

# OL-TFA9860

wafer level chip-size package; 49 bumps; 3.37 x 2.97 mm

8 February 2016

Package information

## 1. Package summary

<b>Terminal position code</b>	B (bottom)
<b>Package type descriptive code</b>	WLCSP
<b>Package type industry code</b>	WLCSP
<b>Package style descriptive code</b>	UC (uncased chip)
<b>Package style suffix code</b>	NA (not applicable)
<b>Package body material type</b>	X (other)
<b>IEC package outline code</b>	---
<b>JEDEC package outline code</b>	---
<b>JEITA package outline code</b>	---
<b>Mounting method type</b>	S (surface mount)
<b>Issue date</b>	7-3-2013

Table 1. Package summary

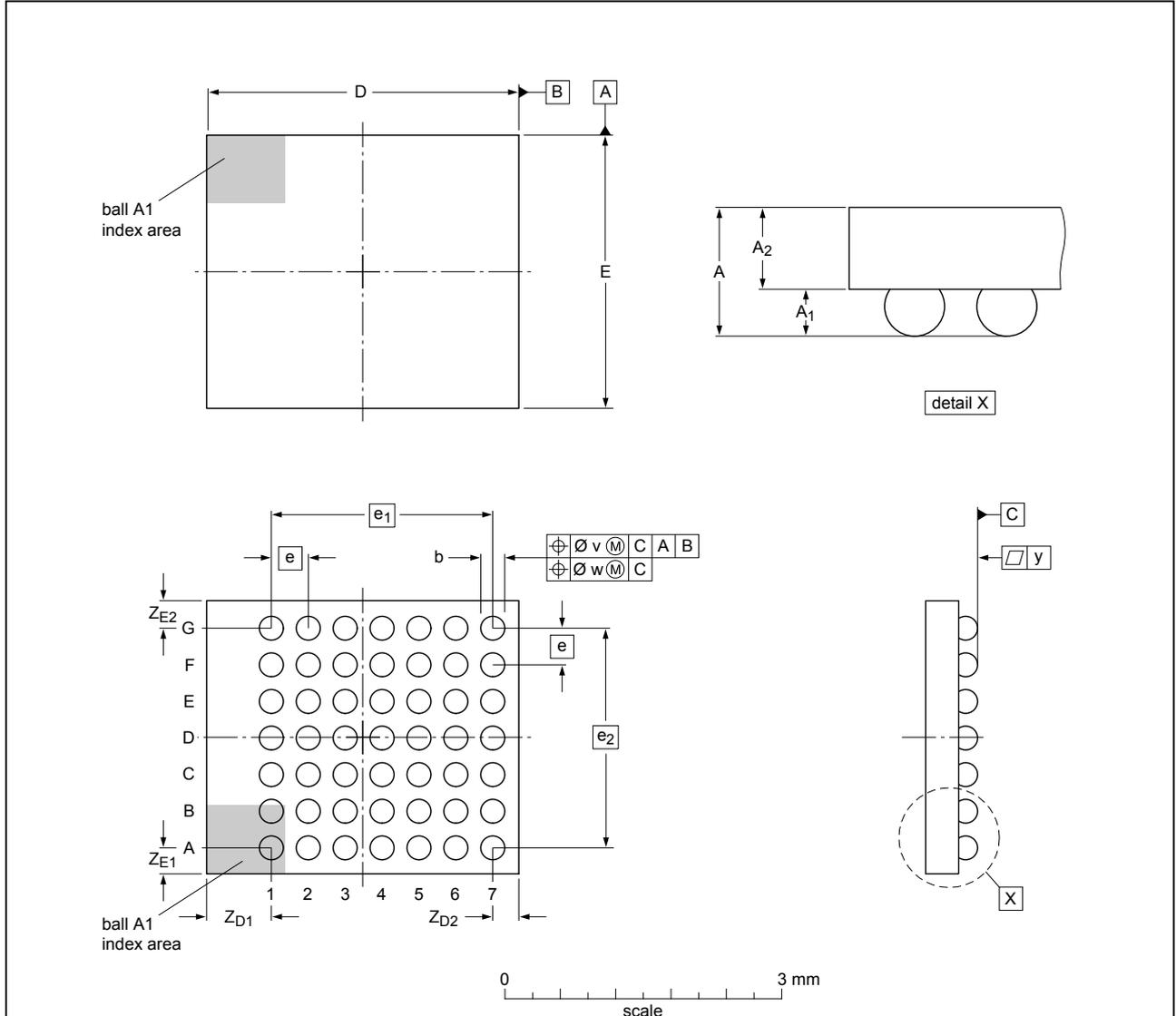
Symbol	Parameter	Min	Typ	Nom	Max	Unit
D	package length	3.34	-	3.37	3.4	mm
E	package width	2.94	-	2.97	3	mm
A	seated height	[tbd]	-	[tbd]	0.6	mm
A <sub>2</sub>	package height	0.34	-	0.36	0.38	mm
e	nominal pitch	-	-	0.4	-	mm
n <sub>2</sub>	actual quantity of termination	-	-	49	-	



2. Package outline

WLCSP49: wafer level chip-size package;  
49 bumps; 3.37 x 2.97 mm

TFA9860/TFA9861  
TFA9889/TFA9890



Dimensions (mm are the original dimensions)

Unit	Amax	A <sub>1</sub>	A <sub>2</sub>	b	D	E	e	e <sub>1</sub>	e <sub>2</sub>	v	w	y	Z <sub>D1</sub>	Z <sub>D2</sub>	Z <sub>E1</sub>	Z <sub>E2</sub>
mm	max	0.6	0.22	0.38	0.28	3.40	3.00						0.725	0.305	0.305	0.325
	nom		0.20	0.36	0.26	3.37	2.97	0.4	2.4	2.4	0.015	0.04	0.695	0.275	0.275	0.295
	min		0.18	0.34	0.24	3.34	2.94						0.665	0.245	0.245	0.265

wlcs49\_tfa9860\_po

Outline version	References			European projection	Issue date
	IEC	JEDEC	JEITA		
TFA9860/TFA9861 TFA9889/TFA9890					-13-02-19- 13-03-07

Fig. 1. Package outline WLCSP (OL-TFA9860)

### 3. Legal information

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