pin 2
Loss of Signal Alarm Threshold		150		mVp	Measured from Pins 1 or 16 with Respect to Pin 2
Loss of Signal Alarm Level Hysteresis		± 1.5		dB	Difference Between Alarm-on and Alarm-off Levels
Peak Detector Leakage		-80		μA	
Data Output Low			0.4	V	Measured at Pins 5 or 12; I OUT = +1.6mA
Data Output High	3.6			V	Measured at Pins 5 or 12; I OUT = -40 μA
Alarm Output Low			0.4	V	Measured at Pin 3; I OUT = +1.6mA
Alarm Output High	$V_{CC} - 0.5$			V	Measured at Pin 3; I OUT = -40 μA
TCM Input Low Voltage			0.8	V	Measured at Pin 15; I IN Min = -500 μA , I IN Max = +5 μA
Transmitter					
Input Low Voltage			0.8	V	Measured at Pins 6, 11; I IN = -700 μA
Input High Voltage	2.2			V	Measured at Pins 6, 11; I IN = +5 μA
Output Low Voltage			1	V	Measured at Pins 8, 10; I OUT = -40mA
Output Low Current			40	mA	Measured at Pins 8, 10; V OUT = 1V
Output Leakage Current	-100			μA	Measured at Pins 8, 10; V OUT = 10V Outputs in off state
AC Electrical Characteristics					
Receiver					
Input Level		1	2.2	Vp	Pin 1, 16 with Respect to Pin 2
Output Rise Time			50	ns	Pins 5, 12; C L = 15pF, 10% to 90%
Output Fall Time			50	ns	Pins 5, 12; C L = 15pF, 90% to 10%

Notes:

1. Higher input voltages are possible if a resistive input attenuator is used.

Bold face parameters are covered by production test and guaranteed over operating temperature range.