

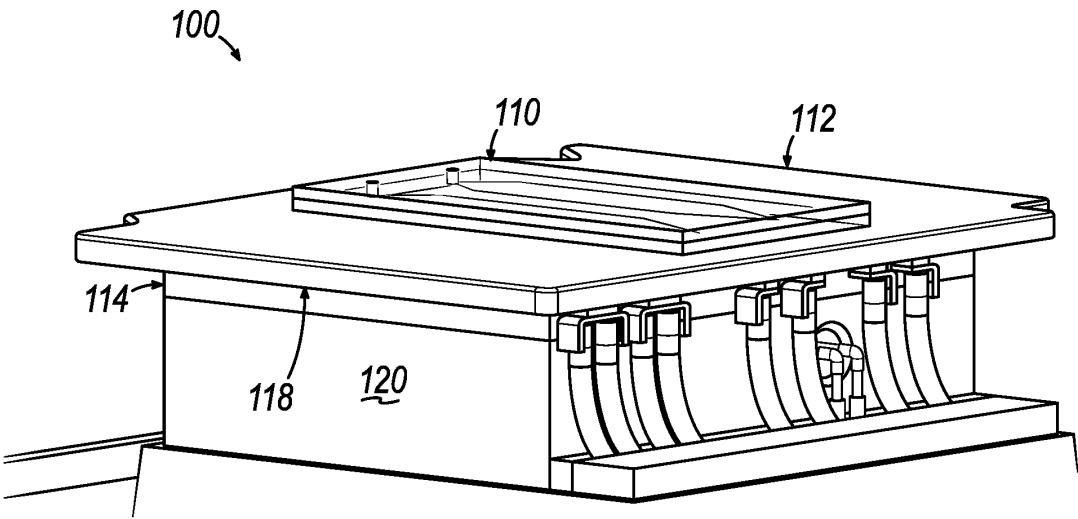


FIG. 1

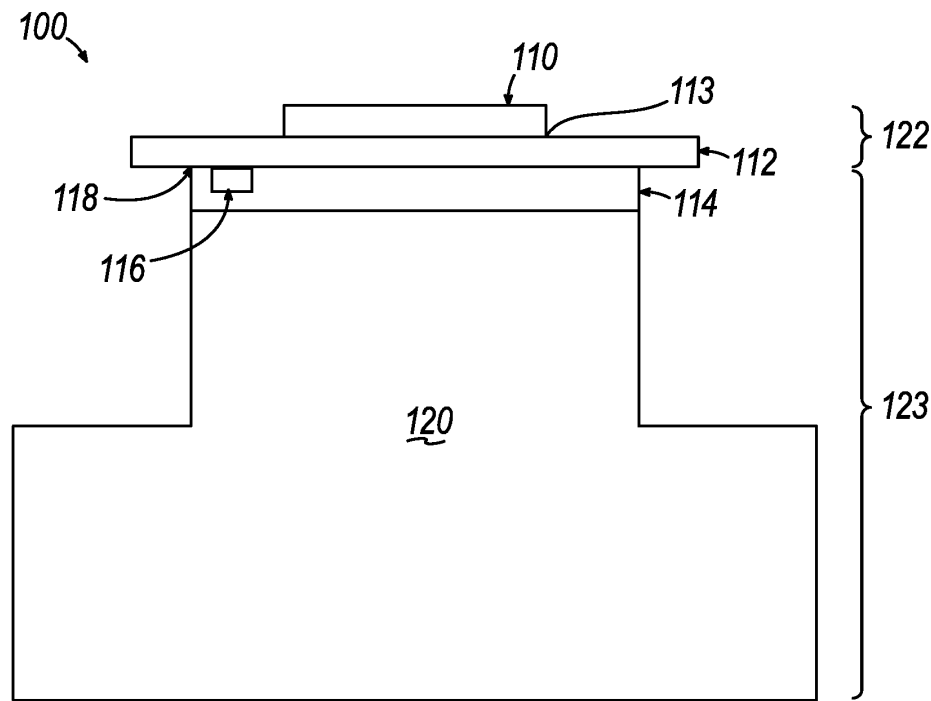


FIG. 2

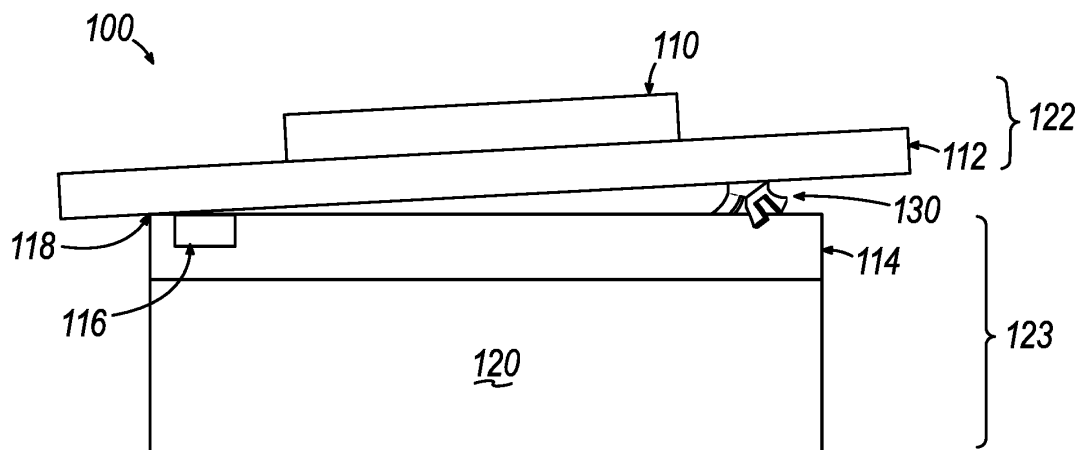


FIG. 3

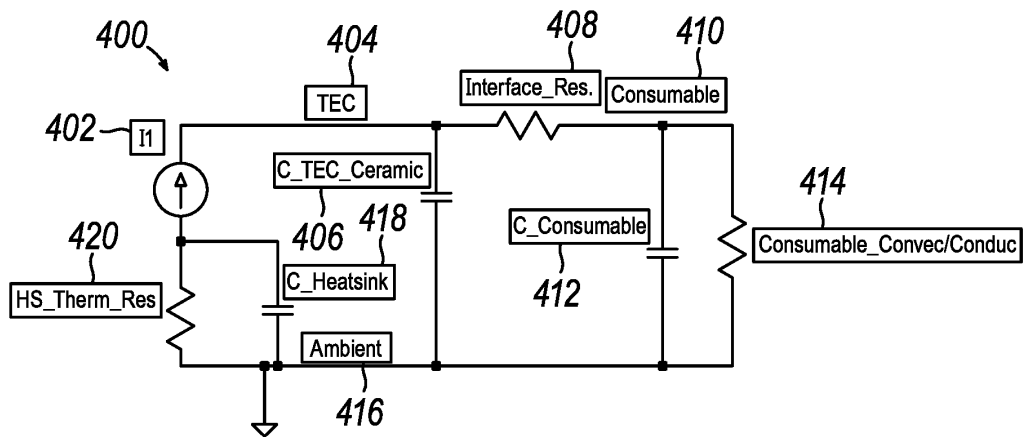


FIG. 4

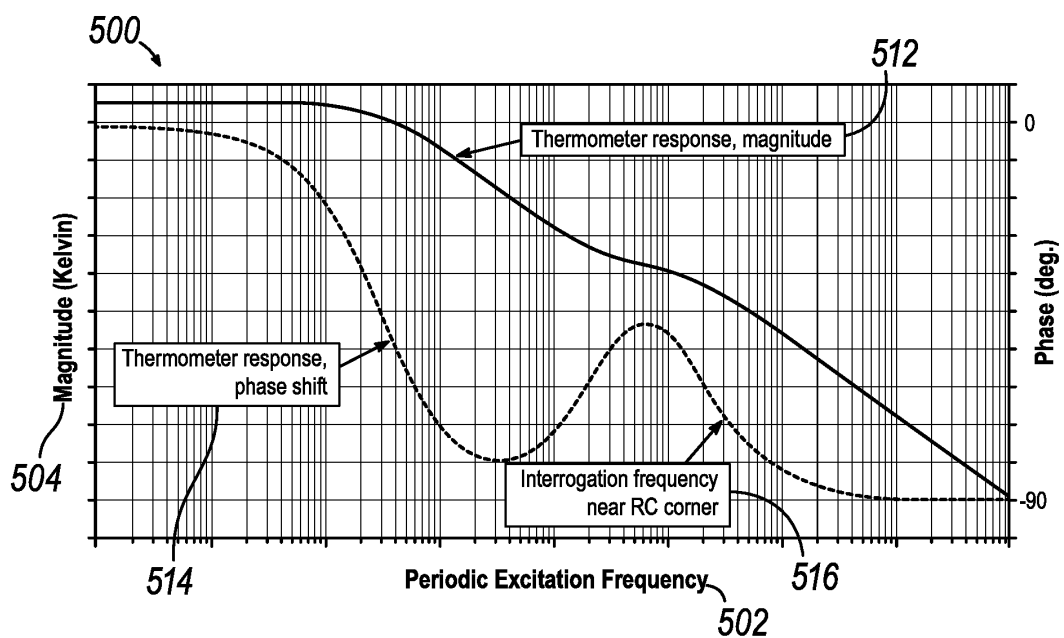


FIG. 5

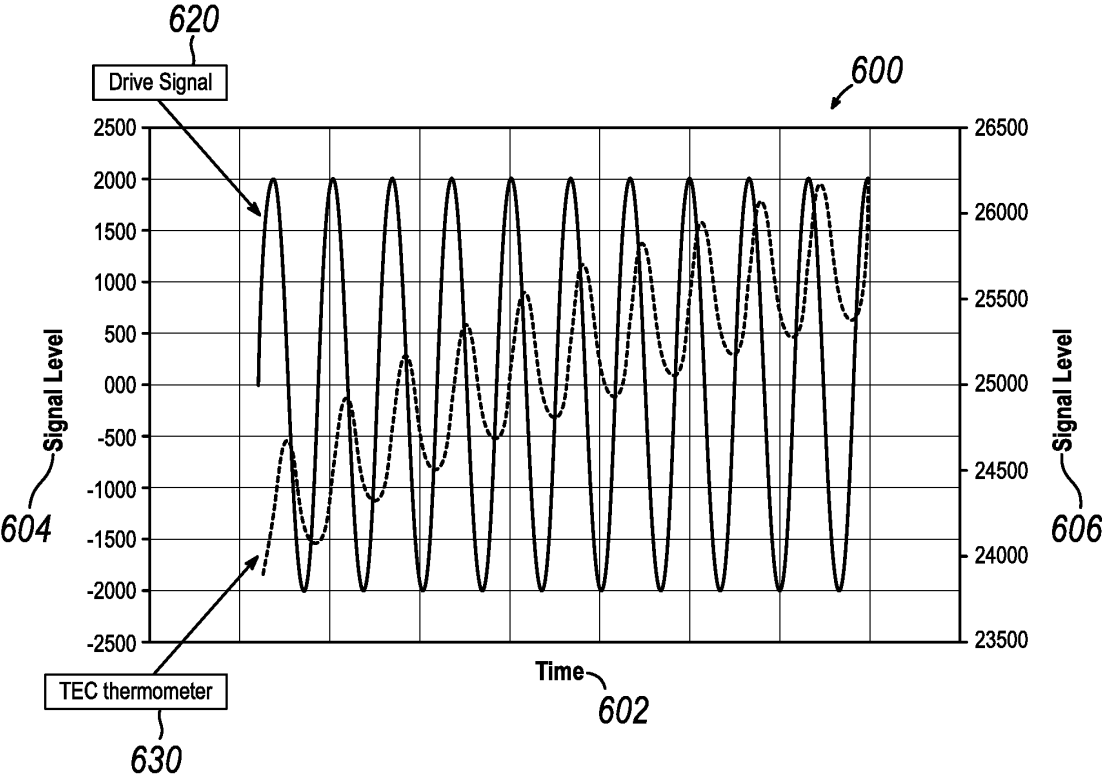


FIG. 6

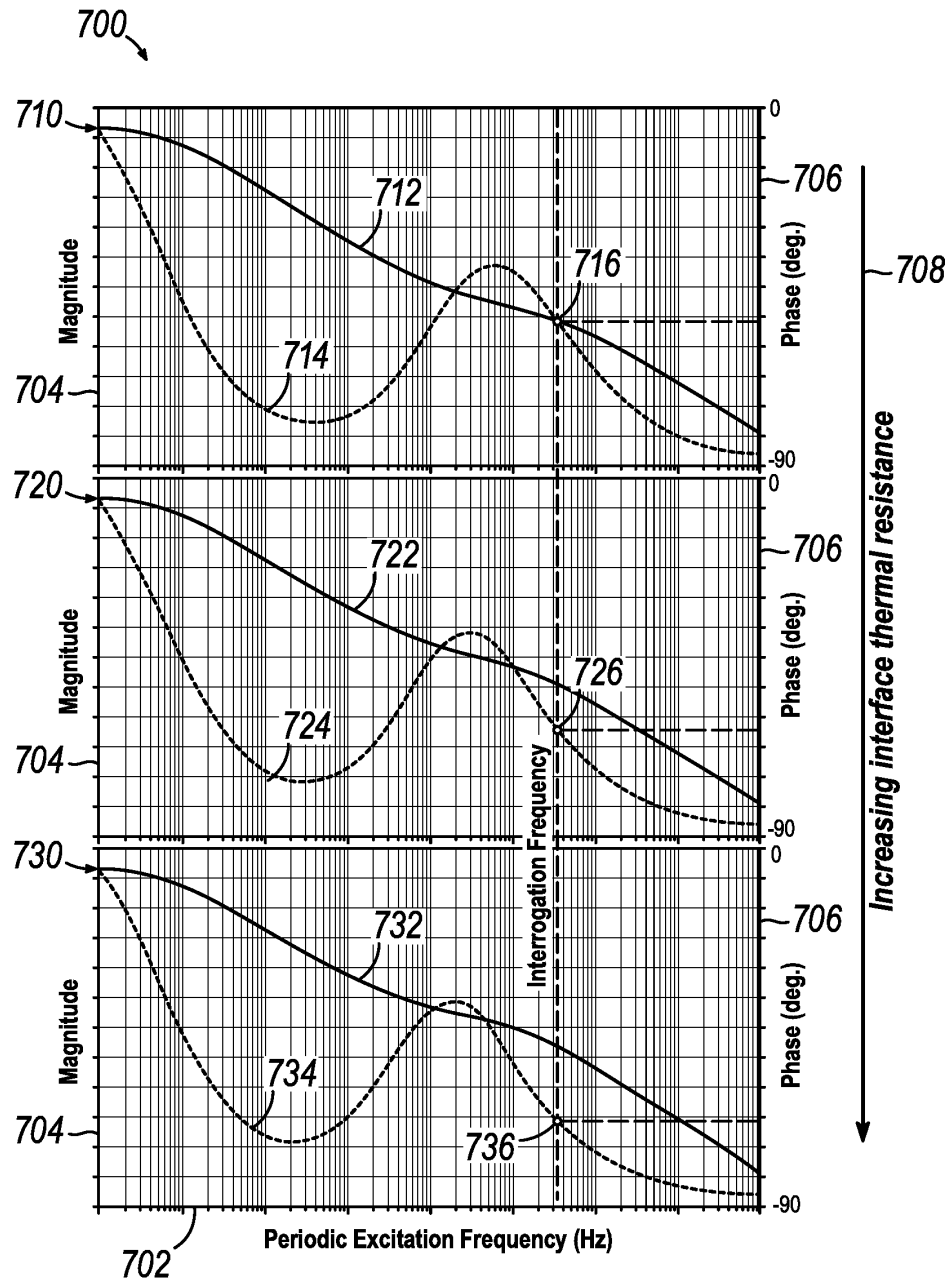


FIG. 7

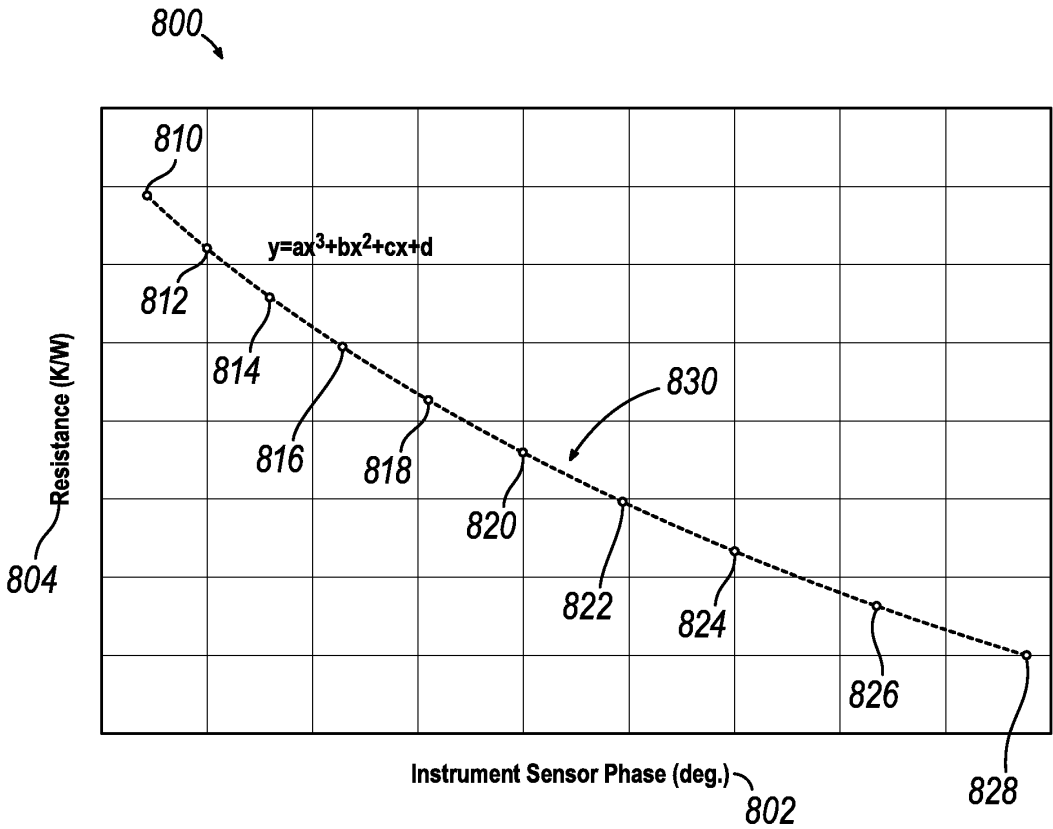
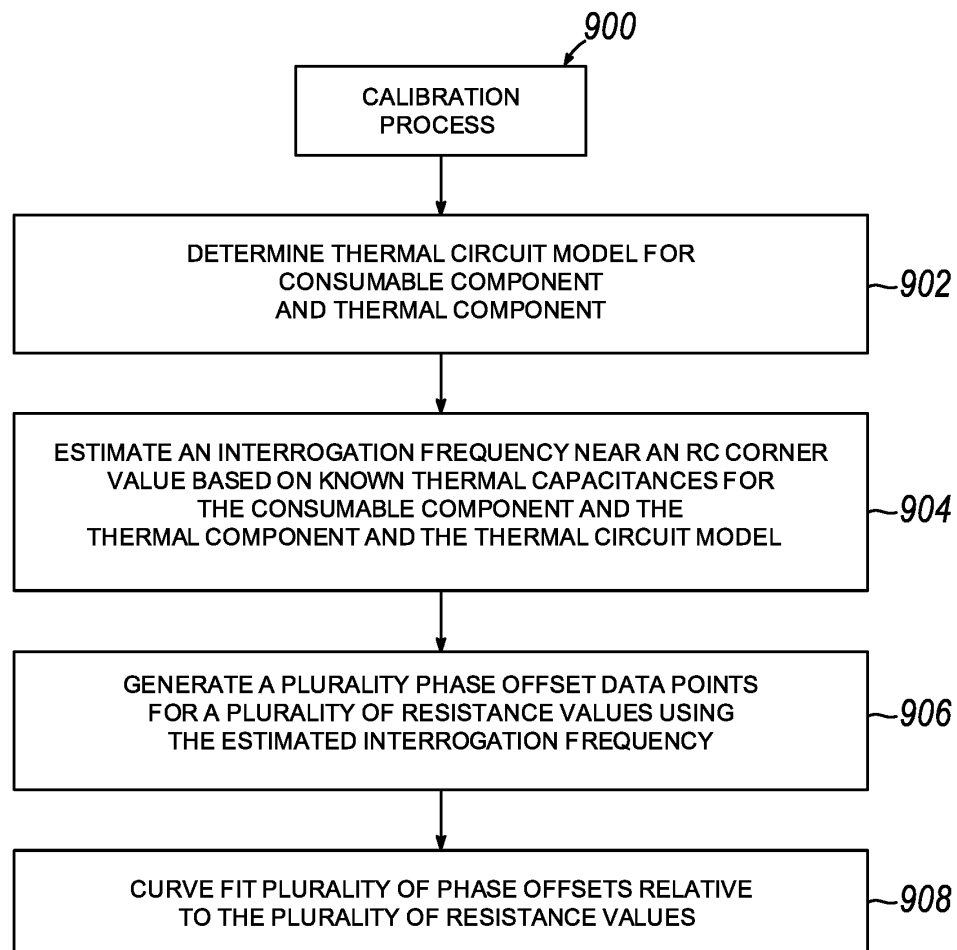


FIG. 8

7/13

**FIG. 9**

8/13

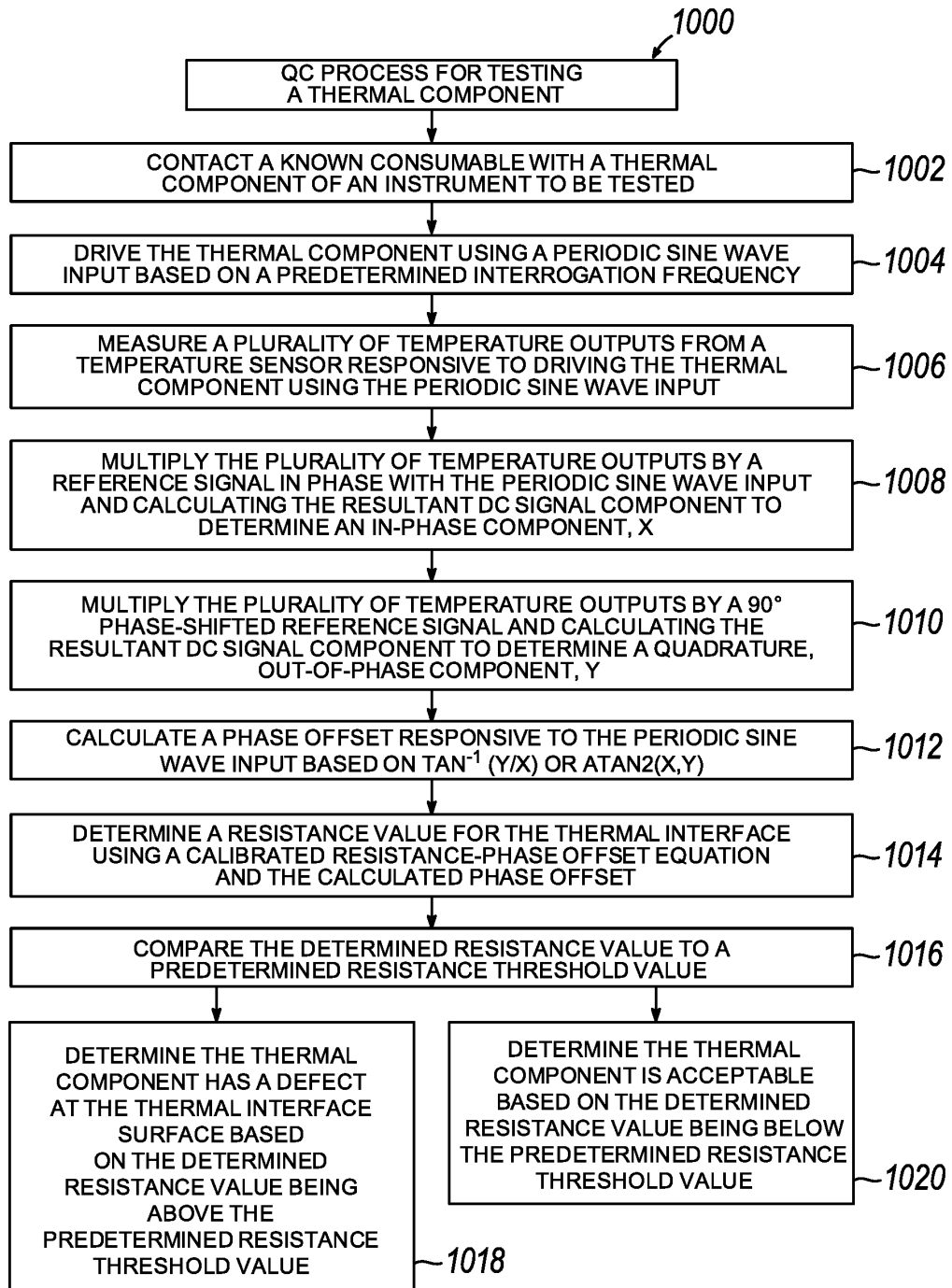


FIG. 10

9/13

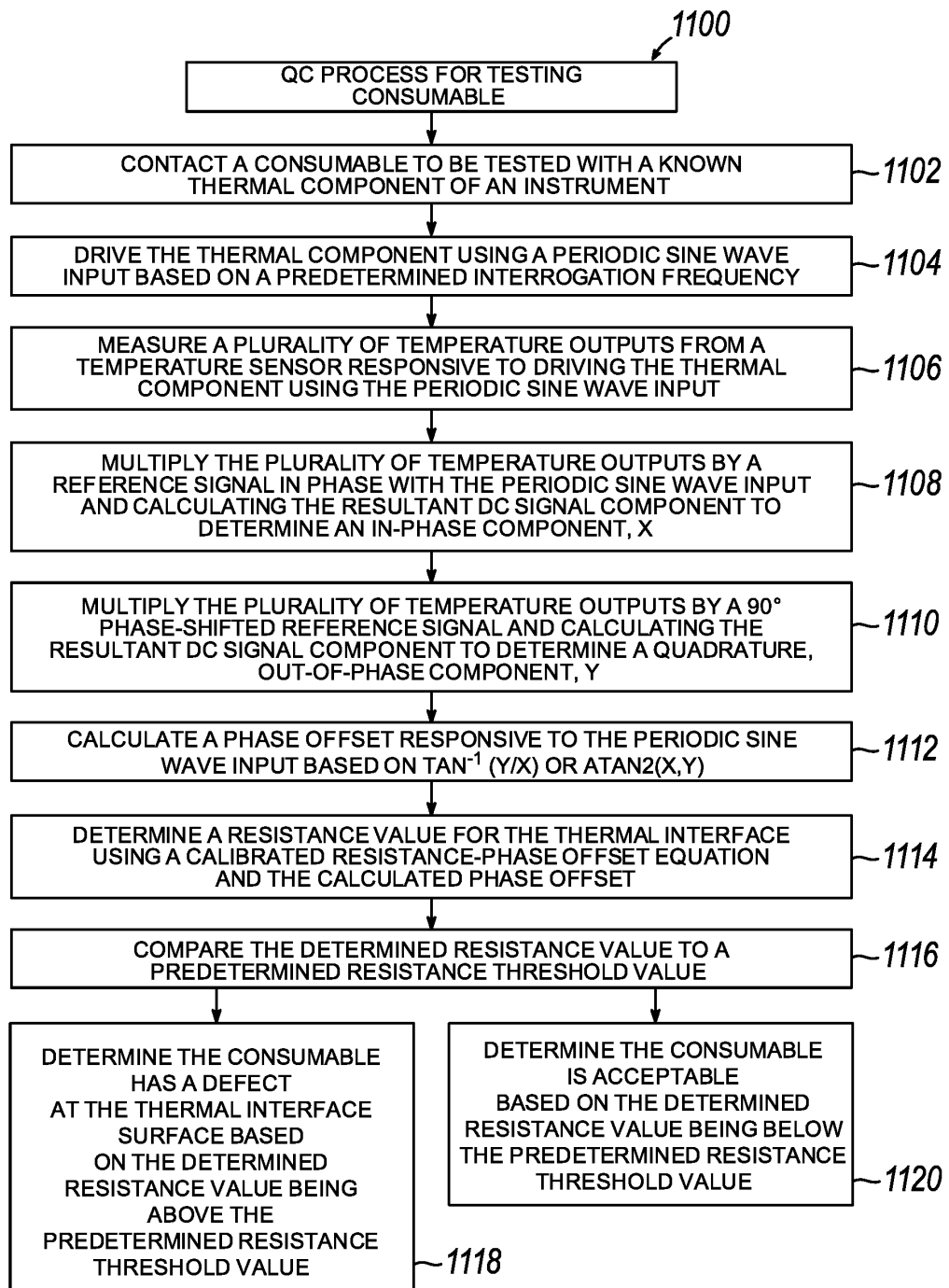
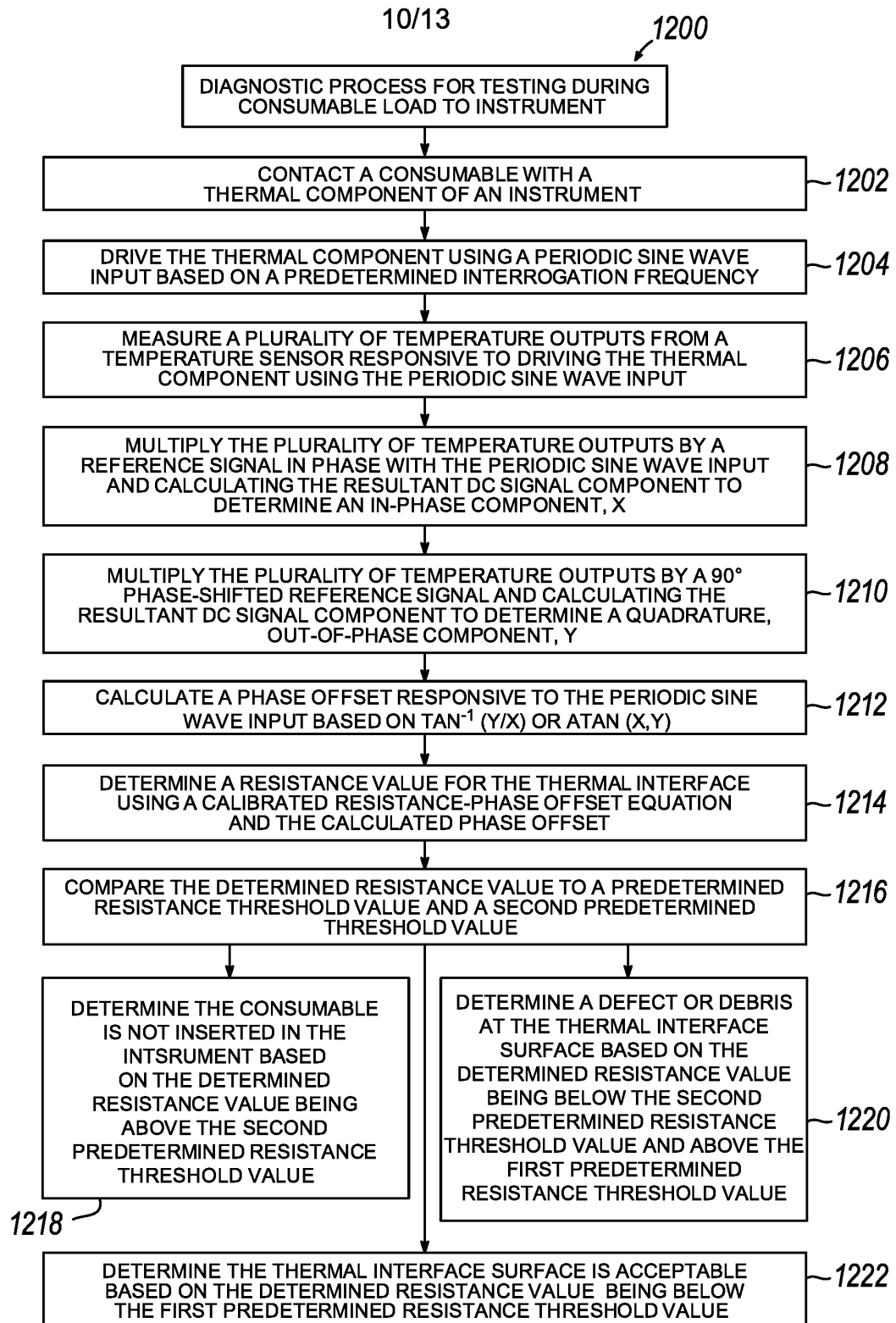


FIG. 11



11/13

Measurement Repeatability			
Instrument	Consumable	Res. (K/W)	Remarks
P1-3	1	0.35878	
P1-3	1	0.36222	Unload and reload consumable
P1-3	1	0.36139	Unload and reload consumable
P1-3	1	0.35824	Unload and reload consumable
P1-3	1	0.35664	Unload and reload consumable
Ave.		0.359454	
Std. Dev.		0.002304 0.641%	Measurement very repeatable
P1-3	None	1.313	No consumable at all-unloaded position. Missing consumable easily detected

FIG. 13

Instrument Variation		
	Res. (K/W)	
Cartridge	1	2
Instrument		
P1-03	0.43357	
P1-04	0.40	0.41
P1-11	0.40	0.42
P1-12	0.433403	0.389652
P1-13	0.401867	0.407964
P1-14	0.392474	0.408632
P1-15	0.403238	0.377454
Average	0.4089	0.4010
StDev	0.0171	0.0143
MIN	0.3925	0.3775
MAX	0.4336	0.4150
% sigma	4.19%	3.57%

FIG. 14

12/13

Consumable Variation				
Sample	Consumable Design A Res. (K/W)		Consumable Design B Res. (K/W)	
1	0.411		0.365	
2	0.428		0.345	
3	0.431		0.364	
4	0.425		0.364	
5	0.417		0.366	
6	0.426		0.344	
7	0.429		0.366	
8	0.423		0.366	
9	0.416			
10	0.417			
Ave.	0.4223		0.3600	
St.Dev.	0.0066	1.57%	0.0096	2.668%
MIN	0.411		0.344	
MAX	0.411		0.366	

FIG. 15

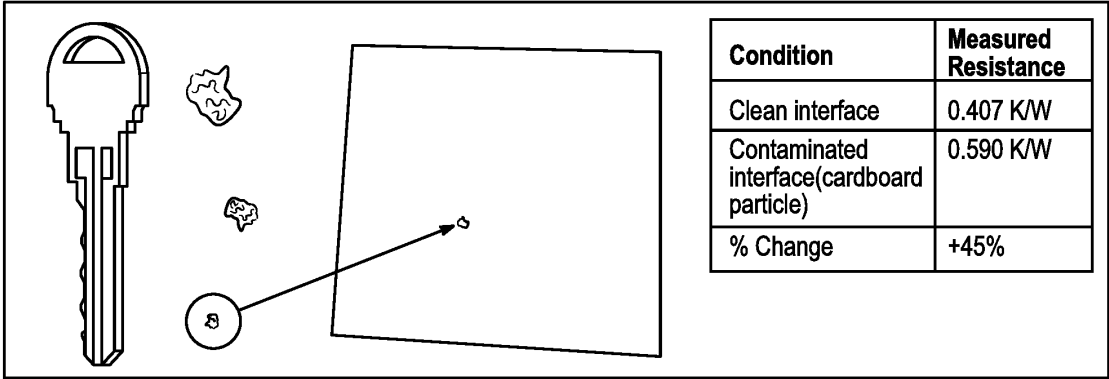


FIG. 16

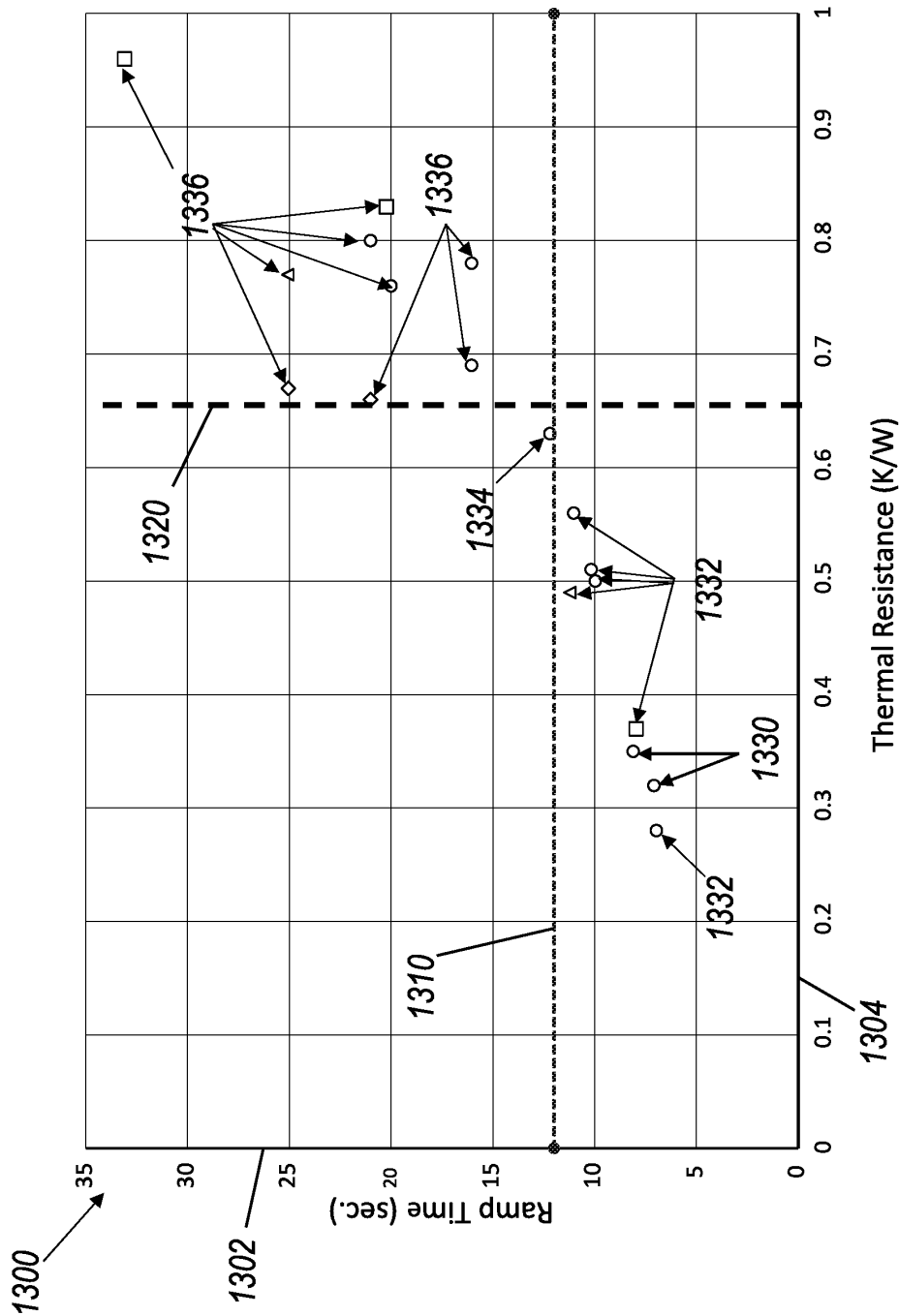


FIG. 17