

SP336 PINOUT RECOMMENDATION FOR SINGLE DB-9 CONNECTOR

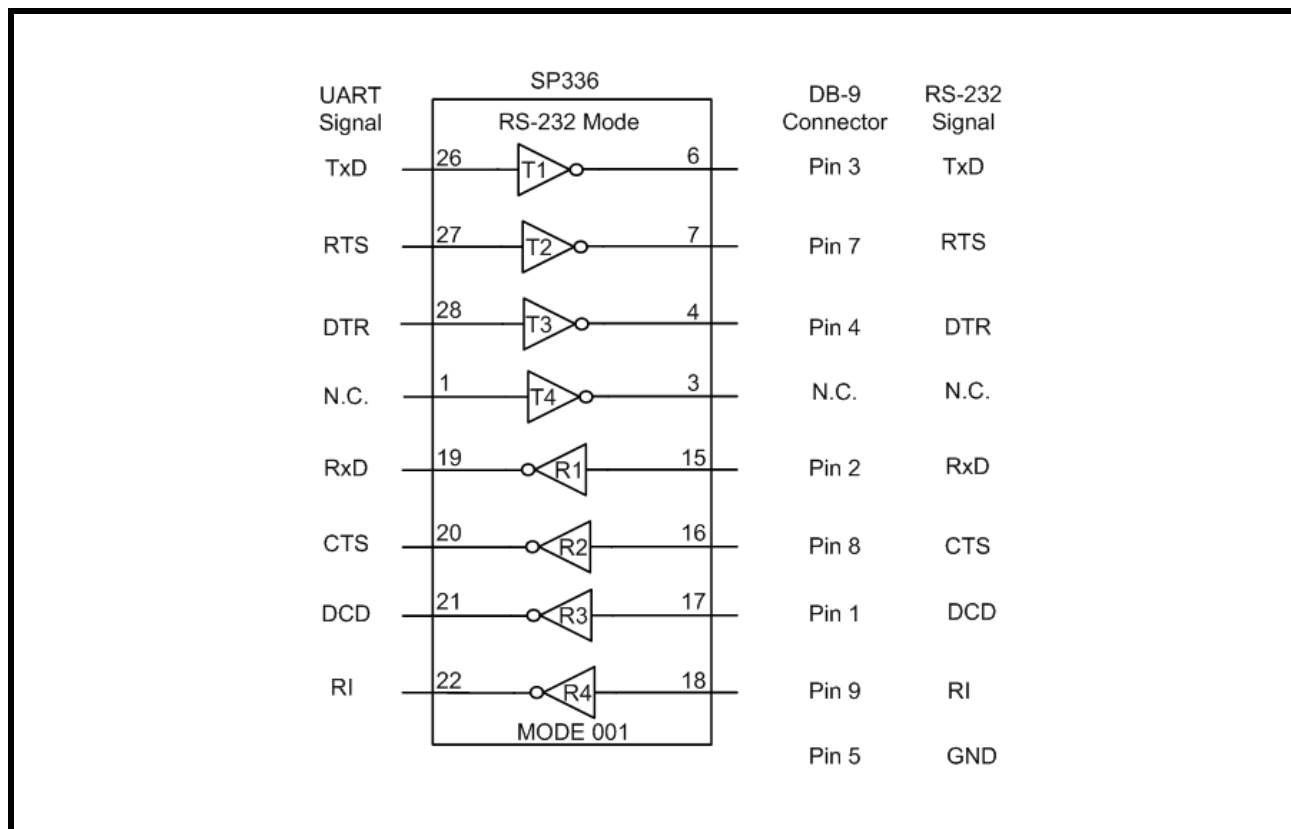
1.0 INTRODUCTION

This document provides recommendations on how the SP336 can be used to support RS-232, half-duplex RS-485, and full-duplex RS-485/RS-422 on a single DB-9 connector.

2.0 RS-232 PINOUT

Figure 1 below shows the signals from the UART that are connected to the SP336. For RS-232, the DB-9 pins are defined. Since there are only 4 receivers on the SP336, the DSR signal from the DB-9 connector is not shown in the drawing. However, DSR can replace any of the other UART inputs that are not used.

FIGURE 1. RS-232 PINOUT

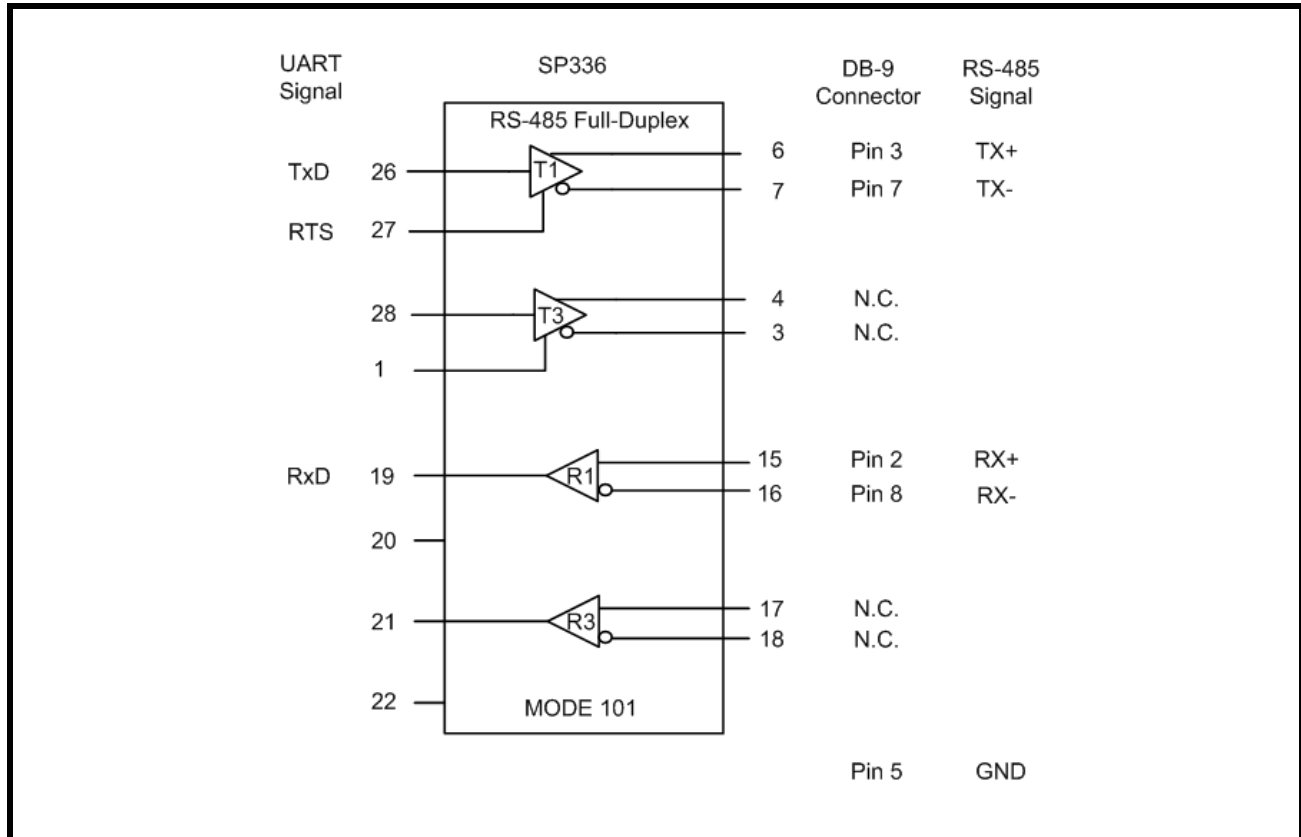


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3.0 FULL-DUPLEX RS-485/RS-422 PINOUT

Figure 2 below shows which pins the full-duplex RS-485/RS-422 signals will be on the DB-9 connector when using the same UART connections shown in Figure 1. The RTS pin from the UART can be used to enable/disable the differential driver outputs.

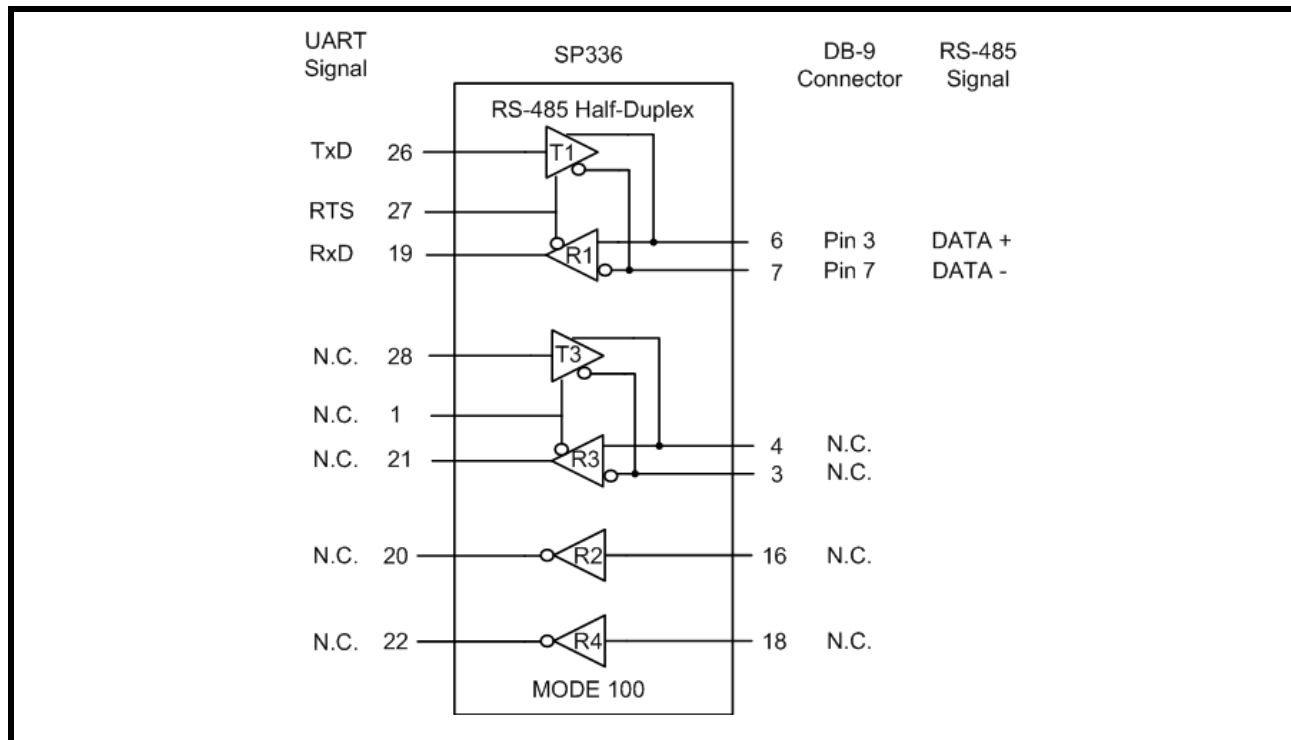
FIGURE 2. FULL-DUPLEX RS-485/RS-422 PINOUT



4.0 HALF-DUPLEX RS-485 PINOUT

Figure 3 below shows the half-duplex RS-485 connections. The RTS pin is used to control the direction of the RS-485 differential drivers and receivers.

FIGURE 3. HALF-DUPLEX RS-485 PINOUT



5.0 SUMMARY

The tables below summarize the configurations in this document. Table 1 shows what the pin signals will be at the DB-9 connector.

TABLE 1: DB-9 CONNECTOR PIN CONNECTIONS

	DB-9 PIN 1	DB-9 PIN 2	DB-9 PIN 3	DB-9 PIN 4	DB-9 PIN 5	DB-9 PIN 6	DB-9 PIN 7	DB-9 PIN 8	DB-9 PIN 9
RS-232 Mode	DCD	RxD	TxD	DTR	GND		RTS	CTS	RI
RS-485/RS-422 Mode (Full-Duplex)		RX+	TX+		GND		TX-	RX-	
RS-485 Mode (Half-Duplex)			DATA+		GND		DATA-		
SP336 Pin Number	17	15	6	4	8		7	16	18

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Table 2 shows the same information as table 1 but presented in a different way.

TABLE 2: SP336 PIN CONNECTIONS

	SP336 PIN 4	SP336 PIN 6	SP336 PIN 7	SP336 PIN 8	SP336 PIN 15	SP336 PIN 16	SP336 PIN 17	SP336 PIN 18
RS-232 Mode	DTR	TxD	RTS	GND	RxD	CTS	DCD	RI
RS-485/RS-422 Mode (Full-Duplex)		TX+	TX-	GND	RX+	RX-		
RS-485 Mode (Half-Duplex)		DATA+	DATA-	GND				
DB-9 Pin Number	4	3	7	5	2	8	1	9

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