

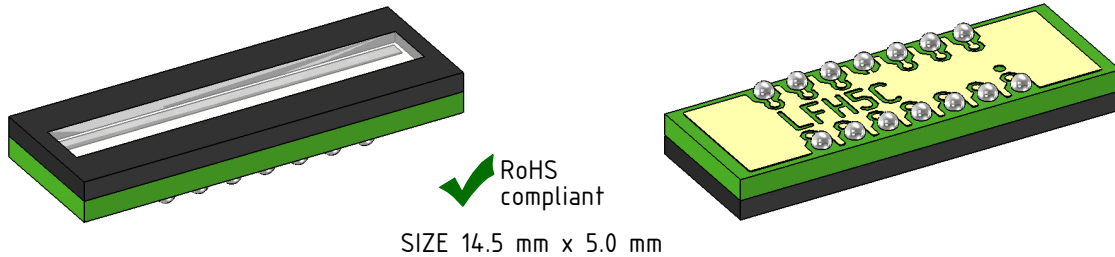
# iC-LFH1024 oBGA LFH5C

## PACKAGE SPECIFICATION



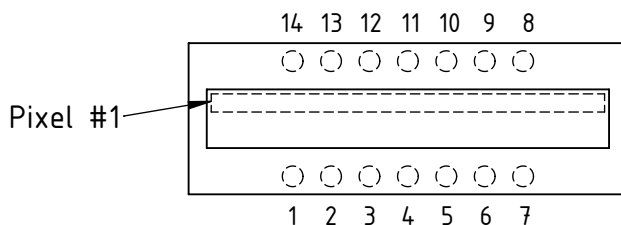
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### PACKAGE VIEW



### PIN CONFIGURATION

(top view)



### PIN FUNCTIONS

No.	Name	Function
1	RES0	Select Resolution Bit 0
2	RES1	Select Resolution Bit 1
3	VDD	Digital Supply +5V
4	GND	Digital Ground
5	ETP	Enable Test Mode*
6	SI	Start of Integration
7	CLK	Clock
8	BNA	Select Binning/Averaging
9	ESH	Enable Shutter
10	NRES	Power-Down Reset Output (low active)
11	GNDA	Analog Ground
12	VDDA	Analog Supply +5V
13	VAO	Pixel Output Supply Voltage
14	AO	Analog Pixel Output

\*ETP must be connected to GND/GNDA

### ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Parameter	Conditions	Value		
				Min	Max	Unit
G001	Ta	Operating Ambient Temperature Range	Consider self heating to stay below max. junction temperature (Tj) of iC-LFH1024	-25	85	°C
G002	Ts	Storage Temperature Range		-25	110	°C
G003	Tpk	Reflow Soldering Peak Temperature	tpk < 20 s, convection reflow tpk < 20 s, vapour phase Floor life: 8h; TOL (time on label) See <a href="#">CUSTOMER INFORMATION #7</a> for details		245 230	°C °C

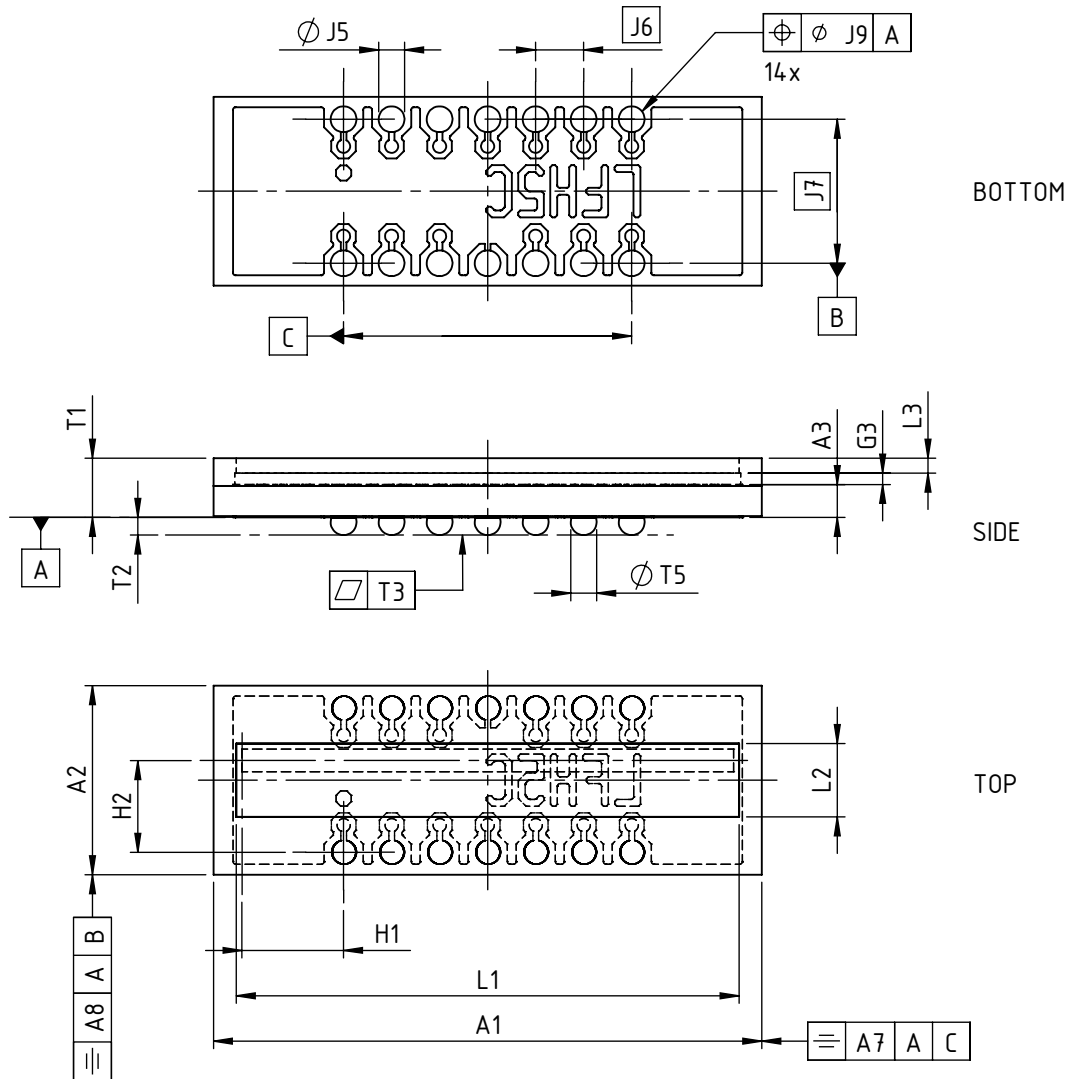
# iC-LFH1024 oBGA LFH5C

## PACKAGE SPECIFICATION



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### PHYSICAL DIMENSIONS



# iC-LFH1024 oBGA LFH5C

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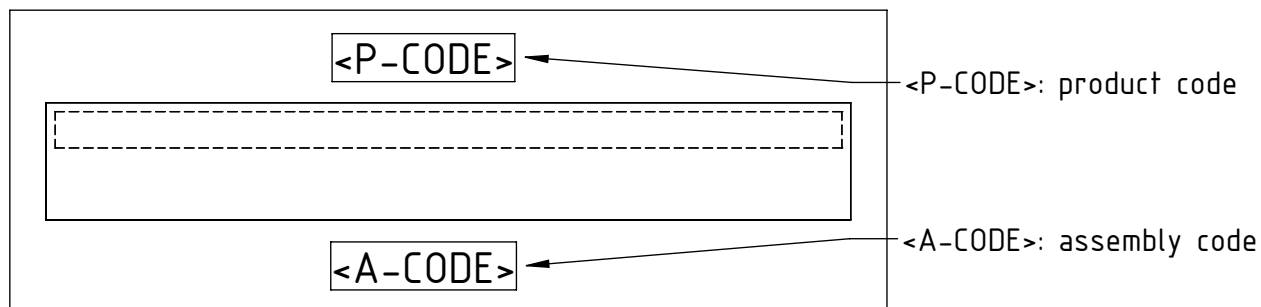
### DIMENSION TABLE

Item	Parameter	Comment					Unit
			Min.	Typ.	Max.	Tol.	
<b>Substrate</b>							
A1	Outline X			14.50		±0.10	mm
A2	Outline Y			5.00		±0.10	mm
A3	Substrate Thickness	bottom substrate to bottom die typical value		0.90			mm
A7	Outline Symmetry X	vs. bottom metal pattern			0.20		mm
A8	Outline Symmetry Y	vs. bottom metal pattern			0.20		mm
<b>Chip</b>							
G3	Chip Thickness			0.30			mm
<b>Chip Placement</b>							
H1	Pixel Array Position vs. Bottom Metal Pattern X	bottom metal pattern vs. center of 1 <sup>st</sup> pixel		2.6860		±0.175	mm
H2	Pixel Array Position vs. Bottom Metal Pattern Y	bottom metal pattern vs. center of 1 <sup>st</sup> pixel		2.4269		±0.175	mm
<b>Bottom Metal Pattern</b>							
J5	Lead Diameter			0.635		±0.03	mm
J6	Lead Pitch X (or Lead to Lead Distance X)			1.27			mm
J7	Lead Pitch Y (or Lead to Lead Distance Y)			3.81			mm
J9	Lead to Lead Position Tolerance				0.10		mm
<b>Glass Cover</b>							
L1	Glass Size X			13.30			mm
L2	Glass Size Y			1.94			mm
L3	Glass Thickness			0.40			mm
<b>Encapsulation</b>							
E1	Coating Excess	surface glass to surface coating			0.05		mm
<b>Thickness Specification</b>							
T1	Overall Thickness	bottom substrate to top of glass (nominal glass thickness of 0.4mm) <sup>1)</sup>	1.40	1.60	1.80		mm
T2	Solder Ball Height	drawing not to scale	0.40		0.54		mm
T3	Solder Ball Planarity				0.10		mm
T5	Solder Ball Diameter			0.635			mm

Notes:

1) Coating normally adjusted to top surface of glass.

### MARKING



dra\_lfh5c-lfh1024\_z\_pack\_4, 8:1

Appearance of Laser marking varies by tool.

### GENERAL HANDLING INSTRUCTIONS

See [CUSTOMER INFORMATION #7](#) for details.

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### REVISION HISTORY

Rel.	Rel. Date*	Chapter	Modification	Page
A1	2016-01-13		Initial	

Rel.	Rel. Date*	Chapter	Modification	Page
A2	2016-10-10		Update drawing PIN CONFIGURATION; update DIMENSION TABLE items H1, H2	1, 3

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\* Release Date format: YYYY-MM-DD

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### ORDERING INFORMATION

Type	Package	Options	Order Designation
iC-LFH1024	optoBGA™ LFH5C	none	iC-LFH1024 oBGA LFH5C

Please send your purchase orders to our order handling team:

**Fax: +49 (0) 61 35 - 92 92 - 692**

**E-Mail: [dispo@ichaus.com](mailto:dispo@ichaus.com)**

For technical support, information about prices and terms of delivery please contact:

**iC-Haus GmbH**  
**Am Kuemmerling 18**  
**D-55294 Bodenheim**  
**GERMANY**

**Tel.: +49 (0) 61 35 - 92 92 - 0**

**Fax: +49 (0) 61 35 - 92 92 - 192**

**Web: <http://www.ichaus.com>**

**E-Mail: [dispo@ichaus.com](mailto:dispo@ichaus.com)**