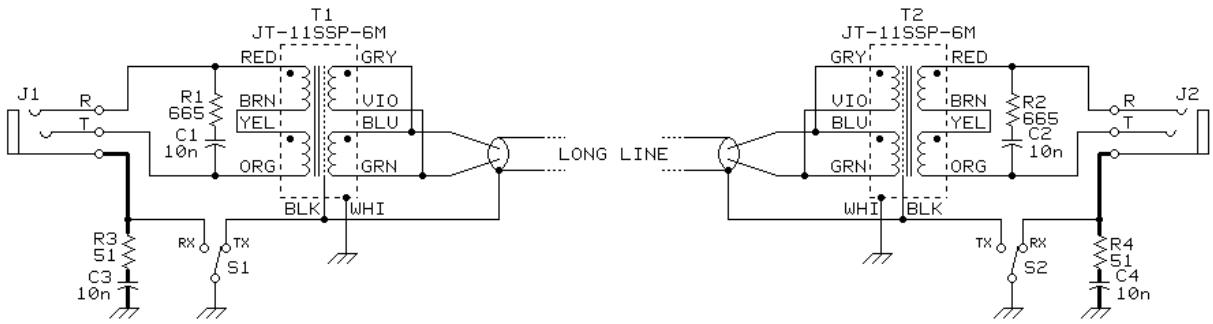
JT-11SSP-6M BI-DIRECTIONAL LO-Z LONG LINE APPLICATION

THIS CIRCUIT ISOLATES AND IMPEDANCE MATCHES BOTH ENDS OF 150Ω LINES UP TO 6,000 FEET LONG



THIS CIRCUIT IS OPTIMIZED FOR DRIVER SOURCE IMPEDANCES UNDER 100 Ω AND RECEIVER INPUT IMPEDANCES OVER 10 kΩ.

WIRING SHOWN AS HEAVY LINES SHOULD BE AS SHORT AND DIRECT AS POSSIBLE TO MINIMIZE RFI SUSCEPTIBILITY.

S1 AND S2 ARE USED TO CONFIGURE APPROPRIATE GROUNDING FOR TRANSMIT OR RECEIVE MODE AT EACH END.

R1 AND R2 ARE 1%, 1/4 W METAL FILM; R3 AND R4 ARE 5%, 1/4 W CARBON FILM TYPES.

C1 AND C2 ARE 5%, 100 V POLYSTYRENE OR POLYPROPYLENE; C3 AND C4 ARE 20%, 500 V DISC CERAMIC TYPES.

TYPICAL PERFORMANCE vs CABLE LENGTH:

CABLE CAPACITANCE	CABLE LENGTH AT 40 pF/FT	BANDWIDTH AT -0.5 dB	BANDWIDTH AT -1 dB	BANDWIDTH AT -3 dB
50 nF	1,250'	21 kHz	39 kHz	58 kHz
100 nF	2,500'	16 kHz	20 kHz	34 kHz
150 nF	3,750'	10 kHz	15 kHz	24 kHz
220 nF	5,500'	7 kHz	9 kHz	17 kHz

jensen

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