

ROHDE & SCHWARZ

Make ideas real



THE SOVERON AIRBORNE RADIO FAMILY AND THE A400M

The only military airborne radio that meets
civil aviation certification requirements

AT A GLANCE

- ▶ **Customer:** Airbus Defence and Space
- ▶ **Task:** Development of airborne communications for the Airbus A400M aircraft
- ▶ **Challenge:** As part of the A400M program, the transceivers needed to meet the prerequisites for approval also in line with civil avionics standards
- ▶ **Solution/product:** A unique transceiver from the SOVERON airborne software defined radio family was developed to meet EASA standards, e.g. for communications with civil air traffic control and to support military standards including NATO frequency hopping (TRANSEC) HAVE QUICK II/SATURN and NATO encryption (COMSEC)
- ▶ **Key benefits:** The A400 transport aircraft can be used in international air space under network centric warfare conditions



The platform

The Airbus A400M was launched in May 2003 to respond to the combined needs of seven European Nations regrouped within OCCAR (Belgium, France, Germany, Luxemburg, Spain, Turkey and the UK), with Malaysia joining in 2005. The A400M made its first flight on 11 December 2009.

Customer situation and requirement

The A400M is an advanced, proven and certified airlifter, combining 21st century state-of-the-art technologies to fulfil the current and upcoming needs of armed forces and humanitarian organizations. It combines the capability to carry strategic loads with the ability to deliver even into tactical locations with small and unprepared airstrips and can act as a frontline-tanker. The multirole aircraft furthermore supports paratrooper deployment, transport and air-to-air refueling capabilities.

Rohde & Schwarz solution

Rohde & Schwarz as THE communications supplier for all Airbus A400M aircraft with its software defined radios (SDR) of the SOVERON family of airborne transceivers. Each aircraft is fitted with four VHF/UHF transceivers. Rohde & Schwarz is the only provider of military airborne radios, which meet the civil aviation certification requirements of the European Aviation Safety Agency (EASA). Military aircraft can only be certified and operated without restrictions when they fulfill both military and civil requirements.

For more information, visit
www.rohde-schwarz.com





Results and achievements

Rohde & Schwarz, as the only provider of military airborne radios that meet the civil aviation certification requirements of the EASA, provides an airborne transceiver, which uses state-of-the-art communications methods that were standardized throughout NATO, including frequency-hopping techniques and NATO cryptology. This unique transceiver from the SOVERON airborne software defined radio family has been SECAN and BSI certified to allow secure communications up to NATO secret. By means of software downloads, the transceivers can already implement important functions required during a mission. This ensures that the A400M transport aircraft can be used in international air space under network centric warfare conditions. Almost 8500 SDRs from the SOVERON airborne transceiver family are in use worldwide on over 70 different airborne platforms.

Product

The SOVERON product family consists of excellent performing airborne transceivers for airborne communications. As part of the family, the R&S®MR6000A SDR has excellent characteristics that make it suitable for applications in military and civil environments including all types of airborne platforms such as helicopters, transport aircraft, jets and unmanned aerial vehicles.

R&S®MR6000A covers the frequency range from 30 MHz to 400 MHz and supports the NATO frequency hopping methods (TRANSEC) HAVE QUICK II and SATURN. Integrated NATO encryption (COMSEC) protects voice and data transmissions against eavesdropping. Comes in an ARINC 600 housing for perfect fitting and integration into the instruments rack.

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 The SOVERON Airborne Radio Family and the A400M
 PD 3609.6193.32 | Version 02.00 | August 2024 (ch)
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The five pillars of true independence.

1 Meets both civil and military avionic standards.

2 Designed for ease of integration.

3 Assured command and control (C2) superiority.

4 Customized national data link solutions.

5 Independent privately owned manufacturer.

“The R&S®MR6000A airborne transceiver combines excellent RF parameters, compliance with civil specifications and top functional safety even under extreme environmental conditions in an ARINC 600 housing. The transceiver meets our most demanding requirements and is well suited for use in the A400M. Moreover, the civil approval for this airborne transceiver allows the aircraft to move in international airspace under all conditions.”

Stefan Pleyer, Vice President Avionics at Rohde & Schwarz

