data sheet

ChipArray® BGA 256 LD 17 x 17 mm

ChipArray Packages: Amkor's ChipArray Packages are laminate-

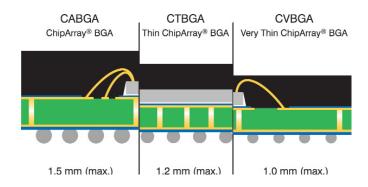
based Ball Grid Array (BGA) packages that are compatible with established SMT mounting processes. The near-chip-size standard outlines offer a broad selection of ball array pitch, count, and body sizes. (See table on back.) In addition to the standard core ChipArray package (CABGA), Amkor offers thin core ball grid array packages (CTBGA and CVBGA) which, coupled with a thin mold cap, achieve package thicknesses down to 1.0 mm max. By utilizing a thin core laminate, much denser routing can be achieved, thereby enabling more I/Os in a given footprint. Amkor ChipArray packages, regardless of body size and thickness, utilize the same, flexible capacity which assures economical packaging solutions. Further, high volume processes and innovative design assure high quality and cutting edge technology. Due to their small size and I/O density, Amkor's ChipArray product family is an excellent choice for new devices requiring a small footprint size and low mounted height.

Applications:

The ChipArray package family is applicable for semiconductors such as memory, analog, ASICs, RF devices and simple PLDs requiring a smaller package size than conventional PBGAs. ChipArray packages fill the need for low cost, minimum space and high speed requirements of mobile phones and pagers, notebook and subnotebook personal computers, PDAs and other wireless systems.

CABGA/CTBGA/CVBGA

Features:	package of prototype- Full, in- Square 4 mm tr 8 to 44' 0.5, 0.6 JEDEC N 1.0 mm JEDEC N ball pitc PB free Daisy Ch Short tro Low indi	ferings provice to-production house design or rectangle post 21 mm body 9 ball counts 1.5, 0.75, 0.86 (0.216 complete ball pitch and Green parair packages	ackages availa y size available) & 1.0 mm bo iant for 0.8 mm iant for 0.5 mm ckage available available ent electrical in eled data) length)	from ble clipitch available m and m & 0.65 mm				
Thermal Resistance:	Theta JA at 1.0 Watt and 0 airflow (°C/Watt) CABGA CTBGA CVBGA							
	8 x 8 10 x 10 11 x 11 15 x 15 19 x 19	37.28 19.86 29 20.1 17.04	36.45 29.04 N/A N/A N/A	37.52 26.7 N/A N/A N/A				
Reliability:	Amkor assures reliable performance by continuously monitoring key indices:							
	Moistur charact Temp/h High te HAST Temp c	2 @ 240 °C 3 @ 260 °C RH, 168 hours , 1000 hours 00 hours 6 RH, 96 hours °C, 1000 cycles						

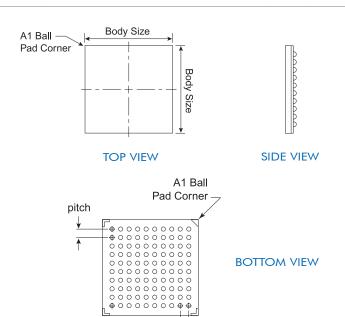






data sheet

CABGA/CTBGA/CVBGA



← pitch

Process Highlights

Die thickness (max) 0.27 mm (10.5 mils) Bond pad pitch (min) 50 μ m (2 mils) Laser

Ball inspection Optical
Pack options Dry pack
Wafer backgrinding Available

Standard Materials

Package substrate

-Conductor Copper

-Dielectric Epoxy polyimide blend
Die attach adhesive Low stress elastomer
Encapsulant Epoxy mold compound
Solder ball Eutectic SnPb/Pbfree

Test Services

Program Generation/Conversion

Product Engineering

Wafer sort

256 Pin x 20 MHz test system available

-55 °C to +165 °C Test available

Burn-in

Shipping

JEDEC trays

Tape and Reel services

		C	ABG	A/C1	TBG/	/CVB	GA S	Stand	dard	Pack	cage C)fferi	ng		
Ball Pitch	1.0	0.80	0.75	0.65	0.50	Ball Pitch	1.0	0.80	0.65	0.50	Ball Pitch	1.0	0.80	0.65	0.50
Body	Ball	Ball	Ball	Ball	Ball	Body	Ball	Ball	Ball	Ball	Body	Ball	Ball	Ball	Ball
Size	Count	Count	Count	Count	Count	Size	Count	Count	Count	Count	Size	Count	Count	Count	Count
4	16				49	10	81	100		192	15	160	208		256
4					40	10		96		241	15	176	273		
5		25			40	10		120		181	15	196	324		
5					57	10		121		277	15	144			
6		36			48	10		144			16		280	324	
6		49			56	10		97			16		285		
6					64	11	100	109	200	223	17	176	256		
6					84	11	97	128			17	208	272		
7		48	44	81	104	11		169			17	224	280		
7		49	46		108	12	112	144	208	228	17	228	292		
7		64	48		64	12	121	160		288	17	252	316		
7			64		84	12		196			17	256			
7					96	13	108	200	277	289	19	280	288		
8	42	64	48	105	108	13	144	224		320	19	289			
8		72		111	132	13		225		417	19	324			
8		81		113	144	14		192	300	287	21	256	449		
8		94		96		14		220			21	272			
9	64	100	48	124							21	316			
9		72	64								21	336			
9		80									21	400			
9		81		180	180										

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