



# Introduction of Mirae SMT

- ❖ **Head Office : 102-405 Bucheon Techno Park**  
**Samjeong- dong Ojeong-gu Bucheon City Gyeonggi-do**  
**Republic of Korea**
- ❖ **TEL. : 82-32-326-4850    FAX. : 82-32-326-4877**
- ❖ **Web Site : [www.miraesmt.com](http://www.miraesmt.com)**

2011 . 05 . 24





# INDEX

- A. Company Profile**
- B. Company Overview**
- C. Company History**
- D. Business**
- E. Organization Chart**
- F. Major Products**
- G. Facilities in Bucheon Factory**
- H. LINE Environment**
- I. Manufacturing Process**
- J. SMT Process**
- K. ISO Certification**
- L. Company Location**

## A. Introduction

- Company Name : Mirae SMT
- C E O : Ha Young-Soo
- Foundation : 1993. 11.18
- Capital : 350 Million Won
- Address : 102-405 Bucheon Techno Park Samjeong-dong Ojeong-gu Bucheon City  
Gyeonggi-do Republic of Korea  
TEL : 82-32-326-4850 FAX : 82-32-326-4877
- Web : <http://www.miraesmt.com>
- Number of Employees : 90 (Bucheon:30, Guro:30, China: 30)
- Construction and Major Projects  
Main Office in Bucheon : EMS and SMT Equipment  
Guro Office : EMS  
U.S. corporation : Exports Car Interior material, EMS & SMT  
SooYoung Electronics in China : EMS
- Major Products  
EMS : MODULE, Electronic DOOR-LOCK , Telecommunications Relay,  
Credit Card Terminals , LED and so on.  
SET : WiFi MODULE , CCM , ASM ...  
SMT : SMT TOTAL SOLUTION  
[ REFLOW OVEN , SMD MOUNTER , SCREEN PRINTER , AOI , SPI... ]

## B. Motto

### ◆ MOTTO ◆

易地思之 Think and Do as the Customer's Perspective

### ◆ Philosophy ◆

- Securing an outstanding workforce
- Construction equipment manufacturer based on the best performance
- Provide the best quality and Service
- Becoming World Best Specialist

### ◆ Policies ◆

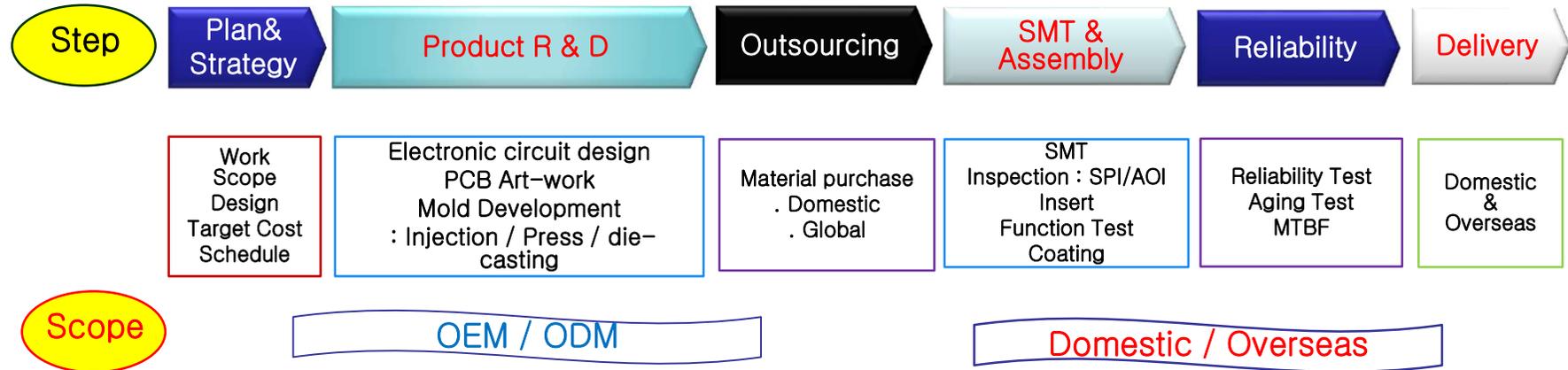
- Creative Organizational Culture
- Construction of Customer Satisfaction Quality System
- Securing SMT Competitiveness
- Settlements of Q.A PROCESS

## C. Company History

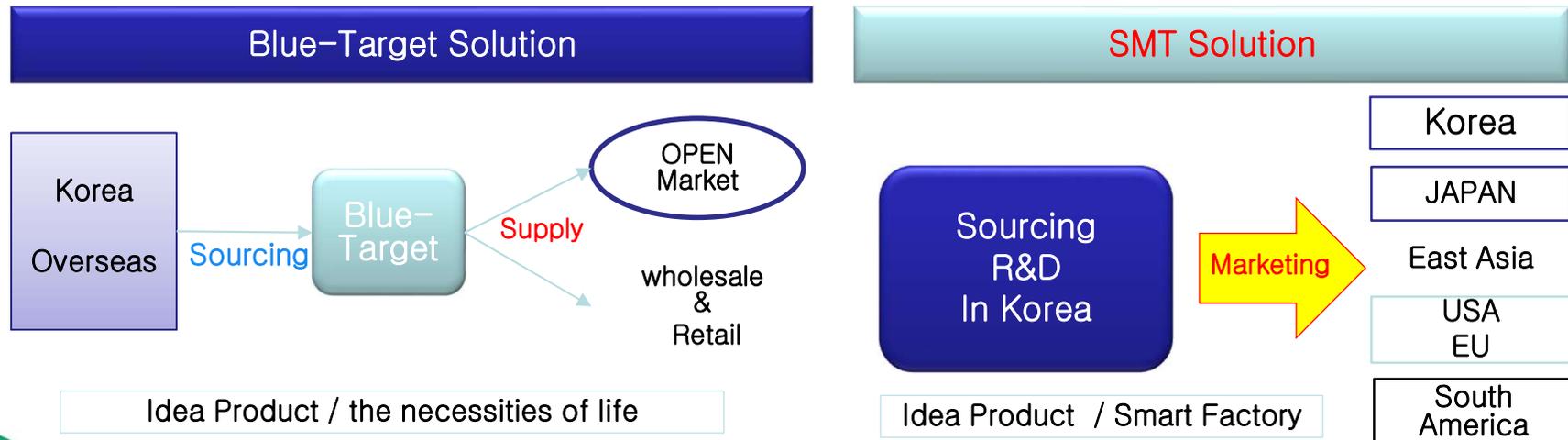
- 93. 11. Found Mirae Trading  
Contract as Monopolize Supplier in South Korea
- 94. 04. of RENTHANG Co., Ltd. [ TAIWAN ] Component LEAD Forming M/C
- 94. 10. WAVE JET Co., Ltd. [ TAIWAN ] AIR REFLOW SOLDERING M/C
- 95. 05. FONTON Co., Ltd. [ TAIWAN ]
- 96. 10. ABLE Co., Ltd. [ TAIWAN ] SMT & BGA PACKAGE REWORK SYSTEM
- 98. 04. JIANN FU LI INDUSTRIAL Co., Ltd. [ TAIWAN ] TEMP CONTROL SOLDERING STATION
  
- 00. 05. Rename to Mirae SMT : Bucheon Techno Park in Gyeonggi-do
  
- 01. 06. Starting EMS Business - SMD LINE & PBA
- 04. 12. Expanded SMT & PBA Lines (Total 5 SMT Lines)
- 06. 01. Construct dedicated Line for CAMERA MODULE (Total 5 SMT Lines)
- 06. 11. Transfer 2 SMT Lines to Factories Corporation of America, Mexico
- 08. 10. Product Communication Relay for AnTs Co., Ltd.(Subsidiary company of SK Telesys)
- 08. 11. Found China Corporation – Soo Young Electronics (3 SMT Lines – Shenyang)
- 09. 08. Found Guro Factory – 2 SMT & Post Processing Lines : IREVO Co., Ltd.
- 10. 05. Construct 2 SMT Lines in Dae Woong Electronics (Samsung LCD)
- 10. 12. Closed China Branch
- 11. 06. Closed Guro branch and moved into Main Factory
- 13. 04. Extended Factory and use whole 4th floor, Bucheon Techno Park 102dong
- 13. 08. Set up 2 N2 Reflow M/Cs : HELLER 1809 MK III
- 13. 10. Expanded SMT Line (Total 6 SMT Lines)
- 14. 04. ADD a Insert Line as "Production Team III"

# D. Business

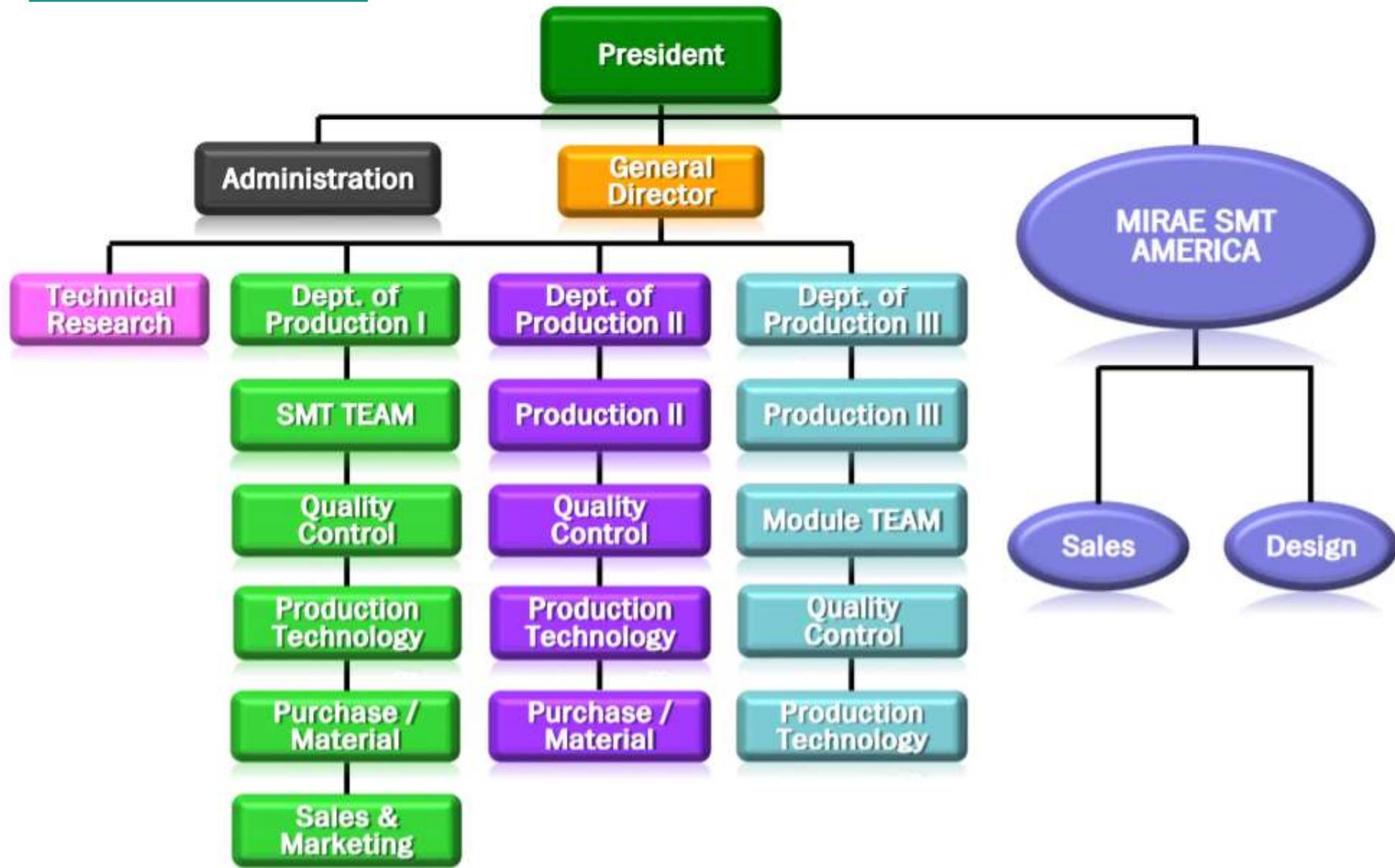
## Smart EMS Solution For OEM / ODM



## Marketing BIZ



## E. Organization



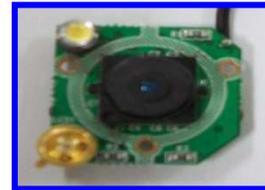
# F. Major Products

## Modules

Wifi Module

9mm\*8.5mm

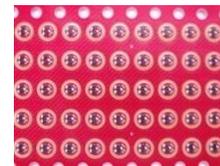
12mm\*10mm



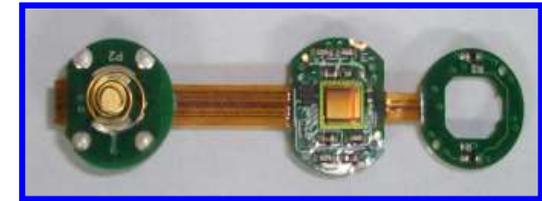
Camera Module



BLDC Motor



Micro phone



Bluetooth Module

Enlarge

# ASS'Y s

DVR



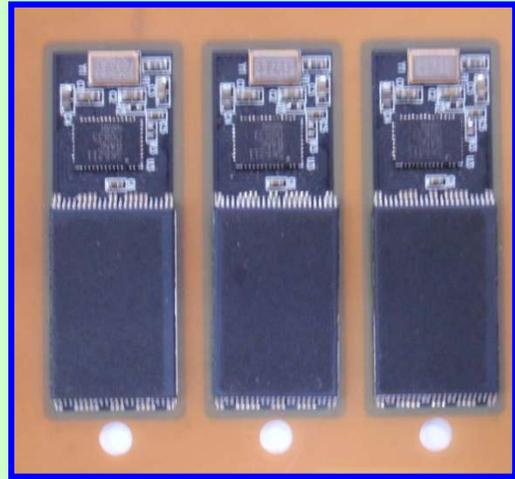
MAIN CONTROLLER



RF BOARD



Memory



## G. Facilities in Bucheon

MACHINE NAME	LOADER	SCREEN PRINTER	CHIP MOUNTER		VISION MOUNTER	REFLOW OVEN	UNLOADER
1 LINE 27,000 CPH	ALD-12S	SVP-735 (SJ INNOTECH)	KE-2010L (JUKI)	KE-750L (JUKI)	KE-760L (JUKI)	NS-800-N (JT)	AUD-12S
	-	C/TIME: 11 sec	CHIP: 11,000 CPH	CHIP: 8,500 CPH	CHIP: 7,500 CPH	AIR TYPE	-
2 LINE 49,500 CPH	ALD-12S	SP28P-DH (Panasonic)	FX-1R (JUKI)	KE-2050M (JUKI)	KE-2060 (JUKI)	1809 MK III (HELLER)	AUD-12S
	-	C/TIME: 12.5 sec	CHIP: 25,000 CPH	CHIP: 12,500 CPH	CHIP: 12,000 CPH	N2	-
3 LINE 62,000 CPH	ELD-400	SMART M500 (MSYS)	FX-1R (JUKI)	FX-1R (JUKI)	KE-2060R (JUKI)	1809 MK III (HELLER)	AUD-22
	-	C/TIME: 13.5 sec	CHIP: 25,000 CPH	CHIP: 25,000 CPH	CHIP: 12,000 CPH	N2	-
4 LINE 35,500 CPH	ELD-400N	HP-520SPI (SJ INNOTECH)	KE-2050M (JUKI)	KE-2050M (JUKI)	KE-2020L (JUKI)	NS-800 (JT)	EUD-400N
	-	C/TIME: 13.5 sec	CHIP: 12,500 CPH	CHIP: 12,500 CPH	CHIP: 10,500 CPH	AIR TYPE	-
5 LINE 32,500 CPH	ELD-500	SMART M500 (MSYS)	KE-2010M (JUKI)	KE-2010M (JUKI)	KE-2020M (JUKI)	SS-800 (JT)	AUD-12F
	-	C/TIME: 13.5 sec	CHIP: 11,000 CPH	CHIP: 11,000 CPH	CHIP: 10,500 CPH	AIR TYPE	-
6 LINE 16,000 CPH	ALD-12S	SVP-735 (SJ INNOTECH)	KE-750 (JUKI)		KE-760 (JUKI)	SS-800 (JT)	EUD-500
	-	C/TIME: 11 sec	CHIP: 8,500 CPH		CHIP: 7,500 CPH	AIR TYPE	-

# H. LINE Environment

## H-1. Lines

AIR SHOWER



1Line

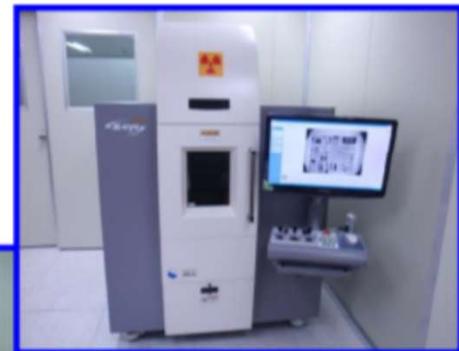


2Line

3LINE



AOI



X-RAY

REWORK



## H-2. Lines Environment

Inspection & REWORK



Processing Equipment



Material Storage – 1.



Material Storage – 2.



Material Storage – 3.



# I. Manufacturing Process

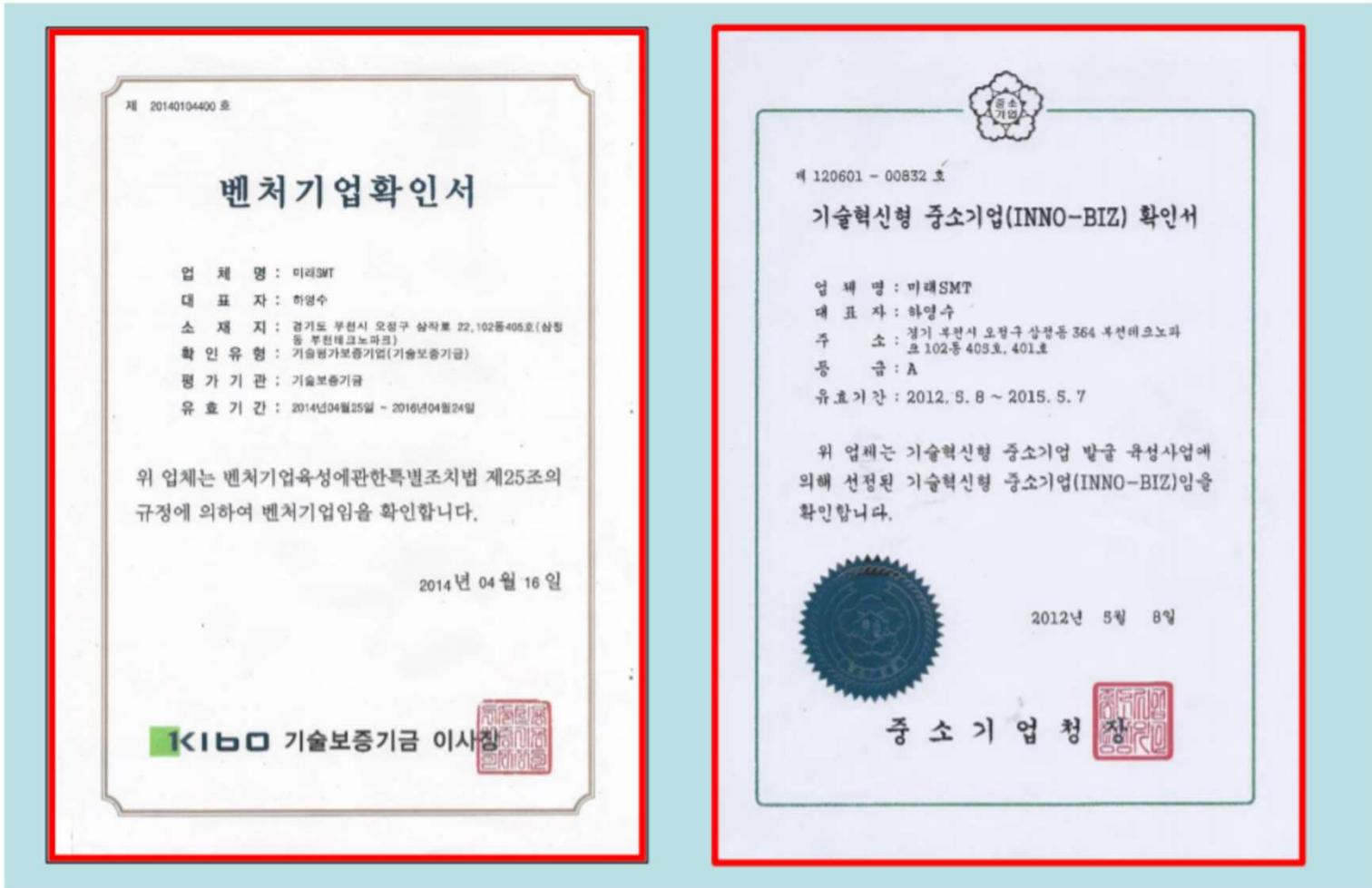
FLOW CHART	Process	Man. Point	Man. Standards	Related Documents	Rules	Man. Resp.	
	<ul style="list-style-type: none"> <li>❖ Purchase Materials</li> </ul>	<ul style="list-style-type: none"> <li>❖ BOM Check</li> <li>❖ Customer's Spec</li> </ul>		<ul style="list-style-type: none"> <li>❖ Material Receipt</li> <li>❖ Incoming Inspection Report (Supplier)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Rules of Purchase</li> </ul>	<ul style="list-style-type: none"> <li>❖ Head of Purchase Team</li> </ul>	
	<ul style="list-style-type: none"> <li>❖ Register Inspector</li> </ul>	<ul style="list-style-type: none"> <li>❖ Insp. Ability</li> <li>❖ Insp. Career</li> </ul>	<ul style="list-style-type: none"> <li>❖ Inspector Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Inspectors List</li> <li>❖ Certification</li> <li>❖ Inspectors Evaluations</li> </ul>	<ul style="list-style-type: none"> <li>❖ Rules of Education</li> </ul>	<ul style="list-style-type: none"> <li>❖ Q.A</li> <li>❖ Head of Q.A Team</li> </ul>	
	<ul style="list-style-type: none"> <li>❖ Incoming Inspection</li> </ul>	<ul style="list-style-type: none"> <li>❖ BOM Check</li> <li>❖ MSL Check</li> </ul>	<ul style="list-style-type: none"> <li>❖ Incoming Inspection Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Incoming Inspection Report</li> </ul>	<ul style="list-style-type: none"> <li>❖ Rules of Incoming Inspection</li> </ul>	<ul style="list-style-type: none"> <li>❖ Q.A</li> <li>❖ Head of Q.A Team</li> </ul>	
	<ul style="list-style-type: none"> <li>❖ Production</li> </ul>	<ul style="list-style-type: none"> <li>❖ SMT</li> <li>❖ Set</li> </ul>	<ul style="list-style-type: none"> <li>❖ BOM Check</li> <li>❖ Map Check</li> <li>❖ Assembly Diagram</li> </ul>	<ul style="list-style-type: none"> <li>❖ Standards for each process</li> <li>❖ Standards for each process</li> </ul>	<ul style="list-style-type: none"> <li>❖ Production Request</li> <li>❖ C/S for each process</li> <li>❖ P/S for each process</li> </ul>	<ul style="list-style-type: none"> <li>❖ Rules of process management</li> </ul>	<ul style="list-style-type: none"> <li>❖ Prod.</li> <li>❖ Head of Prod. Team</li> </ul>
	<ul style="list-style-type: none"> <li>❖ Process Inspection</li> </ul>	<ul style="list-style-type: none"> <li>❖ Quality Check</li> </ul>	<ul style="list-style-type: none"> <li>❖ SMT Inspection Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Process Insp. Sheet - SMT</li> <li>❖ Process Insp. Sheet - Assay</li> </ul>	<ul style="list-style-type: none"> <li>❖ Rules of Q.A.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Prod.</li> <li>❖ Head of Prod. Team</li> </ul>	
	<ul style="list-style-type: none"> <li>❖ Handling NG / Make measures</li> </ul>		<ul style="list-style-type: none"> <li>❖ Customer's Inspection Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Trouble Shooting</li> <li>❖ Fault Report</li> <li>❖ Measures</li> </ul>		<ul style="list-style-type: none"> <li>❖ Everyone</li> </ul>	
	<ul style="list-style-type: none"> <li>❖ Outgoing Inspection</li> </ul>	<ul style="list-style-type: none"> <li>❖ Qu'ty Check</li> <li>❖ BOM Check</li> <li>❖ AQL Check</li> </ul>	<ul style="list-style-type: none"> <li>❖ Outgoing Inspection Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Outgoing Inspection Report</li> </ul>	<ul style="list-style-type: none"> <li>❖ Rules of Quality Assurance</li> </ul>	<ul style="list-style-type: none"> <li>❖ Q.A</li> <li>❖ Head of Q.A Team</li> </ul>	
	<ul style="list-style-type: none"> <li>❖ Deliver</li> </ul>	<ul style="list-style-type: none"> <li>❖ Packaging Condition</li> <li>❖ Dealing Classification</li> </ul>	<ul style="list-style-type: none"> <li>❖ Deliver Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Deliver Confirm Sheet - O.G Insp. Report</li> <li>❖ Profile Check Sheet</li> <li>❖ Manu. history CARD</li> <li>❖ Material Return Sheet</li> <li>❖ Statement of account</li> </ul>	<ul style="list-style-type: none"> <li>❖ Rules of Sales</li> </ul>	<ul style="list-style-type: none"> <li>❖ Sales</li> <li>❖ Head of Sales Team</li> </ul>	

## J. SMT Process

Flow Chart	Process	Man. Points	Man. Standards	Related Documents	Man. Method	Man. Resp.
<pre> graph TD     A([Material Kitting]) --&gt; B([Printing])     B --&gt; C([Mounting])     C --&gt; D([Reflow Soldering])     D --&gt; E{ }     E --&gt; F{ }     F --&gt; G([Products Packing])                     </pre>	Material Kitting	<ul style="list-style-type: none"> <li>❖ Quantity, Spec. Check, Input to Line and Return</li> </ul>	<ul style="list-style-type: none"> <li>❖ Materials List</li> <li>❖ BOM</li> </ul>	<ul style="list-style-type: none"> <li>❖ Product Request Form</li> </ul>	<ul style="list-style-type: none"> <li>❖ Real / Quantity</li> </ul>	<ul style="list-style-type: none"> <li>❖ Purchase</li> <li>❖ H of P.T.</li> </ul>
	Printing	<ul style="list-style-type: none"> <li>❖ Solder Cream condition</li> <li>❖ Mask Check (appearance)</li> <li>❖ Squeegee Check (appearance)</li> <li>❖ Solder Spread State Check</li> </ul>	<ul style="list-style-type: none"> <li>❖ Solder Standards</li> <li>❖ Mask Standards</li> <li>❖ Squeegee Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Solder in/out C/S</li> <li>❖ Solder Label</li> <li>❖ Mask List</li> <li>❖ Squeegee C/S</li> <li>❖ F/M/L Check Sheet</li> </ul>	<ul style="list-style-type: none"> <li>❖ Solder In / Out</li> <li>❖ Team Change</li> <li>❖ Team Change</li> <li>❖ 6/a day (D/N)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Prod.</li> <li>❖ Head of Production Team</li> </ul>
		<ul style="list-style-type: none"> <li>❖ Solder Cream Condition</li> <li>❖ Mask Check (Tension, No. of use)</li> <li>❖ Squeegee Check (No. of use)</li> </ul>	❖ Scheduled to 2 <sup>nd</sup> Process			
	Mounting	<ul style="list-style-type: none"> <li>❖ PGM Manage</li> <li>❖ P.M Manage (Facilities)</li> <li>❖ Manage Mount Accuracy</li> <li>❖ Component Change Check</li> <li>❖ Capacity Check</li> </ul>	<ul style="list-style-type: none"> <li>❖ Operation guide</li> <li>❖ P.M List</li> <li>❖ BOM</li> <li>❖ MAP</li> </ul>	<ul style="list-style-type: none"> <li>❖ Feeder Check Sheet</li> <li>❖ Facilities Check Sheet</li> <li>❖ P.M List</li> <li>❖ Comp. change C/S</li> <li>❖ Comp. Capacity C/S</li> <li>❖ F/M/L Check Sheet</li> </ul>	<ul style="list-style-type: none"> <li>❖ 1 /2Hr</li> <li>❖ 1 /a Day</li> <li>❖ Yearly Sched.</li> <li>❖ Change</li> <li>❖ First Prod.</li> <li>❖ 6 /a day (D/N)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Prod.</li> <li>❖ Head of Production Team</li> </ul>
	Reflow Soldering	<ul style="list-style-type: none"> <li>❖ Profile Spec. Check</li> <li>❖ Soldering State</li> </ul>	<ul style="list-style-type: none"> <li>❖ Reflow Standards</li> <li>❖ Appearance Inspection Standards</li> </ul>	<ul style="list-style-type: none"> <li>❖ Profile List</li> <li>❖ F/M/L Check Sheet</li> </ul>	<ul style="list-style-type: none"> <li>❖ before F. Prod.</li> <li>❖ 6 /a day (D/N)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Prod.</li> <li>❖ Head of Prod. Team</li> </ul>
	Inspection	<ul style="list-style-type: none"> <li>❖ Soldering state check</li> <li>❖ First Prod. Inspection check</li> <li>❖ Mount State check</li> <li>❖ Component polarity check</li> <li>❖ Component crack check</li> </ul>	<ul style="list-style-type: none"> <li>❖ App. Inspection Standards</li> <li>❖ MAP</li> <li>❖ BOM</li> </ul>	<ul style="list-style-type: none"> <li>❖ Process Insp. C/S</li> <li>❖ First Prod. Check Sheet</li> <li>❖ F. Prod. Approval Sheet</li> <li>❖ F/M/L Check Sheet</li> </ul>	<ul style="list-style-type: none"> <li>❖ Every</li> <li>❖ First Prod.</li> <li>❖ 6/a day (D/N)</li> </ul>	<ul style="list-style-type: none"> <li>❖ Prod.</li> <li>❖ Head of Production Team</li> </ul>
	Outgoing Inspection	<ul style="list-style-type: none"> <li>❖ Emphasis Manage CTQ</li> <li>❖ Customer's Quality Standards (A.Q.L GII 0.1)</li> </ul>	<ul style="list-style-type: none"> <li>❖ O.G Inspection Standards</li> <li>❖ AQL TABLE</li> </ul>	<ul style="list-style-type: none"> <li>❖ O.G Insp. List</li> <li>❖ O.G Insp. Sheet</li> </ul>	<ul style="list-style-type: none"> <li>❖ Outgoing Inspection</li> </ul>	<ul style="list-style-type: none"> <li>❖ Q.A</li> <li>❖ Head of Q.A Team</li> </ul>
	Products Packing	<ul style="list-style-type: none"> <li>❖ Goods list check</li> <li>❖ Lot size check</li> </ul>		<ul style="list-style-type: none"> <li>❖ Product Request Form</li> </ul>	<ul style="list-style-type: none"> <li>❖ Finish Production</li> </ul>	<ul style="list-style-type: none"> <li>❖ Q.A</li> <li>❖ Head of Q.A Team</li> </ul>

## K. ISO Certification





## L. Company Location



📍 Add. : 102-405 Samjeong-dong Ojeong-gu, Bucheon-si, Gyeonggi-do  
 📞 Tel : 82-32-326-4850  
 📠 Fax : 82-32-326-4877  
 🌐 Homepage : [www.miraesmt.com](http://www.miraesmt.com)



THANK YOU

