

Part	Value	Description	Manufacturer Part Num	Purchase Link								
C1	.1uF	555 timer decouple cap	C0805C104J5RAC	<a href="https://www.mouser.com/ProductDetail/KEMET/C0805C104J5RAC?qs=r%2FVmNO8Tjq7NnSJCDQvplg%3D%3D">https://www.mouser.com/ProductDetail/KEMET/C0805C104J5RAC?qs=r%2FVmNO8Tjq7NnSJCDQvplg%3D%3D</a>								
C2	.1uF	555 timer timing cap	C0805C104J5RAC	<a href="https://www.mouser.com/ProductDetail/KEMET/C0805C104J5RAC?qs=r%2FVmNO8Tjq7NnSJCDQvplg%3D%3D">https://www.mouser.com/ProductDetail/KEMET/C0805C104J5RAC?qs=r%2FVmNO8Tjq7NnSJCDQvplg%3D%3D</a>								
C3	10nF	555 timer CV cap	C0805C103J5RAC7210	<a href="https://www.mouser.com/ProductDetail/KEMET/C0805C103J5RAC7210?qs=r%2FVmNO8Tjq51ppmyleF1dQ%3D%3D">https://www.mouser.com/ProductDetail/KEMET/C0805C103J5RAC7210?qs=r%2FVmNO8Tjq51ppmyleF1dQ%3D%3D</a>								
C4	.1uF	rs485 transceiver decoupling cap	C0805C104J5RAC	<a href="https://www.mouser.com/ProductDetail/KEMET/C0805C104J5RAC?qs=r%2FVmNO8Tjq7NnSJCDQvplg%3D%3D">https://www.mouser.com/ProductDetail/KEMET/C0805C104J5RAC?qs=r%2FVmNO8Tjq7NnSJCDQvplg%3D%3D</a>								
IC1	555 Timer	Rs485 auto enable driver timer	NE555DR	<a href="https://www.mouser.com/ProductDetail/?qs=gb35HGp1gQJ5U8ZihvvoVQ%3D%3D">https://www.mouser.com/ProductDetail/?qs=gb35HGp1gQJ5U8ZihvvoVQ%3D%3D</a>								
IC2	RS485 Transciev	RS-485 Interface IC	THVD1428DR	<a href="https://www.mouser.com/ProductDetail/Texas-Instruments/THVD1428DR?qs=TIOZkKH1s2SLJsGaZSN%2FJA%3D%3D">https://www.mouser.com/ProductDetail/Texas-Instruments/THVD1428DR?qs=TIOZkKH1s2SLJsGaZSN%2FJA%3D%3D</a>								
Logic Shifter	Logic Level Shift	Logic Level Shifter, 4-Channel, Bidirectional	2595	<a href="https://www.pololu.com/product/2595">https://www.pololu.com/product/2595</a>								
TX	Green LED	TX activity/driver enabled indicator LED	HLMP-1790	<a href="https://www.mouser.com/ProductDetail/Broadcom-Avago/HLMP-1790?qs=jT9z6tsiFNN7DUeN%2FWQOFQ%3D%3D">https://www.mouser.com/ProductDetail/Broadcom-Avago/HLMP-1790?qs=jT9z6tsiFNN7DUeN%2FWQOFQ%3D%3D</a>								
R1	976 [1]	Driver Enable Timing Resistor	CR0805-FX-9760ELF	<a href="https://www.mouser.com/ProductDetail/Bourns/CR0805-FX-9760ELF?qs=wL7NMIHXUPmtTUak9o4FrQ%3D%3D">https://www.mouser.com/ProductDetail/Bourns/CR0805-FX-9760ELF?qs=wL7NMIHXUPmtTUak9o4FrQ%3D%3D</a>								
R2	10k	555 Output Pullup	KTR10EZPF1002	<a href="https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1002?qs=DyUWGjI%252BcVt9YFVbj3Whfg%3D%3D">https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1002?qs=DyUWGjI%252BcVt9YFVbj3Whfg%3D%3D</a>								
R4	120	RS485 termination resistor	KTR10EZPF1200	<a href="https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1200?qs=493kPxzlxfL5wHxRFe6rdg%3D%3D">https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1200?qs=493kPxzlxfL5wHxRFe6rdg%3D%3D</a>								
R6	732	Current Limiting Resistor for TX Led	KTR10EZPF7320	<a href="https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF7320?qs=493kPxzlxfL%2FYa9a5jG7XQ%3D%3D">https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF7320?qs=493kPxzlxfL%2FYa9a5jG7XQ%3D%3D</a>								
R3	10k	TX Pullup	KTR10EZPF1002	<a href="https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1002?qs=DyUWGjI%252BcVt9YFVbj3Whfg%3D%3D">https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1002?qs=DyUWGjI%252BcVt9YFVbj3Whfg%3D%3D</a>								
R5	10k	RX Pullup	KTR10EZPF1002	<a href="https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1002?qs=DyUWGjI%252BcVt9YFVbj3Whfg%3D%3D">https://www.mouser.com/ProductDetail/ROHM-Semiconductor/KTR10EZPF1002?qs=DyUWGjI%252BcVt9YFVbj3Whfg%3D%3D</a>								
RS485 Con	2 pos	RS485 connector	282841-2	<a href="https://www.mouser.com/QuickViewProdDetail.aspx?PartNum=571-2828412&amp;KeepThis=true&amp;TB_iframe=true&amp;height=375&amp;width=530&amp;QuickView=true">https://www.mouser.com/QuickViewProdDetail.aspx?PartNum=571-2828412&amp;KeepThis=true&amp;TB_iframe=true&amp;height=375&amp;width=530&amp;QuickView=true</a>								

[1] enable time =  $1.1 \cdot R \cdot C$ .

C is  $.1\mu\text{F} \pm 5\%$ .

$$1.1 \cdot (976 \pm 1\%) \cdot (.1\mu\text{F} \pm 5\%) = 107 \pm 5 \text{ us.}$$

So worst case tolerance is still functional ( $>100\text{us}$ ), but as small as possible still.