GATE Technologies Ltd.

GATE Technologies Ltd.

Electronic Safe & Arm Devices

2025

GATE Technologies Ltd.

About us

GATE Technologies is an innovative **electronic safe & arm device (ESAD) company**. For nearly 30 years, GATE has provided unique solutions to a vast range of needs, from infantry-operated ESADs to cutting-edge missile & loitering ammunition ESADs. Among other solutions, GATE offers its international customers outstanding in-house customizing capabilities.

We believe that the **safety and reliability** of fully electronic safe & arm devices can be implemented in every weapon system, lower or higher-end ammunition. Our ESADs are **innovative, low volume, low budget, and comply with all standards.**

Our History

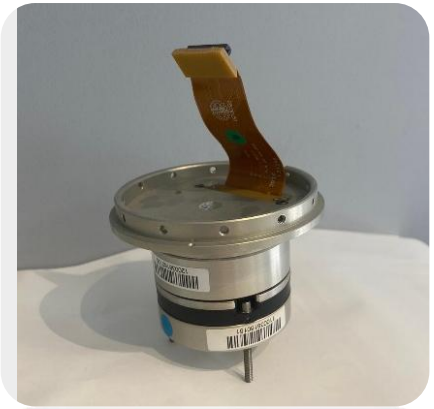
1996:
founded by Amir,
after Airforce service
& Motorola
communication
career.

Our History

Supporting companies as a development subcontracting company

1996: founded by Amir, after Airforce service & Motorola communicatio n career.

2004: First military projects



Our History

1996:
founded by Amir, after Airforce service & Motorola communicatio n career.

2004:
First military projects

Supporting companies as a development subcontracting company

GATE is now a 100% defense industry

2011:
First qualified ESAD for use in the IDF by GATE Technologies

Our History

Supporting companies as a development subcontracting company

GATE is now 100% defense industry

Continue to support the defense industries

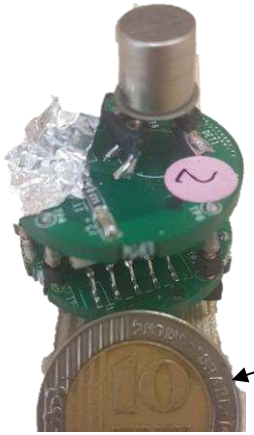
- Extreme low phase-noise RF synthesizers
- Irone Dome safety panels
- Powerful laser drivers
- ETC

1996: founded by Amir, after Airforce service & Motorola communicatio n career.

2004: First military projects

2011: First qualified ESAD for use in the IDF by GATE Technologies

2013: First miniaturized fire-set (+RP-98 LEEFI) for munition ESADs



Smaller than €1 coin

Our History

1996:
founded by Amir, after Airforce service & Motorola communicatio n career.

2004:
First military projects

Supporting companies as a development subcontracting company

GATE is now 100% defense industry

2011:
First qualified ESAD for use in the IDF by GATE Technologies

Continue to support the defense industries

2013:
First miniaturize d fire-set (+RP-98 LEEFI) for munition ESADs

GATE invests 100% profit in R&D for 5 years (2013-2018)

2016:
GATE-Raytheon-Elbit “Dagger” project

Our History

Supporting companies as a development subcontracting company

GATE is now 100% defense industry

Continue to support the defense industries

GATE invests 100% profit in R&D for 5 years (2013-2018)

- First wireless ESADs
- Tender for IDF's new exploder

1996:
founded by Amir, after Airforce service & Motorola communicatio n career.

2004:
First military projects

2011:
First qualified ESAD for use in the IDF by GATE Technologies

2013:
First miniaturized fire-set (+RP-98 LEEFI) for munition ESADs

2016:
GATE-Raytheon-Elbit "Dagger" project

2018:
First serial produced ESAD for loitering Munitions: "Sapir"

Our History

1996:
founded by Amir, after Airforce service & Motorola communicatio n career.

2004:
First military projects

Supporting companies as a development subcontracting company

GATE is now 100% defense industry

2011:
First qualified ESAD for use in the IDF by GATE Technologies

Continue to support the defense industries

2013:
First miniaturized fire-set (+RP-98 LEEFI) for munition ESADs

GATE invests 100% profit in R&D for 5 years (2013-2018)

2016:
GATE-Raytheon-Elbit "Dagger" project

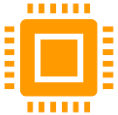
2018:
First serial produced ESAD for loitering Munitions: "Sapir"

GATE becomes a Key ESAD supplier to Major OEMs in Israel

2022:
First intro to Global market and first ever marketing activity for GATE - EUROSATORY 2022

GATE Technologies Ltd.

Work Experience



Embedded controllers

Extremely low phase noise synthesizers

RF Synthesizers

RF signal generators

Wired and wireless communication systems

Guided ammunition electronics

IMU for guided mortar

Laser drivers

Electro optical devices

Combined 5.56 and 40mm Ballistic Sight

Other Medical, Cosmetics, Military projects

Safe&Arm box for Iron dome

Electric Blast set

Electronic Safe & Arm Devices

State of the art solutions for every need, all LEEFI inline approved

GATE Today

- 80% export
- Established “Bron Technologies” in Poland to fully manufacturer ESADs in NATO (100% ownership)
- Integrated ESADs & EISDs into over 60 different weapon systems
- IDF’s sole supplier for ground remote-controlled ESADs
- 2025-2026 - Working on 3rd global assembly line

Remote controlled operating systems

Wired /Wireless disposable fuzing for infantry, based on LEEFI detonator configurable number of fuzes simultaneously in one operation.

- Combat proved
- Easy installation on multiple types of main charges
- Low volume & lightweight
- Customizable - variety of arming conditions
- Versatile – variety of trigger options
- Not ITAR regulated.
- Cost-effective compared to alternatives
- Patented pairing solution

RUBI ESAD Family

Innovative electronic safe & arm fuze based on LEEFI detonator

- Highly reliable- no moving parts.
- Easy installation on multiple types of platforms.
- Multi purposes.
- Low volume & lightweight.
- Customizable - variety of arming conditions.
- Not ITAR regulated.
- Cost-effective compared to alternatives.

Today in use for:

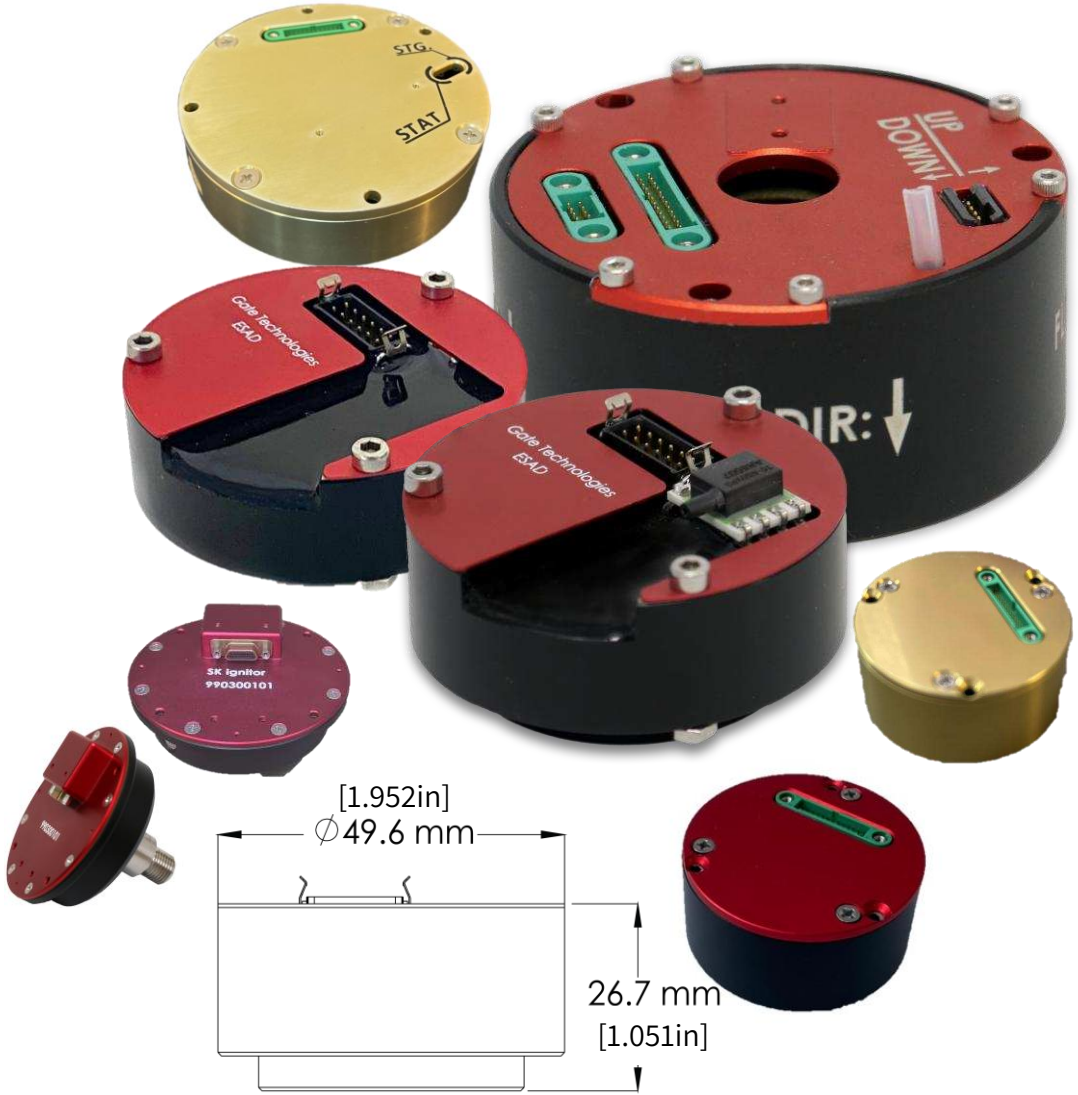
Warhead

- Rockets
- Missiles
- Gravity release
- UAVs
- High G
- Tandem charge

  (electronic timed/command)

Motor-Ignition (w/TBI)

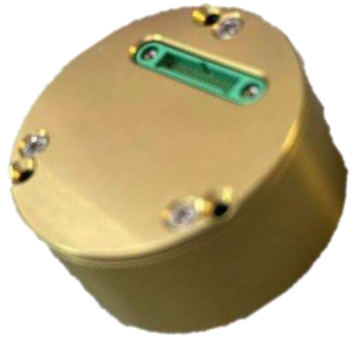
- Rockets
- Missiles



RUBI LM

Innovative electronic safe & arm fuze based on LEEFI detonator

- GATE's revolutionary LM ESAD
- Low volume, lightweight
- Contains a vast array of sensors - Proximity sensor, accelerometer, delay, etc.
- Currently has about 100 different configurations
- Designed to meet the future AOP-67
- Contains a qualified LEEFI detonator
- Qualified to: 1316, 331, 461
- Qualified 1.4s package & European CAD



ESAD based on LEEFI

Low Energy Exploding Foil Initiator

- A fuze that enables full safety during storage, transportation, and operation
- Contains only non-sensitive materials
- Initiated solely by the application of high voltage
- Currently manufactured in the United States
- The LEEFI is soldered as the final step in the assembly process – until soldering, the system remains completely inert

Required need

An ESAD solution for a drone-mounted “soldier-level” system, designed for a ~1 kg charge housed in a 60 mm tube.

Company Advantages in the Proposed Solution:

- Production capacity
- Manufacturing capabilities in multiple locations worldwide
- Separation between the system and the detonator (manufactured in the USA)
- Revolutionary solution to fit future upcoming NATO standards
- No need for additional sensors – simply connect to the WH

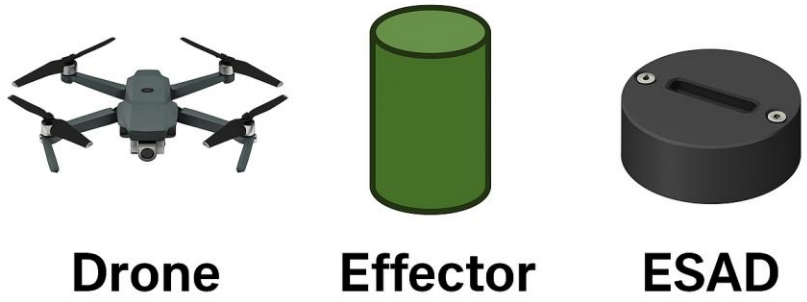
Typical documentation in munition project:

All supplied by GATE

- 1316 compliance report
- 331 QTR – qualification test report doc
- Verification test report
- ESAD Development requirement specification doc
- Reliability analysis report
- 882E System Hazard Analysis (SHA)

The three components of the complete system

- The ESAD is an integral part of the Drone
- All safety aspects of the system is based on the ESAD
- The effector can be swapped easily
- Initiation and return depend on customer needs and ESAD setup



GATE Technologies Ltd.

Development methodology

- Development team:
  - Design
  - Analysis
- Verification team
  - Test procedures
  - Full system verification
- Sub-contractors
  - Outer reviews for code and FPGA design
  - Design Analysis
  - Reliability analysis

First Things First:

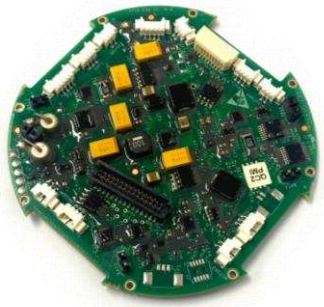
- LEEFI – Low Energy Exploding Foil Initiator
- Fire-Set – Up voltage converter, Capacitance, High-voltage switch
- Logic – Environmental sensors, Processing, Logic gates
- ESAD - Electronic Safe & Arm Device incl. logics, Fire-Set & LEEFI

Gate Technologies HQ - May 2025

Shoham, Israel

Guided Mortar

Telemetry Transmitters



SERVO

IMU

Gate produces thousands of IMUs and SERVO cards each year

Iron Dome

MASTER ABORT

Safety panel – ID24

Safety panel - GBAD

Safety panel – Saar 6 (marine)

GATE Technologies Ltd.

Electronic Safe & Arm Devices

GATE offers a variety of cutting-edge ESADs & EISD for missiles, rockets, gravity-release weapons ETC. Among the rest, GATE offers unique solutions for loitering munitions and drones, infantry hand- operated demolition devices and patent-pending hand-emplaced fuzes. All inline approved LEEFI-based.

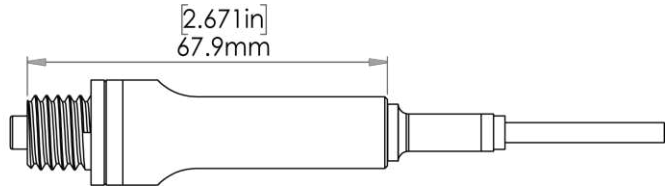
Ammunition ESADs

Infantry Operated ESADs

Infantry Operated Blaster

Kundasfe – Nabut (Caviar)

Safe operating unit for special LEEFI remote detonator Nabut-Caviar. This is a high-end military exploder, that proved to be fully operational in extreme environmental conditions.



Specifications		
	Kundason	Nabut-Caviar
Weight	400 gr	30 gr
Material	Aluminum 6061-T6 Alloy	Epoxy
Operating temperature range	-40F to +145.4F	-40C to +63C
Storage temperature range	-40F to +159.8F	-40C to +71C
Operating distance- max cable length	Up to 100 m	
Battery	Single CR123A	-

Bi-Dir

Wireless demolition system for infantry, based on ED Or LEEFI detonator.
Up to 3 Detonation points simultaneously in a single operation.
Combat proved.

Specifications				
	Controller		Remote Unit	
Dimensions	15X8X4.5cm		17.5X7X4.5cm	
Weight	600 gr		500 gr	
Material	Aluminum 6061-T6 Alloy		Aluminum 6061-T6 Alloy	
Operating temperature range	-40F to +145.4F	-40C to +63C	-40F to +145.4F	-40C to +63C
Storage temperature range	-40F to +159.8F	-40C to +71C	-40F to +159.8F	-40C to +71C

Chameleon

Wireless disposable fuzing for infantry, based on LEEFI detonator. Up to 3 fuzes simultaneously in one operation. Combat proved.

Specifications				
	Operating Unit		ESAD	
Dimensions	1.25X2.75X5.11in.	3.2X7X13cm	1.18X2.95X4.72in	3X7.5X12cm
Weight	300 gr		200 gr	
Material	Aluminum 6061-T6 Alloy		Polymer	
Operating temperature range	-40F to +145.4F	-40C to +63C	-40F to +145.4F	-40C to +63C
Storage temperature range	-40F to +159.8F	-40C to +71C	-40F to +159.8F	-40C to +71C

Typical wireless fuzeing – “ZIKIT” (Chameleon)

- Multipurpose wireless ESAD for combat engineers

Remote control

“Zikit” Wireless ESAD

Training variant

GATE Technologies Ltd.

Qualification methodology

- Qualification test procedure for every project according to MIL-STD-331
- Most of the tests are conducted by external qualified laboratories.

Test sequence example from QTP:

Table 1: Qualification test sequence plan

#	Test Type	Group No.	1	2	3	4	5	6	7	8	9	10
		Quantity **(ESAID)**	3	3	3	3	3	3	3	3	3	1
1	High Altitude Transportation		A		A	A	A		A		A	
2	High Altitude operation (BIT)		G	D					E			
3	Room temp operation		H		D			D		C		B
4	71°C operation					D	D					
5	-40°C operation								F		F	
6	Thermal Shock						B					
7	Rain									A		
8	Humidity		B		B	B			B			
9	Salt fog							C			B	
10	Centrifuge acceleration		D	B				B	C			
11	Transportation vibrations		C	A				A				
12	-40°C Transportation vibrations				C							
13	80°C Transportation vibrations					C						
14	10h Vibrations										C	
15	Free Flight Vibrations		E	C					D		D	
16	Functional Shock						C				E	
17	Safety Shock		F							B		
18	EMI and Magnetic Field											A

*Please Note: Group 10, will have a backup ESAID unit.

GATE Technologies Ltd.

Thank you