

Specifications

Insulation Resistance:	1,000M Ω min. at 100V DC
Dielectric Withstanding Voltage:	100V AC for 1 minute
Contact Resistance:	100m Ω max. at 10mA/20mV max.
Operating Temperature Range:	-40°C to +150°C / -55°C to +150°C
Contact Force:	15g per pin approx.
Mating Cycles:	10,000 insertions minimum

Materials and Finish

Housing: Polyetherimide (PEI), glass-filled
Polyethersulphone (PES), glass-filled
Contacts: Beryllium Copper (BeCu)
Plating: Gold over Nickel



Part Number (Details)

NP352 - 560 09 - * - *

Series No.

No. of Contact Pins

Design Number

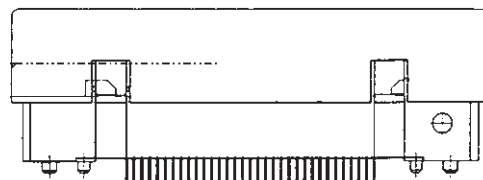
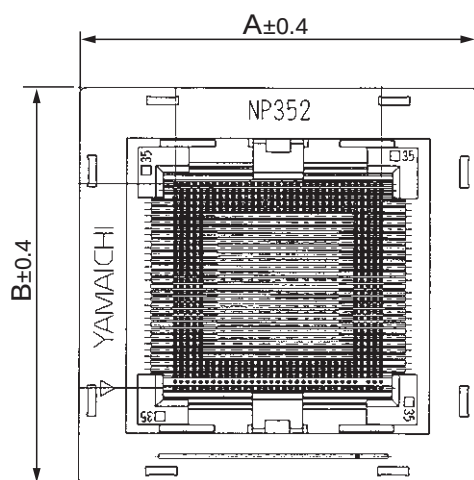
Mark for Positioning Pins

Contact Terminal Lengths and Form

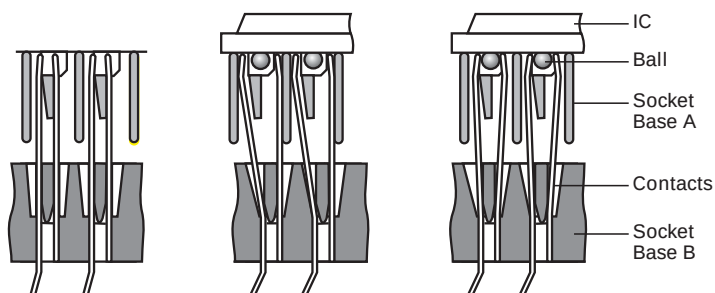
Features

- Open top type sockets with "Tweezer Style Contacts" For FBGA packages
- Secure package alignment due to self contacting structure without upper pressing force (ZIF)
- Contacting structure to nip the sides of solder balls to lower damages of coplanarity of solder balls

Outline Base Socket Dimensions



Yamaichi's 2-point Tweezer Contact

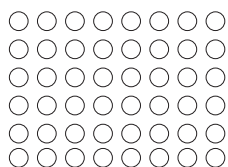


Since the solder balls are touched by two contacts on each side, the solder ball damage can be minimized; additional features are low actuation force and compact socket size

Applicable Dimensions

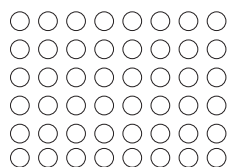
Part Number	Pin Count	IC Dimensions		Base Socket Dimensions A x B	BGA Layouts see page
		Grid Size	Body Size _(mm)		
NP352-04808	48	6 x 8	10 x 11	24.4 x 28.0	Page 3
NP352-04811	48	6 x 8	10 x 14	24.4 x 28.0	Page 3
NP352-04813	48	6 x 8	11 x 14	24.4 x 28.0	Page 3
NP352-256-81-*	256	16 x 16	17 x 17	39.0 x 39.0	Page 3
NP352-34534	345	21 x 21	23 x 23	62.0 x 62.0	Page 3
NP352-103 AC-29401	352	26 x 26	27 x 27	47.0 x 47.0	Page 3
NP352-56009 AC-19416	360	33 x 33	35 x 35	62.0 x 62.0	Page 5
NP352-66 AC-29556	388	26 x 26	27 x 27	62.0 x 62.0	Page 3
NP352-40025	400	29 x 29	31 x 31	62.0 x 62.0	Page 4
NP352-400-40	400	25 x 25	27 x 27	62.0 x 62.0	Page 3
NP352-432-44	432	25 x 25	27 x 27	62.0 x 62.0	Page 3
NP352-436-68	436	33 x 33	35 x 35	62.0 x 62.0	Page 5
NP352-48031 AC-21938	468	29 x 29	31 x 31	62.0 x 62.0	Page 4
NP352-456-66	456	26 x 26	27 x 27	62.0 x 62.0	Page 3
NP352-48031	480	29 x 29	31 x 31	62.0 x 62.0	Page 4
NP352-484-87-*-*	484	26 x 26	31 x 31	47.0 x 47.0	Page 4
NP352-484-98	484	22 x 22	23 x 23	62.0 x 62.0	Page 3
NP352-152124 AC-21918	513	39 x 39	40 x 40	62.0 x 62.0	Page 7
NP352-55212	552	29 x 29	31 x 31	62.0 x 62.0	Page 4
NP352-56009	560	33 x 33	35 x 35	62.0 x 62.0	Page 5
NP352-56009 AC-24855	560	33 x 33	35 x 35	62.0 x 62.0	Page 5
NP352-64819	648	33 x 33	35 x 35	62.0 x 62.0	Page 5
NP352-78832 AC-19367	660	38 x 38	40 x 40	62.0 x 62.0	Page 5
NP352-676-103	676	26 x 26	27 x 27	47.0 x 47.0	Page 4
NP352-1206-38AC-28934	677	36 x 36	37.5 x 37.5	55.8 x 55.8	Page 6
NP352-115523.AC-22615	680	34 x 34	35 x 35	62.0 x 62.0	Page 6
NP352-87-*-* AC-27191	696	30 x 30	31 x 31	47.0 x 47.0	Page 5
NP352-724-95	724	34 x 34	35 x 35	62.0 x 62.0	Page 6
NP352-87-1-1 AC-28845	764	30 x 30	31 x 31	47.0 x 47.0	Page 5
NP352-76814	768	38 x 38	40 x 40	62.0 x 62.0	Page 7
NP352-78832	788	38 x 38	40 x 40	62.0 x 62.0	Page 7
NP352-152124 AC-25245	792	39 x 39	40 x 40	62.0 x 62.0	Page 7
NP352-829-50	829	39 x 39	40 x 40	62.0 x 62.0	Page 7
NP352-83615	836	31 x 31	33 x 33	62.0 x 62.0	Page 5
NP352-1008-39	1008	43 x 43	45 x 45	74.0 x 74.0	Page 8
NP352-106426-*	1064	43 x 43	45 x 45	74.0 x 74.0	Page 8
NP352-115523	1155	34 x 34	35 x 35	62.0 x 62.0	Page 6
NP352-1206-38	1206	36 x 36	37.5 x 37.5	55.8 x 55.8	Page 6
NP352-129636	1296	36 x 36	37.5 x 37.5	62.0 x 62.0	Page 6
NP352-1296-52	1296	36 x 36	37.5 x 37.5	74.0 x 74.0	Page 6
NP352-152124	1521	39 x 39	40 x 40	62.0 x 62.0	Page 7
NP352-1521-53	1521	39 x 39	40 x 40	74.0 x 74.0	Page 7
NP352-160018	1600	41 x 41	42.5 x 42.5	74.0 x 74.0	Page 8
NP352-1600-54-*	1600	40 x 40	45 x 45	74.0 x 74.0	Page 8
NP352-1849-35	1849	43 x 43	45 x 45	74.0 x 74.0	Page 8
NP352-2116-71	2116	46 x 46	47.5 x 47.5	74.0 x 74.0	Page 8

Grid Size 6 x 8



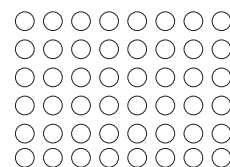
NP352-04808

Pin Count: 48 Body Size: 10x11
Base Socket Size: 24.4x28.0



NP352-04811

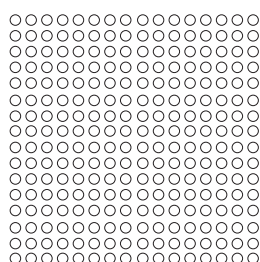
Pin Count: 48 Body Size: 10x14
Base Socket Size: 24.4x28.0



NP352-04813

Pin Count: 48 Body Size: 11x14
Base Socket Size: 24.4x28.0

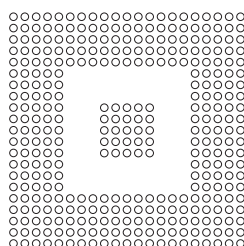
Grid Size 16 x 16



NP352-256-81

Pin Count: 256 Body Size: 17x17
Base Socket Size: 39.0 x 39.0

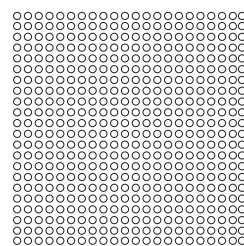
Grid Size 21 x 21



NP352-34534

Pin Count: 345 Body Size: 23x23
Base Socket Size: 62.0x62.0

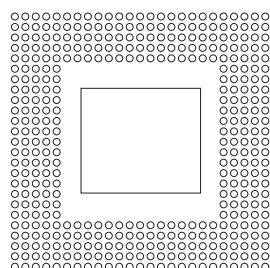
Grid Size 22 x 22



NP352-484-98

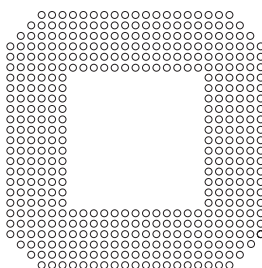
Pin Count: 484 Body Size: 23x23
Base Socket Size: 47.0x47.0

Grid Size 25 x 25



NP352-400-40

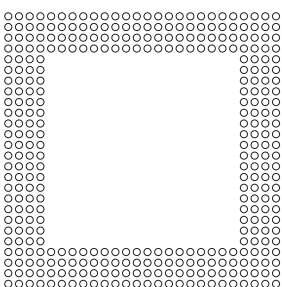
Pin Count: 400 Body Size: 27x27
Base Socket Size: 62.0 x 62.0



NP352-432-44

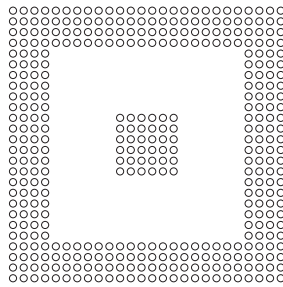
Pin Count: 432 Body Size: 27x27
Base Socket Size: 62.0 x 62.0

Grid Size 26 x 26



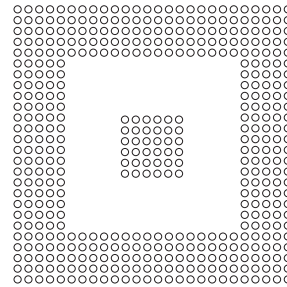
NP352-103 AC-29401

Pin Count: 352 Body Size: 27x27
Base Socket Size: 47.0x47.0



NP352-66 AC-29556

Pin Count: 388 Body Size: 27x27
Base Socket Size: 47.0x47.0



NP352-456-66

Pin Count: 456 Body Size: 27x27
Base Socket Size: 62.0x62.0

Continued ▶

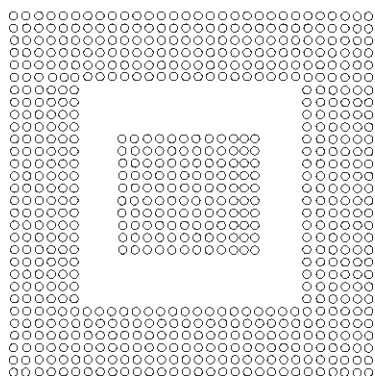
NP352 Series (Open Top)

Fine Ball Grid Array (FBGA, 1.00mm Pitch)

Grid Size 26 x 26	
NP352-484-87 Pin Count: 484 Body Size: 31x31 Base Socket Size: 62.0x62.0	NP352-676-103 Pin Count: 676 Body Size: 27x27 Base Socket Size: 47.0x47.0

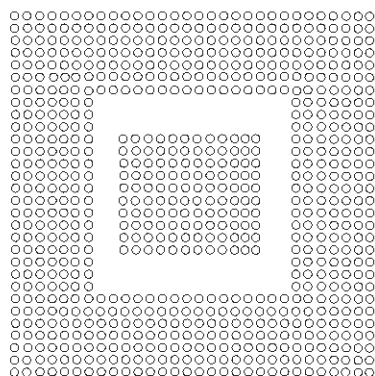
Grid Size 29 x 29		
NP352-40025 Pin Count: 400 Body Size: 31x31 Base Socket Size: 62.0x62.0	NP352-48031 AC-21938 Pin Count: 468 Body Size: 31x31 Base Socket Size: 62.0x62.0	NP352-48031 Pin Count: 480 Body Size: 31x31 Base Socket Size: 62.0x62.0
NP352-55212 Pin Count: 552 Body Size: 31x31 Base Socket Size: 62.0x62.0		

Grid Size 30 x 30



NP352-87 AC-27191

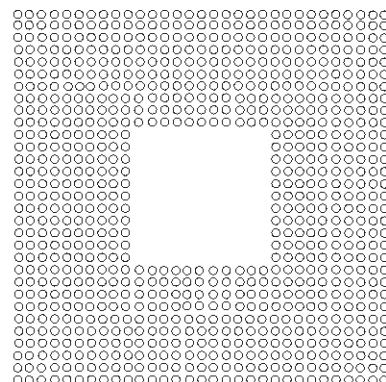
Pin Count: 696 Body Size 31x31
Base Socket Size: 47.0x47.0



NP352-87-1-1 AC-28845

Pin Count: 764 Body Size: 31x31
Base Socket Size: 47.0x47.0

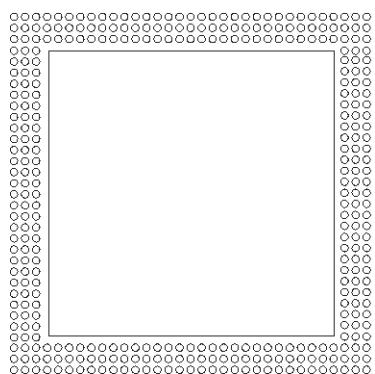
Grid Size 31 x 31



NP352-83615

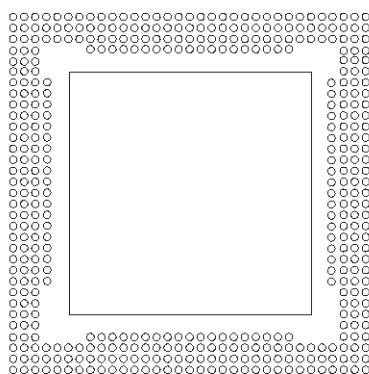
Pin Count: 836 Body Size 33x33
Base Socket Size: 62.0x62.0

Grid Size 33 x 33



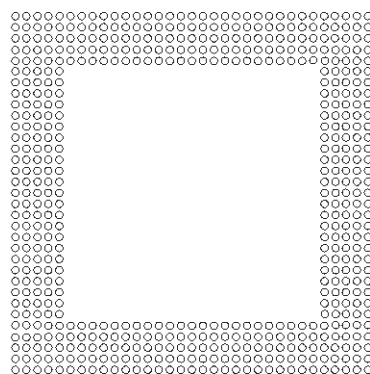
NP352-56009 AC-19416

Pin Count: 360 Body Size 35x35
Base Socket Size: 62.0x62.0



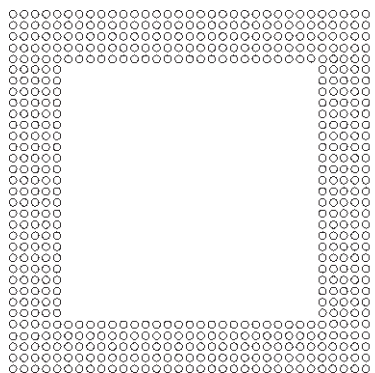
NP352-436-68

Pin Count: 436 Body Size 35x35
Base Socket Size: 62.0x62.0



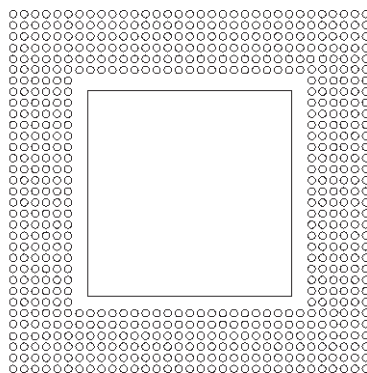
NP352-56009

Pin Count: 560 Body Size 35x35
Base Socket Size: 62.0x62.0



NP352-56009 AC-24855

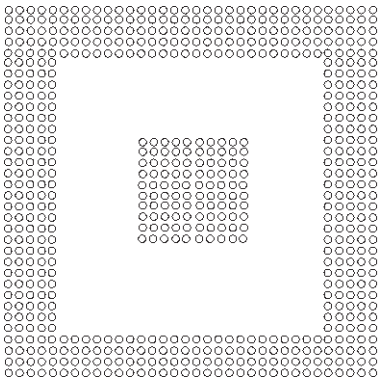
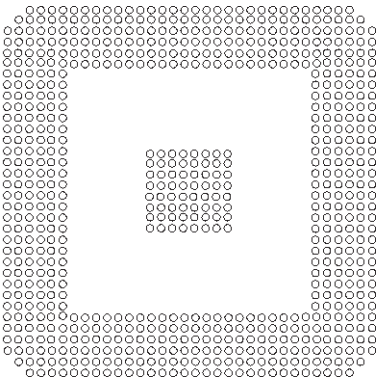
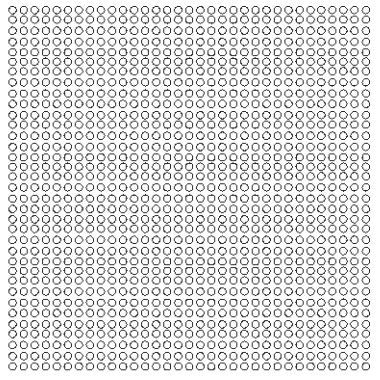
Pin Count: 560 Body Size 35x35
Base Socket Size: 62.0x62.0



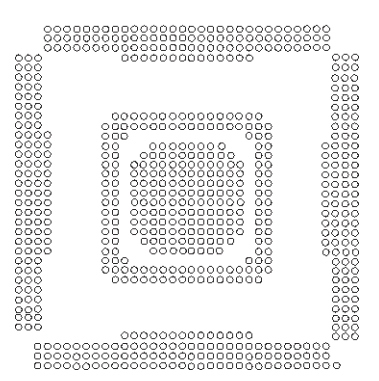
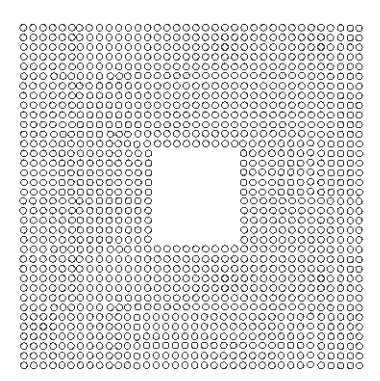
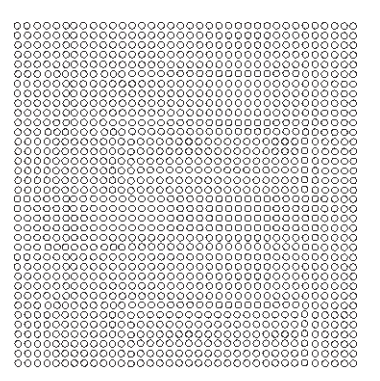
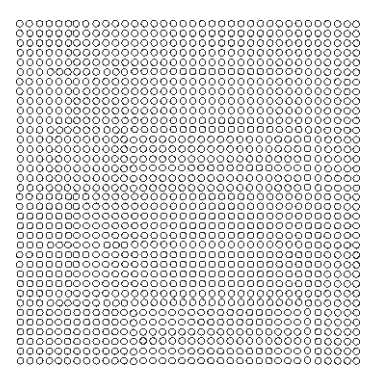
NP352-64819

Pin Count: 648 Body Size 35x35
Base Socket Size: 62.0x62.0

Grid Size 34 x 34

		
NP352-115523 AC-22615 Pin Count: 680 Body Size 35x35 Base Socket Size: 62.0x62.0	NP352-724-95 Pin Count: 724 Body Size 35x35 Base Socket Size: 62.0x62.0	NP352-115523 Pin Count:1155 Body Size 35x35 Base Socket Size: 62.0x62.0

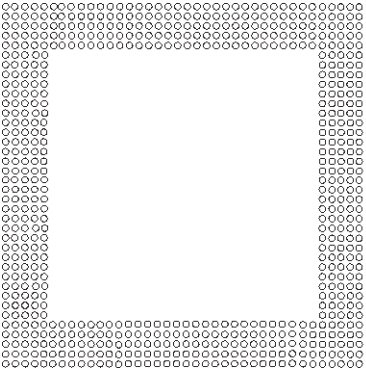
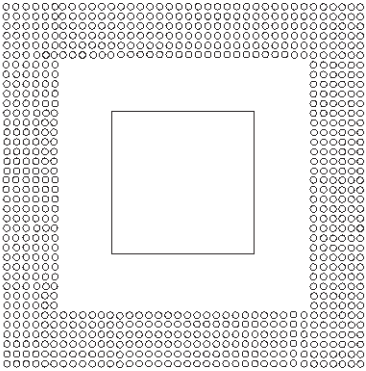
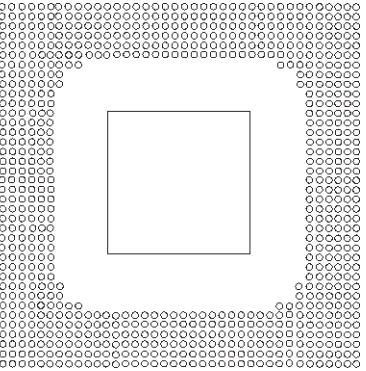
Grid Size 36 x 36

		
NP352-1206-38 AC-28934 Pin Count: 677 Body Size 37.5x37.5 Base Socket Size: 62.0x62.0	NP352-1206-38 Pin Count:1206 Body Size:37.5x37.5 Base Socket Size: 62.0x62.0	NP352-129636 Pin Count:1296 Body Size 37.5x37.5 Base Socket Size: 62.0x62.0
		
NP352-129652 Pin Count:1296 Body Size 37.5x37.5 Base Socket Size: 74.0x74.0		

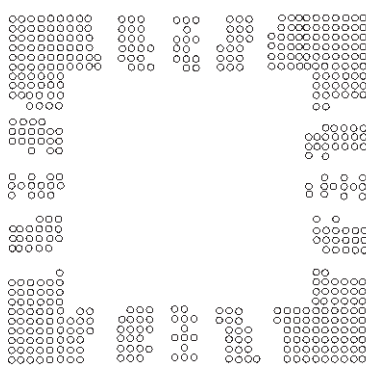
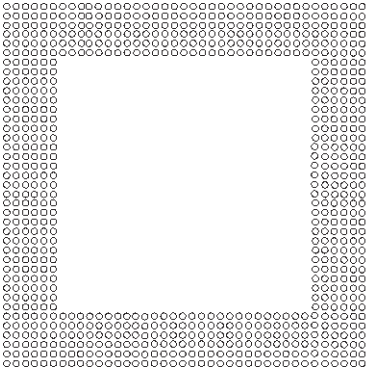
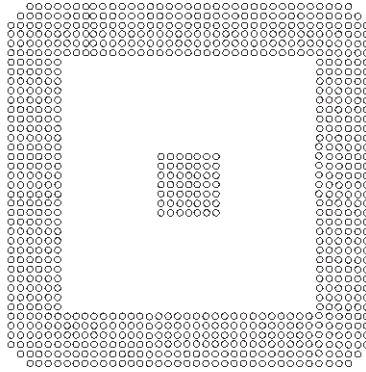
NP352 Series (Open Top)

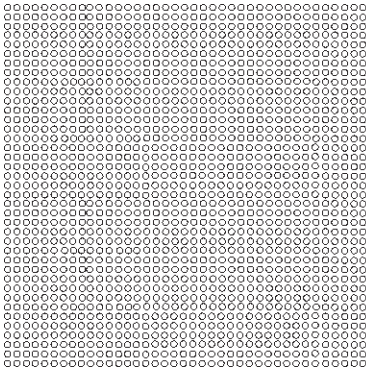
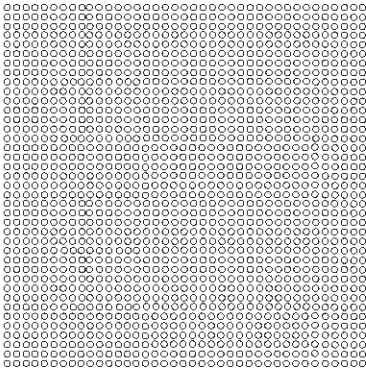
Fine Ball Grid Array (FBGA, 1.00mm Pitch)

Grid Size 38 x 38

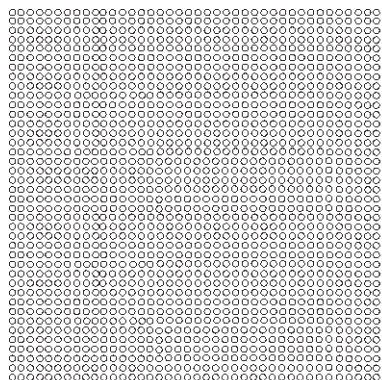
		
NP352-78832 AC-19367	NP352-76814	NP352-78832
Pin Count: 660 Body Size: 40x40 Base Socket Size: 62.0x62.0	Pin Count: 768 Body Size: 40x40 Base Socket Size: 62.0x62.0	Pin Count: 788 Body Size: 40x40 Base Socket Size: 62.0x62.0

Grid Size 39 x 39

		
NP352-152124 AC-21918	NP352-152124 AC-25245	NP352-829-50
Pin Count: 513 Body Size: 40x40 Base Socket Size: 62.0x62.0	Pin Count: 792 Body Size: 40x40 Base Socket Size: 62.0x62.0	Pin Count: 829 Body Size: 40x40 Base Socket Size: 62.0x62.0

	
NP352-152124	NP352-1521-53
Pin Count: 1521 Body Size: 40x40 Base Socket Size: 62.0x62.0	Pin Count: 1521 Body Size: 40x40 Base Socket Size: 74.0x74.0

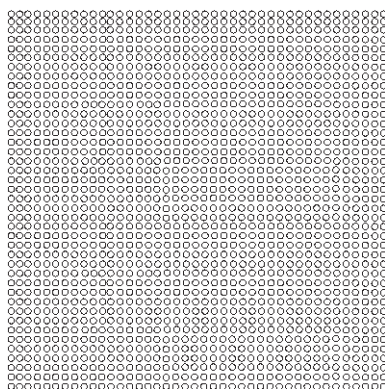
Grid Size 40 x 40



NP352-1600-54-*

Pin Count: 1600 Body Size 45x45
Base Socket Size: 74.0x74.0

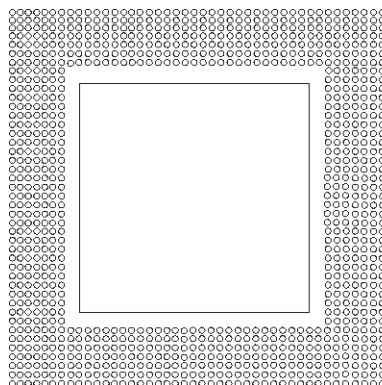
Grid Size 41 x 41



NP352-160018

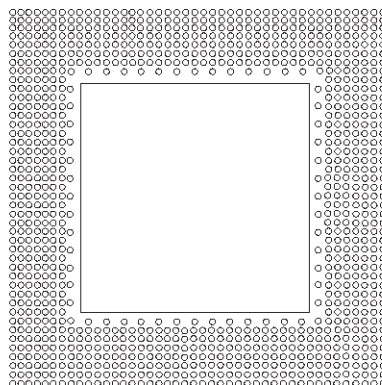
Pin Count:1600 Body Size:42.5x42.5
Base Socket Size: 74.0x74.0

Grid Size 43 x 43



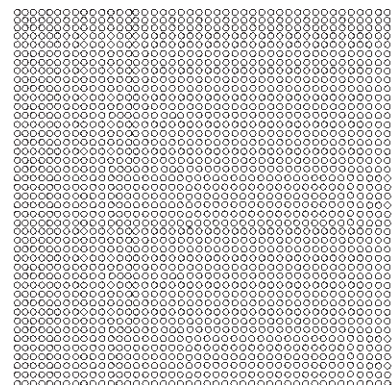
NP352-1008-39

Pin Count:1008 Body Size 45x45
Base Socket Size: 74.0x74.0



NP352-106426

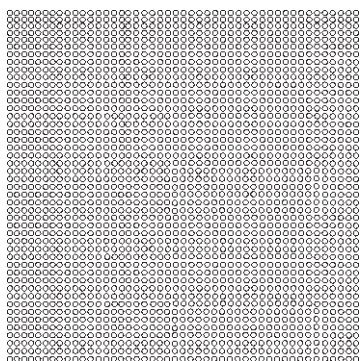
Pin Count:1064 Body Size: 45x45
Base Socket Size: 74.0x74.0



NP352-1849-35

Pin Count:1849 Body Size:45x45
Base Socket Size: 74.0x74.0

Grid Size 46 x 46



NP352-2116-71

Pin Count:2116 Body Size 47.5x47.5
Base Socket Size: 74.0x74.0