MOSKITO TI

Best in class lightweight multi-purpose target locator

SAFRAN

MOSKITO TI POWERED BY

SMARTAC

SAFRAN TECHNOLOGIES TO ENHANCE MISSION SUPERIORITY FOR THE MODERN WARFIGHTER

SMARTAC is a technology suite for handheld electro-optic solutions. These technologies are developed within Safran Group, based on our core competences for Situational Awareness, Information Fusion, GNSS Denied Areas, Target Location and Moving Targets.

HOW MOSKITO TI AND SMARTAC MULTIPLY YOUR FORCE IN THE AREA OF OPERATIONS

DISMOUNTED TEAM

Fit of MOSKITO TI/TI+

- Lightweight and compact
- Thermal image ready in <10 sec
- Acquire target positions day & night with the DVO, lowlight and thermal optics
- Report to your leaders for shared and immediate situational awareness using REPORTS

JTAC/JFO/FO

Fit of MOSKITO TI/TI+

- TLE CAT I at 4.4 km with STERNA
- TLE CAT I with or without line of sight with MAPS
- See-Spot filter: improved visibility of Laser Target Designators
- Afocal for extended ranges
- Fall of Shot 2 point measurement for quick correction of fire
- Option: SLAM D LTD with T-bar and STERNA

SNIPER TEAM

Fit of MOSKITO TI/TI+

- Detect targets quickly with thermal channel
- Get Kestrel results on the display of MOSKITO TI
- Stay undetected with low laser beam divergence and 1550 nm wavelength
- Report speed and direction of vehicles to command with MAPS and REPORTS

COMBAT LEADER

Fit of MOSKITO TI/TI+

- MAPS and 2 point measurement for planning and engagement preparation
- Thermal channel for quick assessment of the situation
- Faster and better decision making by accelerating the OODA loop
- Ready for all missions with software and hardware options to expand capabilities beyond observation and target location

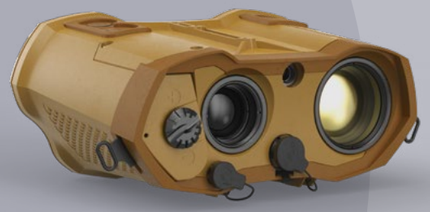
COMMAND CENTER

Users of MOSKITO TI can easily provide target information or share target pictures, video streams or send TLE CAT I target location coordinates and reports based on NATO STD 2525C to the command center.

PLRF in combination with STERNA

JIM Compact

SOLUTIONS POWERED BY SMARTAC



MOSKITO TI/TI+

STERNA TNF

ECOSI

SLAM D

SITUATIONAL AWARENESS

INTUITIVE USE
- Optimized workflow for maximum efficiency
- No distraction: only relevant data displayed in HMI

LONG RANGE DRI
- Observe day and night with daytime, thermal and lowlight optics
- Detect laser signatures up to 1100 nm with the high-resolution LLCMOS

INTELLIGENT ALGORITHMS
- Reliable target location measurements based on elaborate interaction of own position, laser rangefinder and digital magnetic compass

SIGNATURE MANAGEMENT
- Avoid detection due to non-visibilty of the rangefinding laser in the visible and NIR spectrum

MAPS SOFTWARE
- Orient yourself and plan ahead with online and offline maps
- Display and track the own position on a mini or full screen map

REPORTS SOFTWARE
- Provide immediate Situational Awareness to BMS-connected users by sending reports based on NATO STD 2525C

INFORMATION FUSION

SEE-SPOT
- Highlighting laser pointer and designator spots during night while in thermal mode
- Enhance daytime recognition of laser target designator with additional See-Spot filter kit

FUSION SOFTWARE
- Fusion of thermal and lowlight sensors for fast detection of visible light, thermal and NIR signatures even during night missions

MAPS SOFTWARE
- Digital maps are shown as picture-in-picture
- Visualization of target location and own location

REPORTS SOFTWARE
- NATO2525C visualized inside of MOSKITO TI
- Fuse the available information by sending reports that contain the target location, the target picture and the target type

TARGET LOCATION

GNSS POSITIONING
- Fast and reliable determination of own position
- Own position accuracy of 2 m CEP (R50)
- Receive signals from Navstar GPS, Galileo, Glonass, QZSS

FIBER LASER
- World leading laser technology with low energy consumption
- Extreme narrow beam divergence for rapid high precision range measurements at long ranges (±2 m at max. 10 km)

DIGITAL MAGNETIC COMPASS
- Highly accurate azimuth (±10 mil / ±0.6° accuracy) and inclination (±3 mil / ±0.2° accuracy)

MAPS SOFTWARE
- Display target measurement on map
- Correct target measurements with digital imagery and achieve up to TLE CAT I
- Provide targets without active laser measurement and beyond line of sight

GNSS DENIED AREAS

MAPS SOFTWARE
- Target location independent of GNSS by setting own position with digital map on device (1m accuracy)

MOVING TARGET

REPORTS SOFTWARE
- Enable anticipation of enemy intent by providing their direction and estimated speed of movement to the BMS

OPTICAL DAYLIGHT SIGHT

Allows you to assess situations with your own eyes, 6× magnification, stadiametric and mil reticle. For being able to make decisions independently of digital systems (and batteries) and with 100% positive identification.

LOW LIGHT CAMERA (LLCMOS)

Improve recognition and identification in weak light conditions with a resolution of 1280×1024 pixels and up to 36× magnification. Unlike common image intensifier tubes, the mechanical components of the LLCMOS are not damaged by intense light sources.

THERMAL IMAGER (UNCOOLED)

Screen large areas and detect warm objects within seconds with a resolution of 640×480 pixels and up to 18× continuous zoom. Also provides a wider field of view (12° FOV) than comparable devices.

ENGINEERING KNOW-HOW WITH DIRECT IMPACT ON YOUR MISSION

OPTIMIZED POWER CONCEPT

- Refined battery management
- More than 4 h operating time with MOSKITO TI and more than 6 h with MOSKITO TI+
- Uses commercially available lithium CR123 or lithium AA batteries
- Extend operation time by easily connecting to an external power supply

LOW WEIGHT BEST SWAP DESIGN

- Class leading performance based on the optimal combination of size, weight and powerweight incl. batteries less than 1.3 kg for MOSKITO and 1.4 kg for MOSKITO TI+
- Integrated modular GNSS saves up to 1kg of total weight in auxiliary devices

CONNECTED SENSOR AS PART OF YOUR SYSTEM

Our SMARTAC solutions lead the way with the latest connectivity options like Wifi, Bluetooth 4.2 BLE, Ethernet. Transfer images or stream video in real time. Transmit target data to BMS/ FCC, ATAK and ballistic solvers like Kestrel and Garmin.

ULTISENSE SENSORS INSIDE WITH LEADING ACCURACY

ULTISENSE Laser Rangefinders

- Long range and high accuracy, extremely narrow beam divergence and constant measurement thanks to multi-pulse technology

ULTISENSE Digital Magnetic Compass

- SWaP Best-in-class magnetic compass module with heading accuracy of ±4.4 mil / ±0.25°.

At Safran our teams have one objective: to put themselves in your shoes as the operator of our solutions and take your perspective. This leads to world-best SWaP engineering capabilities.

PRODUCT VARIANTS

MOSKITO TI

The standard version MOSKITO TI is operated with four CR123 batteries and weighs less (1.3 kg) compared to the MOSKITO TI+.

MOSKITO TI+

The slightly larger battery compartment of the MOSKITO TI+ holds six AA lithium batteries. This increases operational runtime by 50 %.

ACCESSORIES

STERNA TNF

Improves accuracy of MOSKITO TI up to TLE CAT I at 4.4 km range due to integrated gyroscope. System not sensible to magnetic influences.

PREMIUM TRIPODS

Specially developed for the high demands of our customers, we offer a broad range of tripods – optimized for weight and specific functions.

AFOCAL FOR THERMAL IMAGER

By connecting the optical attachment, the magnification is doubled, thereby increasing the available zoom range up to 36×.

CABLES

MOSKITO TI is available with various cables: power cable, DAGR/PLGR, Ethernet RJ45, data cable for PC, RS232.

ANTI REFLECTIVE DEVICE

Anti reflective device (set) to avoid any reflection of the lenses when operating in light conditions.

SEE-SPOT FILTER

See-Spot filter set to operate MOSKITO TI equipped with the See-Spot software function.

ADDITIONAL INFORMATION

On our website, you will find not only extensive additional information, downloads, and films, but also a direct point of contact for a product demonstration.

Visit **www.safran-vectronix.ch**

ULTI SENSE.

Your reliable partner for integrating innovative and tailor-made sensors used for orientation and distance measurement.

INSTALLED IN THE MOSKITO TI.

www.ultisense.ch

TECHNICAL DATA

MOSKITO TI / MOSKITO TI+

OPTICS DAY

Magnification	6×
Field of view	6.1° / 108 mil

OPTICS THERMAL IMAGING CAMERA

Sensor type	uncooled
Sensor resolution	640 × 480 pixels / VGA
Zoom	Digital, up to 18× (from 2.2×)
Field of view	H = 12.4° / 220 mil V = 9.3° / 165 mil

OPTICS LOW LIGHT CAMERA

Sensor type	CMOS
Sensor resolution	1280 × 1024 pixels / SXGA
Zoom	Digital, up to 36× (from 4.5×)
Field of view	H = 6.2° / 110 mil V = 4.7° / 84 mil

DISPLAY

Type	800 × 600 pixels / SVGA OLED

RANGEFINDER

Range capability	10 m to 10 000 m
Measurement accuracy (1σ)	± 2 m
Laser type	1550 nm, class 1, eye-safe per IEC 60825-1 Ed 3.0 (2014)

DIGITAL MAGNETIC COMPASS

Azimuth accuracy (1σ) with PPS calibration on tripod, typical (1σ)	± 10 mil / ± 0.6° ± 7 mil / ± 0.4°
Inclination accuracy (1σ)	± 3 mil / ± 0.2°

LASER POINTER (OPTIONAL)

Laser type	840 nm, class 1, eye-safe per IEC 60825-1 Ed 3.0 (2014)

GNSS RECEIVER

Supported GNSS	NAVSTAR GPS (C/A Code), GLONASS, GALILEO, QZSS
SBAS correction data	WAAS, EGNOS, MSAS, GAGAN

DATA INTERFACE

Standard interface type	RS232, USB 2.0, Ethernet
Wireless (optional)	Bluetooth: 4.2 BLE WiFi: Protocole IEEE 802.11b/g Encryption WEP / WPA
External GNSS capability (optional)	Rockwell Collins PLGR+96 / PLGRII / DAGR

MOSKITO TI

POWER SUPPLY

Standard	3 V lithium battery type CR123A, 4 × required
Battery operating time	>4 h with battery status

PHYSICAL

Dimensions (l × w × h)	184 mm × 198 mm × 96 mm
Weight with batteries	<1.3 kg

MOSKITO TI+

POWER SUPPLY

Standard	L91 AA size lithium battery, 6 × required
Battery operating time	>6 h with battery status

PHYSICAL

Dimensions (l × w × h)	198 mm × 203 mm × 96 mm
Weight with batteries	<1.4 kg

Please refer to the product datasheet for additional technical specifications.

MEETING MIL-STD-810 · SWISS QUALITY · Certified Management System SQS ISO 9001 / ISO 14001

POWERED BY TRUST

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