

MISSION EQUIPMENT



Description

As an independent **EASA Part 21J Design Organization** SPAES offers the execution of Supplemental Type Certificate (STC), Minor Change and Minor Repair for the areas of avionics, cabin, structure, electrical systems, night vision imaging systems and medical equipment.

In its own **EASA Part 21G Production Organization** SPAES manufactures customer specific and own products as well as installation KITS with EASA Form 1, which are installed in the aircraft by Part 145 companies.

Benefits

Types of Approval

- Small Helicopters (CS27)
- Large Helicopters (CS29)
- Small Aeroplanes (CS23)
- Large Aeroplanes (CS25) Cabin Interior

Terms of Approval

- Avionics
- Electrical Systems
- Structure/Composite
- Cabin Interior
- Night Vision Imaging Systems (NVIS)



SCAN ME



Our portfolio

Avionics/Electrical Systems

- COM/NAV
- GPS
- ADS-B
- RAD-ALT
- TCAS
- Cockpit Voice Flight Data Recorder
- Flight Management

Structure

- Antenna Installation
- Monitor Brackets
- Instruments
- Seat Integration
- Medical Cabin Integration
- Transport Bracket/Mounting Bracket

Cabin Interior

- Refurbishment Cabin Interior
- Side Covers
- Cabin Ceiling
- VIP-Equipment
- Entertainment
- Carpets
- Seat Covers

Special Equipment

- Air Rescue
- Offshore
- Special Mission
- Tactical Workstation
- Medical Equipment
- Surveillance, Emergency Systems
- AD-ELT
- NVIS

Our products – your benefit

You require the installation of new mission equipment or need medical systems for your new mission profile – we have the right solution for your demands.

By cooperating with renowned partners from the aviation industry and companies in air rescue, we design and manufacture tailor-made products for your applications. Whether fiber composite, metal or avionics, we implement your requirements from the idea to the finished product for you in our EASA Part 21J Design Organization and Part 21G Production Organization.

We are specialized in the following areas:

- Mission Equipment
- Medical Systems
- Engineering
- Manufacturing



SPAES GmbH & Co. KG

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POWERSHIELD 230 VAC



Description

The PowerShield 230 VAC is a critical component for ensuring the safety and reliability of electrical systems in helicopters. It meets EASA requirements outlined in CM-ES-001 Issue 2 (as of 2020, 3.1.2.2. Fault Protection)

The PowerShield 230 VAC comes with EASA Form 1 approval for aviation use. It is also qualified according to RTCA DO-160G.

The product is user-friendly, featuring a simple on/off switch, and can be easily installed at your preferred location. Moreover, its design is customizable to meet specific needs.

Delivery includes:

- EASA Form 1 Release Certificate
- Kit incl. Plug
- Free choice of housing colour
- Company specific engraving possible



Technical Details

- For 230 VAC/50 Hz Systems
- Up to 20A current capacity
- Operating temperature range from -25 degrees to +60 average degrees Celsius
- Approved for altitudes up to 6000m (19650 ft)
- Trip current: 30mA
- Meets the requirements of EASA CM-ES-001 Issue 2 (as of 2020, 3.1.2.2. Fault Protection)
- Qualified according to RTCA DO-160G
- Aerospace connector following MIL-DTL-5015 standards

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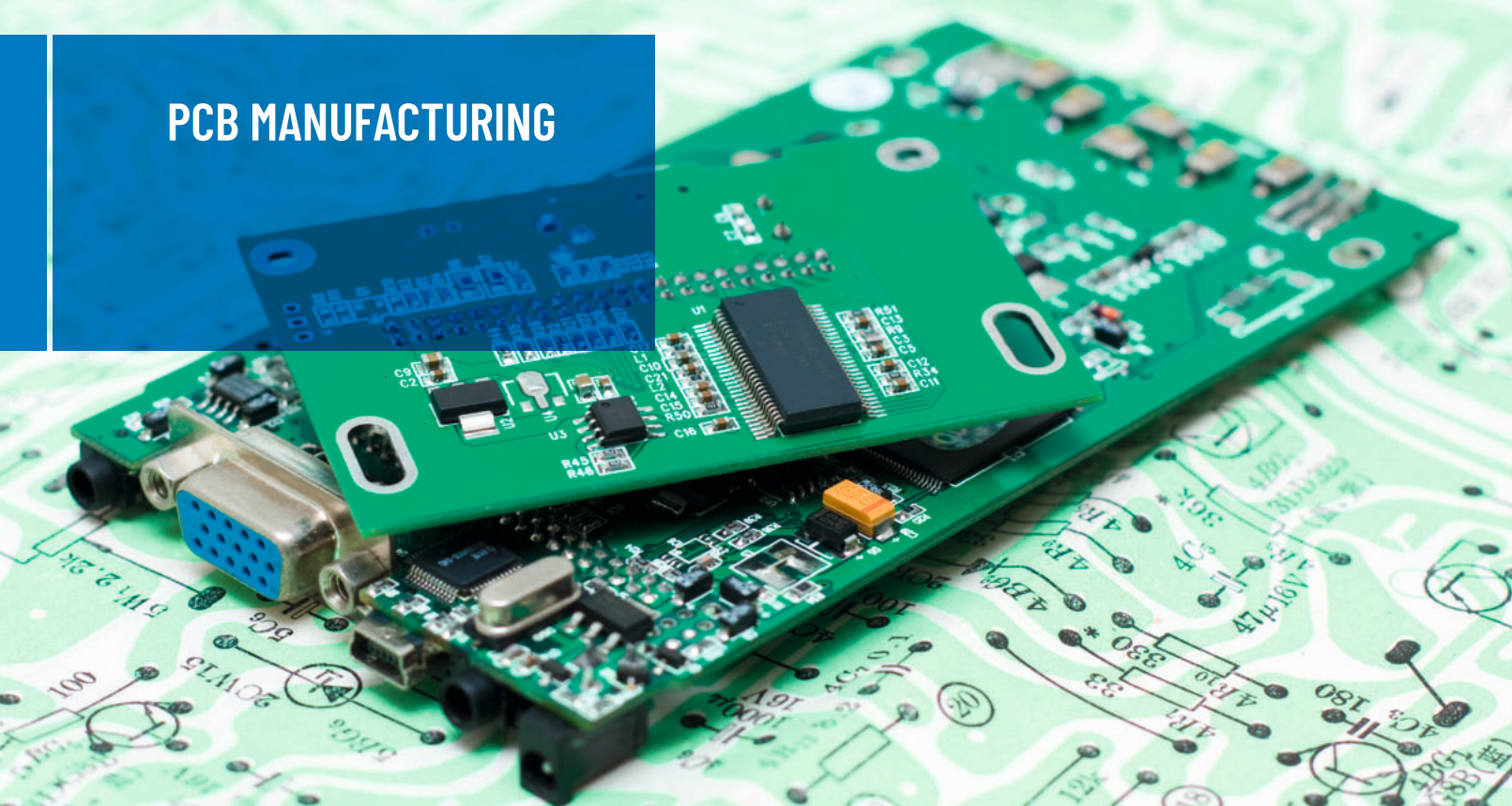
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PCB MANUFACTURING



Description

For PCB Manufacturing we offer both Surface Mount Device (SMD) and Through Hole Technology (THT) mounting methods, catering to various PCB requirements. Our design and manufacturing process meets high-quality standards and complies with EASA regulations. We issue an EASA Form 1 Release Certificate or a Certificate of Conformity (CoC).

From simple single sided PCB to complex multilayer PCB – a whole range of services is provided and tailored to customer requirements. At SPAES we offer everything from one hand – from design to prototype manufacturing and certification up to serial production. We offer you prototypes starting from a quantity of 1 piece.

Specialized in:

- Design and Layout
- Surface Mount Device
- Through Hole Technology
- Coating & Potting
- Panel Manufacturing





Recent project: Installation of a Direct Call Unit in an Airbus H125

Due to the shutdown of the 2G network, a telephone modem for a helicopter was manufactured for a customer and the data transfer system was exchanged from 2G to 4G in an Airbus H125.

SPAES offered the complete package from start to finish – from PCB assembly to the installation of the software on the device up to subsequent test report according to the specifications of the EASA Part 21J Design Organization. The Installation documents and the Minor Change came from the customer and SPAES offered the PCB assembly in its own EASA Part 21G Production Organization and issued an EASA Form 1 Release Certificate.



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AUTOMATIC DEPLOYABLE EMERGENCY LOCATOR TRANSMITTER (AD-ELT)

Description

The Automatic Deployable Emergency Locator Transmitter is for operations of the helicopter over water. Increased safety by manual or automatic activation of the system. The AD-ELT system complies with EASA requirements for offshore operation of helicopters.



Benefits

- No interference during passenger transport or mission operations compared to other types of installation
- Digital accelerometers guarantee a more reliable and accurate activation compared to conventional alternatives
- Easy installation and replacement of the batteries
- Modular design allows easy maintenance
- Easy operation by mounting the control unit in the centre console
- There are two ways to place the beacon:
 - front cover
 - middle cover
- Space-saving installation of the beacon



Details

- Three ways of activation:
manual, automatic with G-sensor or water switch
- Installation of the hardware:
 - Control unit in the centre console
 - AD-ELT Beacon behind the Fenestron
 - Beacon Release Unit in the Cargo Compartment
 - Water switch in side fuselage RH
 - Aircraft ID Config. Unit and System Interface Unit at Avionic Deck
- Installation KIT available
- Due to compact system installation, no Beacon Deployment Control Unit is required

The AD-ELT is available for types of Airbus EC 135, EC 155, AS 350 and AS 365. Other types on request.

For further information about the AD-ELT and the Installation-KIT, please contact us.

CPI Beacon, 503-16 Series Deployable ELT (by HR Smith)

- 121,5 MHz, (243 MHz optional) & 406 MHz
- GPS coordinated transmitted message via 406 MHz
- Class A ELT
- Automatic and manual insert control
- FDR and CVR Memory module (optional)

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INTEGRATION OF A LIGHTWEIGHT & CRASH PROTECTED VOICE AND FLIGHT DATA RECORDER

LIGHTWEIGHT & CRASH PROTECTED VOICE AND FLIGHT DATA RECORDER (CVFDR) INTEGRATION

IN SMALL AND MEDIUM HELICOPTER

The [new EU regulation 2019/1387](#) requires that all aircraft with turbine engines over 2.25 tons, which includes small and light aircraft, must carry a flight recorder that complies with the ED-155 directive [from 2022 onwards for newly built helicopter](#).

The [SferiRec® Lightweight and Crash Protected Voice and Flight Data Recorder](#), with recording functions for sound, flight data and video in one housing and weighing just 1 kg, is the right answer to these requirements.

SPAES offers a [one-time opportunity](#) in acquiring the CVFDR under [special conditions](#). That includes the Supplement Type Certificate (STC), the product itself and the installation in the helicopter.

The first type STC is planned for the [H125 helicopter](#) where SPAES has prepared the installation and approval documentation.

This [STC package](#) includes the [free SferiRec Lightweight Crash Recorder 100](#) and a [reduced STC price](#). During the STC process, SPAES works closely together with the installation team. Further STCs for other helicopters like [Airbus H135](#), [Bell 505](#), [Robinson R44/66](#) or other types can be developed based on demand.

The [SferiRec® Lightweight CVFDR](#) is a [Combined Voice and Flight Data Recorder](#) with a modular architecture, whereas solid state memory technology will be applied to store audio, data link and flight data on an [integrated Crash Protected Memory Module \(CPM\)](#).



Details

The HENSOLDT SferiRec[®] CVFDR weighing only 1 kg/ 2.2 lbs:

- Combines into a single box all acquisition and recording functions: cockpit voice and image data, flight data and Crash Protected Memory (CPM) that were previously spread across different devices
- Integrates its own internal sensors: area microphone, 3-axis gyroscope and g-sensors, air pressure and temperature sensors, GPS receiver
- Offers a Quick Access Recorder (QAR) via SD Card
- EASA (E)TSO-2C197 certified (meeting ED-155 / RTCA DO-178, D-254, DO-160 requirements)



Profit from this special offer, call us now!

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