

X2Y® vs. Bulk Capacitance (Circuit 1)

Test Results #TR 2003, v2.0

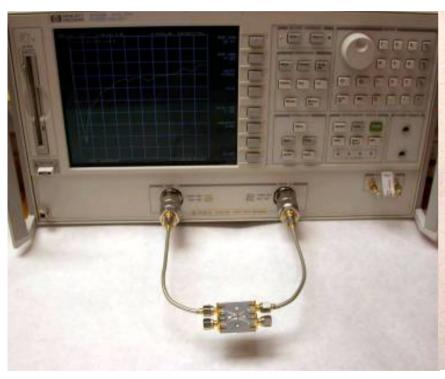
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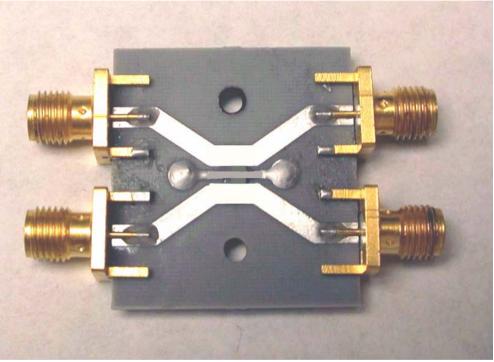
8/3/2005



## HP 8753E Network Analyzer

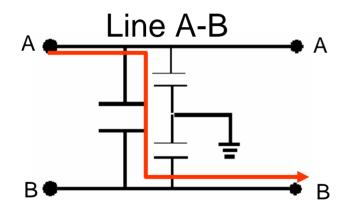
## **Test Board**

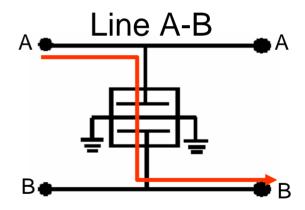






#### All ports terminated with 50 Ohms







### Standard Bulk Capacitors

(1) 
$$X = 1210 \ 10uF$$
 (2)  $Y's = 1206 \ 1uF$ 

(1) 
$$X = 1210 22uF$$
 (2)  $Y's = 1210 22uF$ 

(1) 
$$X = 1206 \text{ 1uF}$$
 (2)  $Y's = 1206 \text{ 1uF}$ 

(1) 
$$X = 1210 \ 100 uF$$
 (2)  $Y's = 1210 \ 100 uF$ 

(1) 
$$X = 1210 \ 10uF$$
 (2)  $Y's = 1210 \ 10uF$ 

#### X2Y Component

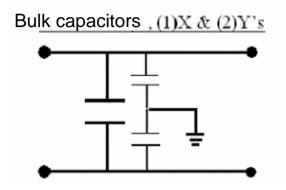
1. (1) 
$$X2Y = 1206 820nF$$

2. (1) 
$$X2Y = 1206 390nF$$

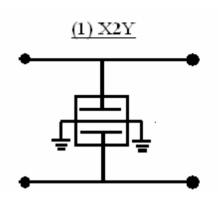
3. (1) 
$$X2Y = 1210 5uF$$

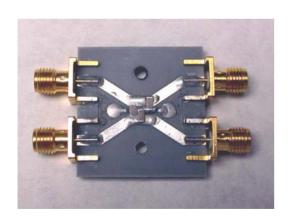


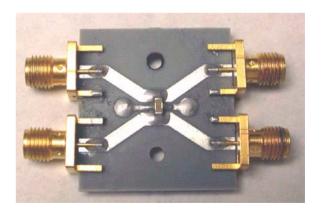




VS.



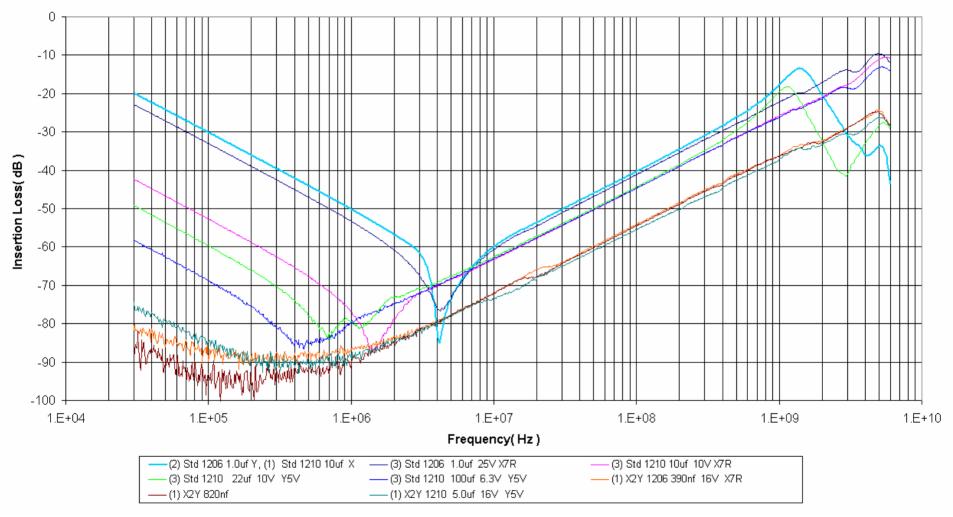






# X2Y® vs. MLCC Comparison

#### Bulk Capacitance Comparison Standard Caps vs X2Y s21 measurement







Direct inquiries and questions about Test Reports, Application Notes, or X2Y® products, please contact:



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