

[별지 제2호(영문)]

## Company and Offset Item Specification Report

### ☐ Company Status

	Contents		
<b>Size of Company</b>	Small [     ]	Middle[     ]	Large/Conglomerate[   O   ]
<b>Listed or Not</b>	Listed[   O   ]		Unlisted[     ]
<b>Research Laboratory or Not</b>	Laboratory Exist [     ]		Laboratory Not Exist [   O   ]
<b>No. of full-time Employees</b>	10,150	<b>No. of R&amp;D researchers</b>	

### ☐ Company History

YY/MM	History
1988/02	Company established
1988/12	Introduced first aircraft (B737-400) Inaugurated first domestic flight
1990/01	Inaugurated first scheduled international flight (Seoul-Tokyo)
1991/01	Sam-koo Park took office as President
1998/03	Introduced first Airbus aircraft (A321-100)
2001/01	Chan-bup Park took office as President
2001/12	Built Asiana Incheon Hangar
2002/05	Joined the International Air Transport Association (IATA)
2003/03	Joined Star Alliance
2005/01	Joo-an Kang took office as President
2008/12	Young-doo Yoon took office as President
2013/08	Opened the Second Hangar at Incheon International Airport
2014/01	Soo-Cheon Kim took office as President
2018/09	Chang-soo Han took office as President

※ if necessary, you may use other paper

☐ **Sales and Investment (*recent 3 years*) [million KRW]**

	X-3 year	X-2 year	X-1 year	this year (1st half)
<b>domestic</b>	6,594,140(M KRW)	7,183,387(M KRW)	6,965,789(M KRW)	1,948,100(M KRW)
<b>export</b>	(M KRW)	(M KRW)	(M KRW)	(M KRW)
<b>R&amp;D investment</b>	(M KRW)	(M KRW)	(M KRW)	(M KRW)

※ if not prepared financial statements for this year, write from X-3 year to X-1 year.

☐ **Domestic/Foreign Major Vendors (major 2 companies)**

	vendor name	Sales (X-1 year)	vendor name	Sales (X-1 year)
<b>Domestic</b>	Air Incheon	197(M KRW)	SK Air	11(M KRW)
<b>Foreign</b>	Atlas Air	44(M KRW)		(M KRW)

☐ **Company Competitiveness (concretely)**

*write unconstrainedly regarding company competitiveness*

○ Maintenance Organization

- 1,609 employees (Maintenance Quality/Engineering/Operation division)

○ Domestic/Overseas AMO (Approved Maintenance Organization) aquisition

- MOLIT, FAA, EASA, CAAC, CAAP, CAAS, QCAA

○ Superior Maintenance Reliability

- 0.3~1.1% better reliability than worldwide average for Airbus 380/350/330/320F and Boeing 747/777/767 aircraft.

○ Hangar/facilities

- Incheon Airport Hangar(2ea), Gimpo Airport Hangar(1ea)
- Teleplatform(2ea), Crane(3ea), Aircraft fuselage/wing/tail Docking facility(1ea)

○ Maintenance capabilities

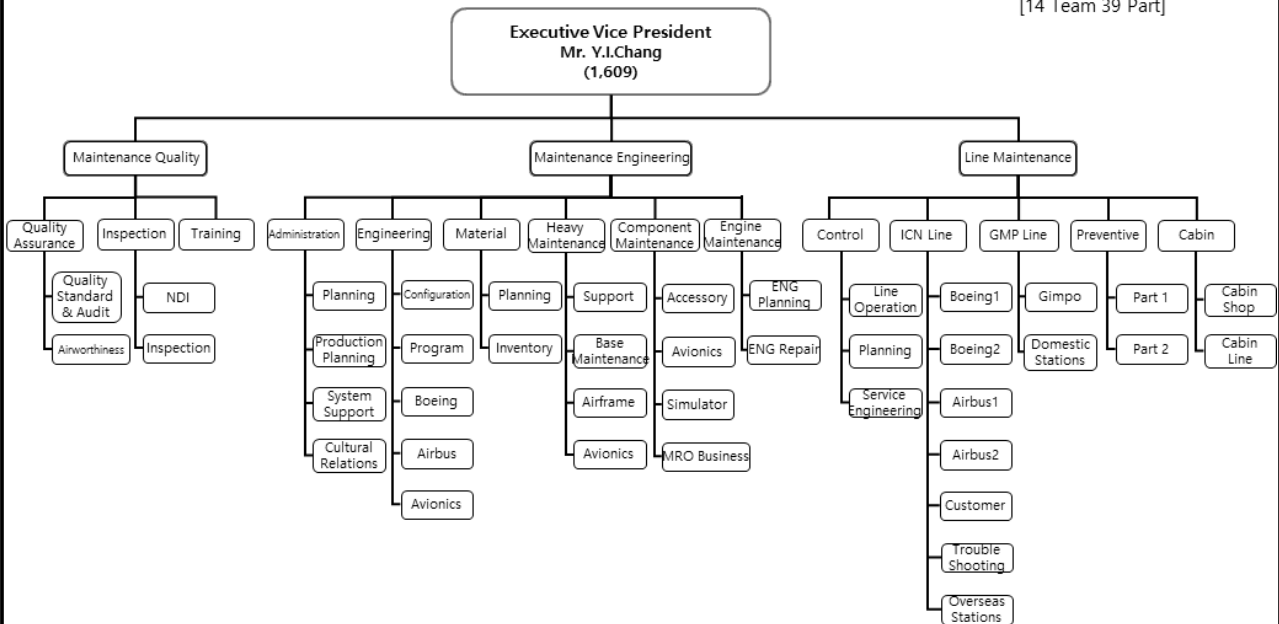
- Base maintenance(C, D check), Line service check(including A check)
- Quick Engine Change, Engine Water wash
- Landing Gear Change, Avionics, Sheet metal, Escape slide, Wheel/Tire, Brake, Component, etc.

○ Maintenance facilities and equipments

- Engine shop, Wheel/Tire shop, Brake shop, Hydraulic Test Room/Machine, Escape Slide Test room, ATEC6(Avionic Test Equipment), etc.

## Organization Chart – Maintenance Division

[14 Team 39 Part]



## Maintenance services (Examples)

### ◆ Overseas Certificate (FAA, EASA)

- 2018.12 FAA certi' acquisition for Component Maintenance
  - Battery, Escape Slide, Radome
- 2020.03 EASA certi' acquisition for Avionics Component Maintenance (ATEC 5 items)
  - RMP, EIU, SEC, BTMU, PHC
- 2020.12 Expected to acquire FAA certi' for Wheel/Tire, Thrust Reverser
- Maintenance support contract with OAL is in progress
- Certi' items on big-size Component and Dangerous Goods to be added preferentially

### ◆ ATEC6

- EASA certi' acquired for 5 items (Additional 3 items in progress for certification)
- RMP, EIU, SEC, BTMU, PHC, ELAC, MCDU, etc.



### ◆ Radome, Nacelle, etc.

- On-Wing Service, AOG Service
- Additional FAA certi' items are in progress
- Engineering support contracting with overseas MRO
- Expansion of Maintenance capabilities



### ◆ Engine

#### ➢ CFM56-3C HPC Rotor Blade exchange

- Defect: HPC Rotor Blade Damage
- Work
  - └ HPC Top Case detaching
  - └ Defective Blades repair and exchange
  - └ Major repair/modification Approval from Regional Aviation Administration



- Engine workshop enlargement (In progressing)

## Certificate (Korea)

대한민국  
공도교통부  
The Republic of Korea  
Ministry of Land, Infrastructure and Transport  
정비조직인증서  
APPROVED MAINTENANCE ORGANIZATION CERTIFICATE

1. 인증서 번호 : 제2004-AMO A02  
Certificate Number

2. 사업자 명칭 : 아시아나항공(주)  
Title of Approved Maintenance Organization

3. 사업자 주소 : 김포국제공항-사용측면서 강서구 공항동 94-1  
Address  
인원국제공항-인천광역시 중구 운서동 2840  
■ 정비조직원칙과법에 기재된 주소 포함

4. 본 증명서는 상기 정비조직인증서를 발급받은 사업자가 항공법 제138조 및 같은 법 시행규칙 제305조의3에 따른 정비조직인증기준에 적합한 것으로 판명됨에 따라 아래와 같은 한성내에서 인가된 정비조직을 운영하는 것을 승인합니다.  
Upon finding that its organization complies in all respects with the requirements of Article 138 of Aviation Act and Article 305-3 of Enforcement Regulation of Aviation Act an Approved Maintenance Organization and is empowered to operate an Approved Maintenance Organization with the following ratings.

5. 한성사항 : 세부적인 한성사항은 운항기준에 명기합니다.  
Ratings : The detailed ratings are specified in the Operations Specification.

6. 유효기간 :  
Validity period

☒ 이 정비조직인증서는 영도될 수 있으며 일시 자격정지 또는 무효화되거나 판납하지 않는 한 무기한 유효함  
This certificate is not transferable and shall continue in effect unless it is suspended, revoked, or surrendered.

☐ 이 정비조직인증서는 영도될 수 없으며 일시 자격정지 또는 무효화되거나 판납하지 않는 한, 발행일로부터 \_\_\_\_년 \_\_\_\_월 \_\_\_\_일까지 유효함  
This certificate is not transferable and shall continue in effect until MM.DD.YYYY unless it is suspended, revoked, or surrendered.

발행일 : 2013년 7월 31일  
(Date of Issue)

서울지방항공청장  
Administrator of Seoul Regional Aviation Administration

## Work Scope

	Certificate
Line Maintenance	A320F, A330, A350, A380, B737*, B747, B767, B777
Heavy Maintenance	A320F, A330, A350(L)**, A380(L)**, B747, B767, B777
Engine & APU	Limited (All type fleets)

Components	Airframe	Trust Reverser
		Composite, Radome
	Accessory	Emergency & OXY
		Wheel, Tire & Brake
		PNE' & HYD'
	AVI'	Electronics & Avionics
	Cabin	Cabin Interior & Seat

NDI	Fluorescent Penetrant, Eddy Current, Magnetic Particle, Ultra Wave, Radiation Test
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\* 400/500-BSI/Airframe, 600/700/800/900-Line Maintenance

\*\* Limited. A350 C check (To be approved)

[Asiana Airlines Maintenance Division]

## Certificate (Overseas)

UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

**Air Agency Certificate**

Number: 21133027

This certificate is issued to  
ASIANA AIRLINES  
whose business address is  
271 GONGNANG-RO  
JUNG-GU  
INCHEON, 1338, KOREA

upon finding that its organization complies in all respects with the requirements of the Federal Aviation Regulations relating to the establishment of an Air Agency, and is empowered to operate an approved REPAIR STATION

with the following ratings:

LIMITED - AIRFRAME  
LIMITED - NONDESTRUCTIVE INSPECTION, TESTING, AND PROCESSING  
LIMITED - EMERGENCY EQUIPMENT (12132018)  
LIMITED - ACCESSORIES (12132018)

This certificate, unless canceled, suspended, or revoked, shall continue in effect UNTIL OCTOBER 31, 2028

By the Director of the Administration  
ALTON K. CLARK, MANAGER  
LOS ANGELES OFFICE (AFS-54 LAX)

This Certificate is not transferable, and may not be copied or used in any way without the express written permission of the Federal Aviation Administration.

Any violation of this certificate is punishable by a fine of not exceeding \$5,000, or imprisonment not exceeding 3 years, or both.

FAA Form 8030-6 (1-11) APPROVED FOR PAPER USE

## FAA Certificate

1. B777, B747, A330 (Line)
2. Nondestructive Inspection
3. Component Repair
  - Ni-Cd Battery
  - Escape Slide
  - Nose Radome
  - Wheel & Tire
  - Thrust Reverser (Processing)

## EASA Certificate

1. A320, A350 (Line)
2. A320 (Base)
3. Nondestructive Inspection
4. Component Repair
  - RMP, EIU, SEC, BTMU, PHC

**EASA**  
European Aviation Safety Agency

Karl SPECHT  
Continuing Airworthiness Operations Manager  
Flight Standards Directorate

The Quality Manager  
Asiana Airlines Inc.  
2940 WOONGBE-DONG  
JUNG-GU, INCHEON, 400-340  
KOREA, REPUBLIC OF

Subject: Change to EASA Part 145 approval certificate

Reference: FS 06/Rev 03 EASA 145 0682

Enclosure: EASA Part 145 approval certificate

Dear Sir or Madam,

Following a positive recommendation for a Part 145 approval from EASA for:

Asiana Airlines Inc.

The European Aviation Safety Agency hereby encloses your EASA Part 145 approval certificate reference:

EASA 145 0682

This certificate supersedes the EASA 145 0682 approval certificate dated 09 April 2015. The superseded certificate shall be destroyed locally by your organization and does not need to be returned to the EASA.

Yours faithfully,  
Karl SPECHT

cc: Team Leader, EASA  
Certification and Approval Support Department, EASA

Head office, EASA  
12 rue de la Woluwe, 1200 Brussels, Belgium  
Tel: +32 (0) 229 01 0000  
Fax: +32 (0) 229 01 0001  
E-mail: easa@easa.europa.eu  
Web: www.easa.europa.eu

## CAAC (China), CAAP (Philippines), CAAS (Singapore), QCAA (Qatar)

☐ **Item Specification (concretely)**

Item Name	ATEC6 LRU REPAIR TECHNOLOGY TRANSFER & AIRBUS FHS(Flight Hour Service) PROGRAM PARTICIPATION		
Item Sales (X-1 year)	(M KRW)	Item Export (X-1 year)	(M KRW)
localization ratio (based on price)	%	SME ratio in Item production cost	%



ATEC system



Avionics Repair Shop

*Test equipments for Performance test*

*Item Specification (concretely if possible)*

- Refer to the attached "ATEC6 Specification" file

*Usage and Characteristic (concretely)*

- ATEC means the "Automatic Test Equipment Complex" system aimed at testing Line Replaceable Units(LRU) and repairing with the use of Test Program Sets(TPS). It is composed of the System Hardware, the System Software and the related documentation.
- Asiana is conducting the troubleshooting and testing for 7 TPS items(specifically 12 components) by utilizing ATEC6.
- Asiana anticipates to acquire level 3 repair capabilities for Multi-layer PCB(Printed Circuit Board) through strategic partnership with OEMServices in Europe.

*Manufacturing and Test Facility (concretely)*

Asiana's avionics parts coverage list(7 TPS / 12 components) is as follows:

1. BTMU, BRAKE TEMPERATURE MONITORING UNIT
  - 35-1H5-1002 (A320), - LA2H60300HM0100 (A330/A340)
2. EIU, ENGINE INTERFACE UNIT
  - 3957985205 (A320), - 3957985206 (A320)
3. ELAC, ELEVATOR AND AILERON COMPUTER
  - 3945129100 (A320)
4. MCDU, MULTIPURPOSE CONTROL AND DISPLAY UNIT
  - C19266AA01 (A320/A330/A340), - C19266DA01 (A320/A330/A340)
5. PHC, PROBE HEAT COMPUTER
  - 47215920BB00 (A320)
6. RMP, RADIO MANAGEMENT PANEL
  - C12848AA01 (A320), - C12848CA01 (A320), - C12848CB01 (A320)
7. SEC, SPOILER ELEVATOR COMPUTER
  - B372BAM0515 (A320)

*Item Competitiveness(price, performance, quality) (concretely)*

1. About 76%(87 aircraft) of Asiana's and its affiliated airlines' (Air Busan/Air Seoul) entire fleet(115 aircraft) is Airbus aircraft
2. Asiana is under contract with Airbus for components pooling service of its A330 and A380 fleet through FHS (Flight Hour Service), paying \$1.02M per month to Airbus
  - A330: 143 components (\$370K per month)
  - A380: 545 components (\$650K per month)

*Domestic/Foreign Certification regarding item (concretely)*

Refer to the attached "Component Capability List for EASA" file

*Export Strategy using Offset (concretely)*

- By developing specific repair capabilities, Asiana will do own maintenance work that overseas MROs have conducted so far. Furthermore Asiana will promote the strategic partnership with Airbus and participate in Airbus' FHS program as win-win relationship.

- Asiana anticipates to conduct the maintenance support for overseas airlines in Asia-pacific region as well as domestic airlines as Airbus' FHS program partner. It is necessary and effective way for us to prevent Korea capital outflow to overseas.
- Maintenance service scope for A330 MRTT of Korea Air force will be enlarged through Asiana's Component capabilities expansion.



## ■ ATEC6 Specification

### APPENDIXES

#### 1. APPENDIX 1 TECHNICAL SPECIFICATION



##### 1.1. Main power supply characteristics

**MAINS POWER SUPPLY CHARACTERISTICS:**

**VOLTAGE BETWEEN** 100/175V 115/200V 230/400V 240/415V

**PHASE AND NEUTRAL / 2 PHASES :**  
 (monophase or threephase wye / threephase delta)  
 (ex : 230/400 V)

**FREQUENCY CYCLE:**

50Hz 60 Hz

The form contains four checkboxes for voltage, four for phase and frequency, and two for frequency cycle. The checkboxes for 230/400V, 50Hz, and 60Hz are currently selected (shaded).

##### 1.2. ATEC® Series 6 CONFIGURATION

ATEC® Series 6 – 60A configuration. Standard configurations only are provided here. Refer to TPS supplies detailed description for specific extensions.

The hardware and software modules listed in this chapter represent the station's capacities and do not take into account resources management by the operator. Following configuration is provided as information only and will be confirmed at the time of Acceptance.

COMPUTER	QTY	REF
LCD Color Screen 24"	1	AA2003
PC, Tower, Windows Seven	1	AA3401
PC/MXI-2 Interface Kit	1	AB0701
PCIe/PXIe Interface Kit (JP0201)	1	AB2401
PCIe/GPIB Interface Kit	1	AB0811
Switch 10/100 Ethernet (FG0332)	1	AB2301
Laser Printer	1	AF0303
POWER SUPPLY	QTY	REF

DCHCPSL 40V/25A	1	BA0601
DCHCPSL 40V/15A	1	BA0801
DCPSL 40V/5A	1	BA1101
DCPSL 40V/5A Extension	2	BA1201
ACPSL 750VA/130Vrms	1	BB0602
ACPSL Extension 750VA/130Vrms	2	BB0702
FPS (Fixed Power Supply)	1	BC0103
<b>SIMULATION</b>	<b>QTY</b>	<b>REF</b>
PGA/AVG (PGA with AVG option)	1	CA0701
PGA/AVG Extension (PGA with AVG option)	1	CA0801
PFG (Programmable Function Generator)	2	CB0103
PRG-RES 1K (PRoGrammable RESistance)	1	CC0102
PRG-RES 10K (PRoGrammable RESistance)	1	CC0202
<b>MEASURE</b>	<b>QTY</b>	<b>REF</b>
DMM (Digital MultiMeter)	1	DA0202
CTR (CounTeR)	1	DB0102
ISM/LA	1	DD0301
SCM (Signal Conditioner Module)	1	DE0102
DSO (Digitizing Signal Oscilloscope)	1	DF0303
<b>SWITCHING</b>	<b>QTY</b>	<b>REF</b>
SWU (Switching Unit)	1	EA0403
ESWU_AS, Extension Switching Unit	1	EA0623
Resource Distributor Module (RDM)	2	EB0102
Source Switching Module (SSM)	6	EC0102
Bus Matrix Module (BMM)	6	ED0102
Power Switching Module (PSM)	1	EE0102
Discrete Logic Module (DLM)	1	EF0102
<b>DIGITAL</b>	<b>QTY</b>	<b>REF</b>
GPDS (General Purpose Digital Simulator)	1	FA0204
ARINC 429 Simulator (A429 / PXIe)	1	FM0104
<b>SOFTWARE</b>	<b>QTY</b>	<b>REF</b>
VISUAL C++ .net	1	IA1301
Packages Plus	1	IA1401
TPS Starter software	1	IC1901
SMART® 626 RTE & PDE Function (WINDOWS)	1	IB0203
SMART® 626 Library (WINDOWS)	1	IB0602
SMART® 626 WINGS (WINDOWS)	1	IB0702
SMART® 626 ATE Configuration (WINDOWS)	1	IB2001
MEMO	1	IC0502
ATOS	1	IC0702
FIRST (Follow-up of Incident Reports Software Tool)	1	IC0801
VISUAL C++ .net	1	IA1301
Packages Plus	1	IA1401
TPS Starter software	1	IC1901
SMART® 626 RTE & PDE Function (WINDOWS)	1	IB0203
<b>MISCELLANEOUS</b>	<b>QTY</b>	<b>REF</b>
VXI Rack (13 slots)	1	JA0101
PXI/PXIe Rack 8 slots	1	JP0101
Tall Bay	2	JB0302
Desk & Chair Basic Kit	1	JC0102
ITR (Insulation Transformer)	1	JD0101

(Component Capability List for EASA)



**Karl Specht**  
Maintenance Organisation Oversight Section Manager  
Flight Standards Directorate

2020/IFPTV982/Flight Standards  
Cologne, 16 March 2020

The Quality Manager  
ASIANA AIRLINES INC  
176 HANEUL-GIL, GANGSEO-GU  
7505 SEOUL  
SOUTH KOREA

**Subject: EASA approval EASA.145.0682 - Approval of Part-145**  
- Maintenance Organisation Exposition and/or associated documents  
- Nominated Person(s)

Dear Sir or Madam,

Following the successful investigation and the positive recommendation of the Team leader, EASA is pleased to confirm that:

The documents listed below are herewith approved:

Document type	Document name/Reference	Document issue number and issue date	Document revision number and revision date
Capability List (1.9)	EASA Capability List	---	0 - 21 Oct 2019
List of certifying staff, support staff and airworthiness review staff (1.6)	EASA Roster (AAR-MOE-01)	---	9 - 14 Feb 2020
Maintenance Organisation Exposition	MOE	---	10 - 24 Dec 2019

Please remember that any amendment to the document(s) listed above requires the prior approval of EASA in accordance with Part-145.B.40 (1).

The Nominated Person(s) listed below are herewith approved:

Name of the post holder	Position	Replaces
Ho Jin Kwak	Workshop Maintenance Manager	---

Please remember that all changes to the Nominated Person(s) listed above requires the prior approval of EASA in accordance with Part-145.B.20 (1).

Yours faithfully,

**Karl Specht**



An agency of the European Union

TE.GEN.00101-006

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ISO 9001:2008 Certified

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## COMPONENT CAPABILITY LIST FOR EASA.145.0682

Ref. No : AAR-CCR

Rating	ATA	P/N	Manufacturer	Description	Reference Doc	Level of Maintenance	Work Shop	Limitation
C3, Comms and Nav	23	C12848AA01	Thales	RMP (Radio Management Panel)	CMM 23-13-15A CMM 23-13-15B	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering
C3, Comms and Nav	23	C12848CA01	Thales	RMP (Radio Management Panel)	CMM 23-13-15A CMM 23-13-15B	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering
C3, Comms and Nav	23	C12848CB01	Thales	RMP (Radio Management Panel)	CMM 23-13-15A CMM 23-13-15B	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering
C7, Engine – APU	73	3957985205	Thales	EIU (Engine Interface Unit)	CMM 73-25-35 CMM 73-25-35B	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering

Revision No: 0

Revision Date: 21 OCT 19

## COMPONENT CAPABILITY LIST FOR EASA.145.0682

Ref. No : AAR-CCR

Rating	ATA	P/N	Manufacturer	Description	Reference Doc	Level of Maintenance	Work Shop	Limitation
C7, Engine – APU	73	3957985206	Thales	EIU (Engine Interface Unit)	CMM 73-25-35 CMM 73-25-35B	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering
C8, Flight Controls	27	B372BAM0515	Thales	SEC (Spoiler Elevator Computer)	CMM 27-94-10A CMM 27-94-01C	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering
C14, Landing Gear	32	35-1H5-1002	Thales	BTMU (Brake Temperature Monitoring Unit)	CMM 32-47-18 CMM 32-47-18A	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering
C14, Landing Gear	32	LA2H60300HM0100	Thales	BTMU (Brake Temperature Monitoring Unit)	CMM 32-47-20 CMM 32-47-20A CMM 32-47-18A	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering
C18, Protection Ice/Rain/Fire	30	47215920BB00	Thales	PHC (Probe Heat Computer)	CMM 30-31-40	Repair Inspection/Test Modification	Avionic Shop	Not applicable to the repair of soldering

Revision No: 0

Revision Date: 21 OCT 19