

Package	Body Size	Material	Amkor	ASE-Korea	Remarks
LFCSP	7x7 mm	Die Attach	Ablestik 8290	Hitachi EN-4900GC	
		Wire	1.0 mil	0.8/1.0 mil	
	5x5 mm	Mold Compound	Sumitomo G700	Sumitomo G700	Same
		Leadframe	C194	C194	Same
	4x4 mm	Die Attach	Ablestik 8290	Ablestik 8290	Same
		Wire	1.0 mil	0.8/1.0 mil	
		Mold Compound	Sumitomo G700	Sumitomo G700	Same
		Leadframe	C194	C194	Same

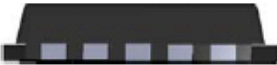

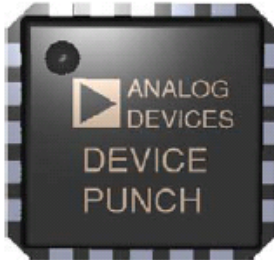

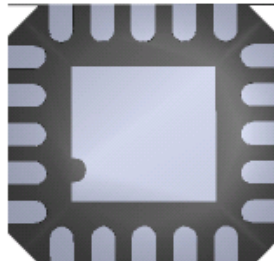
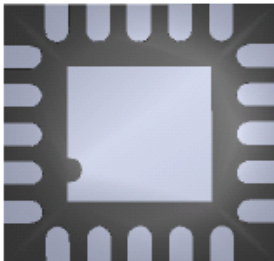
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		Leadframe	C194	C194	Same

Reliability Qualification Results of 3x3 sawn LFCSP package at ATP

QUALIFICATION RESULTS			
TEST	CONDITIONS	SAMPLE SIZE	RESULTS
Highly Accelerated Stress Test (HAST)*	JEDEC <i>JESD22-A110</i>	3 x 77	Pass
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 77	Pass
Autoclave (AC)*	JEDEC <i>JESD22-A102</i>	3 x 77	Pass
Solder Heat Resistance (SHR)*	<i>JEDEC/IPC J-STD-020</i>	3 x 11	Pass

*These samples were subjected to preconditioning (per J-STD-020 Level 3) prior to the start of the stress test. Level 1 preconditioning consists of the following: Bake: 24 hrs @ 125°C, Soak: Unbiased Soak: 192 hrs @ 30°C, 60%RH, Reflow: 3 passes through an oven with a peak temperature of 260°C.

Bill of Materials and Package Configuration

Material	FROM	TO	Remarks
	Amkor - Korea	Amkor - Philippines	
Die Attach	Ablestik 8290	Ablestik 8290	Same
Wire	Au	Au	Same
Mold Compound	Sumitomo G700	Sumitomo G700	Same
Leadframe	C194	C194	Same
Package: Side			Punch: Flange Sawn: Square
Top			Sawn: • Pin 1 is Laser Marked • Square Edge
Bottom			Same Foot Print

Package Dimensions

PUNCH	SAWN	
<p>0.85mm</p>	<p>0.75mm</p>	Package Thickness Difference
<p>LEAD WIDTH</p> <p>LEAD LENGTH</p>	<p>LEAD WIDTH</p> <p>LEAD LENGTH</p>	Exposed Pad, Lead Length and Lead Width dimensions remains within tolerance.

Body Size (mm)	Lead Count	Lead Pitch (mm)	Punch LFCSP POD	Sawn LFCSP POD	Exposed Pad Size (mm)
3 x 3	8	0.5	CP 8-2	CP 8-13	1.74 x 1.45
			CP 8-9	CP 8-20	2.13 x 1.5
	12	0.5	CP 12-1	CP 12-4	1.3 x 1.3
			CP 12-3	CP 12-5	1.5 x 1.5
	16	0.5	CP 16-2	CP 16-21	1.3 x 1.3
			CP 16-3	CP 16-27	1.5 x 1.5

Package Outline Drawing (POD) Dimensional Analysis

Lead Count	Punch Type LFCSP				Sawn Type LFCSP			
	POD Spec	E-Pad Size (mm)	Lead Length (mm)	Lead Width (mm)	POD Spec	E-Pad Size (mm SQ.)	Lead Length (mm)	Lead Width (mm)
8	CP 8-2	1.74 x 1.45 ± 0.15	0.40 ±0.10	0.23 ^{+0.07} / _{-0.05}	CP 8-13	1.74 x 1.45 ± 0.10	0.40 ± 0.10	0.25 ±0.05
	CP 8-9	2.13 x 1.50 ± 0.10	0.40 ±0.10	0.23 ^{+0.07} / _{-0.05}	CP 8-20	2.13 x 1.5 ± 0.10	0.40 ± 0.10	0.23 ^{+0.07} / _{-0.05}
12	CP 12-1	1.3 x 1.3 ± 0.15	0.60 ^{+0.15} / _{-0.10}	0.23 ^{+0.07} / _{-0.05}	CP 12-4	1.3 x 1.3 ± 0.15	0.60 ± 0.10	0.23 ^{+0.07} / _{-0.05}
	CP 12-3	1.5 x 1.5 ± 0.15	0.60 ^{+0.15} / _{-0.10}	0.23 ^{+0.07} / _{-0.05}	CP 12-5	1.5 x 1.5 ± 0.15	0.40 ± 0.10	0.23 ^{+0.07} / _{-0.05}
16	CP 16-2	1.3 x 1.3 ± 0.15	0.40 ±0.10	0.23 ^{+0.07} / _{-0.05}	CP 16-21	1.3 x 1.3 ±0.15	0.40 ± 0.10	0.23 ^{+0.07} / _{-0.05}
	CP 16-3	1.5 x 1.5 ± 0.15	0.40 ±0.10	0.23 ^{+0.07} / _{-0.05}	CP 16-27	1.5 x 1.5 ^{+0.15} / _{-0.05}	0.40 ± 0.10	0.25 ^{+0.05} / _{-0.07}