

iC-LSHC optoBGA LSH2C

OPTO ENCODER PACKAGE SPECIFICATION



Rev. C2, Page 1/4

ORDERING INFORMATION

Type	Package	Options	Order Designation
iC-LSHC	oBGA LSH2C	reticle	iC-LSHC oBGA LSH2C -xxR

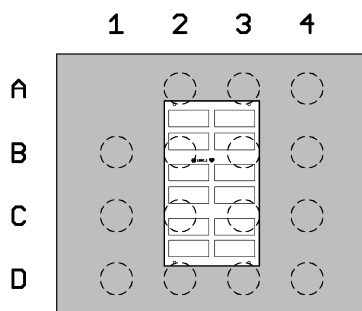


6.2 mm x 5.2 mm
RoHS compliant

PIN CONFIGURATION

PIN FUNCTIONS

(top view)



No.	Name	Function
A2		
A3		
A4		
B1		
B2		
B3		
B4		
C1		
C2		
C3		
C4		
D1		
D2		
D3		
D4		

For pinout information please refer to the relevant IC data sheets.

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Parameter	Conditions	Fig.				Unit
					Min.	Typ.	Max.	
TG1	Ta	Operating Ambient Temperature Range (extended temperature range on request)			- 40		110	°C
TG2	Ts	Storage Temperature Range			- 40		110	°C
TG3	Tpk	Reflow Soldering Peak Temperature	tpk < 20 s, convection reflow tpk < 20 s, vapour phase TOL (time on label) 8 h; please refer to customer information file No. 7 for details				245 230	°C °C

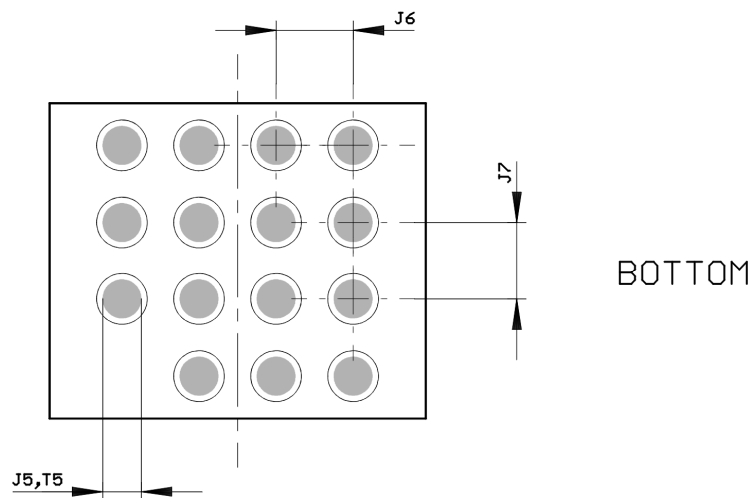
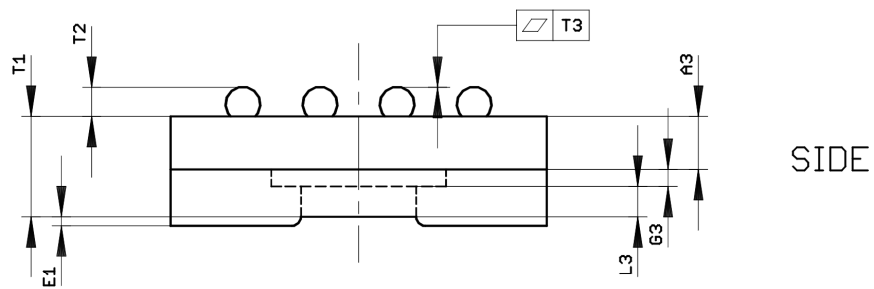
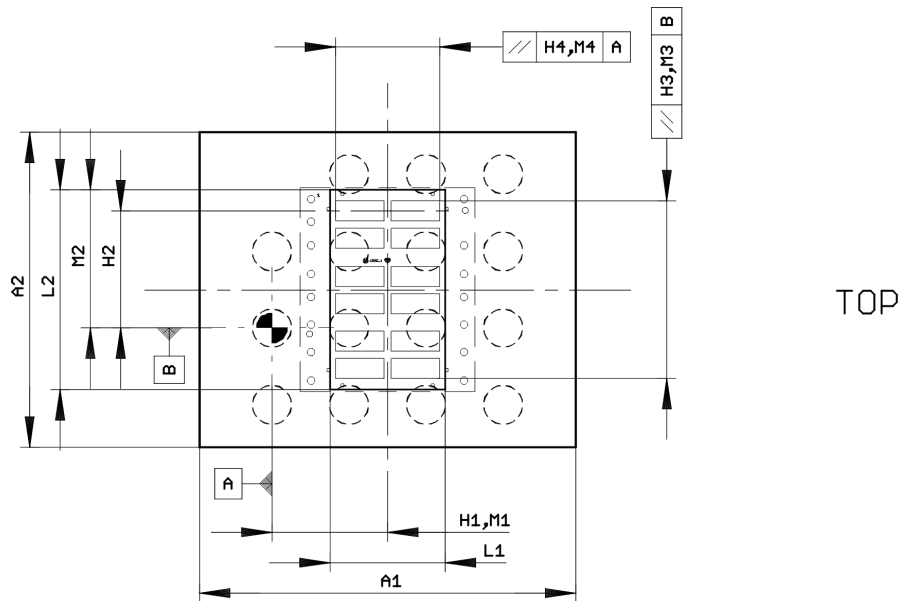
iC-LSHC optoBGA LSH2C

OPTO ENCODER PACKAGE SPECIFICATION



Rev. C2, Page 2/4

PHYSICAL DIMENSIONS



iC-LSHC optoBGA LSH2C

OPTO ENCODER PACKAGE SPECIFICATION



Rev. C2, Page 3/4

DIMENSION TABLE

Item	Parameter	Conditions					Unit
			Min.	Typ.	Max.	Tolerance	
Substrate							
A1	Outline X			6.2		±0.1	mm
A2	Outline Y			5.2		±0.1	mm
A3	Substrate Thickness	bottom package to bottom die		0.87			mm
Chip Placement							
G3	Chip Thickness			0.30			mm
H1	Sensor Array Position vs. Bottom Metal X	center of array		1.905		±0.15	mm
H2	Sensor Array Position vs. Bottom Metal Y	center of outermost photodiodes		1.94		±0.15	mm
H3 H4	Parallelism Sensor Array vs. Bottom Metal				0.1		mm
Bottom Metal Pattern							
J5	Lead Diameter			0.635		±0.03	mm
J6	Lead Pitch X (or Lead-Lead Distance X)			1.27			mm
J7	Lead Pitch Y (or Lead-Lead Distance Y)			1.27			mm
Glass/Reticle Cover							
L1	Glass / Reticle Size X			1.9			mm
L2	Glass / Reticle Size Y			3.24			mm
L3	Glass / Reticle Thickness			0.40			mm
M1	Glass / Reticle Position vs. Bottom Metal X			1.905			mm
M2	Glass / Reticle Position vs. Bottom Metal Y			2.285			mm
M3 M4	Parallelism Reticle Pattern vs. Bottom Metal				0.15		mm
Encapsulation							
E1	Coating Excess	surface glass to surface coating			0.05		mm
Thickness Specifications							
T1	Overall Thickness	bottom substrate to top of glass / reticle	1.50		1.85		mm
T2	Solder Ball Height	drawing not to scale	0.40		0.54		mm
T3	Solder Ball Coplanarity					±0.05	mm
T5	Solder Ball Diameter			0.635			mm

REVISION HISTORY

Rev	Notes	Pages affected
A1	Initial version	
A2	Ordering Information and Pin Functions revised	1
B1	Ordering Information changed; Absolute Maximum Ratings: Operating Ambient Temperature Range Min. extended, Storage Temperature Range adapted; TG3: Conditions: convection reflow changed from 260°C to 245°C; Disclaimer updated	1, 3, 4
C2	Dimension Table: items L2, L3, T1, T2 changed; Disclaimer update	3, 4

GENERAL HANDLING INSTRUCTIONS

After opening the dry pack, devices must be mounted within 8 hours (in factory conditions of maximum 30 °C / 60 % RH) or must be stored at < 10 % RH. Devices require baking before mounting if the Humidity Indicator Card shows > 10 % when read at 23 °C ± 5 °C or if the conditions mentioned above are not met. Devices may be baked for 72 hours at 100 °C using high-temperature device containers (trays).

Samples

Samples may not be subject for dry pack delivery, and, in that case, are not intended for reflow soldering.

iC-Haus expressly reserves the right to change its products and/or specifications. An info letter gives details as to any amendments and additions made to the relevant current specifications on our internet website www.ichaus.de/infoletter; this letter is generated automatically and shall be sent to registered users by email.

Copying – even as an excerpt – is only permitted with iC-Haus' approval in writing and precise reference to source.

iC-Haus does not warrant the accuracy, completeness or timeliness of the specification and does not assume liability for any errors or omissions in these materials.

The data specified is intended solely for the purpose of product description. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information/specification or the products to which information refers and no guarantee with respect to compliance to the intended use is given. In particular, this also applies to the stated possible applications or areas of applications of the product.

iC-Haus conveys no patent, copyright, mask work right or other trade mark right to this product. iC-Haus assumes no liability for any patent and/or other trade mark rights of a third party resulting from processing or handling of the product and/or any other use of the product.