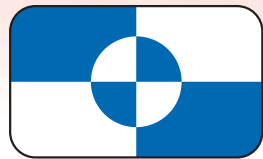
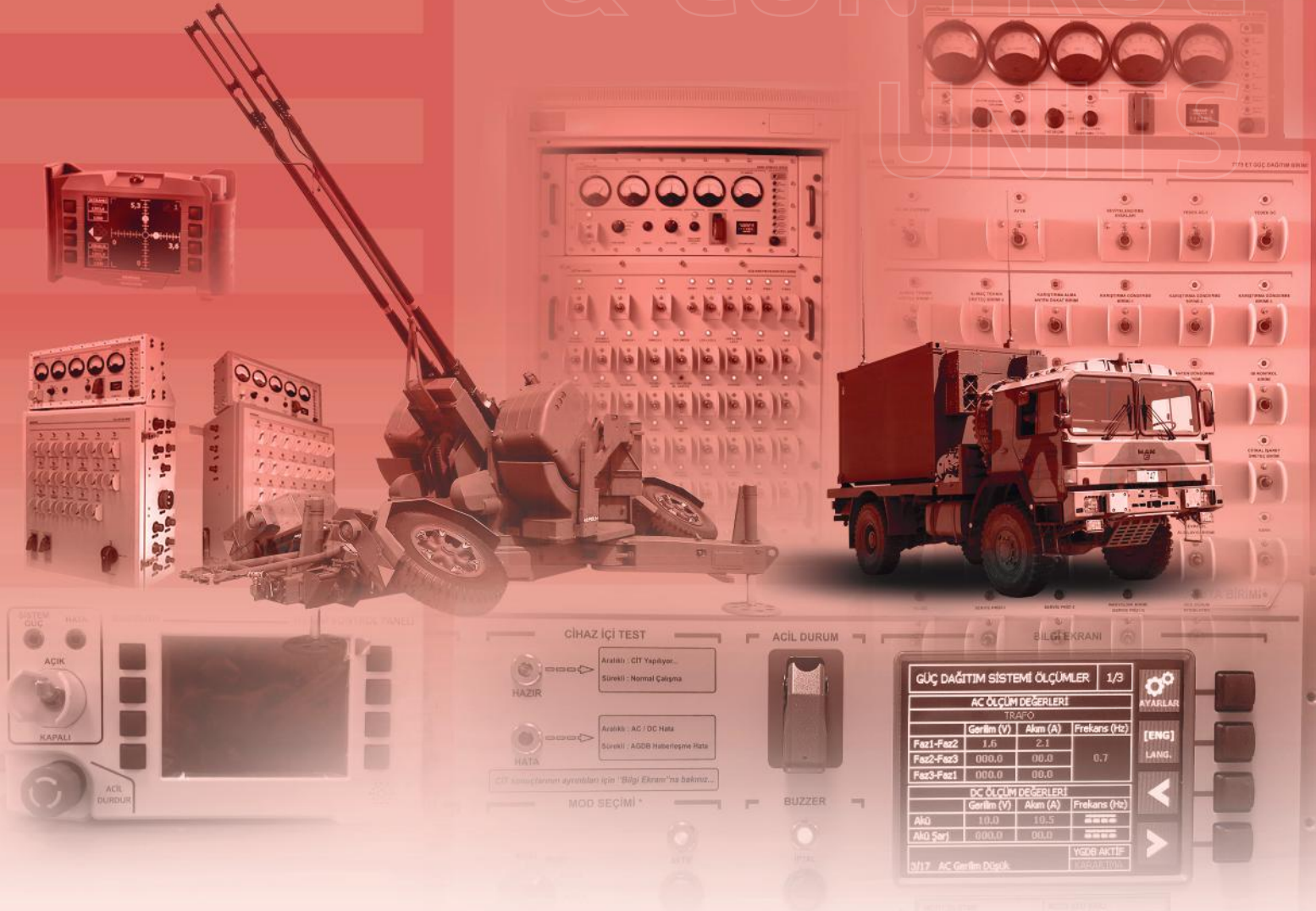


POWER DISTRIBUTION & CONTROL UNITS



Savronik

WHO ARE WE ?

Savronik's adventure of Power Distribution and Control Units (PDCU) in the field of Defense Industry started **in the early 2000s** and since then the number of PDCU configurations designed and developed has reached **90 (Ninety)**.

As a subcontractor mainly for defense industry foundations owned by the Turkish Armed Forces and as a main contractor, Savronik has designed, developed and produced PDCUs for domestic and foreign markets. The PDCUs by Savronik are used actively to meet controlled and protected power needs on various platforms across Turkey and in many countries.



WHY SAVRONIK ?

Leading technology for power

By means of Savronik-designed Power Distribution and Control Units (PDCU) and additional state-of-the-art **circuits/equipment/microprocessors**, the quality of the electrical power on the system can be **monitored, controlled, protected and determined autonomously, without user support, through smart components and scenarios.**

PDCUs can be developed for stationary interior applications as well as **land, naval and airborne vehicle** platforms. In order to provide power distribution for these systems, Savronik can design the PDCUs specifically, with different integrated interfaces and different dimensions. For each platform, different shock and vibration profile-resistant products are produced.

2003	2005	2007	2009	2010	2011	2012	2017	2020	2022
FIRST MICROPROCESSOR controlled PDCU design	FIRST "3-PHASE 400VAC" , PDCU design with ETHERNET connection	FIRST 19" RACK CABINET compatible with the PDCU design	FIRST MARINE ENVIRONMENTAL PDCU design	FIRST UAV-Ground Control Station PDCU design	FIRST FIXED-WING Aircraft PDCU designs	FIRST Solid State Power Controller (SSPC) Board design	FIRST ROTARY-WING Aircraft PDCU designs	FIRST 19" Rack compatible with the INDUSTRIAL TYPE PDCU (PORSUK) design	FIRST JET MOTOR Aircraft Smart PDCU designs
90 DIFFERENT CONFIGURATION PDCU DESIGNS					3000 PIECES PDCU DELIVERY		20 YEAR PDCU DESIGN EXPERIENCE		CUSTOM DESIGN FOR EACH PLATFORM

OUR DESIGN CAPABILITIES

Hardware Design

For PDCU designs, Savronik follows **new technologies closely, considers present needs and focuses on the customer needs.** Its proven **electronic circuit board designs, system designs, cabling designs, etc.**, are realized by its full-time competent and experienced engineer staff in the field of power. In case of a need for PDCUs, **fast, unique and reliable solutions** are provided in accordance with **quality management systems (AS-9100, ISO-9001:2015, IPC) and other design quality standards.**



During the Printed Circuit Board(PCB) designs, circuit diagram and layout (traces) designs are realized in accordance with IPC standards by our own engineer team. Original circuit structures, which have been used on units and tested many times before, are carefully selected from a large library archive and used in accordance with the system requirements.

Software Design

Both **embedded software for smart PDCUs** and **High-Level application software** for functional tests are specifically developed by the Savronik's teams of engineers. The data on the PDCU can be displayed both **on analog displays and on LCD screens through a user interface.** As it is on PDCUs, it can be also developed as separate units (**Human-Machine Interface/HMI**).

Power quality monitoring, controlling each output, and software remote updating are done through the **Test software and Maintenance Software** developed for PDCUs.

The Savronik software team has a **wide range of know-how of different microprocessors from various manufacturers.** **Quick alternatives** are presented to meet the specific needs of a project with effective solutions considering the current processor supply crises.

For the platform projects with the high reliability, the use of **FPGA (Field-Programmable Gate Array)** instead of microprocessor and **redundant system solutions** are among our capabilities.

Mechanical Design

Mechanical structures for the PDCUs are designed, in accordance with the **MIL-STD-1472F (Department of Defense Design Criteria Standard: Human Engineering) standard,** as wall type, trailer type, shelter type and 19" rack cabinet type by our own mechanical design engineers.

Besides PDCU mechanical designs, Thermal Analysis, Dynamic Analysis, Static Analysis and Fatigue Analysis are also carried out in accordance with the operating scenarios of the system.



OUR POWER SWITCHING CAPABILITIES

The power switching techniques used in our designs since the first production in the Power Distribution and Control Units (GDKB) Product Family;

Traditional Switching Methods

- Relay,
- Contactor,
- Circuit Breaker/Fuse

Solid-State Switching Methods

- Solid-State Power Controller(SSPC)-Innovative Electronic Card Designs

PDCUs produced with power switching techniques play an important role in meeting electrical power needs on;

Land Platforms (Shelter, Wheeled Tire, Tracked Vehicle etc.),

Naval Platforms (Underwater and surface vehicles, etc.),

Airborne Platforms (UAV, Fixed Wing, Rotary Wing etc.).

Due to the high level of reliability of GDKB Systems developed specifically for aircraft, the design processes are carried out in accordance with;

DO-254, Design Assurance Guidance for Airborne Electronic Hardware,
DO-178C, Software Considerations in Airborne Systems and Equipment Certification.



OUR TEST CAPABILITIES

For every PDCU produced, the following tests are conducted with high precision in our test labs by the competent test engineers:

- Functional Tests,**
- Design Verification Tests,**
- Environmental Conditions (MIL-STD-810G, DO-160 etc.),**
- EMI/EMC Qualification Tests (MIL-STD-461E, DO-160 etc.),**
- Factory Acceptance Tests** , (conducted together with the purchaser),
- ESS(Enviromental Stress Screening) Tests** (for each product when needed).



About Savronik

Savronik, founded in 1986, has been operating for over a quarter of a century in the Turkish Defence Industry, and is one of the few major players in an industry dominated by quasi-governmental organizations. Starting from early 2000s, we have been employing our defence industry experience also in Intelligent Road Systems, Railway Systems and Integrated Logistics Support.

Savronik produces award winning, high quality products, both unit and integrated solutions, compliant with standards such as ISO 9001:2015, AS9100 rev.D in the fields of electronics, electro-mechanics and software. Our true differentiator however, is our field capabilities which allow Savronik be wherever and whenever our customer needs us. In this respect Savronik is not only a technology company but also a services and maintenance competence center providing full life cycle maintenance and operating services to its customer in the civil and military sector.