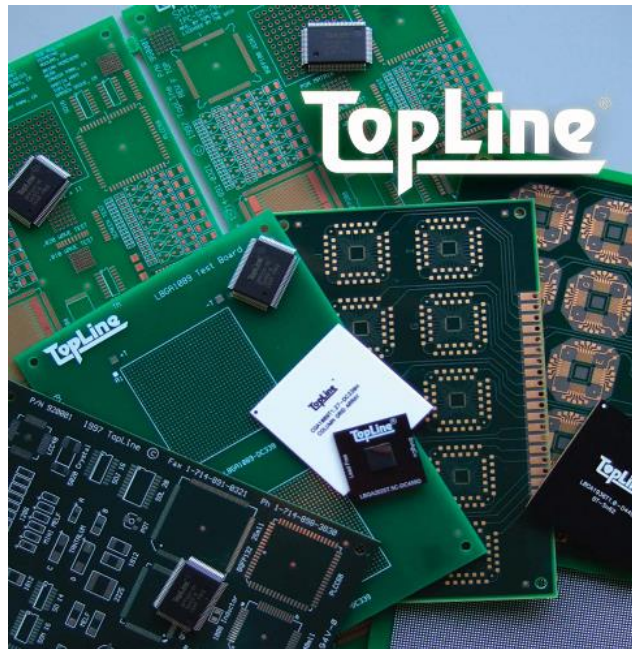




Ball & Bump Kits



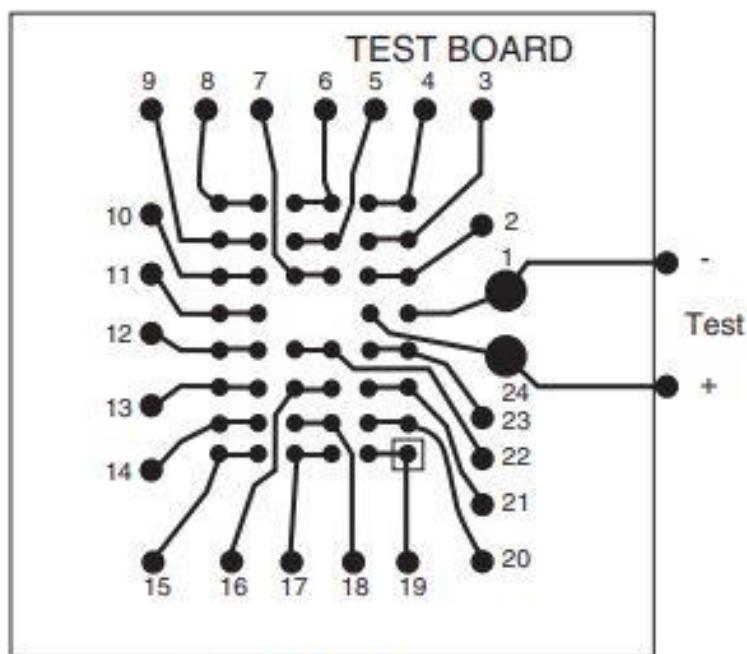
921 ### Series Kit

BGA46 0.75mm Test Kit

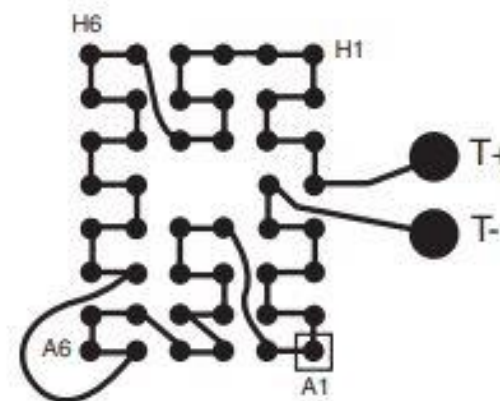


Kit Ordering Information

Component	Pitch	Manual Assembly	Machine Run		
		Order Number 921000 1 Kit	Order Number 921010 10 Kits	Order Number 921025 25 Kits	Order Number 921050 50 Kits
Board		1	10	25	50
BGA46	0.75mm	10	100	250	500



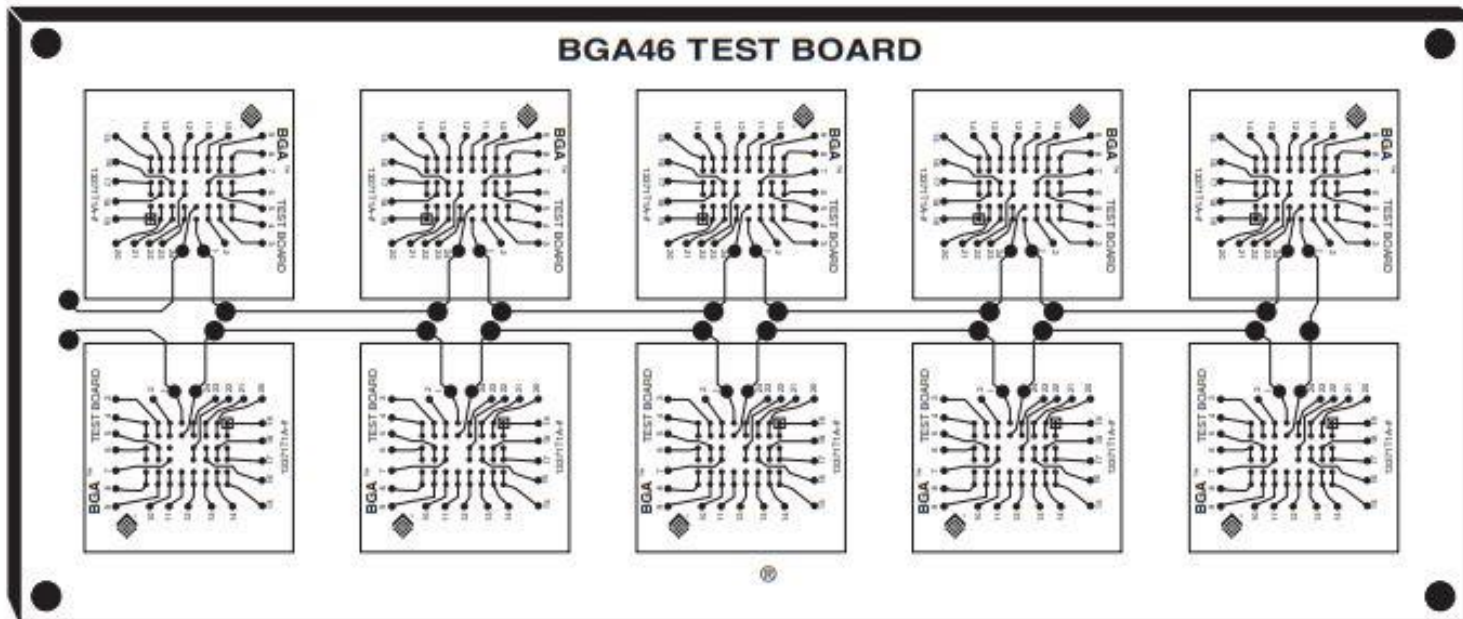
SINGLE PCB TEST COUPON



AFTER MOUNTING TO TEST BOARD

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	10 Kits	25 Kits	50 Kits	100 Kits
Lead Free						
Gold Board + SnAgCu BGA	921001	921900	921910	921925	921950	921999
Standard						
Gold Board + SnPb BGA	921001	921000	921010	921025	921050	921100



981 ### Series Kit

Universal BGA Kit 0.8/1.0mm Pitch



Kit Ordering Information

Component	Pitch	Manual Assembly	Machine Run	
		Order Number 981000 1 Kit	Order Number 981010 10 Kits	Order Number 981025 25 Kits
Board 981001	0.8/1.0mm	1	10	25
BGA	1.0mm	4	40	100
BGA	0.8mm	4	40	100

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	10 Kits	25 Kits	50 Kits	100 Kits
Lead Free						
Sn - Tin	981002	981200	981210	981225	981250	981299
Ag - Silver	981006	981600	981610	981625	981650	981699
CU - OSP	981008	981800	981810	981825	981850	981899
Au - Gold	981009	981900	981910	981925	981950	981999
Standard						
SnPb-HASL	981001	981000	981010	981025	981050	981100

TopLine

BGA Universal Placement

1.0mm pitch

P/N 981001 Rev A

Ø 19mil

Ø 20mil

Ø 21mil

Ø 22mil

Ø 23mil

Ø 24mil

0.8mm pitch

Ø 16mil

Ø 17mil

Ø 18mil

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998 ### Series Kit Fine Pitch BGA 0.8mm-1.0mm Pitch

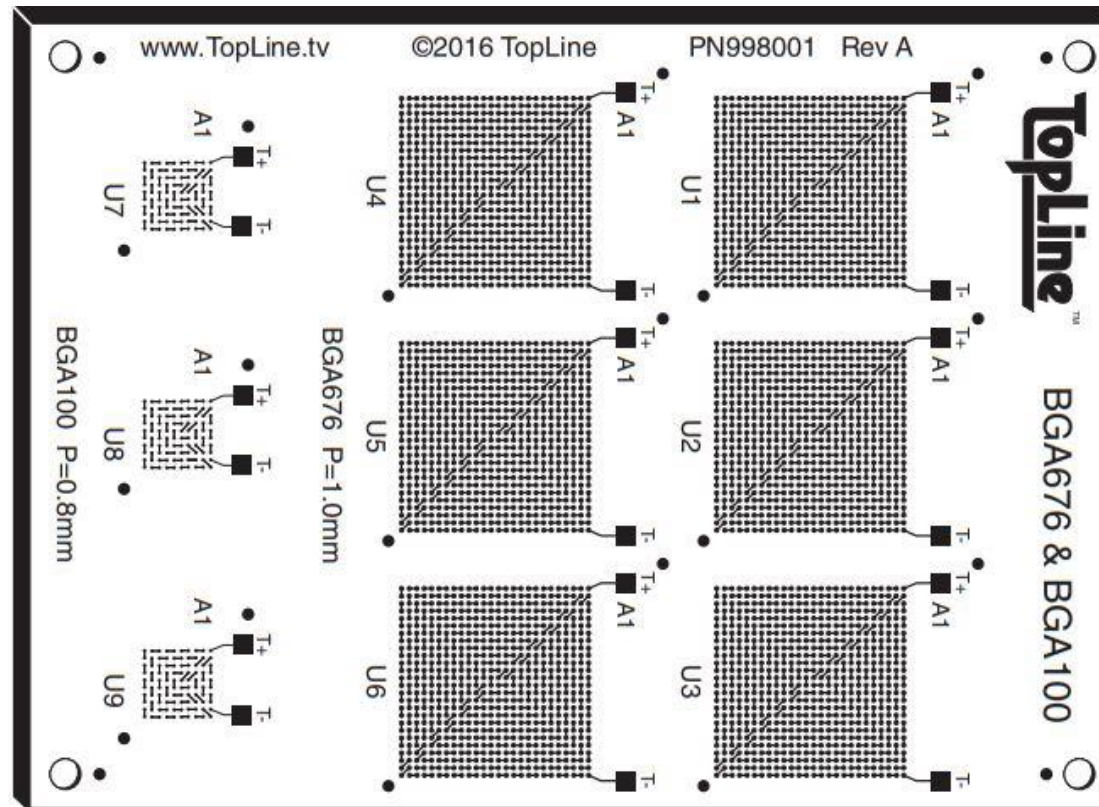


Kit Ordering Information

Component	Pitch	Manual Assembly		Machine Run		
		Order Number 998900 1 Kit	Order Number 998906 6 Kits	Order Number 998910 10 Kits	Order Number 998925 25 Kits	Order Number 998950 50 Kits
Board		1	6	10	25	50
BGA100	0.8mm	3	18	30	75	150
BGA676	1.0mm	3	18	30	75	150

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	6 Kits	10 Kits	25 Kits	500 Kits
Lead Free						
Sn - Tin	998002	998200	998206	998210	998225	998250
Ag - Silver	998006	998600	998606	998610	998625	998650
CU - OSP	998008	998800	998806	998810	998825	998850
Au - Gold	998009	998900	998906	998910	998925	998950
Standard						
SnPb-HASL	998001	998300	998306	998310	998325	998350



976 ### Series Kit

BGA256 1.0mm Test Kit

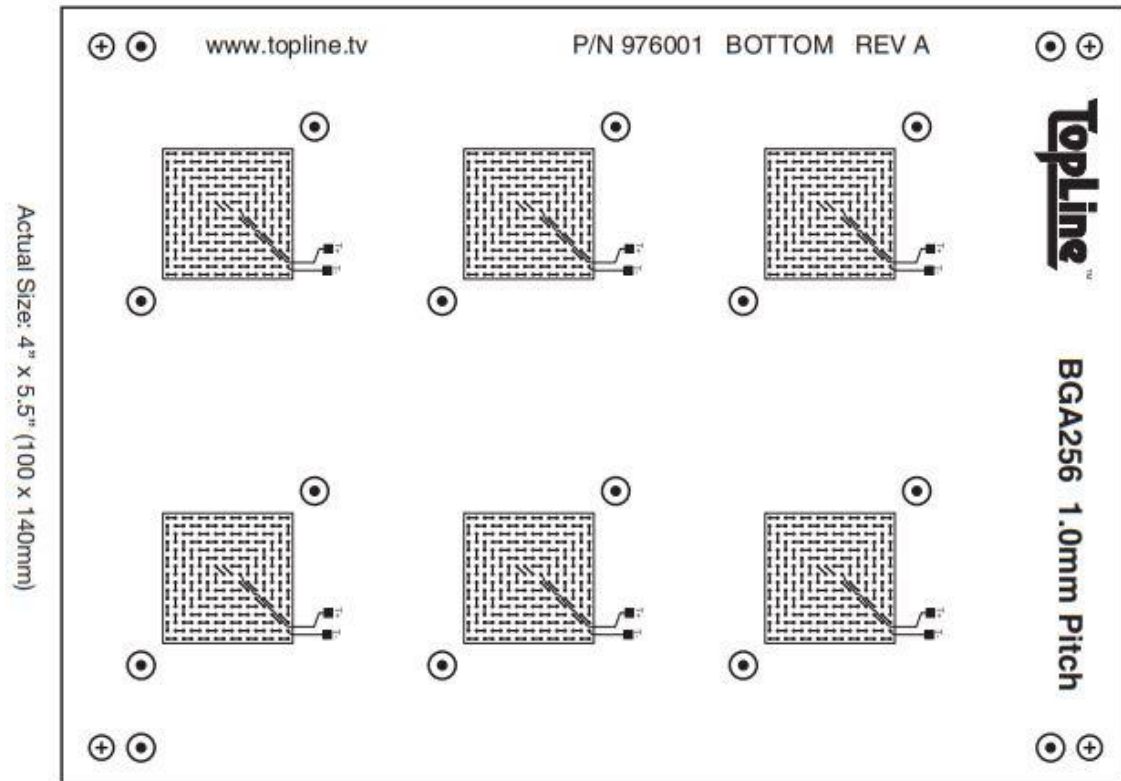


Kit Ordering Information

Component	Ball Pitch	Manual Assembly		Machine Run		
		Order Number 976000 1 Kit	Order Number 976010 10 Kits	Order Number 976025 25 Kits	Order Number 976050 50 Kits	Order Number 976100 100 Kits
Board		1	10	25	50	100
BGA256	1.0mm	6	60	150	300	600

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	10 Kits	25 Kits	50 Kits	100 Kits
Lead Free						
Sn - Tin	976002	976200	976210	976225	976250	976299
Ag - Silver	976006	976600	976610	976625	976650	976699
CU - OSP	976008	976800	976810	976825	976850	976899
Au - Gold	976009	976900	976910	976925	976950	976999
Standard						
SnPb-HASL	976001	976002	976010	976025	976050	976100



937 ### Series Kit

BGA256/BGA272 1.27mm Test Kit

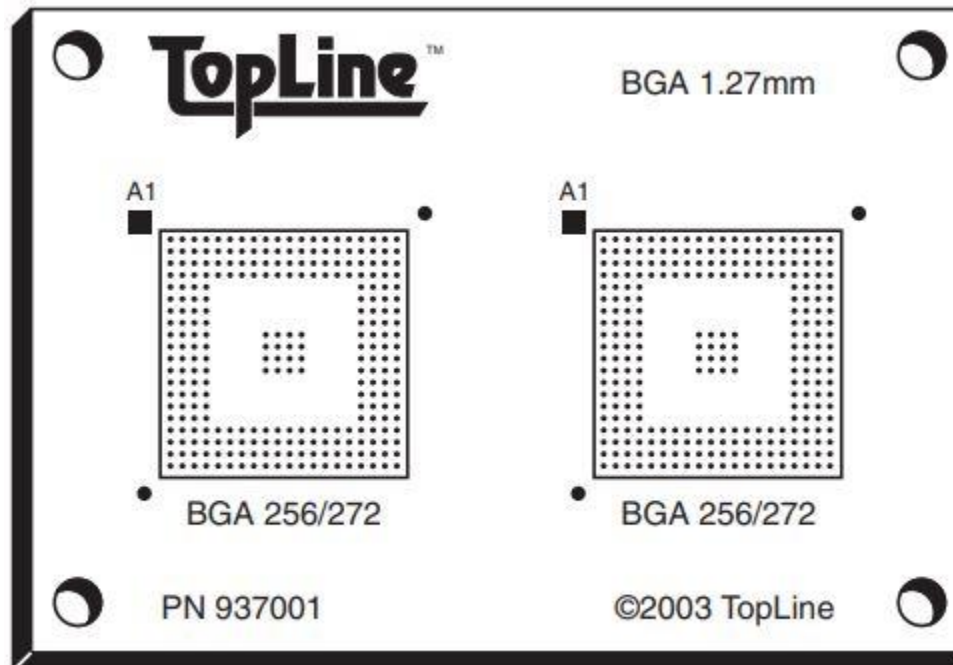


Kit Ordering Information

Component Selection	Ball Pitch	Manual Assembly		Machine Run		
		Order Number 937000 1 Kit	Order Number 937010 10 Kits	Order Number 937020 20 Kits	Order Number 937040 40 Kits	Order Number 937080 80 Kits
Board		1	10	20	40	80
BGA256/BGA272	1.27mm	2	20	40	80	160

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	10 Kits	20 Kits	40 Kits	80 Kits
Lead Free						
Sn - Tin	937002	937200	937210	937220	937240	937280
Ag - Silver	937006	937600	937610	937620	937640	937680
CU - OSP	937008	937800	937810	937820	937840	937880
Au - Gold	937009	937900	937910	937920	937940	937980
Standard						
SnPb-HASL	937001	937000	937010	937020	937040	937080



Actual Size 2.75" x 4.0" (70 x 100mm))

947 ### Series Kit

Universal BGA 1.0/1.27mm Pitch

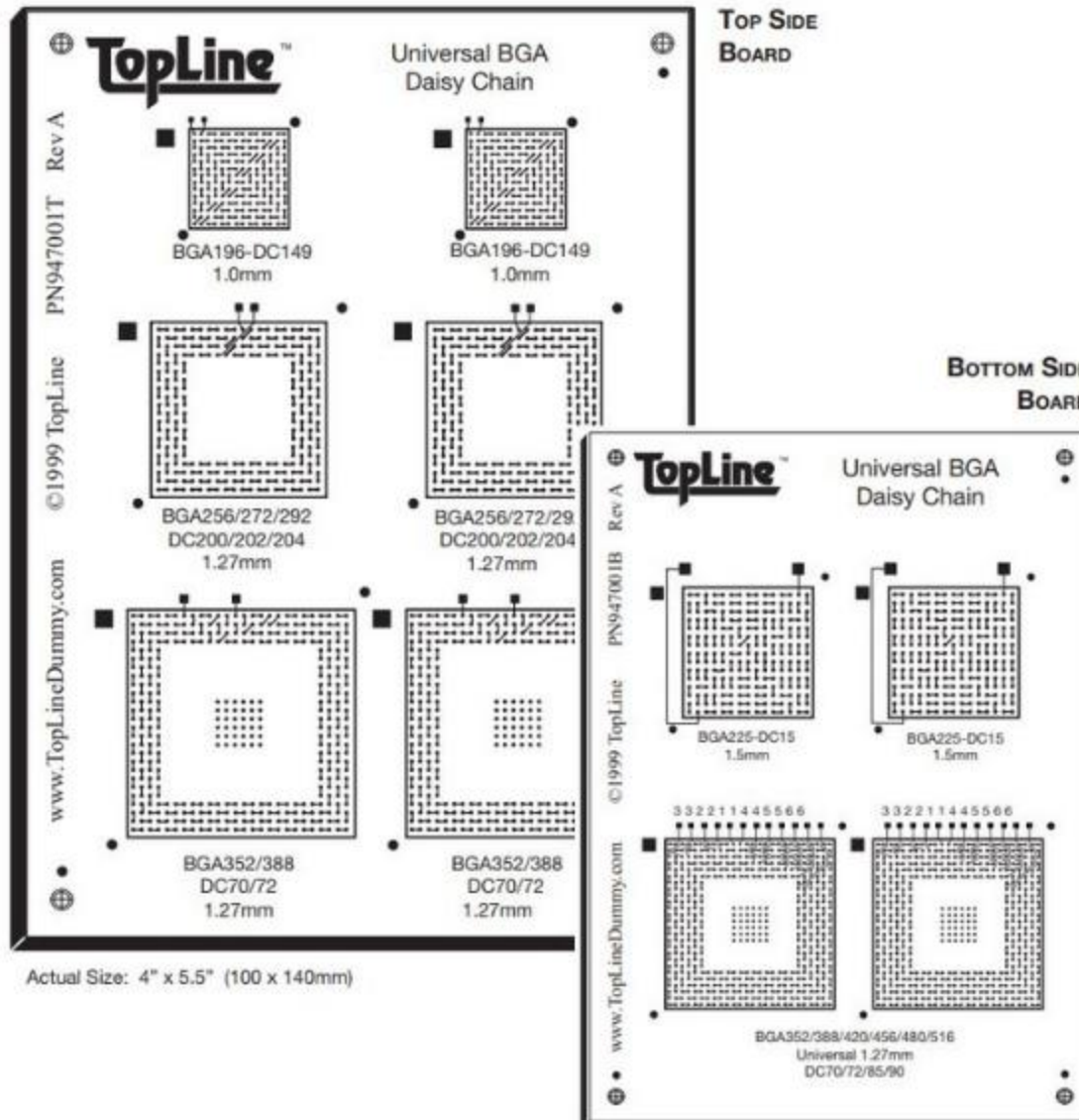


Kit Ordering Information

Component	Ball Pitch	Manual Assembly		Machine Run		
		Order Number 947000 1 Kit	Order Number 947010 10 Kits	Order Number 947025 25 Kits	Order Number 947050 50 Kits	Order Number 947100 100 Kits
Board		1	10	25	50	100
BGA196	1.0mm	2	20	50	100	200
BGA256	1.27mm	2	20	50	100	200
BGA352	1.27mm	2	20	50	100	200

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	10 Kits	25 Kits	50 Kits	100 Kits
Lead Free						
Sn - Tin	947002	947200	947210	947225	947250	947299
Ag - Silver	947006	947600	947610	947625	947650	947699
CU - OSP	947008	947800	947810	947825	947850	947899
Au - Gold	947009	947900	947910	947925	947950	947999
Standard						
SnPb-HASL	947001	947000	947010	947025	947050	947100



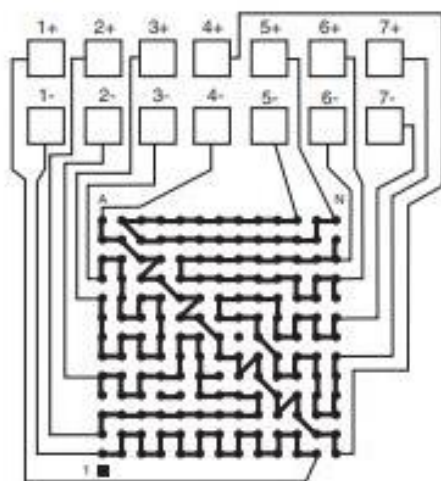
967 ### Series Kit

BGA169/BGA225 1.5mm Pitch

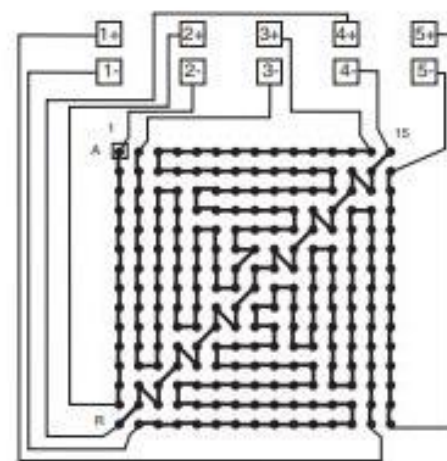


Kit Ordering Information

Component	Ball Pitch	Manual Assembly		Machine Run		
		Order Number 967000 1 Kit	Order Number 967012 12 Kits	Order Number 967025 25 Kits	Order Number 967050 50 Kits	Order Number 967100 100 Kits
Board		1	12	25	50	100
BGA 169	1.5mm	2	25	50	100	200
BGA 225	1.5mm	2	25	50	100	200



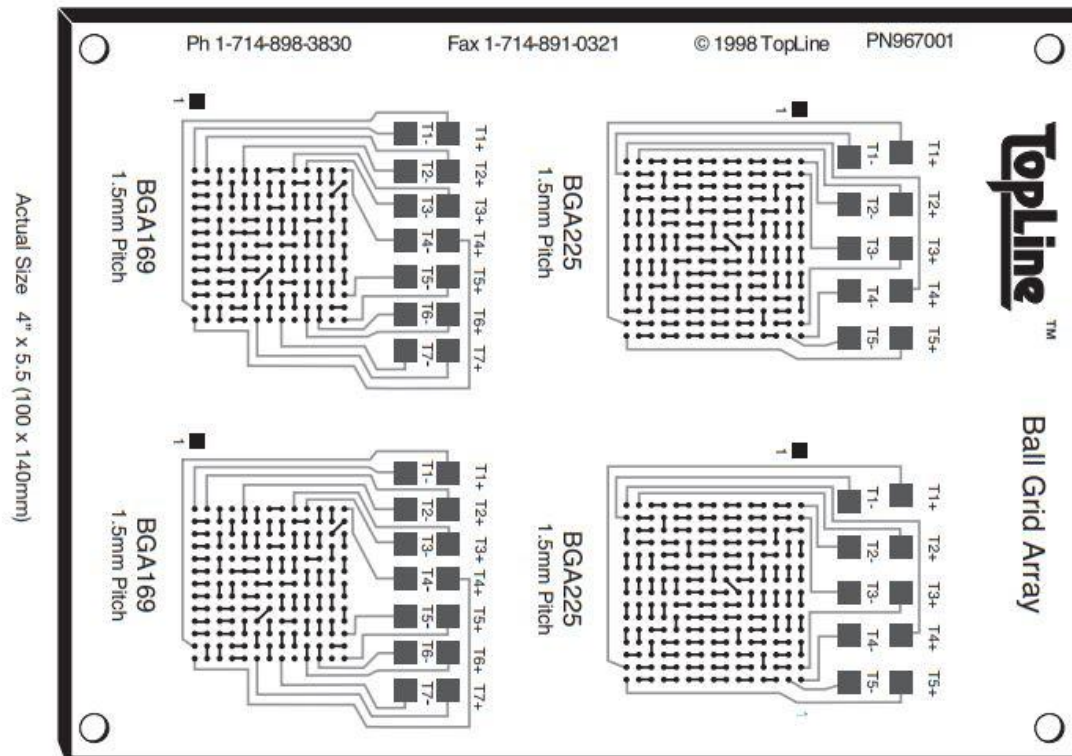
BGA169
AFTER MOUNTING TO TEST BOARD



BGA225
AFTER MOUNTING TO TEST BOARD

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	12 Kits	25 Kits	50 Kits	100 Kits
Lead Free						
Sn - Tin	967002	967200	967212	967225	967250	967299
Ag - Silver	967006	967600	967612	967625	967650	967699
CU - OSP	967008	967800	967812	967825	967850	967899
Au - Gold	967009	967900	967912	967925	967950	967999
Standard						
SnPb-HASL	967001	967000	967012	967025	967050	967100



946 ### Series Kit

BGA256/BGA272 1.27mm & 1.5mm Pitch



Kit Ordering Information

Component Selection	Ball Pitch	Manual Assembly	Machine Run	
		Order Number 946000 1 Kit	Order Number 946010 10 Kits	Order Number 946025 25 Kits
Board 946001	1.27/1.5 mm	1	10	25
BGA169 or BGA225	1.5mm	3	30	75
BGA256 or BGA352	1.27mm	4	40	100

Lead Free (Pb-Free) Option

Description	Spare Board	1 Kit	10 Kits	25 Kits	50 Kits	100 Kits
Lead Free						
Sn - Tin	946002	946200	946210	946225	946250	946299
Ag - Silver	946006	946600	946610	946625	946650	946699
CU - OSP	946008	946800	946810	946825	946850	946899
Au - Gold	946009	946900	946910	946925	946950	946999
Standard						
SnPb-HASL	946001	946000	946010	946025	946050	946100

