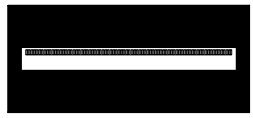
iC-LF1401 OBGA LF3C
PACKAGE SPECIFICATION

ORDERING INFORMATION

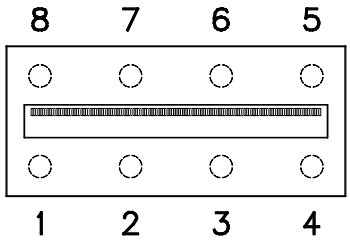
Type	Package	Options	Order Designation
iC-LF	optoBGA™ LF3C	none	iC-LF OBGA LF3C



9.5 mm x 4.2 mm

PIN CONFIGURATION

(top view)



PIN FUNCTIONS

No.	Name	Function
1	SI	Start Integration Input
2	CLK	Clock Input
3	AO	Analogue Output
4	VCC	+5 V Supply Voltage
5	RSET	Bias Current Adjust
6	AGND	Analog Ground
7	GND	Digital Ground
8	DIS	Disable Integration Input

ABSOLUTE MAXIMUM RATINGS

Item No.	Symbol	Parameter	Conditions	Fig.	Min.	Typ.	Max.	Unit
TG1	Ta	Operating Ambient Temperature Range			-40		100	°C
TG2	Ts	Storage Temperature Range			-40		115	°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 #7 for details				245 230	°C °C

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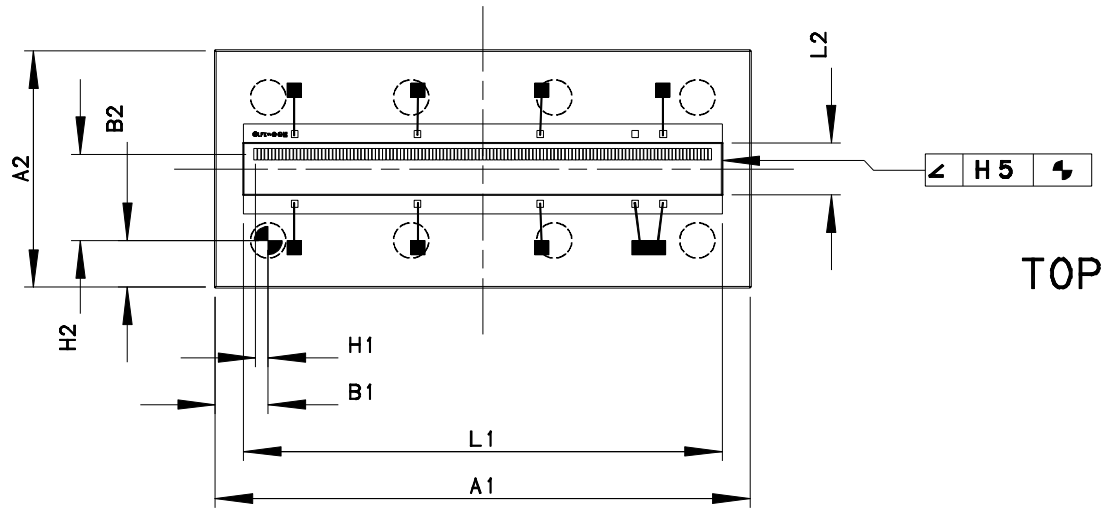
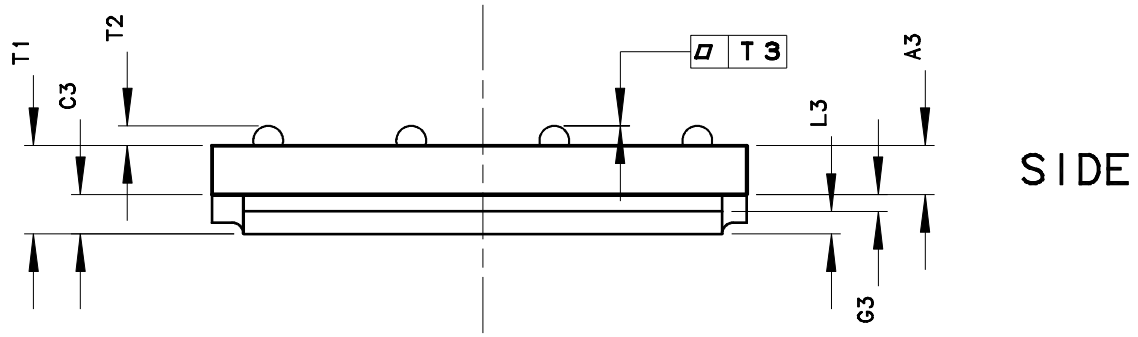
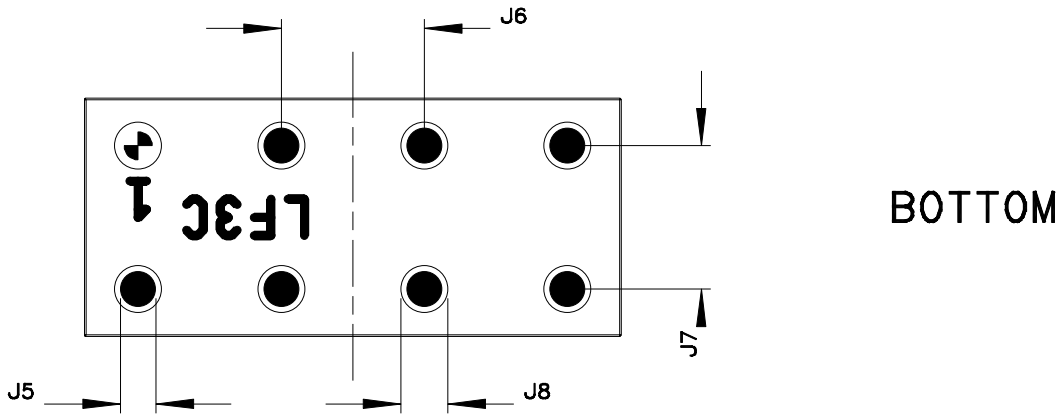
PHYSICAL DIMENSIONS (given in mm)







DIMENSION TABLE

Item	Parameter	Comments	Min.	Typ.	Max.	Tolerance	Unit
	Substrate						
A1	Outline X			9.5		±0.1	mm
A2	Outline Y			4.2		±0.1	mm
A3	Substrate Thickness	bottom package to bottom die	0.783	0.87	0.957		mm
	Reference						
B1	Outline vs. Reference X	bottom left lead center is reference		0.94		±0.1	mm
B2	Outline vs. Reference Y	bottom left lead center is reference		0.83		±0.1	mm
	Encapsulation						
C3	Mold Thickness	note [1])	0.445		0.755		mm
	Chip Placement						
G3	Chip Thickness			0.3		±0.025	mm
H1	Chip Position vs. Reference X	reference vs. center of 1st sensor		0.223		±0.175	mm
H2	Chip Position vs. Reference Y	reference vs. center of 1st sensor		1.529		±0.175	mm
H5	Chip Tilt Angle vs. Paddle					±1.6	DEG
	Bottom Metal Pattern						
J5	Lead Size			0.635		±0.03	mm
J6	Lead Pitch X (or Lead-Lead Distance X)			2.54			mm
J7	Lead Pitch Y (or Lead-Lead Distance Y)			2.54			mm
J8	Solder Stop Off			0.835		±0.1	mm
	Glass Cover						
L1	Glass Size X			8.4		±0.05	mm
L2	Glass Size Y			0.918		±0.05	mm
L3	Glass Thickness			0.4		±0.03	mm
	Thickness Specifications						
T1	Overall Thickness	note [1]), bottom substrate to top of glass	1.428		1.712		mm
T2	Solder Ball Height	drawing not to scale	0.40		0.54		mm
T3	Solder Ball Coplanarity					±0.05	mm

Notes: [1]) nominal glass cover thickness of 0.4 mm

REVISION HISTORY

Rev	Notes	Pages affected
A1	Initial version	all
B1	RoHS compliance	1, 4
C1	Convection reflow soldering peak temperature reduced to 245 °C	1, 4
D1	Solder Ball Height increased by 0.04 mm	3, 4
E1	Measures L1/L2 corrected to reflect the actual glass dimensions	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 are not subject to dry pack delivery and are not intended for reflow soldering. Remove any protective film – if present – before tempering or soldering. Use tweezers, pull upwards slowly, any horizontal pulling must be avoided. Do not touch the iC surface after removing the film. Never press on the iC coating.