

**Complete, Single Powered, Isolated, Dual RS-232 Driver/Receiver Module**

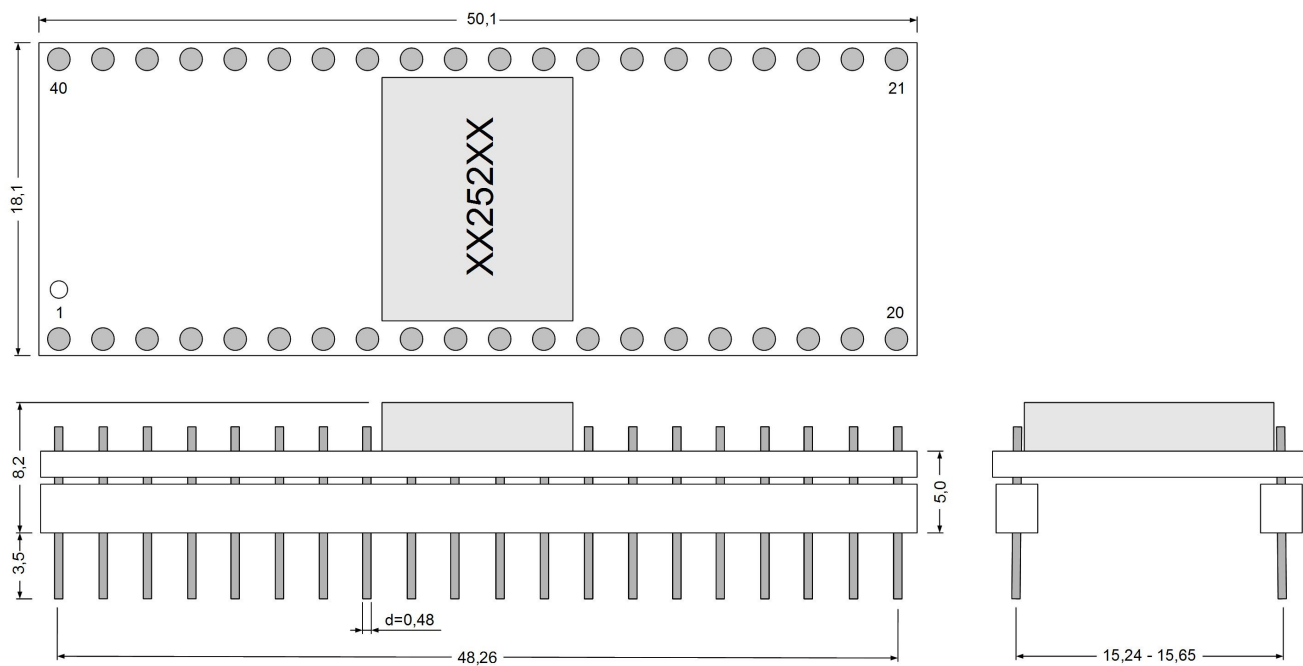
<p><b>Features</b></p> <ul style="list-style-type: none"> <li>◆ Isolated RS232 Data Interface</li> <li>◆ No External Components</li> <li>◆ Single 5V Supply</li> <li>◆ 2 x Tx and 2 x Rx Channels</li> <li>◆ Up to 400kbps and 2500V Isolation</li> <li>◆ RoHs compliant</li> </ul>	<p style="text-align: center;"><b>LD252/SEC252AD</b></p> <p>The diagram shows a 40-pin module with a central vertical dashed line representing the isolation barrier. Pins 1-11 are on the left, and pins 12-40 are on the right. Connections include: Pin 1 (LOGIC OUT1) to Pin 36 (RS232 OUT1); Pin 2 (NC) to Pin 39 (NC); Pin 3 (NC) to Pin 38 (ISO GND); Pin 4 (NC) to Pin 37 (NC); Pin 5 (5V) to Pin 36 (RS232 OUT1); Pin 6 (NC) to Pin 35 (RS232 OUT2); Pin 7 (LOGIC IN2) to Pin 34 (RS232 IN1); Pin 8 (LOGIC IN1) to Pin 33 (RS232 IN2); Pin 9 (NC) to Pin 32 (NC); Pin 10 (GND) to Pin 31 (NC); Pin 11 (NC) to Pin 30 (NC); Pin 12 (LOGIC OUT2) to Pin 29 (NC); Pin 13 (NC) to Pin 28 (NC); Pin 14 (NC) to Pin 27 (NC); Pin 15 (NC) to Pin 26 (NC); Pin 16 (NC) to Pin 25 (NC); Pin 17 (NC) to Pin 24 (NC); Pin 18 (NC) to Pin 23 (NC); Pin 19 (NC) to Pin 22 (NC); Pin 20 (NC) to Pin 21 (NC).</p>																								
<p><b>Ordering Information</b></p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">PART</th> <th style="text-align: left;">TEMP.RANGE</th> <th style="text-align: left;">DATA RATE</th> <th style="text-align: left;">ISOLATION</th> </tr> </thead> <tbody> <tr> <td>LD252A-5</td> <td>-40°C to +85°C</td> <td>400kbps</td> <td>2500V</td> </tr> <tr> <td>LD252B-5</td> <td>0°C to +70°C</td> <td>100kbps</td> <td>1500V</td> </tr> <tr> <td>LD252C-5</td> <td>0°C to +70°C</td> <td>19.2kbps</td> <td>1500V</td> </tr> <tr> <td>LD252D-5</td> <td>0°C to +70°C</td> <td>9.6kbps</td> <td>1500V</td> </tr> <tr> <td><b>PACKAGE</b></td> <td colspan="3">DIL 40 Module</td> </tr> </tbody> </table>	PART	TEMP.RANGE	DATA RATE	ISOLATION	LD252A-5	-40°C to +85°C	400kbps	2500V	LD252B-5	0°C to +70°C	100kbps	1500V	LD252C-5	0°C to +70°C	19.2kbps	1500V	LD252D-5	0°C to +70°C	9.6kbps	1500V	<b>PACKAGE</b>	DIL 40 Module			
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<b>Absolute Maximum Ratings</b>		
<b>Voltages with respect to GND</b> Supply Voltage, VCC Input Voltage, Logic	-0.3V to +6V -0.3V to (VCC +0.3V)	<b>Voltage with respect to ISO GND</b> RS232 Input Voltage RS232 Output Voltage
		-25V to +25V -15V to +15V
<b>Storage Temperature Range</b>	-55°C to +125°C	<b>Operating Temperature Ranges</b> LD252A LD252B/C/D
		-40°C to +85°C 0°C to +70°C

<b>Electrical Characteristics</b>						
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Supply Input Range	VCC		4.5	5.0	5.5	V
Supply Input Current	ICC	No Load		16	22	mA
<b>RS232</b>						
Driver Output Voltage Swing	VDO	RL = 3k	+5	+5.8		V
Receiver Input Threshold Low	VRIL		0.8	1.3		V
Receiver Input Threshold High	VRIH			1.7	2.5	V
<b>Logic</b>						
Logic Input Threshold Low	VLIL		1.0	1.35		V
Logic Input Threshold High	VLIH			1.75	2.2	V
Logic Output Threshold Low	VLOL				0.4	V
Logic Output Threshold High	VLOH		VCC-0.4			V
<b>ESD RS232 Driver and Receiver Protection</b>			+10			kV

<b>Electrical Characteristics</b> (continued)						
Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Transmission</b>						
Maximum Data Rate LD252D C B A		RL = 3k, CL = 2.50nF 2.00nF 1.00nF 0.25nF	9.6 19.2 100.0 400.0			kbps
<b>Isolation</b>						
Rated Isolation Voltage LD252D/C/B LD252A	VISO	1 minute, derived from 1 sec. test	1500 2500			VRMS
Rated Isolation Voltage LD252D/C/B LD252A	VISO	1 second	+2600 +4400			VRMS
Isolation Voltage LD252D/C/B LD252A	VPEAK	Continuous	300 500			VPEAK

## Modul Dimensions



All dimensions are in mm  $\pm$  0.2  
Pins on a 2,54 mm pitch

Information in this document is believed to be accurate and reliable. No responsibility is assumed for its use. Schmitt Electronics reserves the right to change the module and the specifications without notice any time.