

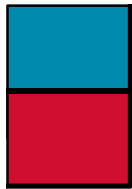
# Common mode Rejection Through Center Tap of Magnetics

**Roger Karam**

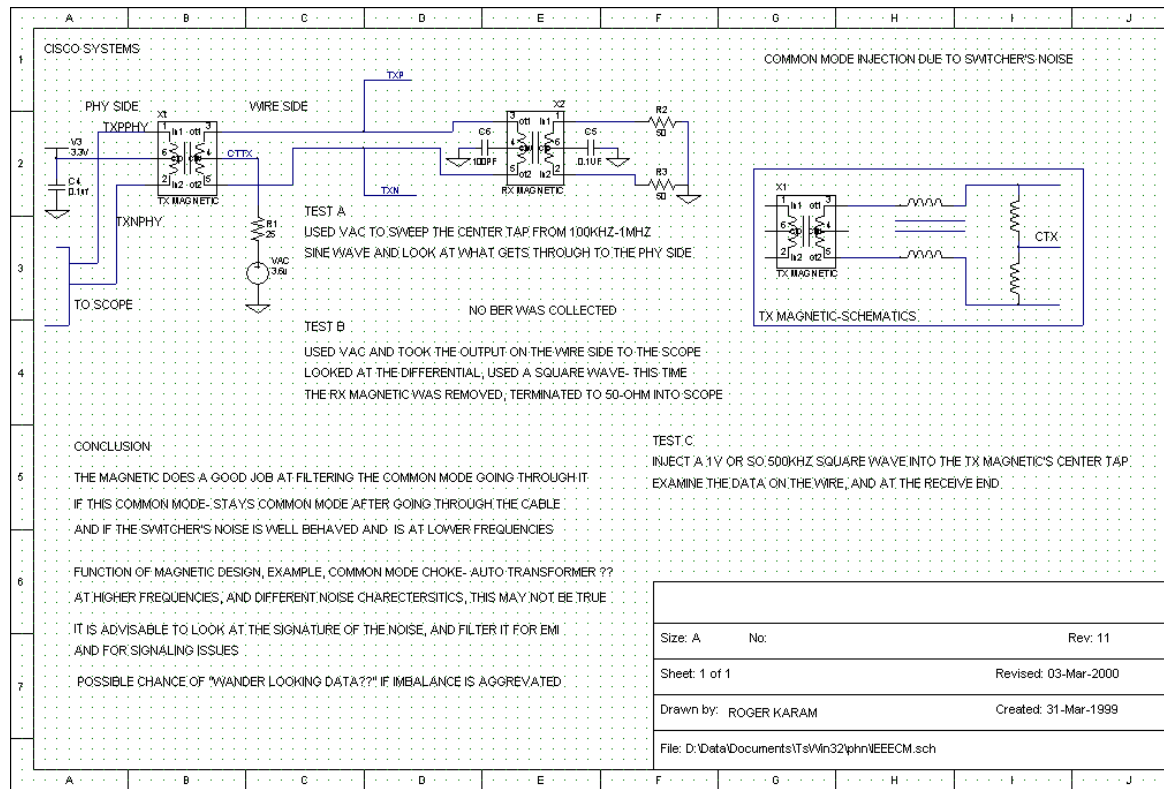
**rkaram@cisco.com**

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1171\_04F8\_c1

Cisco Systems

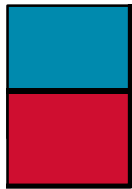


# Test Schematic

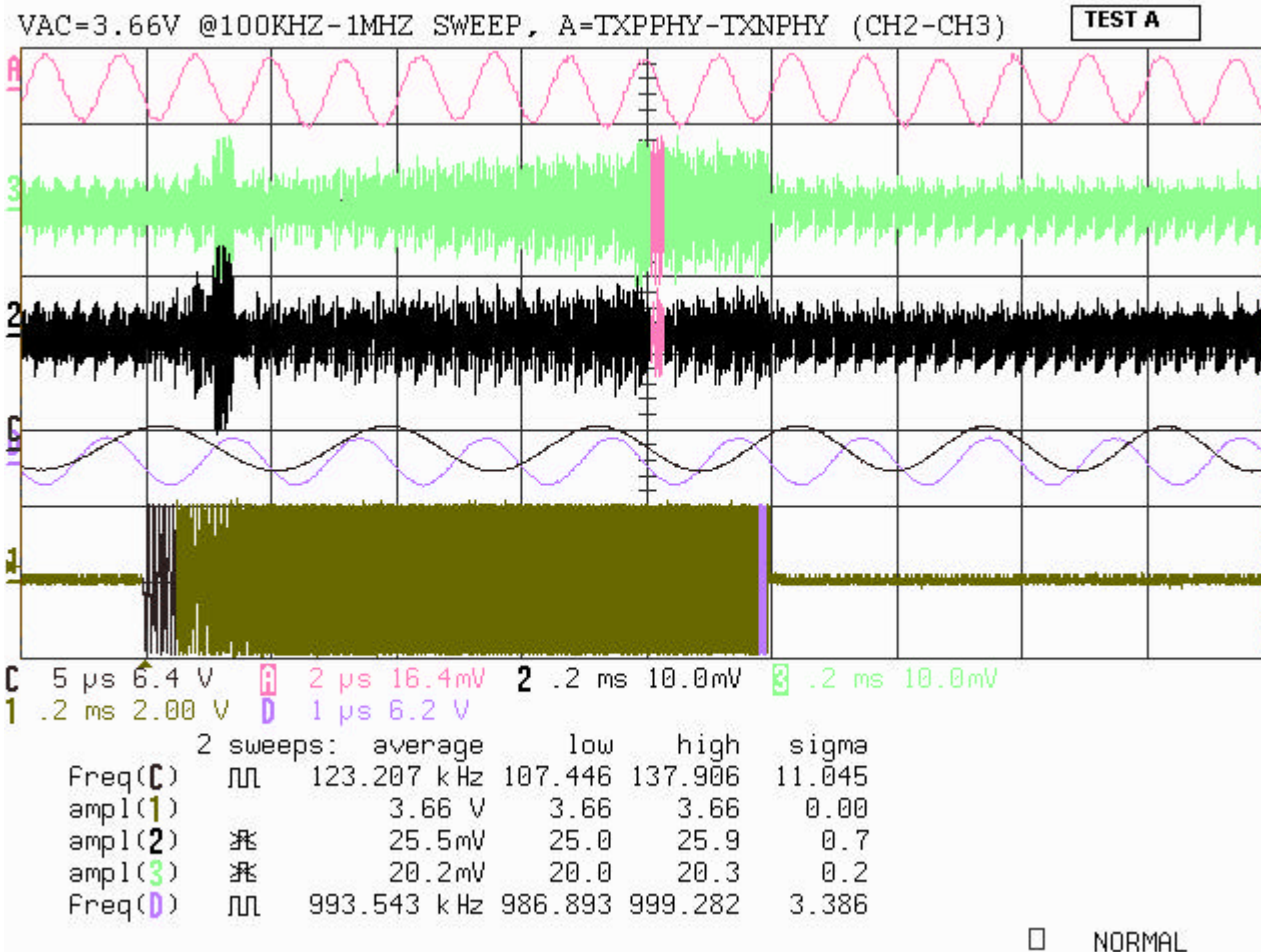


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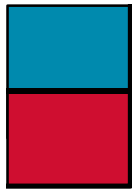
# Differential Voltage at the Transmitter Due to Center Tap Noise Voltage



NORMAL

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# Signal on the Wire w/o Noise

2-Mar-00  
18:35:54

MLT3 WITHOUT NOISE

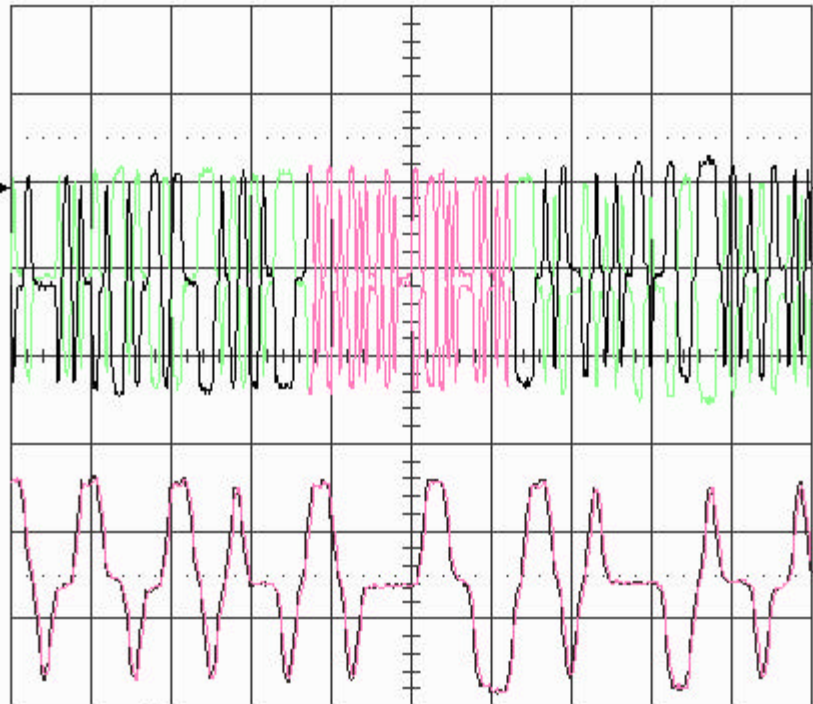
TEST B

2  
.2  $\mu$ s  
0.50 V

3  
.2  $\mu$ s  
0.50 V

2-3  
50 ns  
1.02 V

C:M1  
50 ns  
1.00 V



TXP AND TXN  
DATA ON WIRE  
TO SCOPE, NO  
CM NOISE

.2  $\mu$ s  
1 disabled  
2 .5 V 50 $\Omega$   
3 .5 V 50 $\Omega$   
4 disabled



2 DC 0.44 V

1 GS/s  
SLOW TRIGGER  
 NORMAL

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