



GSM on Board – Be Mobile OnAir



GSM on Board – System Overview

General Description

GSM on Board is a passenger aircraft mobile telephone system designed by Airbus and supplied by KID-Systeme GmbH. Voice and data services are operated by OnAir.

Contact: www.onair.aero

The system has been designed to support the following services:

- Voice
- Short Message Service (SMS)
- General Packet Radio Service (GPRS) data services which will also support Multimedia Message Service (MMS) and Wireless Application Protocol (WAP)
- Supplementary GSM services such as call forwarding, call barring and calling line identification

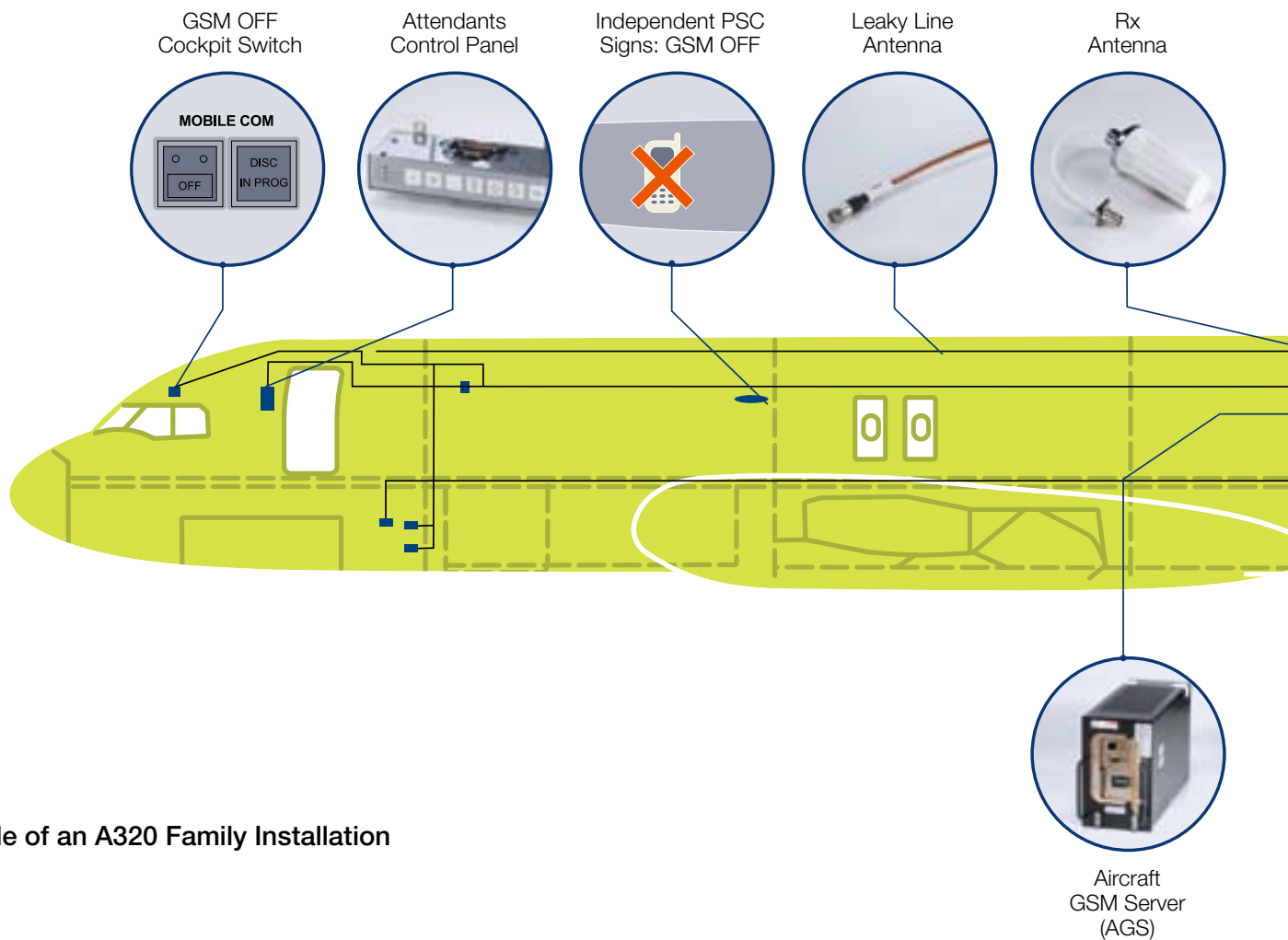




System Functionality and Safety

The system is designed to guarantee that passengers' cell phones will operate in a mode compliant with aviation and telecommunication regulatory requirements, that is:

- The system operates during the cruise phase only. It will work in compliance with all conditions set out by the relevant regulatory bodies.
- The cell phones will not attempt to log on to terrestrial networks flown over during the flight.
- The cell phones will transmit at power levels far lower than in typical terrestrial environments. Consequently, the emitted power will not interfere with aircraft equipment.
- System monitoring and selection of data only or voice & data service mode from the cabin.
- System switch-off from cockpit.



Example of an A320 Family Installation

GSM on Board Instal

System Installation

The GSM on Board is based on existing industrial technology adapted for use on aircraft. The installation must be done in conjunction with the Inmarsat SwiftBoardBand system which connects the GSM on Board to the ground telephony network.

Cabin Installation

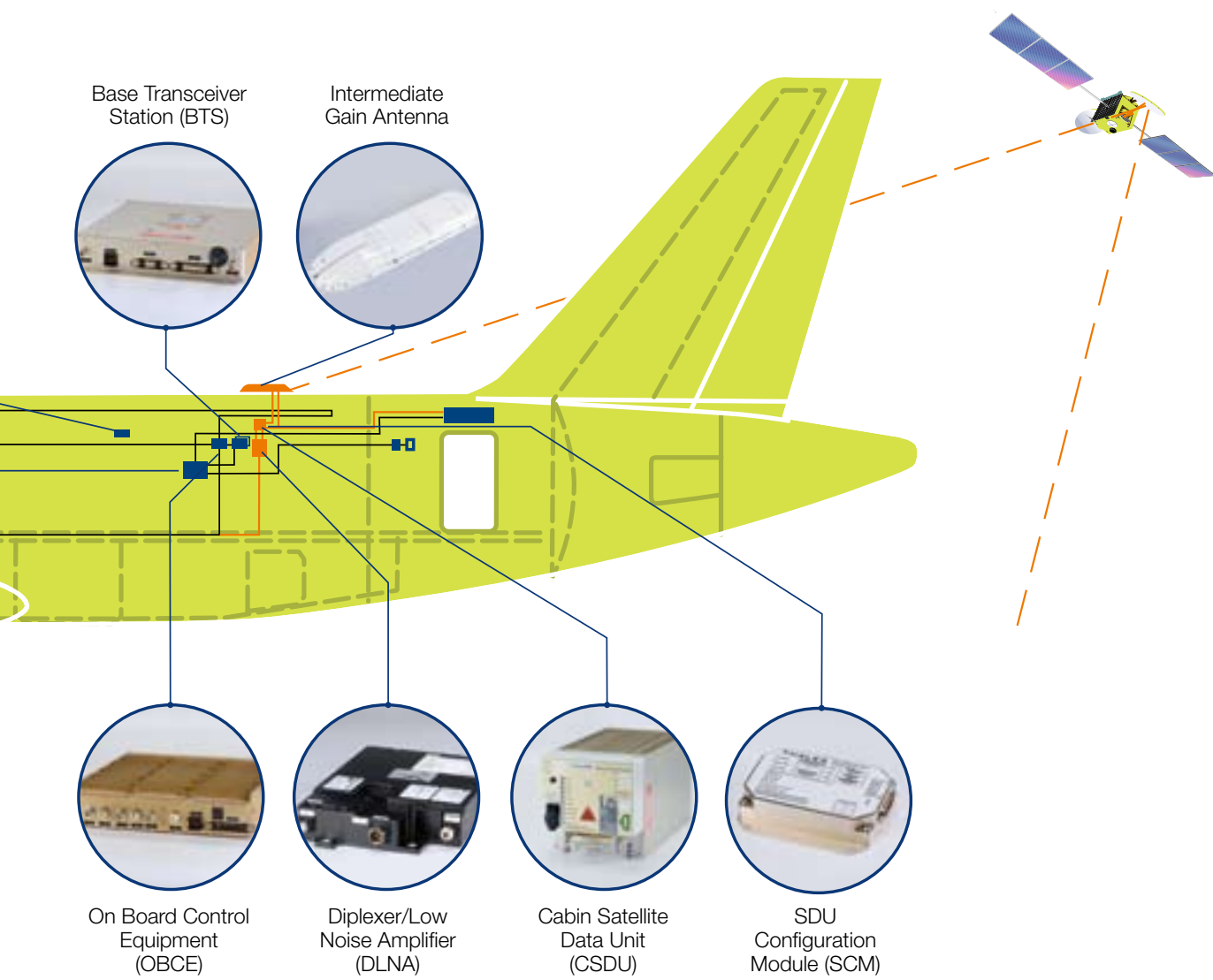
The following equipment will be installed in the cabin:

- The crew Control Panel in the forward attendant area.
- The Rx Antenna, the Base Transceiver Station and the On Board Control equipment above the cabin ceiling.
- The Aircraft GSM Server, the Cabin Satellite Data Unit (satellite modem) as well as the SDU Configuration Module in an overhead storage compartment.
- The emission antenna (Leaky Line) in the ceiling along the whole length of the cabin.

- The Diplexer Low Noise Amplifier located near to the external satellite antenna.
- The PSU channel will be modified to replace the No Smoking sign by a No Telephone pictogram.

Cockpit Installation

A control switch installed in the cockpit will allow the captain to switch off the system.



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External Satellite Antenna Installation

The satellite antenna will be installed on the rear part of the fuselage at frames. It has been designed to minimise the aerodynamic resistance (drag).

Partners:



THALES



Brochure contains the present state of development.



AIRBUS
KID-SYSTEME

**KID-SYSTEME GMBH
LÜNEBURGER SCHANZE 30
21614 BUXTEHUDE
GERMANY
PHONE +49 (0) 40 743-716 33
FAX +49 (0) 40 743-838 29
WWW.KID-SYSTEME.COM**

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