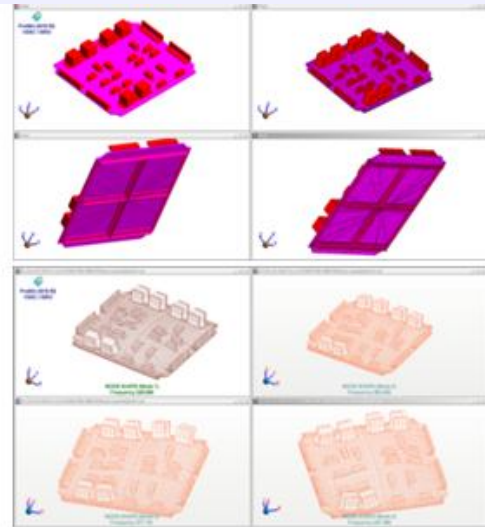
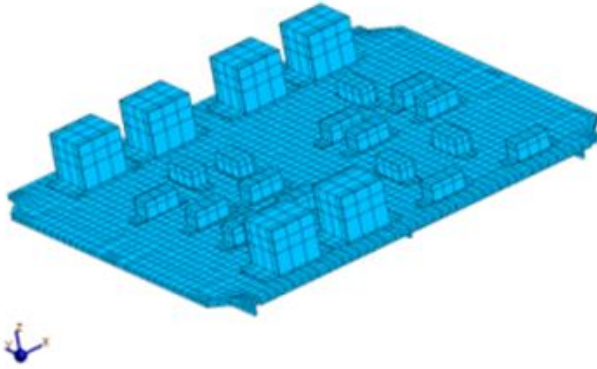


Free vibration analysis of printed circuit board with relays

PreWin 2017R1
VSSC/ISRO



		Alloy steel (Relays & L-clamp)	Aluminium (Stiffeners)	PCB
Material property :	Modulus of elasticity	210 <i>GPa</i>	70 <i>GPa</i>	15.5 <i>GPa</i>
	Poisson's ratio	0.30	0.30	0.28
	Specific gravity	7.85	2.80	2.27
Element types :	8 node hexagonal element			
Finite element statistics :	Number of elements	9032	Number of nodes	15916
			Degrees of freedom	47877

Mode #	Natural frequencies, <i>Hz</i>	
	FEAST ^{SMT}	NASTRAN [®]
1	246.90	240.50
2	353.40	342.50
3	377.20	364.90
4	447.40	433.80
5	574.20	557.00
6	626.80	601.20
7	665.40	631.00
8	699.10	667.30
9	724.80	674.60
10	730.50	680.90