

SOCKETS - BGA (BPE)BASE PACKAGE EMULATORS

LOW COST SOCKET SYSTEM

ET's Base Package Emulators (BPE) are a reliable, cost-effective alternative to soldering BGA devices directly to the PCB. These BPEs enable a BGA device to be plugged into a socket matching the BGA's device. The design provides results that are equivalent to direct PCB attach. These BPE sockets are an integral part of ET's BGA Socketing System.

FEATURES & BENEFITS

- Very low inductance
- Protects valuable PC boards and subjects device to lower thermal stress
- Same footprint as BGA device
- Compact & easy to integrate into designs
- Customs available upon request

APPLICATIONS

- Development
- Debug
 - Hand Test
- Programming/Test
 - Qualification
 - Production

BALL PITCH

- 1.27mm, 1.00mm, 0.80mm

GRID SIZES

- 6X8 through 44X44

NOTE: Manufacturer's chip package drawing required with each order.

Emulation Technology Recommends:

Try our Extender (XPA) Sockets...

to solve your BGA probing needs. Our XPA sockets are an integral part of our BGA Socket & Probing System

Web Link: www.1800adapter.com/121

Try our Flat Pin Array (FPA) Sockets...

to solve your BGA probing needs. Our FPA sockets are an integral part of our BGA Socket & Probing System

Web Link: www.1800adapter.com/122

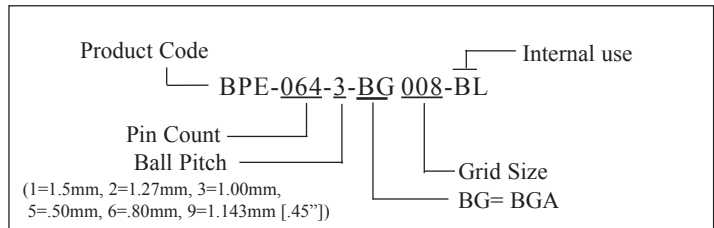
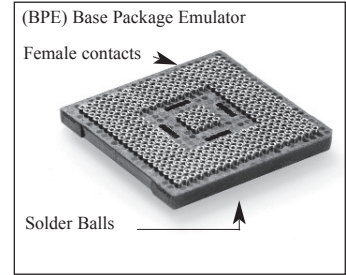
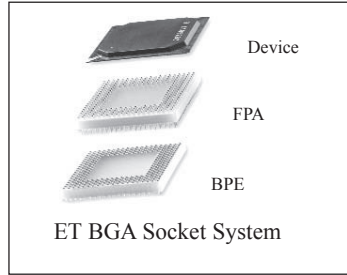
Try our Chip Quik® SMD Removal Kit

Speeds up SMD removal without requiring expensive equipment or risking the use of heat guns.

Web Link: www.1800adapter.com/046

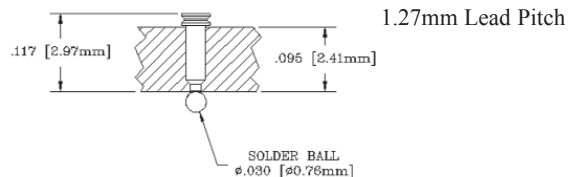
For a complete list of BPE Ssocket specifications, pricing and delivery information, please see:

Web Link: www.1800adapter.com/123



Materials

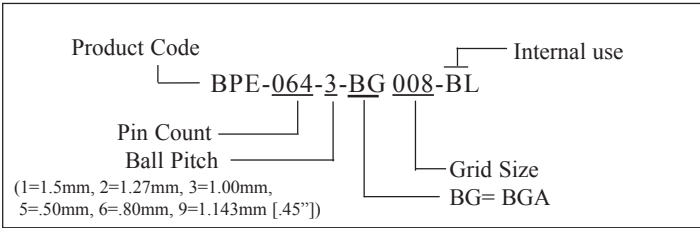
Terminals	Brass; copper alloy (C36000) ASTM-B-16
Contacts	Beryllium Copper; Copper Alloy (C17200), ASTM-B-194
Plating	Gold over nickel
Body Material	Molded or FR4
Solder Ball	63Sn/37Pb, Eutectic, 183 degrees C
Temperature Life	
U.L. Rated 94V-0	-60 degrees C to 260 degrees C



BPE

Pin Count	Ball Pitch (mm)	Grid Size	ET Part #	Drawing #
48	0.80	6X8	BPE-0048-6BG6X8-BL	F1082
49	0.80	7X7	BPE-049-6BG007-BL	F1098
64	1.00	8X8	BPE-0064-3BG008-BL	F6681
66	0.80	8X12	BPE-066-6BG8X12-BL	F6852
80	0.80	10X10	BPE-080-6BG010-BL	F6723
100	0.80	10X10	BPE-0100-6BG010-BL	F6414
100	0.80	11X11	BPE-0100-6BG011-BL	F6366
100	1.00	10X10	BPE-0100-3BG010-BL	F6055
108	1.00	12X12	BPE-0108-3BG012-BL	F6870
119	1.27	7X17	BPE-0119-2BG7X17-BL	F6369
121	0.80	11X11	BPE-121-6BG011-BL	F6871
128	0.80	12X12	BPE-128-6BG012-BL	F6872
144	0.80	12X12	BPE-0144-6BG012-BL	F6808
144	0.80	13X13	BPE-0144-6BG013-BL	F5935
144	1.00	12X12	BPE-0144-3BG012-BL	F3483
156	1.00	14X14	BPE-0156-3BG014-BL	F5367
160	0.80	14X14	BPE-0160-6BG014-BL	F1353
160	1.00	14X14	BPE-0160-3BG014-BL	F5557
176	0.80	15X15	BPE-0176-6BG015-BL	F6626
180	0.80	14X14	BPE-0180-6BG014-BL	SKT1394
196	1.00	14X14	BPE-0196-3BG014-BL	F5383
196	1.00	16X16	BPE-0196-3BG016-BL	F5982
208	0.80	17X17	BPE-0208-6BG017-BL	F5695
208	1.00	16X16	BPE-0208-3BG016-BL	F5983
208	1.27	17X17	BPE-0208-2BG017-BL	F6370

BGA (BPE)BASE PACKAGE EMULATORS - SOCKETS



For a complete list of BPE Socket specifications, pricing and delivery information, please see:

Web Link:
www.1800adapter.com/123

SOCKETS & RECEPTACLES:
TEST & BURN-IN, PRODUCTION

BPE (cont.)

Pin Count	Ball Pitch (mm)	Grid Size	ET Part #	Drawing #
217	1.27	17X17	BPE-0217-2BG017-BL	F6371
225	1.27	15X15	BPE-0225-2BG015-BL	F6373
225	1.50	15X15	BPE-0225-1BG015-BL	F6372
233	1.27	17X17	BPE-0233-2BG017-BL	F6374
233	1.27	17X17	BPE-0233-2BG017-BL-1	F6862
233	1.27	17X17	BPE-0233-2BG017-BL-HL	F6817
241	1.27	17X17	BPE-0241-2BG017-BL	F6375
244	1.27	16X16	BPE-0244-2BG016-BL	F6873
255	1.27	16X16	BPE-0255-2BG016-BL	F6376
255	1.27	21X21	BPE-0255-2BG021-BL	F4472
256	0.80	20X20	BPE-0256-6BG020-BL	F6744
256	1.00	16X16	BPE-0256-3BG016-BL	F6060
256	1.27	16X16	BPE-0256-2BG016-BL	F6377
256	1.27	20X20	BPE-0256-2BG020-BL	F6063
256	1.27	23X23	BPE-0256-2BG023-BL	F6378
259	1.00	18X18	BPE-0259-3BG018-BL	F6754
272	1.27	20X20	BPE-0272-2BG020-BL	F3487
272	1.27	21X21	BPE-0272-2BG021-BL	F6379
280	0.80	19X19	BPE-0280-6BG019-BL	F6247
281	0.80	19X19	BPE-0281-6BG019-BL	F5984
288	0.80	19X19	BPE-0288-6BG019-BL	F6820
292	1.27	20X20	BPE-0292-2BG020-BL	F6381
300	1.00	20X20	BPE-0300-3BG020-BL	F6874
304	1.27	23X23	BPE-0304-2BG023-BL	F6382
304	1.27	16X19	BPE-0304-2BG16X19-BL	F4472
313	1.27	25X25	BPE-0313-2BG025-BL	F6952
316	1.27	20X20	BPE-0316-2BG020-BL	F6386
316	1.27	24X24	BPE-0320-2BG024-BL	F6387
324	1.00	18X18	BPE-0324-3BG018-BL	F6066
324	1.00	22X22	BPE-0324-3BG022-BL	F5985
324	1.27	20X20	BPE-0324-2BG020-BL	F6388
329	1.27	23X23	BPE-0329-2BG023-BL	F6875
342	1.27	24X24	BPE-0342-2BG024-BL	F4472
352	1.27	26X26	BPE-0352-2BG026-BL	F6084
352	1.27	31X31	BPE-0352-2BG031-BL	F4472
356	1.27	26X26	BPE-0356-2BG026-BL	F6069
357	1.27	19X19	BPE-0357-2BG019-BL	F6953
360	1.27	19X19	BPE-0360-2BG019-BL	F6390
360	1.27	23X23	BPE-0360-2BG023-BL	F6391
361	1.27	19X19	BPE-0361-2BG019-BL	F6392
361	1.27	25X25	BPE-0361-2BG025-BL	F4472
368	1.27	26X26	BPE-0368-2BG026-BL	F6393
372	1.27	20X20	BPE-0372-2BG020-BL	F6394

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to solve your BGA probing needs. Our FPA sockets are an integral part of our BGA Socket & Probing System

Web Link: www.1800adapter.com/122

Try our HiLo Flexible Interconnect System

New connector design incorporates the highs, the lows, and the application flexibility your BGA design demands.

Web Link: www.1800adapter.com/124

For a complete list of BPE Socket specifications, pricing and delivery information, please see:

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BPE (cont.)

Pin Count	Ball Pitch (mm)	Grid Size	ET Part #	Drawing #
379	1.27	24X24	BPE-0379-2BG024-BL	F4472
387	1.27	26X26	BPE-0387-2BG026-BL	F6395
388	1.00	26X26	BPE-0388-3BG026-BL	F6397
388	1.27	26X26	BPE-0388-2BG026-BL	F3492
400	1.27	20X20	BPE-0400-2BG020-BL	F6396
413	1.00	23X23	BPE-0413-3BG023-BL	F6157
420	1.27	26X26	BPE-0420-2BG026-BL	F6398
421	1.27	23X23	BPE-0421-2BG023-BL	F6399
432	1.27	15X15	BPE-0432-2BG015-BL	F4472
432	1.27	24X24	BPE-0432-2BG024-BL	F6401
432	1.27	31X31	BPE-0432-2BG031-BL	F6155
452	1.27	26X26	BPE-0452-2BG026-BL	F6571
456	1.00	22X22	BPE-0456-3BG023-BL	F6826
456	1.00	26X26	BPE-0456-3BG026-BL	F6876
456	1.27	26X26	BPE-0456-2BG026-BL	F6249
460	1.27	28X28	BPE-0460-2BG028-BL	F6877
472	1.27	22X22	BPE-0472-2BG022-BL	F6402
474	1.27	19X25	BPE-0474-2BG19X25-BL	F6878
479	1.27	29X29	BPE-0479-2BG029-BL	F4472
480	1.27	26X26	BPE-0480-2BG026-BL	F6403
480	1.27	29X29	BPE-0480-2BG029-BL	F6404
483	1.27	22X22	BPE-0483-2BG022-BL	F6368
484	1.00	22X22	BPE-0484-3BG022-BL	F6072
484	1.00	26X26	BPE-0484-3BG026-BL	F6405
492	1.27	26X26	BPE-0492-2BG026-BL	F6049
500	1.27	30X30	BPE-0500-2BG030-BL	F6406
503	1.27	29X29	BPE-0503-2BG029-BL	F5513
505	1.27	26X26	BPE-0505-2BG026-BL	F5521
510	1.27	26X26	BPE-0510-2BG026-BL	F6407
516	1.27	26X26	BPE-0516-2BG026-BL	F6248
520	1.27	26X26	BPE-0520-2BG026-BL	F6954
528	1.27	30X30	BPE-0528-2BG030-BL	F6143
552	1.00	24X24	BPE-0552-3BG024-HL	F6672
560	1.27	33X33	BPE-0560-2BG033-BL	F6408
568	1.27	26X26	BPE-0568-2BG026-BL	F6673
575	1.27	24X24	BPE-0575-2BG024-BL	F6415
576	1.27	30X30	BPE-0576-2BG030-BL	F6409
596	1.27	30X30	BPE-0596-2BG030-BL	F6410
600	1.27	31X31	BPE-0600-2BG031-BL	F6879
600	1.27	35X35	BPE-0600-2BG035-BL	F6075
600	1.27	35X35	BPE-0600-2BG035-HL	F6631
608	1.00	30X30	BPE-0608-3BG030-BL	F6745
625	1.27	25X25	BPE-0625-2BG025-BL	F6412
652	1.27	35X35	BPE-0652-2BG035-BL	F6078
655	1.27	34X34	BPE-0655-2BG034-BL	F6413
672	1.00	26X26	BPE-0672-3BG026-BL	F6081
676	1.00	26X26	BPE-0676-3BG026-BL	F6880
680	1.00	39X39	BPE-0680-3BG039-BL	F5863
724	1.27	27X27	BPE-0724-2BG027-BL	F6194
728	1.27	27X27	BPE-0728-2BG027-BL	F6194
729	1.27	27X27	BPE-0729-2BG027-BL	F6881
783	1.00	28X28	BPE-0783-3BG028-BL	F6835
788	1.00	34X34	BPE-0788-3BG034-HL	F6882
820	1.00	34X34	BPE-0820-3BG034-BL	F6883
869	1.00	9X10	BPE-0086-9BG9X10-BL	F1033
896	1.00	30X30	BPE-0896-3BG030-BL	F6884
957	1.27	31X31	BPE-0957-2BG031-BL	F6416
1020	1.00	32X32	BPE-1020-3BG032-HL	F6885
1152	1.00	34X34	BPE-1152-3BG034-BL	F6886
1156	1.00	34X34	BPE-1156-3BG034-BL	F6227
1156	1.00	34X34	BPE-1156-3BG034-B1	F6887
1497	1.00	39X39	BPE-1497-3BG039-HL	F6888
1936	1.00	44X44	BPE-1936-3BG044-BL	F6858