

CHANGE NOTIFICATION



Linear Technology Corporation
1630 McCarthy Blvd., Milpitas, CA 95035-7417
(408) 432-1900

April 23, 2014

Dear Sir/Madam:

PCN# 042314

Subject: Notification of Additional Assembly Location, ASE Korea for LTM4601

Please be advised that Linear Technology has successfully qualified ASE Korea as an assembly site for the subject packages. It was desirable to qualify ASE Korea to serve as an alternate source since it is located in a different geographic area than our existing assembly location in Penang, Malaysia. ASE Korea is ISO9002, QS9000, ISO14001, TS16949, OHSAS 18001 and QC80000 certified. A summary of ASE Korea's product mix and LTC's qualification results are shown on the attached pages. The facility passed a site audit by LTC's supplier quality organization. LTC product assembled in ASE Korea can be identified by the country of origin marked on the device as "KR". The product photos showing the ASE Korea marking are attached. The datecode of the first units assembled by ASE Korea will be approximately 1407. The list of affected part numbers is presented below in the table.

Part Number	Part Marking	Package Type
LTM4601EV#PBF	LTM4601V	LGA
LTM4601IV#PBF	LTM4601V	LGA
LTM4601EY#PBF	LTM4601Y	BGA
LTM4601IY#PBF	LTM4601Y	BGA
LTM4601IY	LTM4601Y	BGA
LTM4601HVEV#PBF	LTM4601HVV	LGA
LTM4601HVIV#PBF	LTM4601HVV	LGA
LTM4601HVEY#PBF	LTM4601HVY	BGA
LTM4601HVIY#PBF	LTM4601HVY	BGA

Additionally, Linear Technology performs reliability testing on production lots in accordance with our Quick Reaction Reliability (QR2) Monitor Program. This monitor program is designed to provide fast feedback for possible reliability problems associated with package assembly. Please provide an expeditious approval to this PCN, so that LTC can build subject packages at ASE.

Should you have any concerns, please contact me before June 24, 2014, at which time we will consider this change to be approved. If you have any questions or concerns, please feel free to contact me at (408) 432-1900 ext. 2077 or by e-mail at JASON.HU@LINEAR.COM.

Sincerely,

Jason Hu
Quality Assurance Engineer

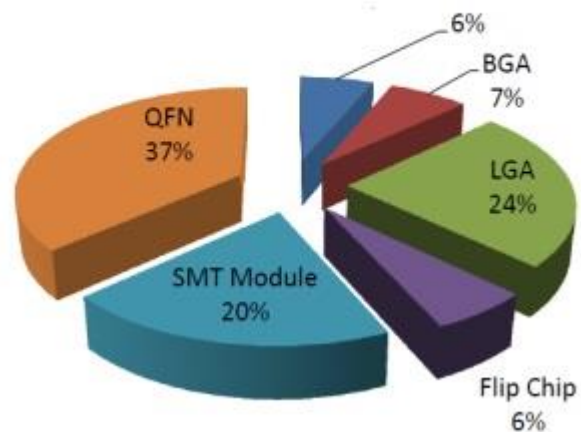
ASE Korea Capacity Summary

ASE Korea
76, Saneopdanji-gil, Paju-si,
Gyeonggi-do, Korea
Tel: 82-31-9400-114, 82-31-9400-539
Head counts: 2,791

Package Portfolio - Breakdown

- Analog Power for Automotive
- RF for digital/consumer
- MEMS for safety
- Array Packages

2013 Production Mix by Package



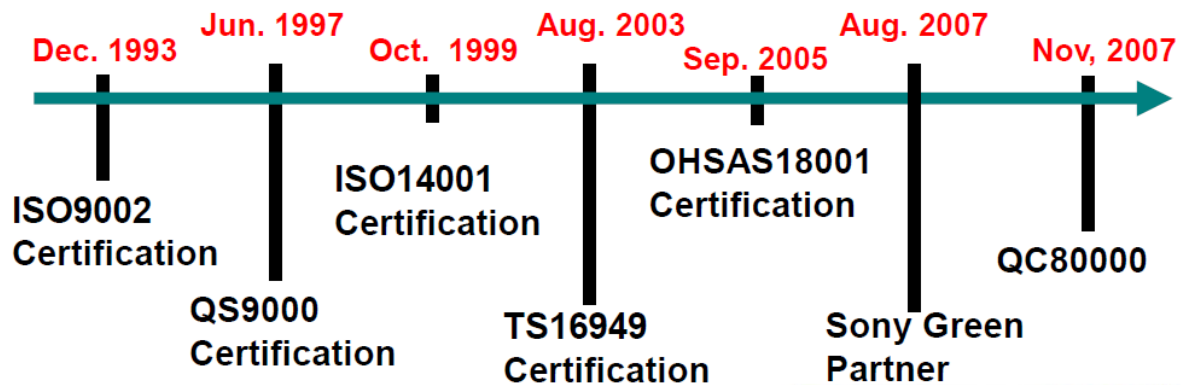
Quality System Certification



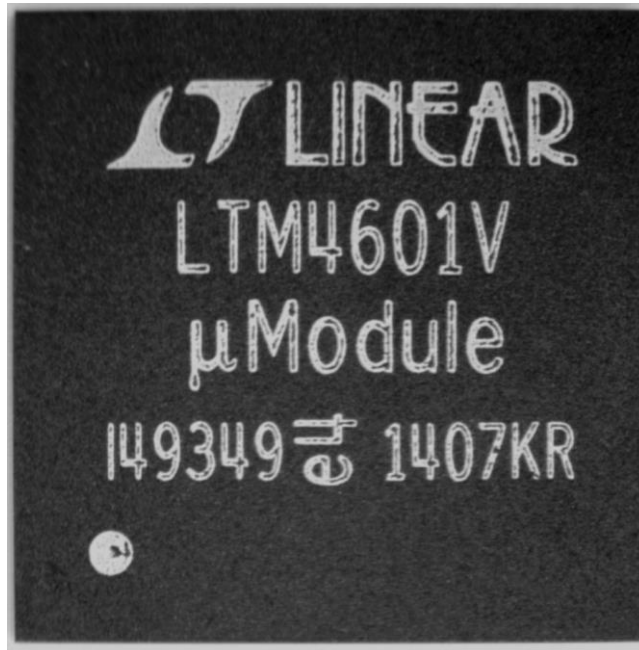
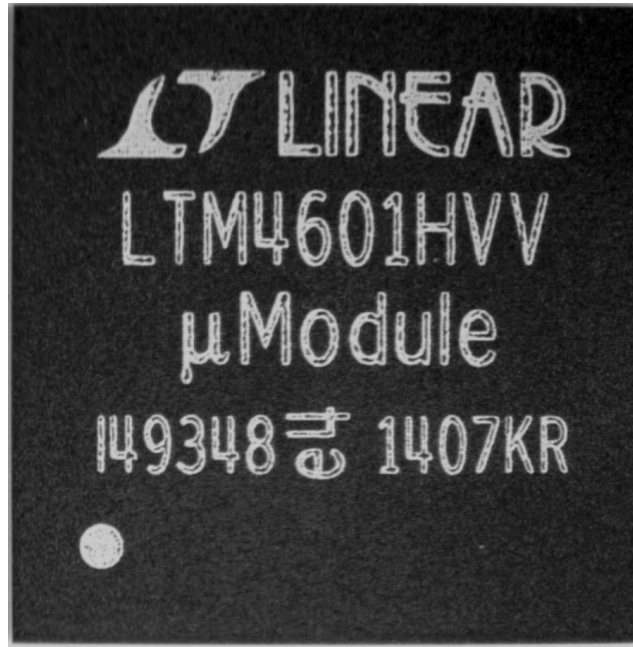
- ISO9002 certified by SGS-Yarsely in December 1993.
- QS9000 certified by LRQA in June 1997
- ISO14001 certified by LRQA in October 1999
- TS16949 certified by LRQA in August 2003
- OHSAS18001 certified by KFQ in September 2005
- Sony Green Partner certified by Sony in August 2007
- QC80000 certified by SGS in November 2007

*Surveillance Audit : Every 6 Months

--- Assessment History-----



Country of Origin on Top Mark



**PACKAGE RELIABILITY DATA
μMODULE ASSEMBLY ASE SITE QUALIFICATION**

4/14/2014

• J-STD-020 MSL 3 PRECONDITIONING: 192h +30°C/60%R.H. SOAK, 3x REFLOW AT +245°C PEAK					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4601	462	1407	1407		0
LTM4601A	1,155 1,617	1340	1340		0 0
• EXTENDED PRECONDITIONING: 216h +30°C/60%R.H. SOAK, 3x REFLOW AT +245°C PEAK					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4601A	150 150	1340	1340		0 0
• HIGH TEMPERATURE BAKE at +150°C					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +150°C	NUMBER OF FAILURES
LTM4601A	231 231	1340	1340	231.00 231.00	0 0
• UNBIASED HIGHLY ACCELERATED STRESS TEST (+130°C/85%R.H.) ⁽¹⁾					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +130°C	NUMBER OF FAILURES
LTM4601A	231 231	1340	1340	22.18 22.18	0 0
• TEMP CYCLE FROM -65°C to +150°C ⁽¹⁾					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM4601A	231 231	1340	1340	231.00 231.00	0 0
• TEMP CYCLE FROM -55°C to +125°C ⁽¹⁾					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM4601A	231 231	1340	1340	231.00 231.00	0 0
• THERMAL SHOCK FROM -65°C to +150°C ⁽¹⁾					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM4601A	231 231	1340	1340	231.00 231.00	0 0
• THERMAL SHOCK FROM -55°C to +125°C ⁽¹⁾					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM4601A	231 231	1340	1340	231.00 231.00	0 0

(1) Environmental stress are preceded by J-STD-020 Level 3 Preconditioning: 192h 30°C/60% R.H. soak, followed by 3x Reflow at 245°C