

+5V Powered Dual RS-232 Transmitter/Receiver

FEATURES

- Operates from a single 5V power supply
- Two drivers and two receivers
- Meets all EIA RS-232-C specifications
- On-board voltage doubler
- On-board voltage inverter
- <u>+</u> 30V input levels
- + 9V output levels with + 5V supply
- Low-power CMOS
- Pin-compatible with the MAX 232
- Optional 16-pin SOIC surface mount package

PIN ASSIGNMENT

C1+ [16	Vcc					
V+ [2	15	GND					
C1- 🗌	3	14		С1+ Ш	1	16		VCC
C2+		13	R1IN	V+ 🎞	2	15		GND
	4			C1- 🎞	3	14	Ē	T1OUT
C2- 🗌	5	12	R10UT	C2+ 🎞	4	13		R1IN
v- П		11] T1IN	C2- 🎞	5	12	Ш	R1OUT
V-Ц 6	6			V- 🎞	6	11	Ē	T1IN
T2OUT	7	10	T2IN T2		7	10		T2IN
R2IN	8	9	R2OUT	R2IN III	8	9		R2OUT
16–Pin DIP (300 MIL) 16–Pin SOIC (300 MIL)								

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PIN DESCRIPTION

C1+, C1	-	Capacitor 1 Connections
C2+, C2	_	Capacitor 2 Connections
V+, V-	-	<u>+</u> 10 Volts
T1IN, T2IN	-	Transmitter In
T1OUT, T2OUT	-	Transmitter Out
R1IN, R2IN	-	Receiver In
R10UT, R20UT	-	Receiver Out
V _{CC}	-	+5 Volts
GND	-	Ground

DESCRIPTION

The DS1228 is a dual RS-232-C Receiver/Transmitter that meets all EIA specifications while operating from a single, +5 volt supply. The DS1228 has two internal charge pumps. One of the charge pumps is used to generate +10 volts. The other is used to generate -10 volts. The DS1228 also contains four level translators. Two of the level translators are RS-232 transmitters which convert TTL/CMOS inputs into \pm 9V RS-232 outputs. The other two level translators are capable of operating with

up to \pm 30V inputs. The DS1228 is suitable for all RS-232 communications and is particularly valuable where higher voltage power supplies for RS-232 drivers are not available. The power supply section of the DS1228 supplies \pm 10 volts from the V_{CC} input.

See the DS1229 data sheet for electrical specifications and operation.

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