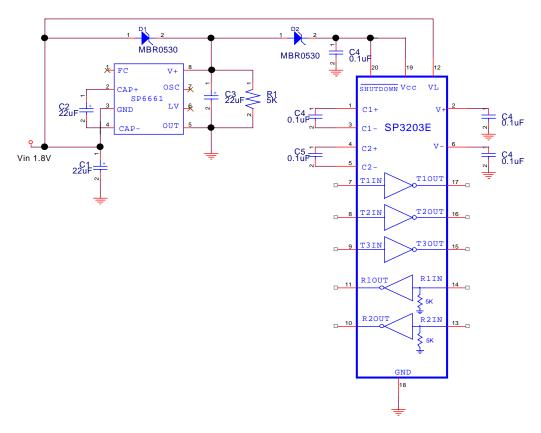**Solved by**
Sipex ™

1.8V RS232 Interface Using SP3203E & SP6661

Introduction

The SP3203E low-power RS232 transceiver operates from a V_{CC} supplies ranging from 2.7V to 5.5V. It can safely interface to CMOS logic levels between 1.65V and 5.5V by using a logic-level supply voltage on the SP3203E's V_L pin. The following application example shows a method for generating V_{CC} from a 1.8V supply for pure 1.8V operation.

1.8V RS-232 apps circuit

SP6661 Vout test condition.
All TX loaded 3K and Switching at "fin"

Vin	Icc	Vout	fin
1.8	26mA	3.26	0
1.8	52mA	3.14	125HZ
1.7	27mA	3.03	0
1.7	47mA	2.94	125HZ

Notes:
D1 is used to help SP66611 start up under load
D2 is used to block unwanted voltage present at Vcc (SP3203) during power off with TTL signals
at Txin.
R1 is used to discharge SP6661 Cout during power off for proper start up
(If SP6661 Vout is 200mV or > device will not start)

For further assistance:

Email: Sipexsupport@sipex.com
WWW Support page: http://www.sipex.com/content.aspx?p=support
Live Technical Chat: http://www.geolink-group.com/sipex/
Sipex Application Notes: http://www.sipex.com/applicationNotes.aspx

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