

CHANGE NOTIFICATION

Analog Devices, Inc.
 1630 McCarthy Blvd., Milpitas, CA 95035-7417
 (408) 432-1900

June 06, 2017

Dear Sir/Madam:

PCN# 060617

Subject: Notification of Additional Assembly Location For SOT-223 Package

Please be advised that the Analog Devices, Inc. (ADI) Milpitas, California has successfully qualified UTAC Malaysia (UMY), for assembling subject devices. UTAC Malaysia (UMY) is ISO9001, ISO14001, ISO18001, and TS16949 certified. A summary of UTAC Malaysia (UMY) capacity and LTC's qualification results are shown on the attached pages. The facility was physically audited by ADI's quality engineer. ADI product assembled in UTAC Malaysia (UMY) can be identified by the plant code marked on the 2nd level packaging as "L" and country of origin as "MY" as shown in attached sample label. The first units assembled by UTAC Malaysia (UMY) will be shipped after July 12, 2017. The list of affected part numbers are shown in table below.

List of affected part numbers
LT1118-XX
LT1121-XX
LT1123-XX
LT3082
LT3088

Additionally, Analog Devices, Inc. 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 ADI can build subject devices at UTAC Malaysia.

Should you have any questions or concerns, please contact your nearest ADI Sales person or me at (408) 432-1900 ext. 2374 or by email at JASON.HU@ANALOG.COM before August 06, 2017, at which time we will consider this change to be approved.

Sincerely,

Jason Hu
 Quality Assurance Engineer

Confidential Statement
 This change notice is for ADI's customers only.
 Distribution or notification to third parties is prohibited.

Packaging Label



Country of Origin

Plant Code

UTAC Malaysia (UMY) Capacity Summary

UTAC Manufacturing Services Malaysia Sdn Bhd



Company Name :
UTAC Manufacturing Services Malaysia Sdn Bhd (UMY)

General Manager
Mr KC Yoon

Address :
Lot 26 & 27, Batu Berendam FTZ III, 75350 Melaka

Paid-up Capital :
77 MRM

Establish :
8th Oct 1990

Employee :
571 person (as at end Jan 2016)
o Local : 570 persons
o Foreign Worker : 1 person (Pakistani)

Land size :
31,500m2

UMY Overview

Leverage UTAC's Capability and Location to Grow Legacy Packages

Key Highlights

- Shipped >200 Mu Automotive Grade
- Shipped 4.4 billion units in 2015 with outstanding delivery performance > 95% and low ppm outgoing quality (<1ppm)
- Continue to meet/exceed stringent Japanese end customers requirements for > 25 years:
 - Toyota, Hitachi, Honda, Mazda
- Received Quality Excellence Award from Toyota for 2015.

Facility Snapshot

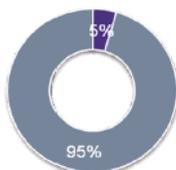
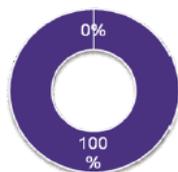
Established	1990
Location	Malacca, Malaysia
Facility size (M²)	
▪ Land area	c.31.5k
▪ Floor area	c.9.2k
▪ Open Floor area	25%
No. of staff (#)	c.571
Operational Certifications	ISO9001:2008 (2012), TS16949:2009 (2012), ISO14001:2004 (2013), ISO18001:2007 (2013)



FY15 Segment Splits

Full Assembly & Test Turnkey

Automotive vs. Non-Auto



■ Assembly & Test ■ Test

■ Automotive ■ Non-Auto

Capacity

Assembly	Capacity (ku/day)
SOT (SMD)	17,000
TO (Power)	4140

Equipment (Type)	Equipment (Number)
Wire Bonders (Au Wire)	99
Testers (Custom)	116

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UMY's History

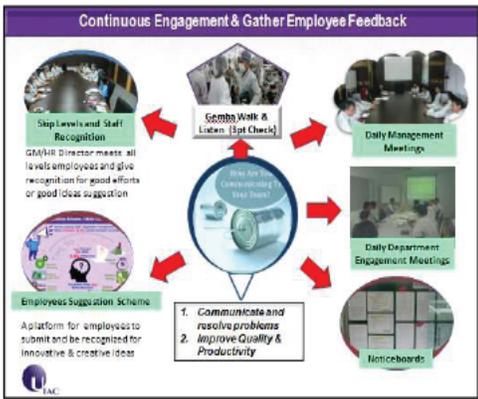
▪ Leverage UTAC's Capability and Location to Grow Legacy Packages

Overview

- Acquired as part of UTAC Group's acquisition of three manufacturing facilities from Panasonic in 2014
- Automotive Grade Production Certified;
- Panasonic's Japanese heritage provides familiarity with manufacturing best practices:
 - 5S, Kaizen (PDCA) 4M Change, QCC Activities and Toyota Way

History

1990	▪ Factory established
1992	▪ Started Hermetic Seal mass production
1994	▪ Expanded into the second building
1996	▪ Achieved ISO9002
1998	▪ Achieved ISO14001
1999	▪ Started Power Transistor Mass-Pro
2001	▪ Awarded "Best Factory in Melaka" by Electronics
2004	▪ Started Glass Diode mass production ▪ Hermetic Seal transferred to China
2007	▪ Started Hologram mass production
2009	▪ Achieved TS16949, ISO27001 and ISO18001
2011	▪ Started LED mass production
2013	▪ Awarded "Melaka Best Environment" and "Melaka Best Factory by GBI-Industrial"
2014	▪ Panasonic => UMY UTAC Manufacturing Services Malaysia Sdn Bhd





RELIABILITY DATA					
UTAC Malaysia (UMY) as 2nd Source for SOT-223 Package					
3/24/2017					
• PRESSURE COOKER TEST AT 15 PSIG, +121°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
SOT-223	598	1641	1648	200.93	0
	598			200.93	0
• TEMP CYCLE FROM -65°C to +150°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOT-223	600	1641	1648	600.00	0
	600			600.00	0
• THERMAL SHOCK FROM -65°C to +150°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOT-223	600	1641	1648	600.00	0
	600			600.00	0
• HIGH TEMPERATURE BAKE +175°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
SOT-223	100	1641	1648	100.00	0
	100			100.00	0
• SOLDER SHOCK					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
SOT-223	200	1641	1648		0
	200				0
• POWER CYCLING					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOT-223	92	1641	1648	920.00	0
	92			920.00	0
Note: PCT, Temp Cycle & Thermal Shock are subjected to J-STD-020 MSL Preconditioning					

Form: 00-03-6209B.

Rev 0