

1 2 3 4 5 6

<u>Equation</u> Eqn4 L1=8.920m	<u>Equation</u> Eqn8 S1=564.954u	<u>Equation</u> Eqn11 W1=0.930m	<u>Equation</u> Eqn13 L0=1.750m	<u>Equation</u> Eqn14 Lstub=7.101m	<u>Equation</u> Eqn16 W_Z0=1.1m	Classical QW Coupled	frequency: 4.807G :-0.129	frequency: 5.208G :-0.129
<u>Equation</u> Eqn5 L2=8.720m	<u>Equation</u> Eqn10 S2=631.404u	<u>Equation</u> Eqn12 W2=1.270m		<u>Equation</u> Eqn15 Wstub=701.000u				

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**S parameter simulation**

SP1  
Type=lin  
Start=4.25GHz  
Stop=5.75GHz  
Points=300

RO4003C  
er=3.55  
h=508um  
t=32um  
tand=0  
rho=1e-10  
D=0

Coupled-line bandpass filter  
Chebyshev 4.75GHz...5.25GHz  
Impedance matching 50 Ohm

Equation  
Eqn7  
 $S_{21\_dB} = dB(S[2,1])$   
 $S_{11\_dB} = dB(S[1,1])$

Equation  
Eqn23  
 $S_{21\_dB\_Classical} = dB(S[4,3])$   
 $S_{11\_dB\_Classical} = dB(S[3,3])$

QW Line Coupled BPF w/ stubs 5 GHz  
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