

Specifications

Insulation Resistance:	1,000MΩ min. at 100V DC
Dielectric Withstanding Voltage:	100V AC for 1 minute
Contact Resistance:	100mΩ 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

Part Number (Details)

NP352 - 560 09 - * - *

Series No.

No. of Contact Pins

Design Number

Mark for Positioning Pins

Contact Terminal Lengths and Form

Materials and Finish

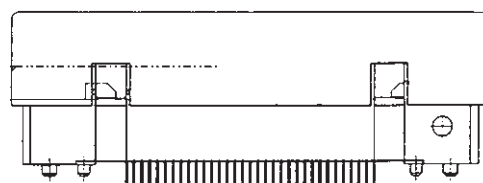
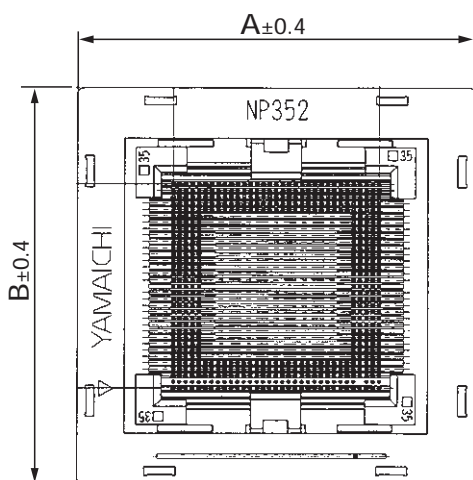
Housing: Polyetherimide (PEI), glass-filled
Polyethersulphone (PES), glass-filled
Contacts: Beryllium Copper (BeCu)
Plating: Gold over Nickel



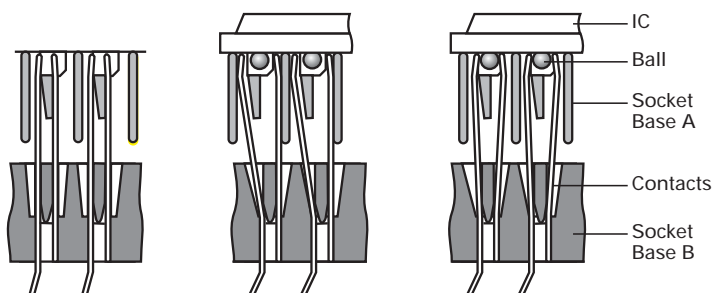
Features

- ⇨ 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

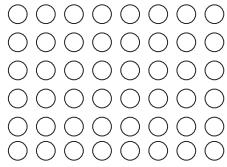
Applicable Dimensions

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

NP352 Series (Open Top)

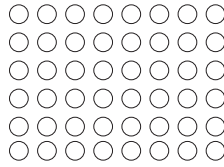
Fine Ball Grid Array (FBGA, 1.00mm Pitch)

Grid Size 6 x 8



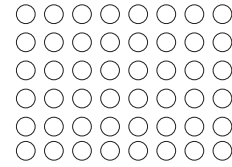
NP352-04808

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



NP352-04811

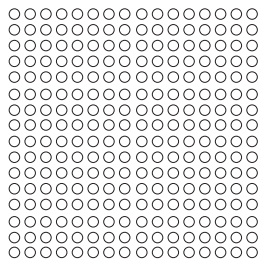
Pin Count: 48 Body Size: 10x14
Base Socket Size: 24.4x28.0



NP352-04813

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

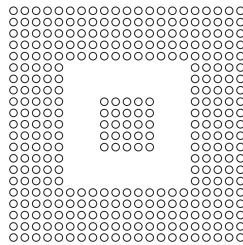
Grid Size 16 x 16



NP352-256-81

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

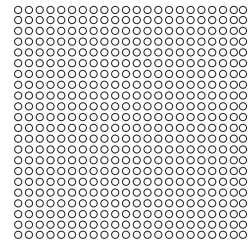
Grid Size 21 x 21



NP352-34534

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

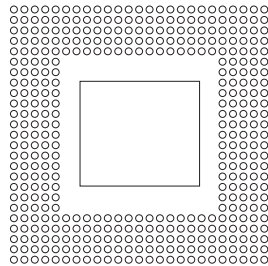
Grid Size 22 x 22



NP352-484-98

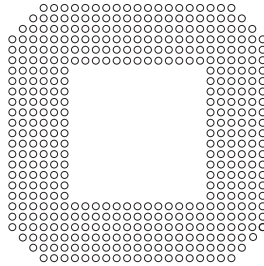
Pin Count: 484 Body Size: 23x23
Base Socket Size: 47.0x47.0

Grid Size 25 x 25



NP352-400-40

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

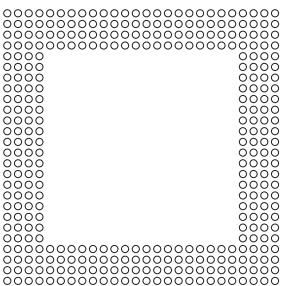


NP352-432-44

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

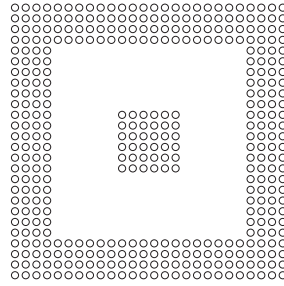
Grid Size 26 x 26

Continued ▶



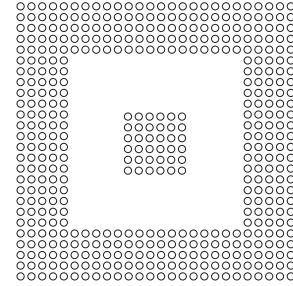
NP352-103 AC-29401

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



NP352-66 AC-29556

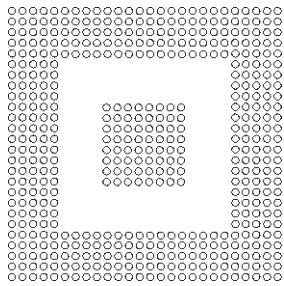
Pin Count: 388 Body Size: 27x27
Base Socket Size: 62.0x62.0



NP352-456-66

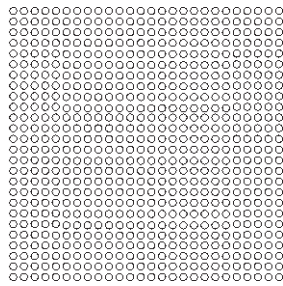
Pin Count: 456 Body Size: 27x27
Base Socket Size: 62.0x62.0

Grid Size 26 x 26



NP352-484-87

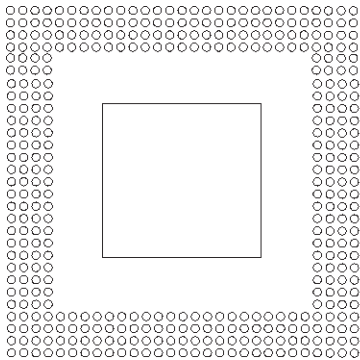
Pin Count: 484 Body Size: 31x31
Base Socket Size: 62.0x62.0



NP352-676-103

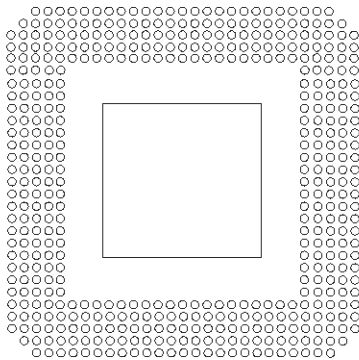
Pin Count: 676 Body Size: 27x27
Base Socket Size: 47.0x47.0

Grid Size 29 x 29



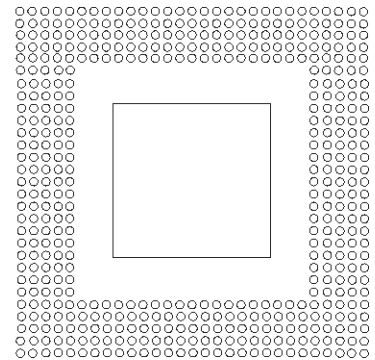
NP352-40025

Pin Count: 400 Body Size: 31x31
Base Socket Size: 62.0x62.0



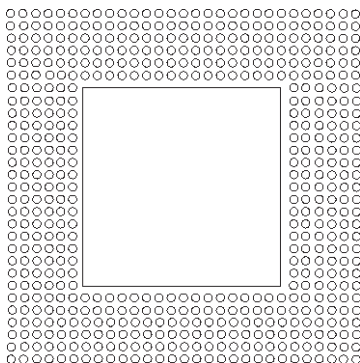
NP352-48031 AC-21938

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



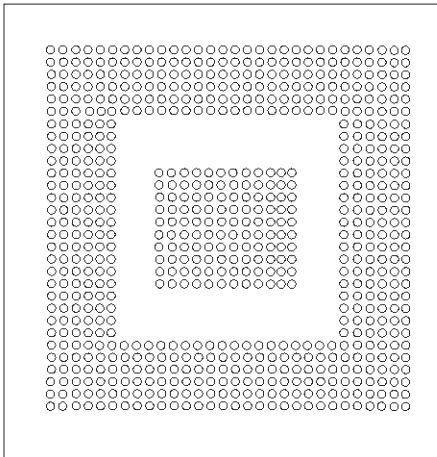
NP352-55212

Pin Count: 552 Body Size: 31x31
Base Socket Size: 62.0x62.0

NP352 Series (Open Top)

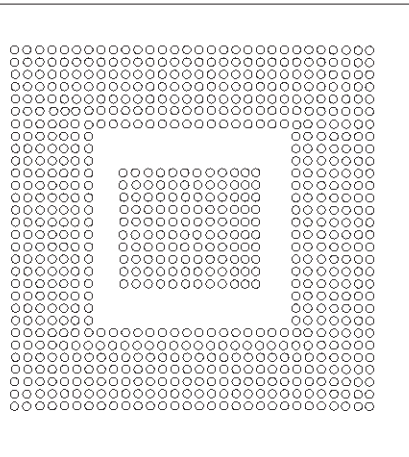
Fine Ball Grid Array (FBGA, 1.00mm Pitch)

Grid Size 30 x 30



NP352-87 AC-27191

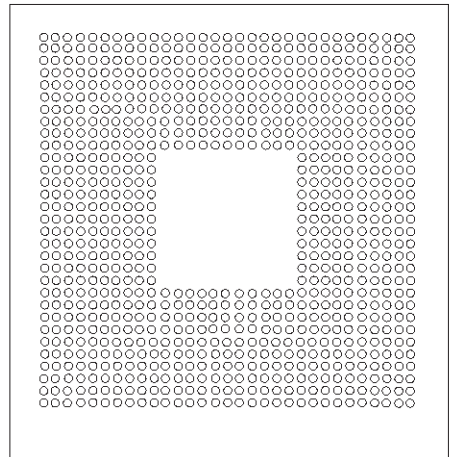
Pin Count: 696 Body Size 31x31
Base Socket Size: 47.0x47.0



NP352-87-1-1 AC-28845

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

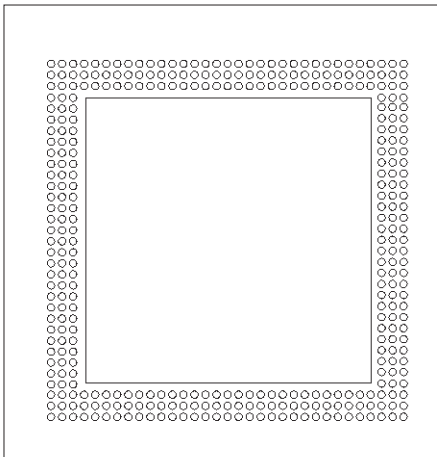
Grid Size 31 x 31



NP352-83615

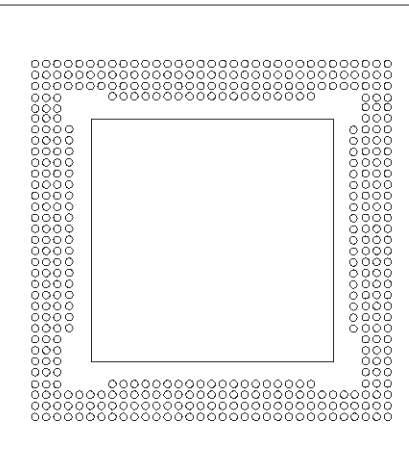
Pin Count: 836 Body Size 33x33
Base Socket Size: 62.0x62.0

Grid Size 33 x 33



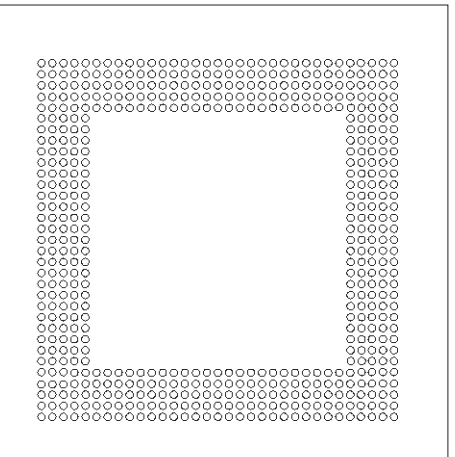
NP352-56009 AC-19416

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



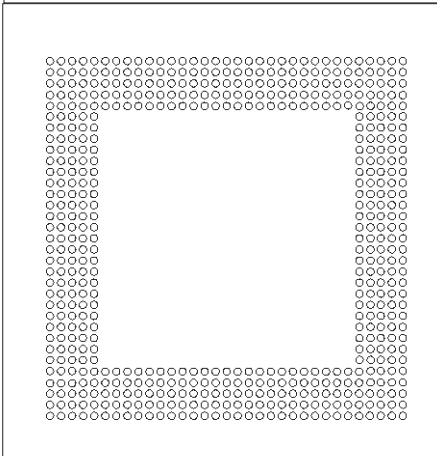
NP352-436-68

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



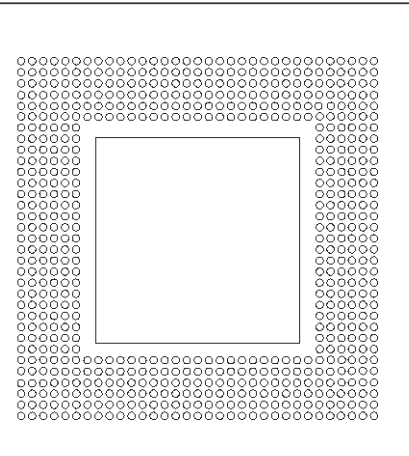
NP352-56009

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



NP352-56009 AC-24855

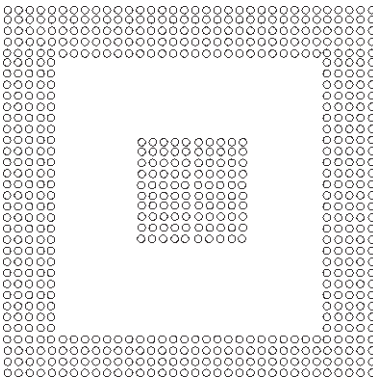
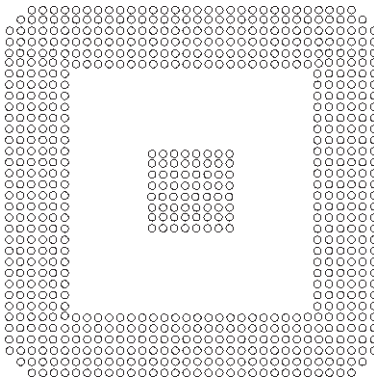
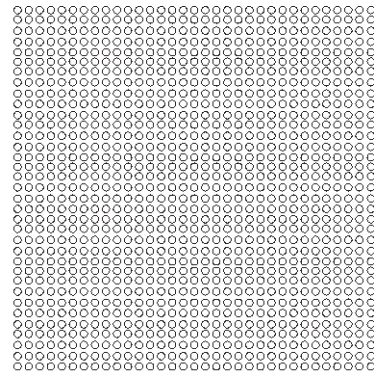
Pin Count: 560 Body Size 35x35
Base Socket Size: 62.0x62.0



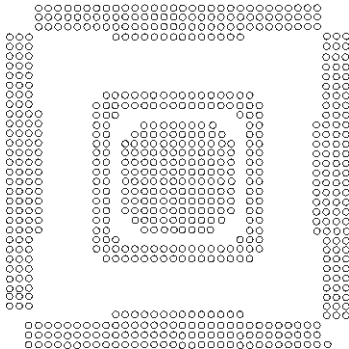
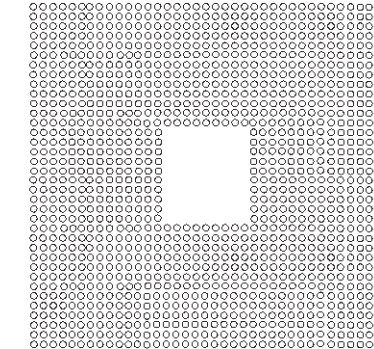
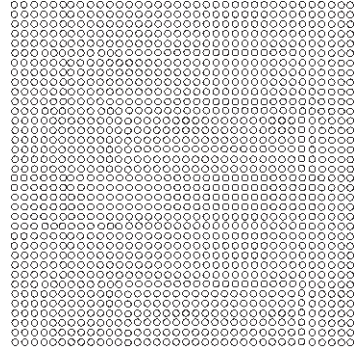
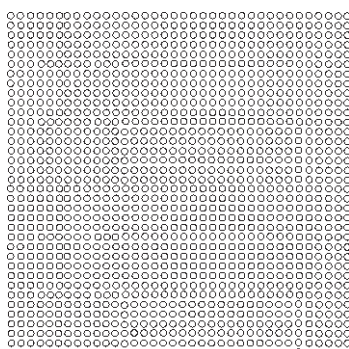
NP352-64819

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

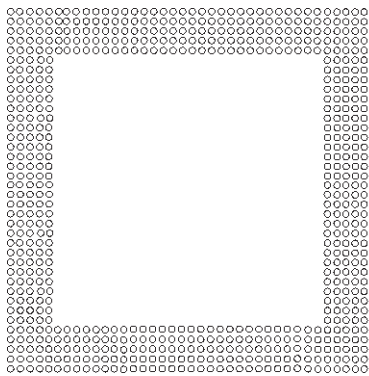
Grid Size 34 x 34

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

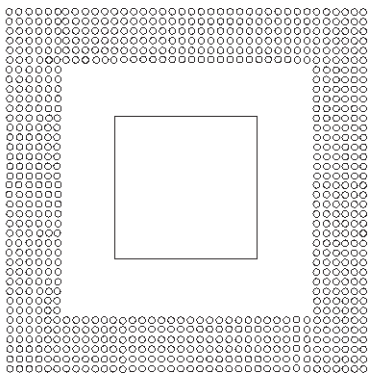
Grid Size 36 x 36

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

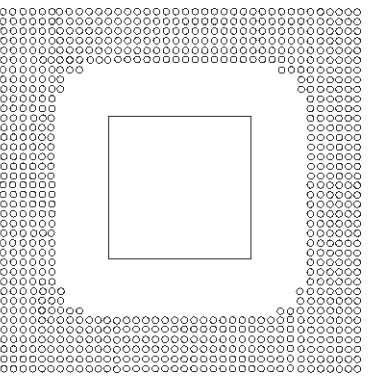
Grid Size 38 x 38



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

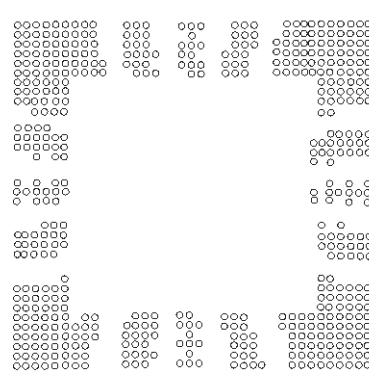


NP352-76814
 Pin Count: 768 Body Size: 40x40
 Base Socket Size: 62.0x62.0

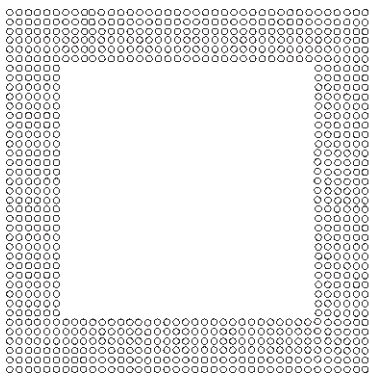


NP352-78832
 Pin Count: 788 Body Size: 40x40
 Base Socket Size: 62.0x62.0

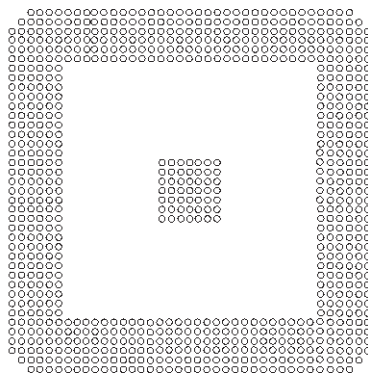
Grid Size 39 x 39



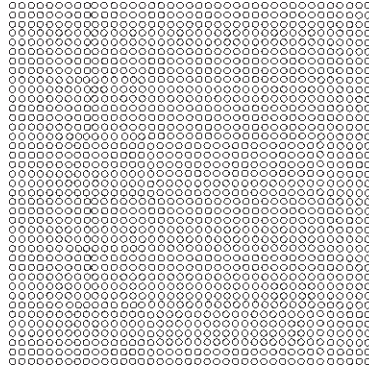
NP352-152124 AC-21918
 Pin Count: 513 Body Size: 40x40
 Base Socket Size: 62.0x62.0



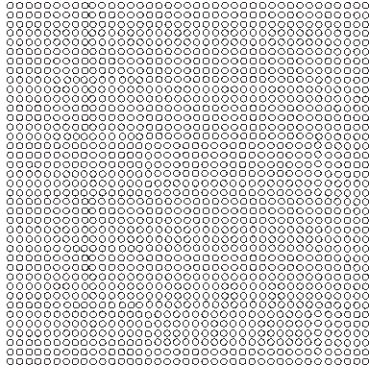
NP352-152124 AC-25245
 Pin Count: 792 Body Size: 40x40
 Base Socket Size: 62.0x62.0



NP352-829-50
 Pin Count: 829 Body Size: 40x40
 Base Socket Size: 62.0x62.0

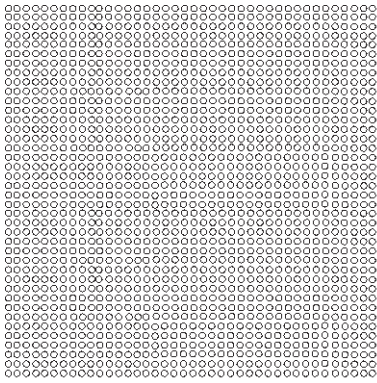


NP352-152124
 Pin Count: 1521 Body Size: 40x40
 Base Socket Size: 62.0x62.0



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

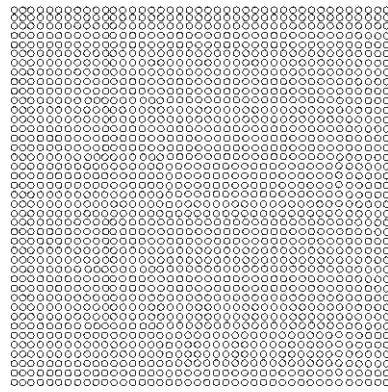
Grid Size 40 x 40



NP352-1600-54-*

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

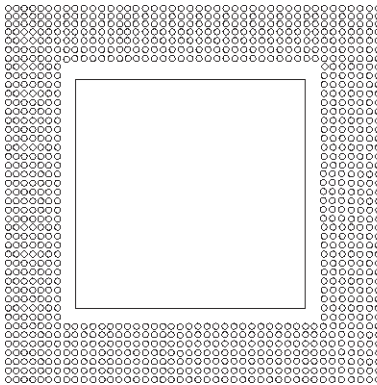
Grid Size 41 x 41



NP352-160018

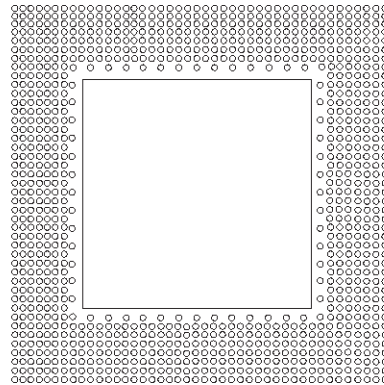
Pin Count:1600 Body Size:42.5x42.5
Base Socket Size: 74.0x74.0

Grid Size 43 x 43



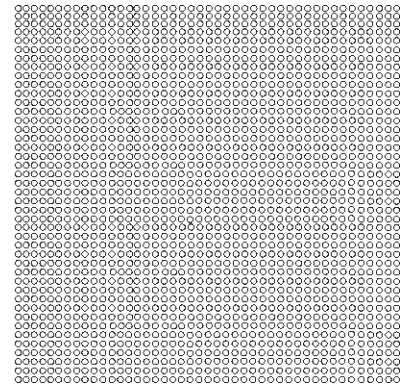
NP352-1008-39

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



NP352-106426

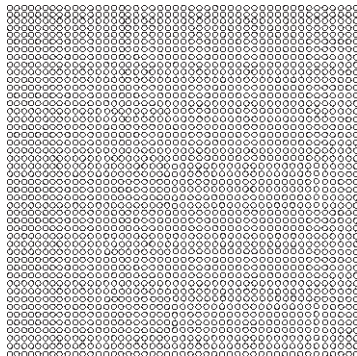
Pin Count:1064 Body Size: 45x45
Base Socket Size: 74.0x74.0



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