# **CHANGE NOTIFICATION**



April 21, 2015

Dear Sir/Madam:

PCN# 042115

# Subject: Notification of Additional Wafer Fab Location Tower Semiconductor Ltd., Israel For Part Number: LTC3407-2

Linear Technology has successfully qualified the Tower Semiconductor wafer fabrication facility located in Migdal Haemek, Israel. LTC currently owns and operates two wafer fabrication facilities located in Camas, Washington and Milpitas, California. The ability to process wafers in an additional wafer fabrication facility provides an extra measure of safety to insure uninterrupted product flow to our customers.

The qualification of the Tower Semiconductor consisted of 1,000 hours of op-life testing, temp cycle, thermal shock, autoclave, and 1,000 hours of bake at 150°C and 175°C. Additionally, devices have been characterized over the full operating temperature range and have been subjected to ESD testing and latch up immunity testing. The devices have been found to meet the LTC data sheets. The devices from the Tower Semiconductor were carefully compared to the current production devices to ensure identical performance when installed in customer applications.

The first product manufactured in Tower Semiconductor will be shipped after June 21, 2015. The devices manufactured in Tower Semiconductor will have the same part number and the same top mark as those currently shipped from LTC. However, when necessary we can use our lot number traceability system to identify where and when a device was fabricated. Complete part numbers of affected devices are as follows:

LEAD FREE FINISH	TAPE AND REEL	PART MARKING
LTC3407EDD-2#PBF	LTC3407EDD-2#TRPBF	LBFB
LTC3407IDD-2#PBF	LTC3407IDD-2#TRPBF	LBFB
LTC3407EMSE-2#PBF	LTC3407EMSE-2#TRPBF	LTBDZ
LTC3407IMSE-2#PBF	LTC3407IMSE-2#TRPBF	LTBDZ

Qualification test results, Tower Semiconductor third party certifications and capacity details are attached for your review. Additional information can be found at <u>www.jazzsemi.com</u>.

Linear Technology is requesting your expeditious approval of this PCN so that LTC can service your delivery requests. Should you have any further questions or concerns please contact your local Linear Technology Sales person or you may contact me at 408-432-1900 ext. 2077, or by e-mail at <u>jason.hu@linear.com</u>. If I do not hear from you by June 21, 2015, we will consider this change to be approved by your company.

Sincerely,

Jason Hu Quality Assurance Engineer

# Tower Semiconductor Capacity Summary

#### Plant Address:

Tower Semiconductor Ltd.

Ramat Gavriel Industrial Park 20 Shaul Amor Avenue P.O. Box 619 Migdal Haemek 23105 Israel Tel: +972-4-6506611 Fax: +972-4-6547788

#### Headcount:

1300 employees

#### Sq. Feet:

- Buildings: 150,000 M<sup>2</sup>
- Clean room: 15,000 M<sup>2</sup>

# Certifications (i.e. ISO-14001, TS16949):

- TS 16949:2009
- ISO 9001:2008
- OHSAS 18001:2007
- SI ISO 27001:2007
- ISO 14001:2004

#### Floor space Utilization (%utilized):

• Clean room: 15,000 M<sup>2</sup>

# Land Area:

• 90000 M<sup>2</sup>

# Fab Capacity:

The Israeli site (Fab1 and Fab2) has capacity of 720K WPY



				<b></b> /	TECHNOLOGY
	TOWER	SEMICONDUC	CTOR 0.6um P	ROCESS	
		IABILITY DAT			
		3/24	2015		
OPERATING LIFE	TEST	5/51/	2015		
				K DEVICE	NUMBER
PACKAGE TYPE	SAMPLE	OLDEST DATE CODE	DATE CODE	HOURS <sup>(1)</sup> T+125°C	OF (2) FAILURES
- <b>L</b>	L				
MSOP	385 385	1203	1335	385.00 385.00	0
• HIGHLY ACCELE		EST AT +131°C/85%	6RH	000.00	
PACKAGE	SAMPLE	OLDEST	NEWEST	K DEVICE HOURS (4)	NUMBER
TYPE	SIZE	DATE CODE	DATE CODE	AT +85°C	OF FAILURES
MSOP	116	1203	1217	222.72	0
PRESSURE COO	116 KER TEST AT 15 F	SIG, +121°C		222.72	0
PACKAGE			NEWSOT	K DEVICE	NUMBER
TYPE	SAMPLE SIZE	OLDEST DATE CODE	DATE CODE	HOURS	OF FAILURES
		1000			
MSOP	175 175	1203	1217	29.40 29.40	0
• TEMP CYCLE FR	OM -65°C to +150°	Ċ			
PACKAGE	SAMPLE	OLDEST	NEWEST	K DEVICE	NUMBER
TYPE	SIZE	DATE CODE	DATE CODE	CYCLES	FAILURES
MSOP	177	1203	1217	177.00	0
	177	45000		177.00	0
THERMAL SHOC	K FROM -65°C to -				
PACKAGE TYPE	SAMPLE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	OF
					FAILURES
MSOP	127	1217	1217	88.50	0
• HIGH TEMPERAT	127 URE BAKE +175°	C		88.50	0
PACKAGE	SAMPLE	OLDEST	NEWEST	K DEVICE	NUMBER
TYPE	SIZE	DATE CODE	DATE CODE	CYCLES	OF FAILURES
MSOP	231 231	1203	1217	231.00 231.00	0
SOLDER SHOCK	: 3H PCT - 1x +245		1		
PACKAGE	SAMPLE	OLDEST	NEWEST		NUMBER OF
TYPE	SIZE	DATE CODE	DATE CODE		FAILURES
MSOP	75	1203	1217		0
	75				Ő
<ul> <li>(1) Assumes Activat</li> <li>(2) Failure Rate Equ</li> </ul>		lectron Volts 0% Confidence Leve	= 30.58 FITS		
(3) Mean Time Betw	veen Failures in Yea	ars = 3733			
(4) Assumes 20x ac Note: 1 FIT = 1 Failu					
	are in one billort fi	0010.			