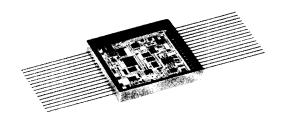


DATA BUS RECEIVER



DESCRIPTION AND APPLICATIONS

A hybrid data bus receiver, the BUS-8555 has been designed to convert bipolar, biphase Manchester II data to TTL levels, in accordance with McDonnell Douglas Corporation's A-3818, A-5232, A-4905, A-5690 and MIL-STD 1553 A/B specifications. This unit features the flexibility of internal and external threshold configurations†, which provide signal detection between 750 mV, peak to peak (nominal), preset internally; and 0.0 V to 2.0 V, peak to peak, adjusted externally (Figure 1). The BUS-8555's advanced design permits operation between 10 kHz and 1 MHz, while maintaining full accuracy with ± 12 V to ± 15 V power supply inputs. The BUS-8555 dissipates less power (550 mW) than competitive receivers.

Figure 2 illustrates the positive and negative excursions of a typical input waveform from the data bus.

† Internal threshold level is preset to 750 mV, peak to peak, when pins 18 and 28 are grounded.

FEATURES

- MEET REQUIREMENTS OF McDONNELL DOUGLAS CORPORATION A-3818, A-5232, A-4905, A-5690 AND MIL-STD-1553 A/B
- 550 mW POWER CONSUMPTION
- TTL COMPATIBLE OUTPUT
- MEETS MIL-STD-883B

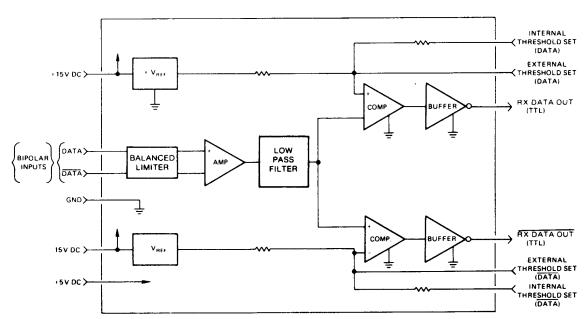
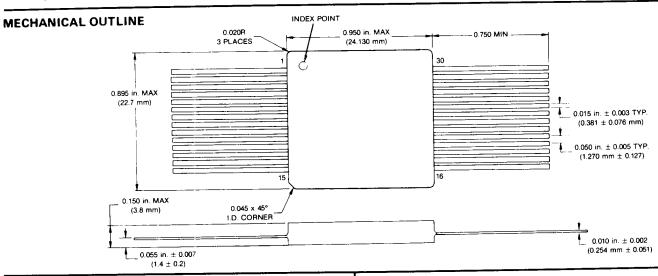


FIGURE 1. BLOCK DIAGRAM



SPECIFICATIONS				
PARAMETER	UNITS	VALUE		
ANALOG INPUTS Bipolar (Differential) DATA and DATA input Impedance (Differential) Common Mode Rejection Ratio Threshold Levels Internal (preset) External Threshold Adjustment	V dB mV V	 40, p-p (max) 4 k (min) 40 (min) 750, p-p.(npm, with pins 18 & 20 grounded) 0.0 to 2.0 (adjustable linearly with 0.0 Ω to 10.0 kΩ resistor respectively to ground.) 		
OUTPUTS DATA and DATA Output		TTL Level Manchester II (biphase) serial data		
POWER SUPPLY CHARACTERISTICS Operating Voltage Range		RANGE CURRENT + 4.5 V to 5.5 V 20 mA @ + 5 V - 10 V to - 18 V 15 mA @ - 15 V + 10 V to + 18 V 15 mA @ + 15 V		
THERMAL CHARACTERISTICS Temperature Range Operating Storage Temperature Range	°C	- 55 to + 125 (Case) - 55 to + 135		
PHYSICAL CHARACTERISTICS Size Weight	in. oz	.895 X .950 X 0.15 max (22.7 X 24.1 X 3.8 mm max) 0.3 (8.5g)		



PIN CONNECTION TABLE				
PIN	FUNCTION	PIN	FUNCTION	
1	+15 VDC	16	EXT THRESH (DATA)	
2	NC	17	NC	
3	NC	18	INT THRESH SET (DATA)	
4	NC	19	NC	
5	DATA INPUT	20	DATA OUTPUT	
6	NC	2,1	NC	
7	DATA INPUT	22	SEE NOTE	
8	NC	23	NC	
9	GND	24	GND	
10	NC	25	NC	
11	CASE GND	26	DATA OUTPUT	
12	NC	27	NC	
13	-15 VDC	28	INT THRESH SET (DATA)	
14	NC	29	NC	
15	+5 VDC	30	EXT THRESH (DATA)	

ORDERING INFORMATION ORDER: BUS-8555-883B Reliability Grade: Fully compliant with MIL-STD-883 883B = Screened to MIL-STD-883 but without QCI testing. Blank = Standard DDC procedures.

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