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**INDUSTRY STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**MH/T 9010.4-2018**

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**Ground-air high-speed data link technical specifications based  
on LET technology. Part 4: Installation and acceptance  
requirements**

**(English Translation)**

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### Foreword

MH/T 9010 "Ground-to-air high-speed data link technical specifications based on LTE technology" is divided into the following four parts.

--Part 1: General technical specifications;

--Part 2: Airborne terminal specifications;

--Part 3: Airborne antenna specifications;

--Part 4: Installation and acceptance requirements;

This part is part 4 of MH/T 9010.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part was proposed by the Aircraft Airworthiness Certification Department of the Civil Aviation Administration of China.

This part is under the jurisdiction of China Academy of Civil Aviation Science and Technology.

Drafting organizations of this section. Shenzhen Institute of Avionics Technology, Shenzhen Donica Avionics Co., Ltd.

## **1 Scope**

This part of MH/T 9010 stipulates the installation,, air-to-air high-speed data link (hereinafter referred to as ATG system) of civil aviation based on LTE technology Acceptance and maintenance requirements.

This section applies to the installation and airworthiness acceptance requirements of the ATG equipment onboard civil transport aircraft (including business jets).

## **2 Normative references**

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

MH/T 9010.1 Ground-to-air high-speed data link technical specifications based on LTE technology Part 1: General technical specifications MH/T 9010.2 Ground-to-air high-speed data link technical specifications based on LTE technology Part 2: Airborne terminal specifications MH/T 9010.3 Ground-to-air high-speed data link technical specifications based on LTE technology. Part 3: Airborne antenna specifications

## **3 Terms and definitions**

The terms and definitions defined in MH/T 9010.1 apply to this document.

## **4 Abbreviations**

The following abbreviations apply to this document.

ATG. Ground-to-air communication system EWIS. Electrical circuit interconnection system IP. network protocol LRU. Route Replaceable Parts Wi-Fi. wireless fidelity

### **5.1 Basis of certification**

The installation of airborne ATG equipment shall be in accordance with the regulations of the civil aviation authority to determine the certification basis for the project. Determine the basis for certification should consider its traceability requirements.

### **5.2 Equipment standards**

The airborne ATG equipment installed on transport aircraft should meet the requirements of MH/T 9010.1, MH/T 9010.2 and MH/T 9010.3.

### **5.3 Structure**

Should meet the requirements of the structure and load of the installed aircraft.

#### **5.4.1 General requirements**

The design and installation of airborne ATG equipment should not adversely affect the operation of the aircraft.

#### **5.4.2 Accessibility**

The airborne ATG equipment should be accessible for inspection and replacement required for continued airworthiness.

#### **5.4.3 Fire protection**

The airborne ATG equipment and its fixtures, EWIS components, etc. should meet the requirements of the installed aircraft for fire and smoke.

#### **5.4.4 Electrical bonding and anti-static protection**

The installation of airborne ATG equipment should meet the requirements of the installed aircraft for electrical bonding and anti-static protection to prevent personal injury and other installation problems.

The electrical and electronic system is damaged.

### **5.5.1 Function and installation**

After the airborne ATG equipment is installed, it shall comply with the regulations of MH/T 9010.1, MH/T 9010.2 and MH/T 9010.3.

## **5.5.2 Electricity**

### **5.5.2.1**

It shall meet the requirements for safe electricity use of the installed aircraft, including.

- a) Meet the electrical load capacity of the aircraft;
- b) The electrical installation of the system should not adversely affect other electrical equipment;
- c) Use reasonable circuit protection devices to ensure that other equipment and aircraft will not be damaged when the system circuit fails.

### **5.5.2.2**

When installing the airborne ATG equipment, electricity should not be taken from the aircraft's key bus bar, and it should be able to unload the electrical load in an emergency.

## **5.6.1 System Security Assessment**

According to the installation location of the airborne ATG equipment, determine its expected operating conditions, and ensure that the schedule can be completed under the expected operating conditions Function. The failure mode analysis of the system should be carried out to evaluate its impact on aircraft safety.

## **5.6.2 Interference effects**

Airborne ATG equipment should not cause harmful conduction or radiation interference, nor should it be affected by conduction or radiation from other equipment or systems on the aircraft.

## **5.7 EWIS**

Should comply with the relevant regulations of the civil aviation authority.

## **5.8 Line construction**

The requirements of the aircraft manufacturer's standard wiring construction manual shall be followed.

## **5.9 Structural installation**

The requirements of the aircraft manufacturer's structural repair manual shall be followed.