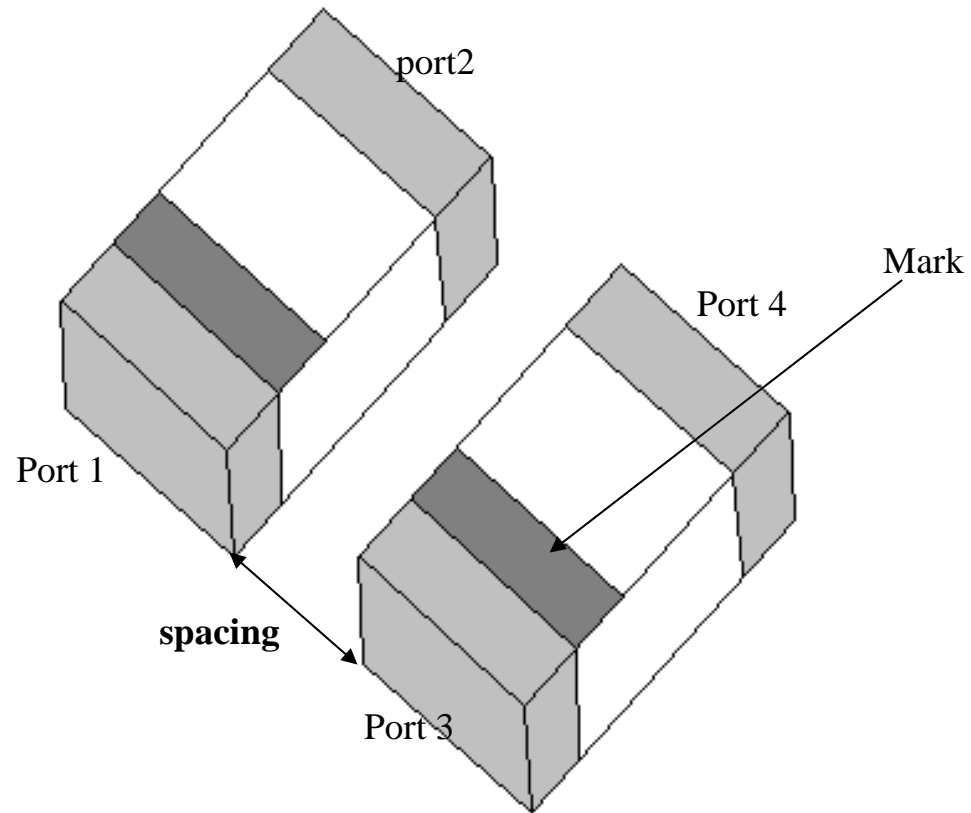


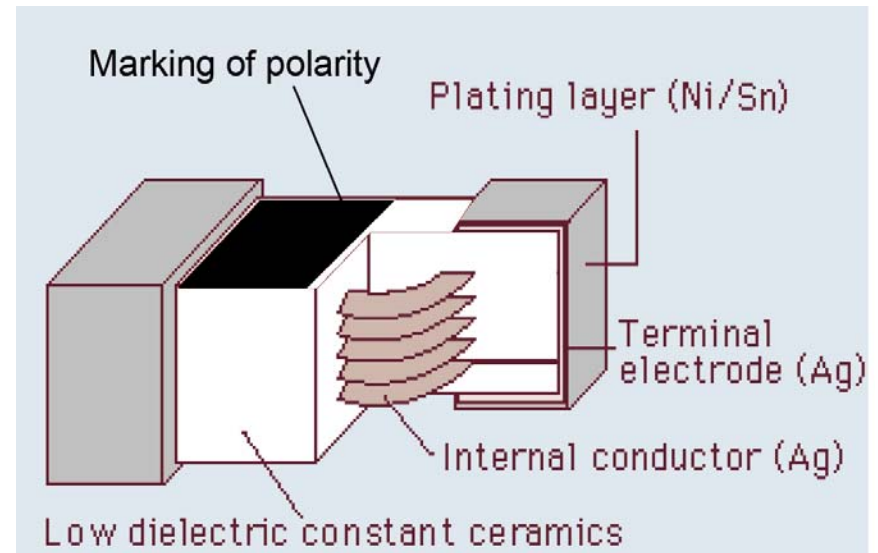
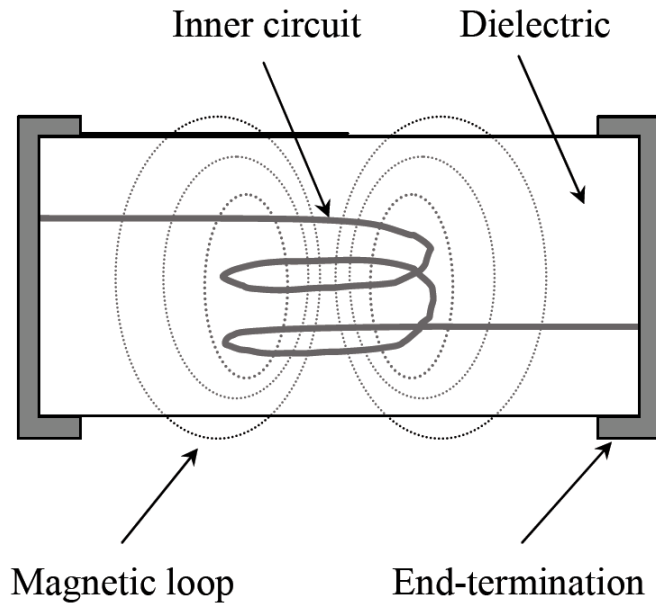
Simulation results of mutual coupling for inductors with:

- Half-marking (L-05B)
- Full-marking (L-07C)
- No-marking (L-14C)

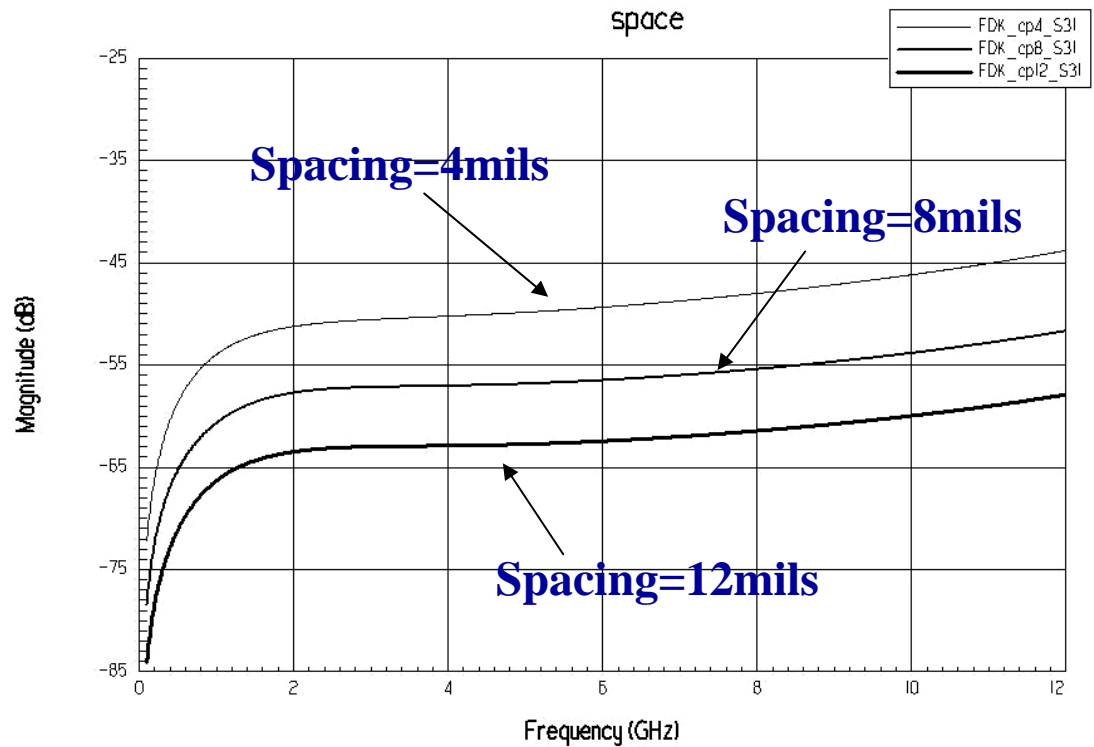
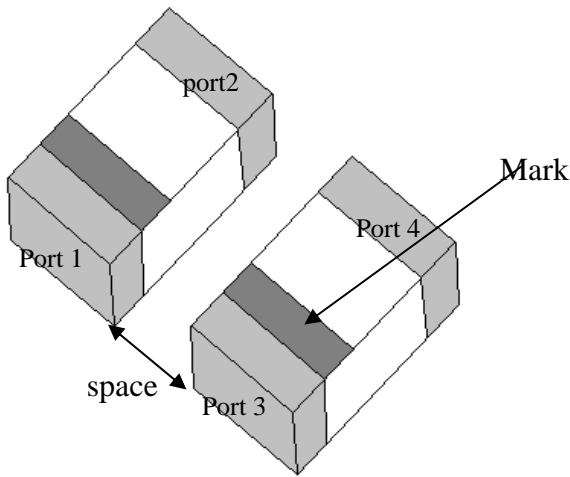
(1) Half-marked inductors L-05B Series



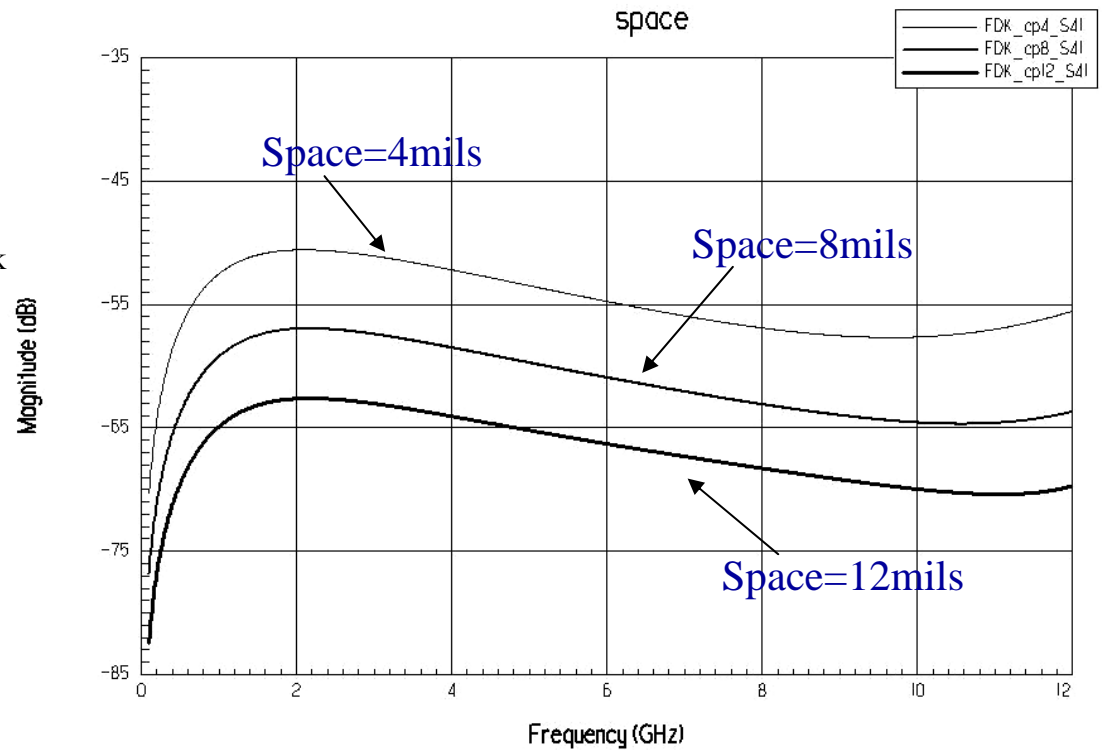
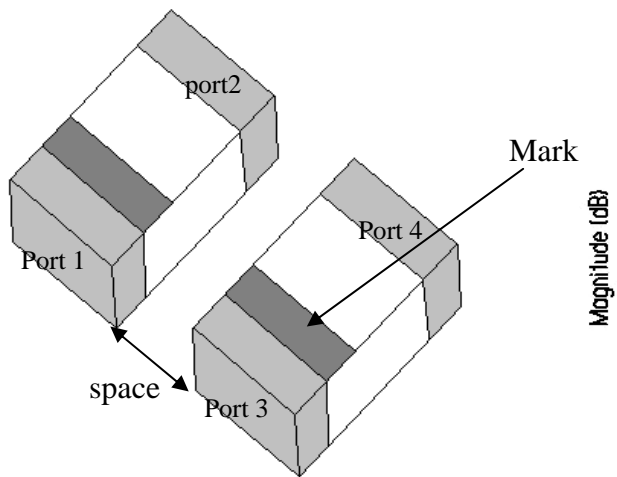
L-05B Series (0201) Half Marked Inductor structure



Mutual coupling(S31) with different spacing schemes

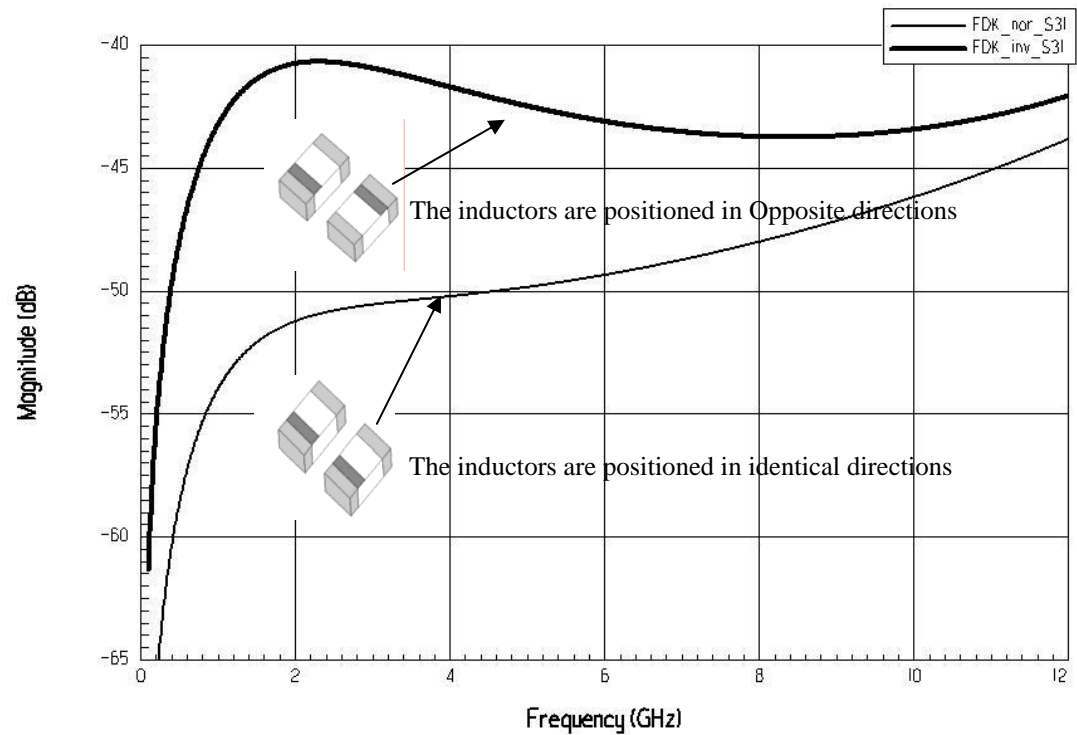


Mutual coupling(S41) for different spacing schemes



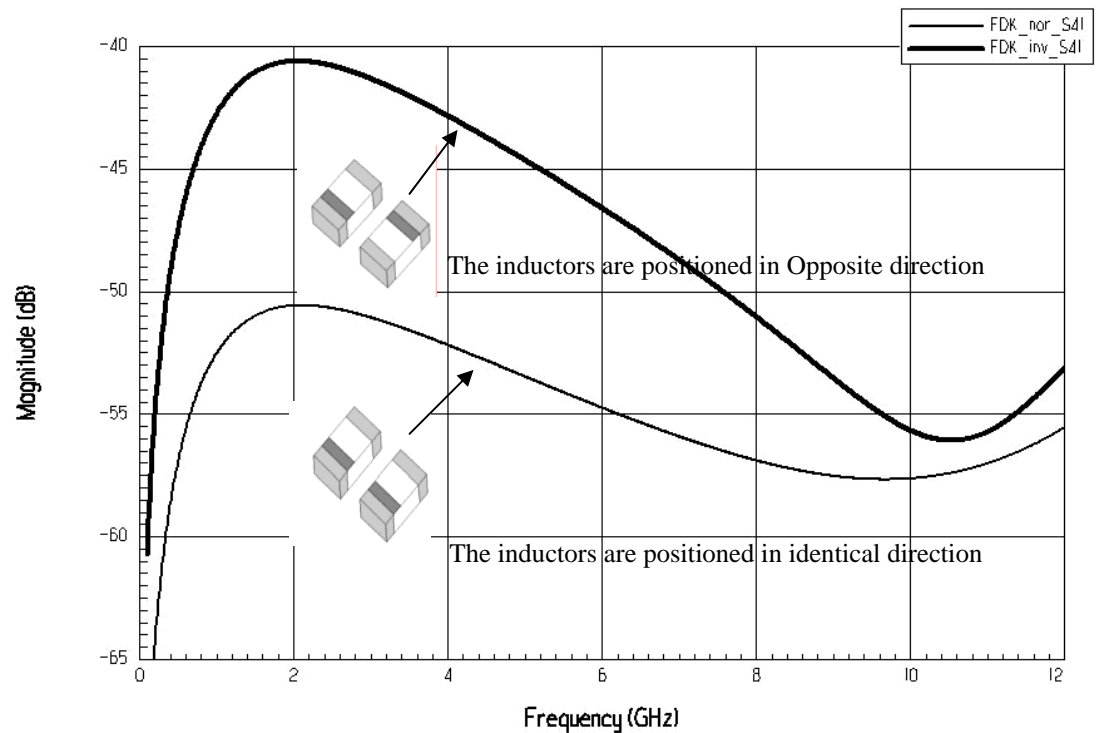
Mutual coupling(S31) for different orientations

*The space between half-marked inductors is 4 mils

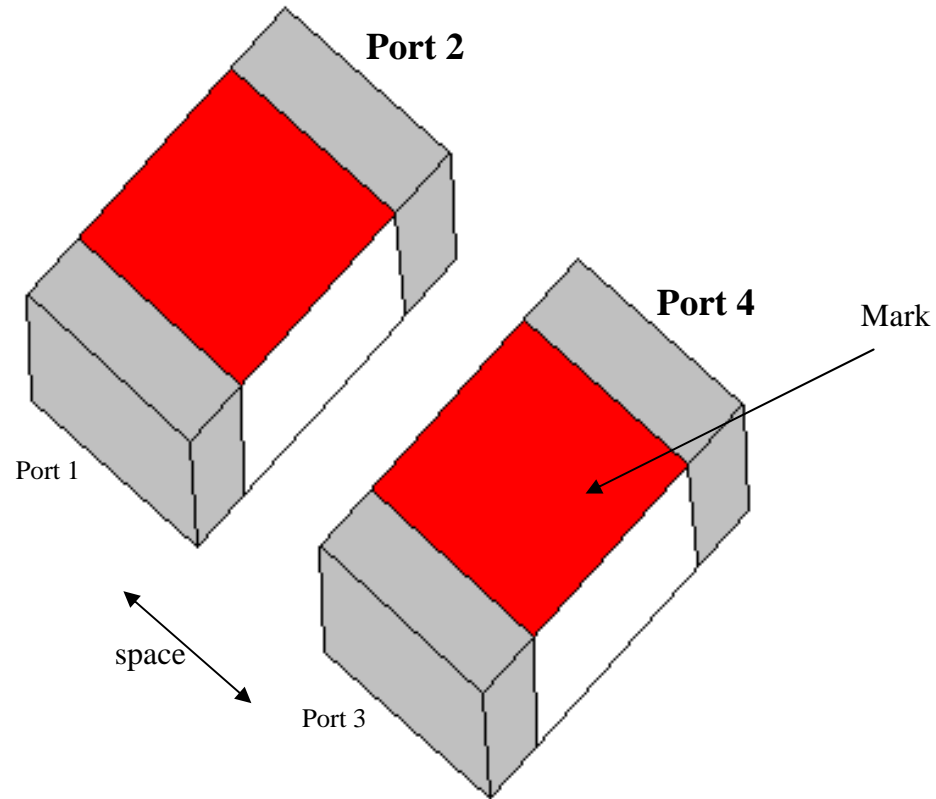


Mutual coupling(S41) for different orientations

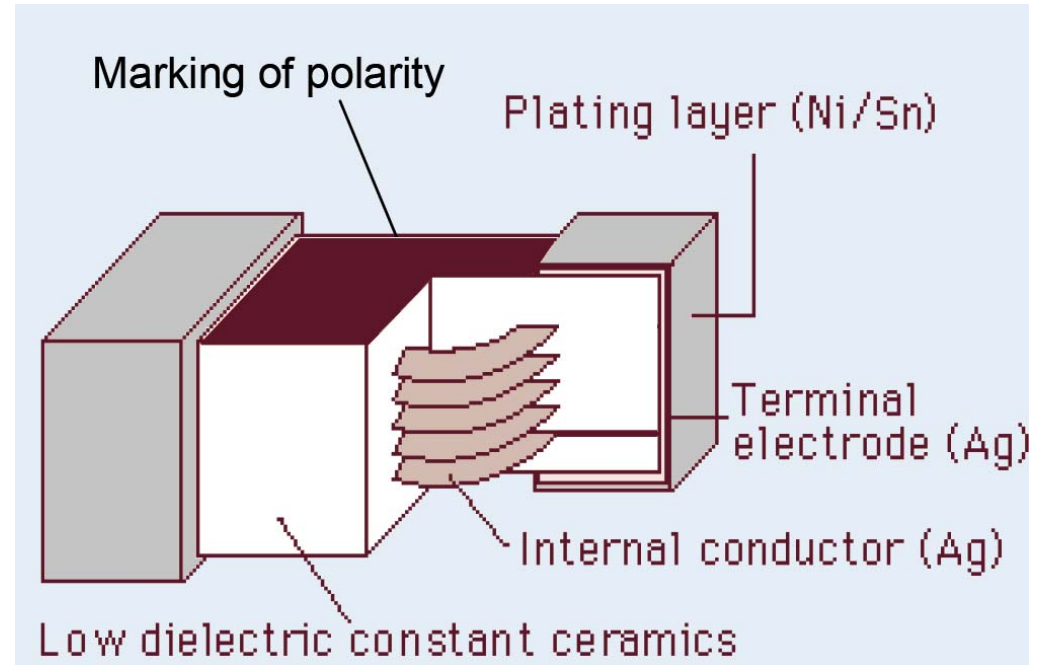
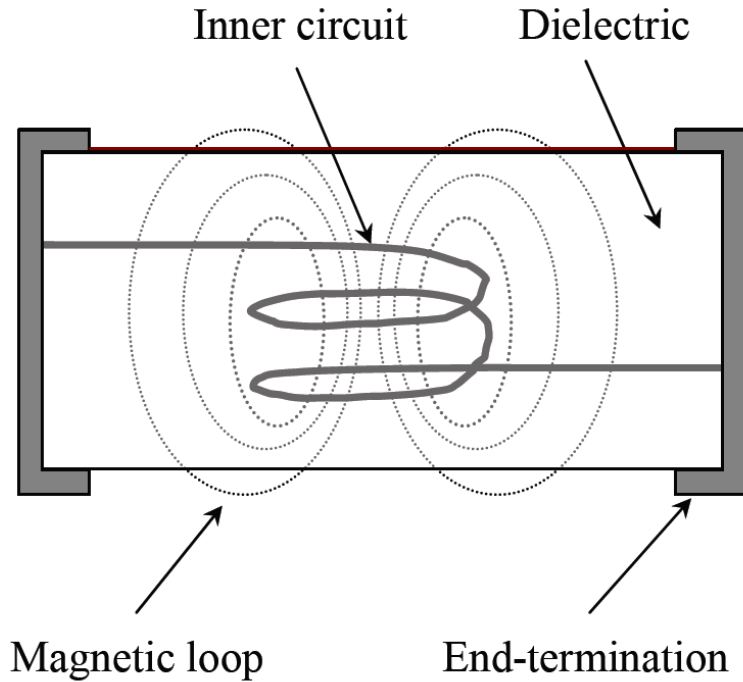
*The space between half-marked inductors is 4 mils



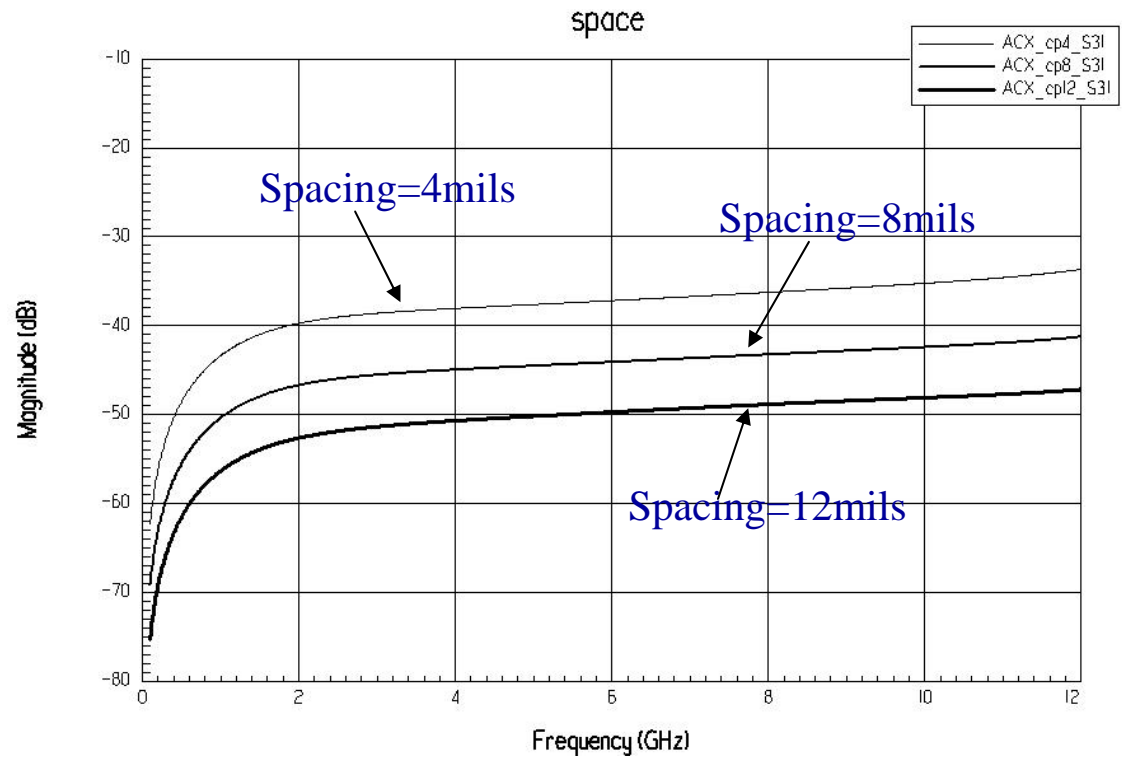
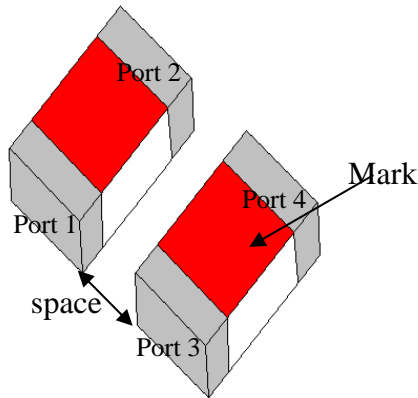
(2) Fully Marked inductors L-07C Series



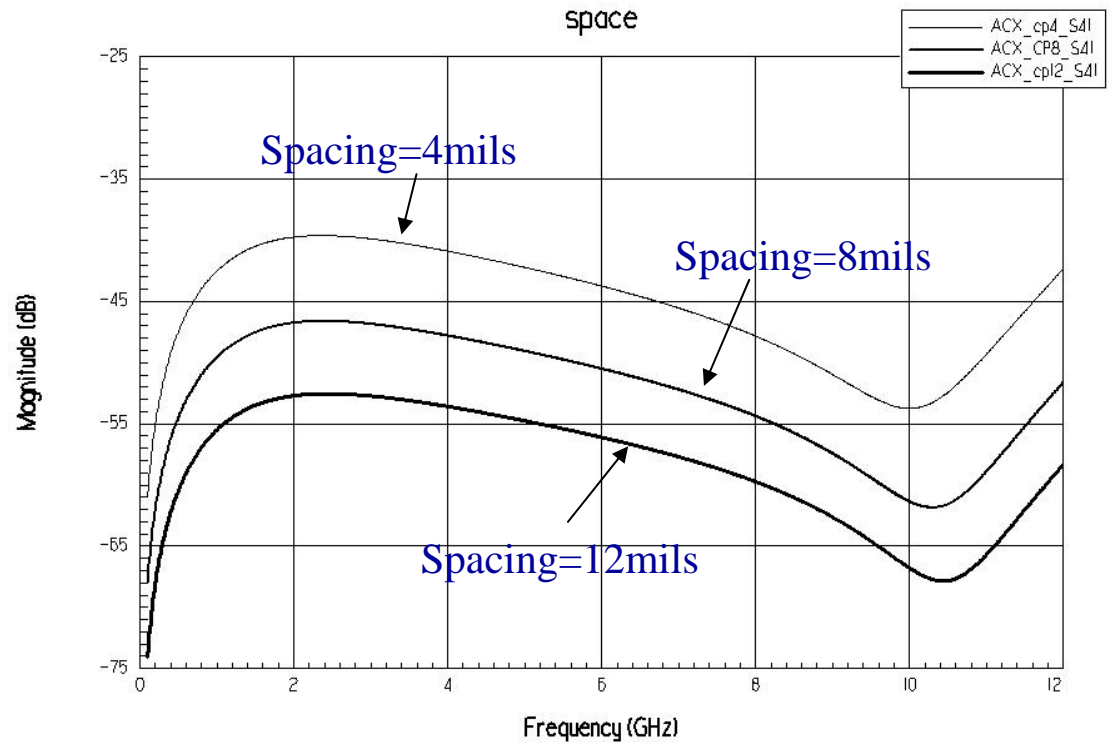
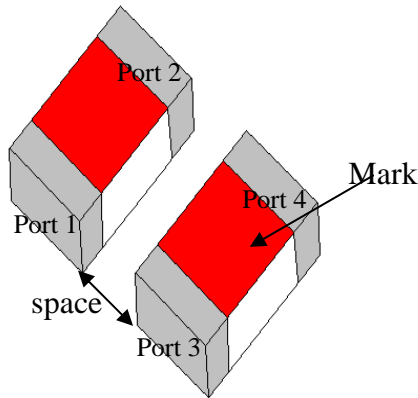
L-07C Series (0402) Fully Marked Inductor structure



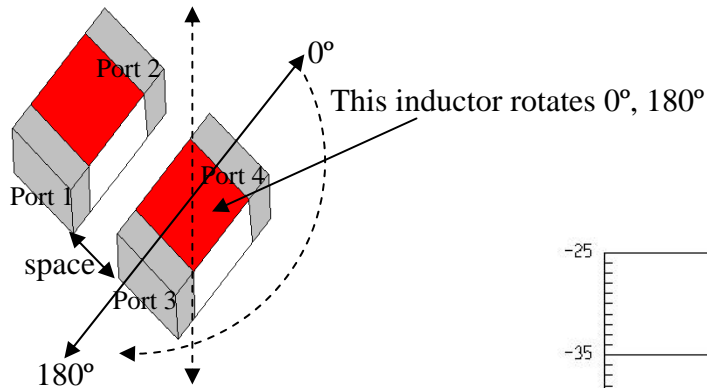
Mutual coupling(S31) for different spacing schemes



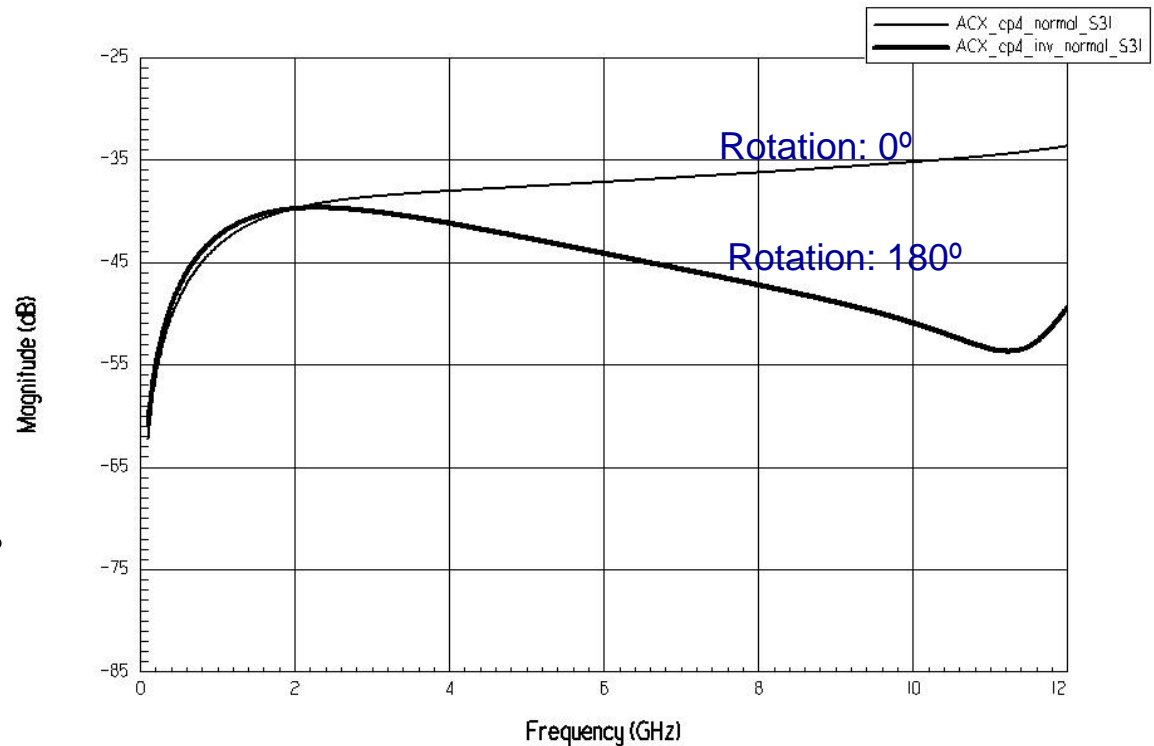
Mutual coupling(S41) for different spacing schemes



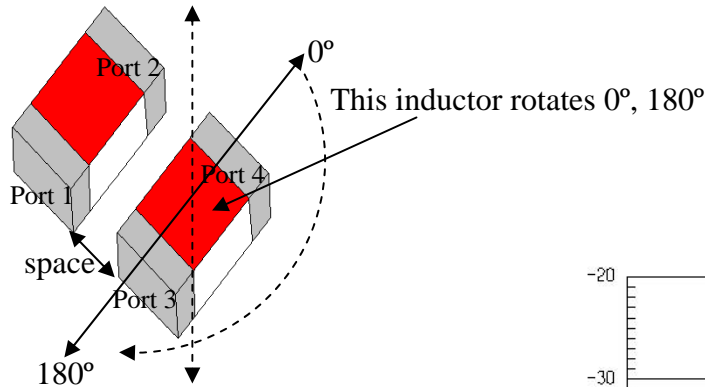
Mutual coupling(S31) for different orientations



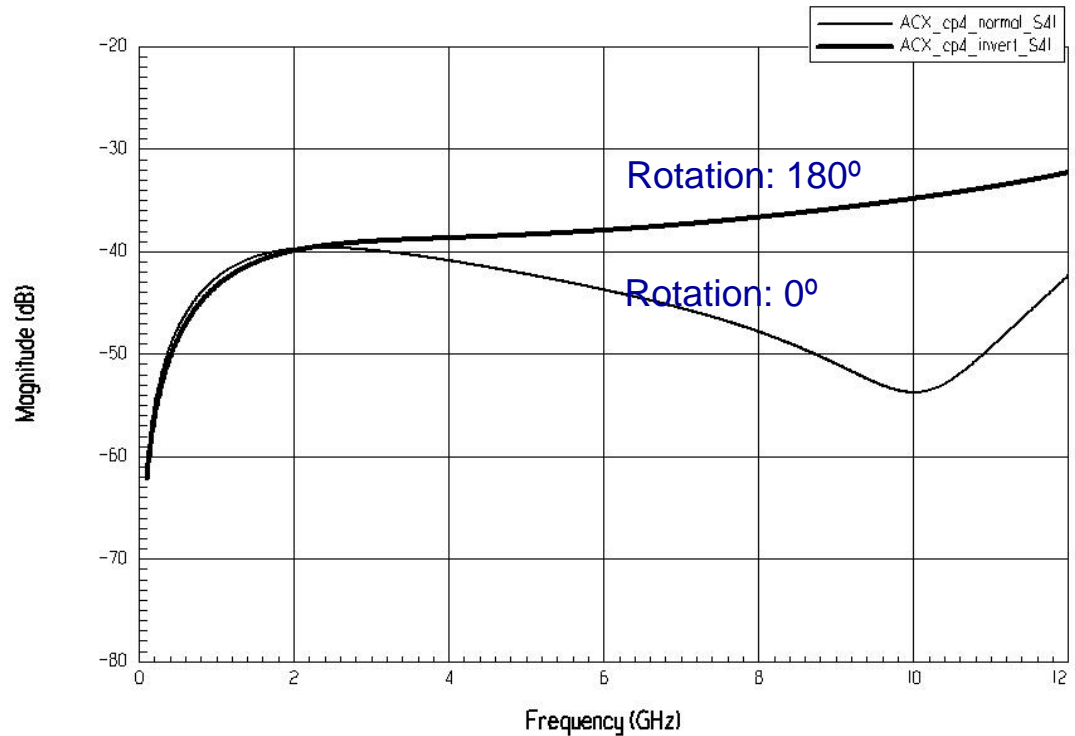
*The space between half-marked inductors is 4 mils



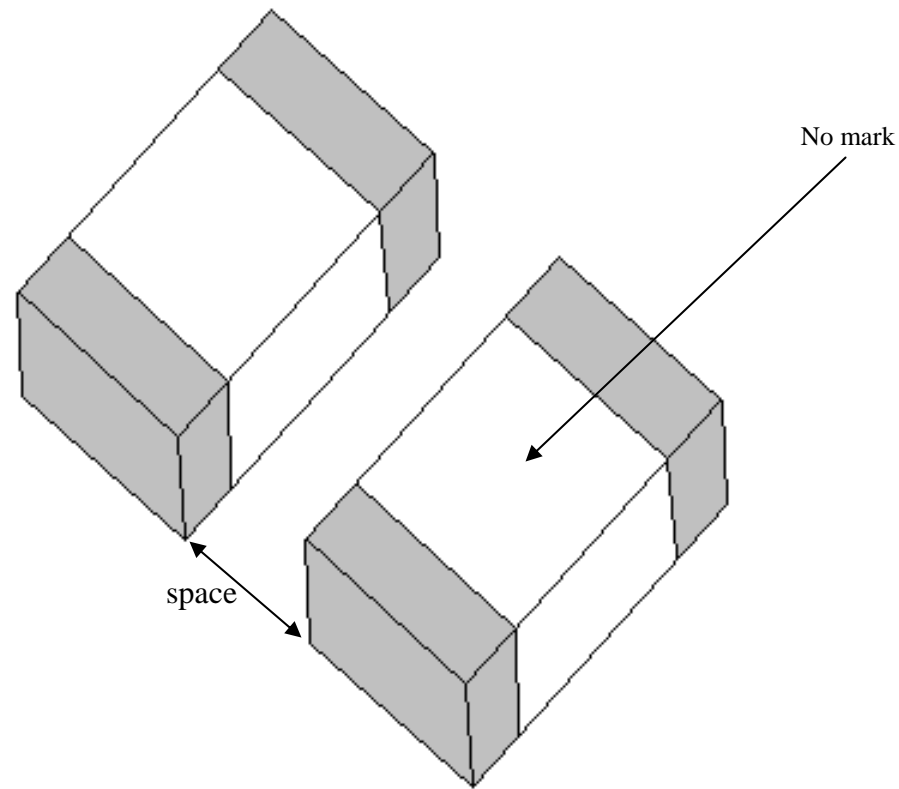
Mutual coupling(S41) for different orientations



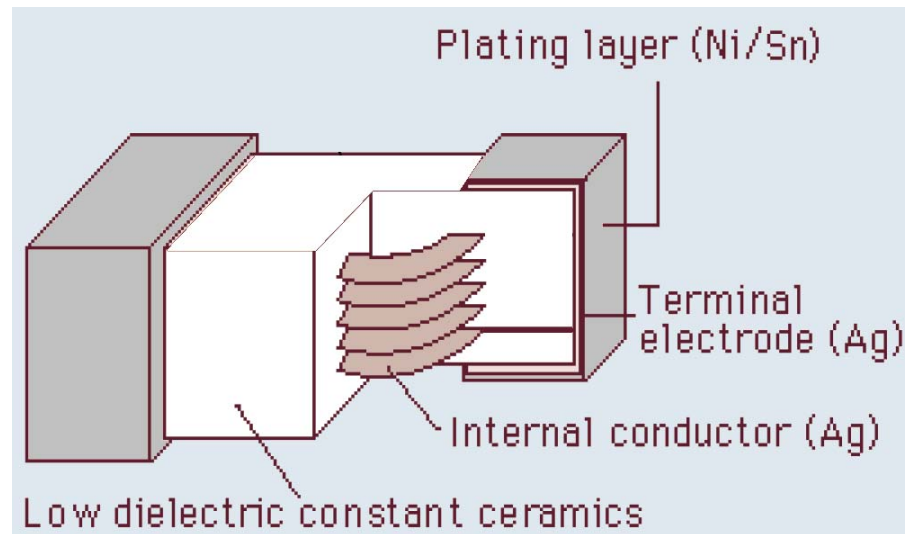
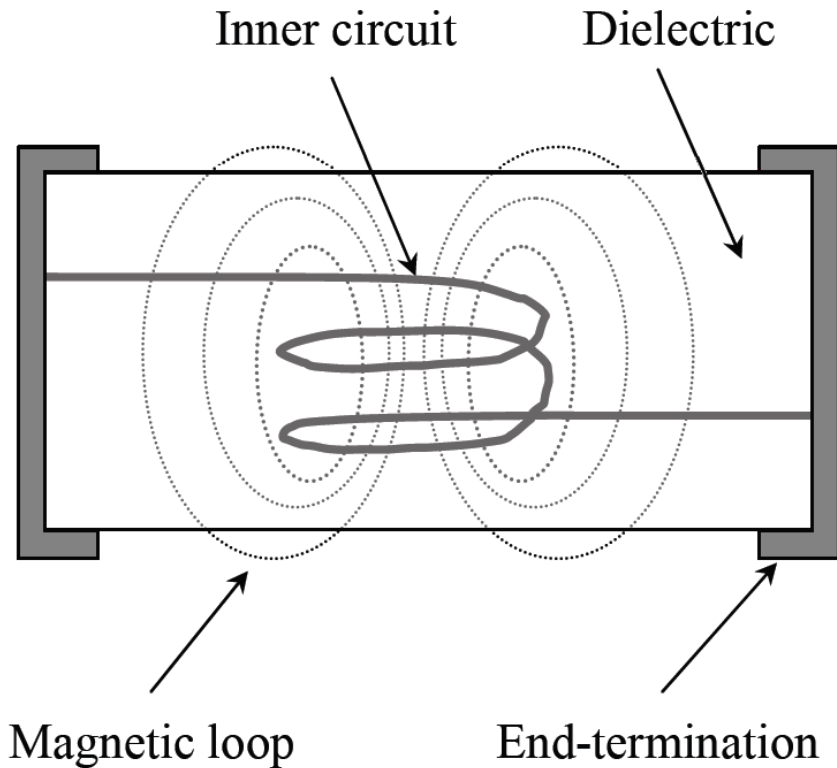
*The space between half-marked inductors is 4 mils



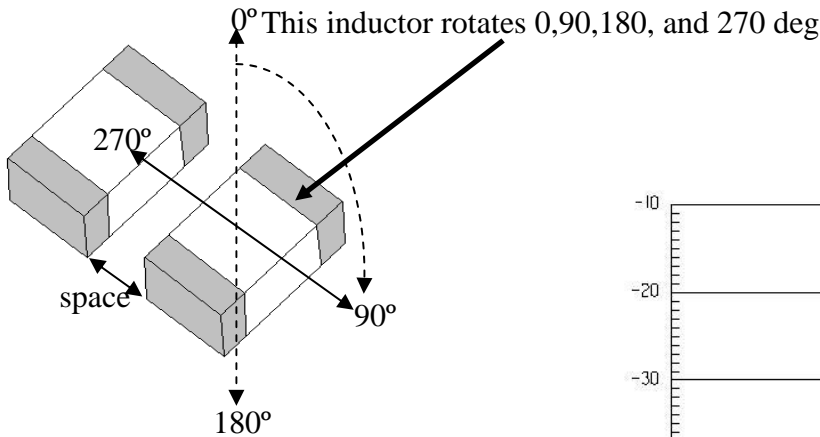
(3) L-14C Series (0603) No-Marking Inductor structure



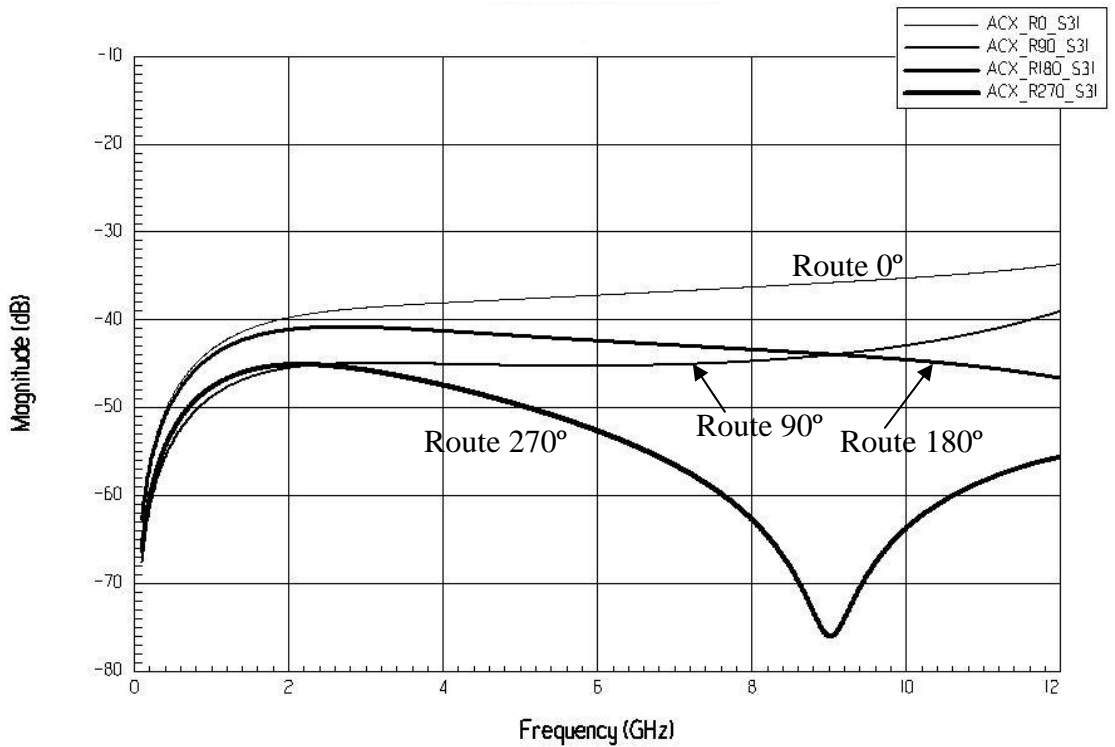
L-14C Series (0603) No Marking Inductor structure



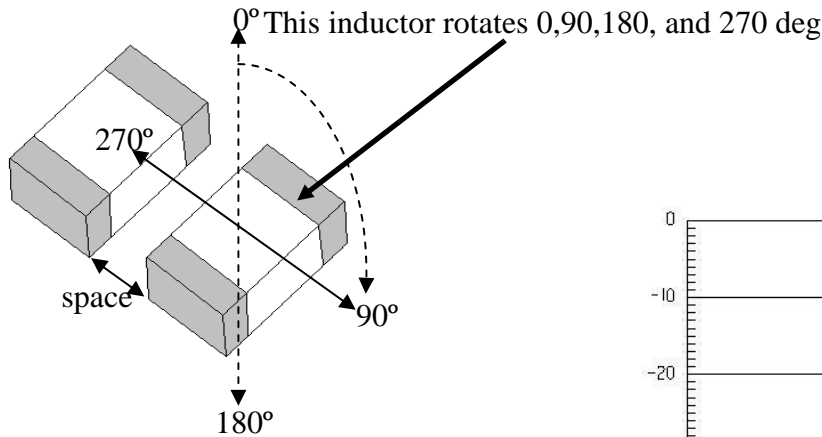
Mutual coupling(S31) for different orientations



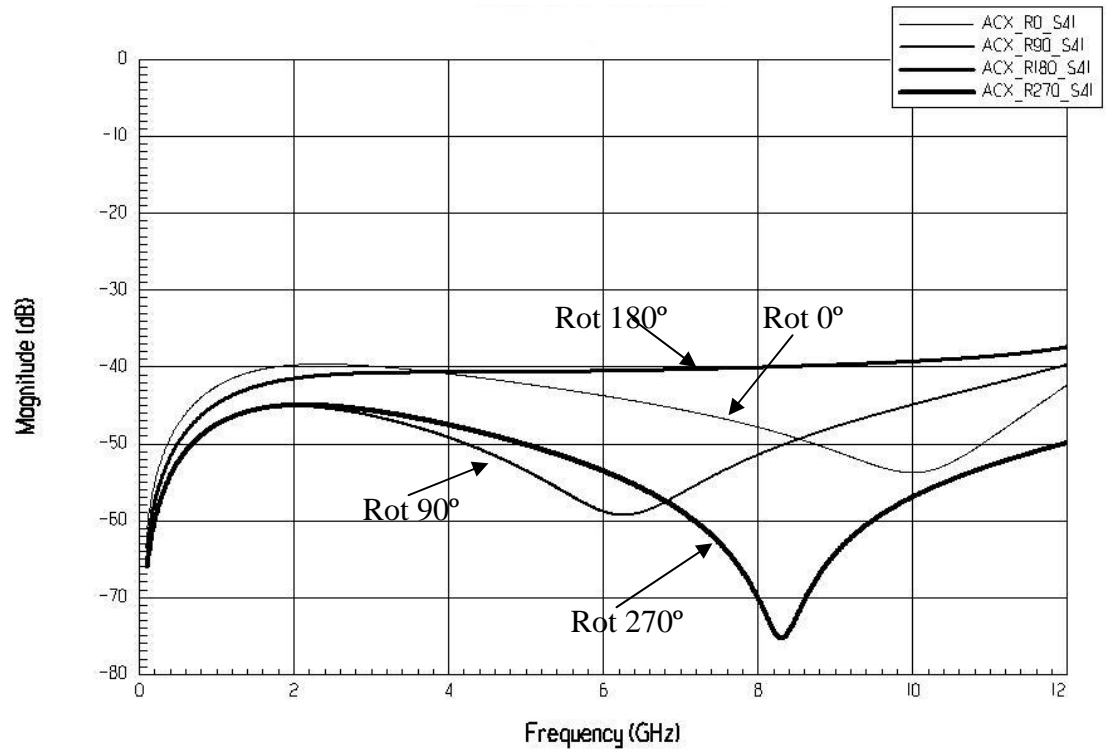
*The space between half-marked inductors is 4 mils



Mutual coupling(S41) for different orientations



*The space between half-marked inductors is 4 mils



Summary:

- ❑ *The Mutual coupling* of the half-marked inductors, with smaller inductor loop, is lower than that of full-marked and no-marking inductors.
- ❑ *Mutual coupling* of half-marking inductors is higher when they're placed at opposite orientations.