

# A complete range of rugged solutions



## The MilDef Group

### Many specialties. One partner.

The MilDef Group brings together a complete range of rugged electronics expertise in one supplier. From compact computers to switches and monitors, MilDef has specialized experience in each of the key technologies needed for a powerful communications solution to perform in even the harshest conditions.

MilDef offers a comprehensive range of products that have been proven on land, at sea and in the air with international forces around the world. These products include high-performance modular computer systems, notebooks, PDAs, tablets, displays, power supplies and the groundbreaking 19"/2® form factor.

Since MilDef designs and manufactures all of their products, the company is highly flexible in both enhancing standard products and designing custom solutions for specific needs.

### Service and support anytime, anywhere

MilDef's presence spans the entire globe, either directly or through partners. This presence means MilDef can offer an unrivalled service and support package for rapid solutions any time they're required.

The MilDef service offer includes:

- A dedicated in-house service team
- Guaranteed product servicing up to 5 years after end of sale
- Free telephone and email support for the lifetime of all products
- A standard 2-year warranty on all products, which can be extended if required
- Repair and return of a product within 10 working days of arrival
- An extensive burn-in program before delivery to ensure quality and function match all requirements.











# Rugged computers



# Maintain good communication in difficult conditions

Military operations often take place in difficult conditions: in the desert heat or arctic cold; in tropical rain or humid jungles; and in arid sandy plains. Not only must computer equipment withstand such tough conditions, but also the shocks and vibration common in military situations

MilDef is well aware of what defence forces have to face in various theatres of operation, and is dedicated to developing and supplying a variety of rugged computers that help military personnel maintain good communication wherever they are.

### An extensive range

We offer an extensive range of rugged computers and associated equipment as presented in this brochure. Most of the units are ideal for use by army, navy and air force personnel, although ground forces represent the biggest application area. MilDef units are found in ground vehicles such as tanks, armed personnel carriers and smaller road vehicles. They are also used in staff headquarters, field tents, and by all ground forces.

As we can satisfy virtually all of your computer equipment requirements, MilDef is the only contact that you need.

### Mobile solutions

MilDef products ensure maintaining high situational awareness and the tactical advantage in a combat zone. For example, our MilDef DE13 is a combat-rugged slim tablet built to be used in harsh conditions as a soldier device or in military vehicles and naval vessels, running military applications such as BFT, BMS client and FAC.

The MilDef DE13 is equipped with all the technology you need in such situations and can be customized to meet customer requirements. It has high brightness LCD multitouch screen, and complies with several common standards, including MIL-STD-810G, MIL-STD-461G and IP67.

### **Customized units**

As MilDef is a flexible and very service-minded company, we respond quickly to customer demands. We can rapidly customize units to exacting standards

and deliver them within tight time frames, whether it only concerns a few tailored products or hundreds of units. Computers can be modified and equipment connectors changed to suit your complete system. In addition, our accessories enhance the performance of our computer equipment. Naturally, they are designed for tight integration with our products.

As you would expect, our development department uses the latest technology in the design, development and manufacture of our product range and in customizing computers for our customers.

We have our own EMI chamber where we can test products and verify their performance after modification or upgrades.

### **Compliance and Military Standards**

As we are familiar with the extreme conditions under which military computer equipment operates, we use only the high-quality designs and materials necessary to protect and maintain long-term functionality and reliability. We are certified according to ISO 9001:2015 regarding design, development and production. We are also ISO 14001:2015 certified, and our care for the natural environment forms an important part of our business strategy.

All our units are built to comply with tough military standards to further ensure their high performance over long equipment lifecycles. They are, at a minimum, true IP54 products as well as fulfilling MIL-STD-810 and MIL-STD-461.

### Sustainable products

A key consideration taken into account when designing new equipment is to make it sustainable and highly reliable. This satisfies the demand of defence equipment purchasers for the long-term stable supply of particular types of equipment. Such sustainability also matches the long lifecycles of most military vehicles and aircraft, and the need to continually update systems. Typical MilDef features that promote sustainability and cost-effectiveness are a form factor that remains the same even if computers are updated, a computer lifecycle of up to ten years, and lifetime support for all MilDef units.

### **Handhelds**

### MilDef DE13

### Specifications:

CPU: Intel® Core™ i7-7Y75 (4M Cache, up to 3.60GHz) Display: 7" 1280 x 800, LÉD backlit

Display brightness: ~780 nits Touch-screen: Resistive multi-touch Memory: 16GB DDR3 1066MHz Storage: M.2 2280 M key SATA III SSD Graphics: Intel® HD Graphics 615 Battery: 7.4V Li-ion (4400mAh)

Sensors: Light sensor

Audio: HD Audio and mono speakers, embedded digital mic

Operating System: Windows 10

Temperature operational: -20°C to +60°C (-4°F to 140°F)
Temperature storage: -40°C to +70°C (-40°F to +158°F)
Dimensions (W × D × H): 250 × 144 × 30.5 mm

(11.0 x 5.67 x 1.20 in) w/ rubber bumpers Weight: 1.15 kg (2.54 lb) w/ battery

Compliant to: CE, FCC, WEE, REACH, RoHS2.O, IP67, MIL-STD-810G and MIL-STD-461G

### Ports and connectors:

1×USB3.1 Type C 1× Docking connector

2×Ext ANT signals

1×3-pin DC-in (Fischer)

### Options and accessories:

1×USB2.0 (Fischer) 1× Display Port (Fischer) 1×Giga LAN (Fischer)

1×Serial RS232/422 (Fischer) 1× Headset (Fischer)

WLAN 802.11 a/b/g/n/ac

BT 4.2 GPS

Invisible mode TPM 2.0

-30°C/-22°F Operating Temperature Hot swappable 2nd battery 7.4V Li-ion

(4400mAh)

MIL-STD-461G - Ground Navy MIL-STD-461G - Ground Army

### MilDef DB7

### Specifications:

CPU: Intel® Atom™ E3825 (1M Cache, 1.33GHz) Display: 5″ 800 × 480, LED backlit

Display brightness: ~340 nits Touch-screen: Resistive single-touch Memory: Up to 8GB DDR3L 1067 MHz Storage: mSATA II SSD up to 256GB Graphics: Intel® HD Graphics for Intel Atom®

Processor Z3700 Series

Battery: 3.7V Li-ion (3900mAh) Audio: HD audio codec and amplifier, Mono Speaker O.5 W,

Embedded Digital mic

Operating System: Windows 7, 10 and Linux depending on

configuration

Temperature operational: -20°C to +60°C (-4°F to +140°F) Temperature storage: -40°C to +70°C (-40°F to 158°F) **Dimensions (W × H × D):**  $202 \times 98 \times 40$  mm (7.95 × 3.86 × 1.57 in)

w/ bumper

**Weight:** 760 g (1.68lb) w/ battery

Compliant to: CE, FCC, WEEE, REACH, RoHS2.O, IP65, MIL-STD-810G

and MIL-STD-461F

### Ports and connectors:

1×USB 2.0 1×SD card

1×SIM Card

1×DC-in (built-in 12-32 V DC)

1×Docking connector

(1 × USB2.0

Host: 1 × VGA, 1 × DC-in)

### Options and accessories:

1× Audio & mic (Hirose)

1×USB (Hirose) 1×Giga LAN (Hirose)

1×RS232 (Hirose)

1×WWAN/GSM antenna (SMA)

1×Docking Connector

Giga LAN, USB, RS232, RGB WWAN/GSM Quad band 3G Data

WLAN 802.11 a/b/g/n

Bluetooth 4.0 (BLE)

**GPS TPM1.2** 

Multi-battery charger

Double capacity battery 7.4V

(7800mAh)

### MilDef DF8A

### Specifications:

CPU: Freescale ARM Coretex-A9 i.

MX6 Quad Core 1GHz

Display: 5" 480 × 800, LED backlit Display brightness: ~400 nits Touch-screen: Capacitive multi-touch (Optional: resistive single-touch)

Memory: 2GB RAM, 32GB ROM Battery: 3.7V Li-ion (3520mAh)

Sensors: Magnetic, Gravity, Gyro, Proximity & Light

Operating System: Android™ (4.4.3 Jelly Bean or 7.1.1 Nougat) Temperature operational: -20°C to +60°C (-4°F to 140°F) Temperature storage: -40°C to +70°C (-40°F to 158°F)

**Dimensions (W × H × D):**  $90 \times 169 \times 24.5 \text{ mm} (3.54 \times 6.65 \times 0.96 \text{ in})$ 

Weight: 505 g (1.11 lb) w/ battery

Compliant to: CE, FCC, WEEE, REACH, RoHS 2.0, IP66,

MIL-STD-810G and MIL-STD-461F

### Ports and connectors:

1× Micro SD 1×DC-in 5V

### Options and accessories:

WLAN 802.11 b/g/n Bluetooth 4.0

1× Audio/RS232/USB/VGA/LAN (Fischer)

1×GPS antenna (SMA) 1×WLAN/BT antenna (SMA)

1×Docking connector USB, RS232, LAN

(POGO)

1×DC-in 10-32V DC (Lemo)

Double capacity battery 3.7V (7040mAh)

### MilDef MobiLite 6

### Specifications:

CPU: Intel® Core™ i7-7600U (4M Cache, up to 3.90GHz)

Memory: Up to 16 GB DDR4 2133 MHz Storage: Removable 2.5" SATA III SSD Graphics: Intel® HD Graphics 620 Battery: 10.8V Li-ion (5800mAh) Operating System: Windows 10 Temperature operational:

-20°C to +50°C (-4°F to +122°F) Temperature storage: -40°C to +70°C (-40°F to +158°F)

**Dimensions (W x D x H):** 250 × 190 × 45.2 mm

(9.84 x 7.48 x 1.78 in) w/ bumpers

Weight: ~2.3 kg (~5.07 lb) w/ battery
Compliant to: CE, FCC, WEEE, REACH, WHLK, IP54,

RoHS2.0, MIL-STD-810G and MIL-STD-461F

### Ports and connectors:

1×Serial (DB9) 2 × USB 3.1 Type A

1 × RJ45 Giga LAN

1× Docking connector (COM2/3, USB2.0, Mic, Speaker, Line-in, VGA, PS2, DVI, Giga LAN)

1× MIL DC-in 12-32 V 1×2nd battery connector Multibay w/ 1× ExpressCard Slot & 1×SIM Card/SD Card slot

### Options and accessories:

GPS

Bluetooth 5.0 WLAN a/b/g/n/ac

Docking station (Docklite 10) Stand for vehicle mounting 2nd battery 10.8V Li-ion

(8700mAh) TPM2.0 Night vision Invisible mode -30°C/-22°F Operating

temperature



### **Tablets**

MilDef DS13. Release Q3 2019

Specifications:

CPU: Intel® Core™ i7-7Y75

(4M Cache, up to 3.60GHz) **Display:** 10.1" 1920 x 1200, LED backlit

Display brightness: ~770 nits Touch screen: Resistive multi-touch screen

Memory: 16GB DDR3 1866MHz Storage: mSATA III SSD up to 512GB

Sensors: Light sensor, accelerometer/magnetometer/gyroscope

Graphics: Intel® HD Graphics 615 Battery: 11.1V Li-ion (4200mAh)

Audio: HD Audio and mono speakers, embedded digital mic

Operating System: Windows 10

Temperatures operation:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $140^{\circ}\text{F}$ ) Temperature storage:  $-40^{\circ}\text{C}$  to  $70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ )

Dimensions (W  $\times$  D  $\times$  H): 280  $\times$  186  $\times$  20 mm  $(11.0 \times 7.3 \times 0.8 in)$  w/o rubber bumpers

**Weight:** 1.39 kg (3.06 lb)

Compliant to: CE, FCC, WEE, REACH, RoHS2.0, IP65, MIL-STD-810G and MIL-STD-461F

Ports and connectors:

1×RJ45 Gbit LAN (trade-off DisplayPort)

1× Mini DisplayPort 2×USB 3.0

1×Docking connector (POGO)

1×Micro SD 1×SIM Card Slot 1×DC in 12-32 V

Options and accessories:

WiFi 802.11 a/g/n

BT 4.0

GPS Invisible mode AMG sensor

1×GLAN/Mini DisplayPort/USB

1×USB 2.0 (Fischer) 1×VGA (Fischer)

2×COM (Fischer) (RS232 x2 or

RS232 x1/RS422 x1) 1×GLAN (Fischer) 1× Audio (Fischer)

1×Sealed Headset (Fischer)

-30°C Operating Temperature -40°C Operating Temperature

Dual GLAN Card Double capacity battery 11.1 V Li-ion (8400mAh)

MilDef DT13. Release Q3 2019

Specifications:

CPU: Intel® Core™ i7-7600U (4M Cache, up to 3.90 GHz) Display: 9" 1280 × 768 LED backlit Display brightness: ~700 nits Touch screen: Resistive multi-touch

Memory: Up to 16 GB DDR4 2133 MHz Storage: Removable M.2 2280 SATA III SSD 256 GB / 512 GB

Keyboard: 62 keys with LED backlight Graphics: Intel® HD Graphics 620 Battery: 10.8V Li-ion (5800mAh) Operating System: Windows 10

Temperatures operational: -30°C to +50°C (-22°F to +122°F) Temperature storage: -40°C to +70°C (-40°F to +158°F)

Dimensions (W x D x H):  $259 \times 199 \times 49.2$  mm

(10.20 x 7.83 x 1.94 in) w/ bumpers Weight: ~2.5 kg (~5.50 lb) w/ battery

Compliant to: CE, FCC, WEEE, REACH, WHLK, IP65, RoHS2.O,

MIL-STD-810G and MIL-STD-461F

Ports and connectors:

1×Serial (DB15)

(COM1: RS232/422/485 BIOS Selectable + COM3 RS232)

2 × USB 3.1 Type A

1×USB 3.1 Type C

1×RJ45 Giga LAN

1× Docking connector

(120 pins)

1× MIL DĆ in 12–32 V

2nd battery connector

Multibay w/ 1× ExpressCard Slot & 1×SIM Card/SD Card slot

Options and accessories:

**GPS** 

Bluetooth 5.0 WLAN a/b/g/n/ac

Docking station (Docklite 10)

Stand for vehicle mounting

2nd battery 10.8 V Li-ion (8700mAh)

Night vision

### MilDef DR13. Release Q3 2019

Specifications:

CPU: Intel® Core™ i7-7600U (4M Cache, up to 3.90GHz)

**Display:** 8.4" 1024 × 768 LED backlit Display brightness: ~730 nits

**Touch screen:** Resistive single-touch Memory: Up to 16 GB DDR4 2133 MHz Storage: Removable 2.5" SATA III SSD Graphics: Intel® HD Graphics 620

Battery: 10.8V Li-ion (5800mAh) Operating System: Windows 10

Temperature operational: -20°C to +50°C (-4°F to +122°F) Temperature storage: -40°C to +70°C (-40°F to +158°F) Dimensions (W x D x H):  $250 \times 190 \times 45.2$  mm

(9.84 x 7.48 x 1.78 in) w/ bumpers Weight: ~2.3 kg (~5.07 lb) w/ battery

Compliant to: CE, FCC, WEEE, REACH, WHLK, IP65, RoHS2.0,

MIL-STD-810G and MIL-STD-461F

Ports and connectors:

1×Serial (DB9) 2×USB 3.1 Type A 1×RJ45 Giga LAN

1×Docking connector (COM2/3, USB2.O, Mic, Speaker, Line-in, VGA, PS2, DVI, Giga LAN) 1×MIL DC-in 12-32 V

1×2nd battery connector Multibay w/ 1× ExpressCard Slot & 1×SIM Card/SD Card slot

Options and accessories:

GPS Bluetooth 5.0

WLAN a/b/g/n/ac Docking station (Docklite 10) Stand for vehicle mounting 2nd battery 10.8V Li-Ion

(8700mAh) TPM2.0 Night vision Invisible mode

-30°C/-22°F Operating temperature

### Notebooks

### MilDef RS13. Release Q3 2019

Specifications:

CPU: Intel® Core™ i7-7600U (4M Cache, up to 3.90 GHz)
Display: 13.3" 1920 × 1080 LED backlit

Display is.3 1920 × 1000 LED backlit Display brightness: ~400 nits Memory: Up to 16 GB DDR4 2133 MHz Storage: 2.5" SATA III SSD (removable) Graphics: Intel® HD Graphics 620 Battery: 11.1V Li-Polymer (6040mAh)

Input devices: 83-key backlit keyboard, resistive single-touch touchpad

Audio: HD Audio and stereo speakers, embedded digital mic

Operating System: Windows 10

Temperatures operational:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$ )
Temperature storage:  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ )

**Dimensions (W × D × H):** 338 × 265 × 31.5 mm (13.31 × 10.43 × 1.24 in) w/ bumpers

Weight: 2.5 kg (5.51 lb) w/ battery

Compliant to: CE, FCC, WEEE, REACH, IP65, WHLK, RoHS2.O, MIL-STD-810G and MIL-STD-461G

Ports and connectors:

1× Display port or VGA port
1× SIM Card Slot
1× Serial port (DB9)
1× USB 3.1
1× RJ45 Giga LAN
1× MIL DC in 12–32 V

1×USB 3.1 (USB-IF BC V1.2 for

1.5 A fast charger)



### Options and accessories:

1×2nd RJ45 Giga LAN 1×Giga LAN (Fischer) 1×VGA (Fischer) 1–2×Serial I/O RS232/RS422 (Fischer)

1× Audio (Fischer) 1× USB2.0 (Fischer) 1×Docking connector (POGO) TPM2.0 WLAN 802.11 a/b/g/n/ac

WLAN 802.11 a/b/g/n/a Bluetooth 4.2 (BLE)

WWAN 4G

Capacitive touch panel display -30°C/-22°F Operating Temperature

### MilDef RV11.

Specifications:

**CPU**: Intel® Core™ i7-3517UE (4M Cache, up to 2.80 GHz)

Display: 15.6" 1920 × 1080 LED backlit Display brightness: ~250 nits Memory: Up to 8 GB DDR3 1600 MHz Storage: 2.5" SATA III SSD (removable) Graphics: Intel® HD Graphics 4000 Battery: 11.1V Li-Polymer (6040mAh)

Input devices: Backlit Keyboard, resistive single-touch touchpad,

works with gloves (Win8/10 compatible)

**Audio:** HD Audio and stereo speakers, embedded mic

Operating System: Windows 7/10

Temperatures operational:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$ ) Temperature storage:  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ )

**Dimensions (W × D × H):** 386 × 299 × 32 mm (15.20 × 11.77 × 1.26 in) w/ bumpers

Weight: 3.7 kg (8.16 lb) w/ battery

Compliant to: CE, FCC, WEEE, REACH, IP65, WHL, RoHS2.O, MIL-STD-810G and MIL-STD-461F

### Ports and connectors:

1×SD Card Slot (supports SDHC/SDXC) 1×SIM Card Slot 1×USB 3.0 (USB-IF BC V1.2 for 1.5A fast charger) 1×USB 3.0 1×RJ45 Giga LAN 1×MIL DC 12–32 V

### Options and accessories:

1×2nd RJ45 Giga LAN 1×Giga LAN (Fischer) 1×VGA (Fischer)

1–2×Serial I/O RS232/RS422 (Fischer)

1× Audio (Fischer) 1× USB2.0 (Fischer) 1× Mini HDMI

1×Docking connector (POGO)



Viasat Eclypt Self encrypting SSD GPS WLAN 802.11 a/b/g/n

Bluetooth 4.0 (BLE) WWAN HSPA 3G

-30°C/-22°F Operating Temperature

Night Vision

### MilDef RW14. Release Q4 2019

CPU: Intel® Xeon® E-2176M (12M Cache, up to 4.40 GHz)

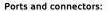
Display: 15.6" 1920 × 1080 TFT LCD (Capacitive touch-screen option available) Display brightness: ~300 nits (800 nits high brightness option available)

Memory: Up to 64 GB DDR4 2400 MHz Storage: Up to 4x SATA III SSD (removable) Graphics: Intel® HD Graphics P630 Battery: 2× 10.8V Li-ion (5800mAh)

Input devices: Resistive single-touch touch pad Audio: HD Audio and Stereo Speakers, embedded mic Operating System: Windows 10 and Server 2016 Temperatures: -20°C to +60°C (-4°F to +140°F) Temperature storage: -40°C to +70°C (-40°F to 158°F)

**Dimensions (W × D × H):** 392 × 302 × 42 mm (15.43 × 11.89 × 1.65 in) w/ bumpers

Weight: 4.86 kg (10.71 lb) w/ battery
Compliant to: CE, FCC, WEEE, REACH, ROHS, WHQL, IP65, MIL-STD-810G and MIL-STD-461F



4×SSD Bays 2×USB 2.0 1×R]45 Giga LAN 1×USB 3.0 (1.5 A fast charger)

1×USB 3.1 1×Display port 1×VGA

2×Serial DB9 RS232/422/485 1×MIL DC in 12-32 V

3×3.5 mm (Mic, Line-in/earphone)

### Options and accessories:

1×Mini HDMI 1×Mini-Flex bay

(trade-off with 3rd~4th SSD) 1×Docking connector (POGO) 1×2nd RJ45 Giga LAN

Milder

ViaSat Eclypt Self encrypting SSD

**GPS** WLAN 802.11 ac/a/b/g/n WWAN 4G

Bluetooth v4.0 (BLE) COM3/4 RS232/422/485 -30°C/-22°F Operating Temperature NVIDIA GeForce® GTX1050M 4GB Handle on front Backpack



Specifications:

CPU: Intel® Core™ i7-6822EQ (8M Cache, up to 2.80 GHz)
Display: 15" XGA 1400 × 1050 LED backlit

Display brightness: ~470 nits Memory: Up to 32 GB DDR4 2133 MHz Storage: Removable 2.5" SATA III HDD / SSD

Operating System: Windows 7/10 Graphics: Intel® HD Graphics 530 Battery: 10.8V Li-ion (8700mAh)

Input devices: 83-key backlit keyboard, resistive touchpad

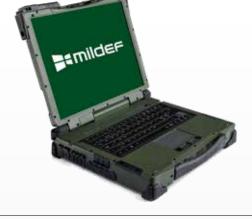
Audio: HD Audio and Stereo Speakers Temperatures: -20°C to +55°C (-4°F to +131°F)

Temperature storage: -40°C to +70°C (-40°F to +158°F)

Dimensions (W × D × H): 351.6 × 294.2 × 78.7 mm (13.84 × 11.58 × 3.10 in) w/ bumpers

Weight: 5.5 kg (12.13 lb)

Compliant to: CE, FCC, WHQL, WEEE, REACH, IP65, MIL-STD-810G and MIL-STD-461G



### Ports and connectors:

1×Flex Bay (2nd HDD/DVD/Battery) 1×PS/2

2×USB 3.0 1×USB 2.0 (USB fast charge) 3×3.5 mm

(Mic, Line-in/earphone)

1×RJ45 Giga LAN

1× Express card (PCle) 2×Serial port DB9 (COM1 & COM2) 1× Display Port 1× DVİ 1×VGA

1×MIL DC in 12-32 V 1× Docking connector Options and accessories:

2×Serial port DB9 1×PCMCIA II

ViaSat Eclypt Self encrypting SSD

Removable 3.5" DVD-RW 2nd SATA High Brightness 800~1000 nits Resistive single touch screen HDD with heater or secondary

battery.

Flex bay with DC, PCIe, USB, LAN,

SATA and serial signals for customer specific modules

WLAN 802.11 a/b/g/n/ac Bluetooth 4.2

HSDPA/3G TPM2.0

2<sup>nd</sup> battery 10.8V Li-ion (8700mAh) Multi battery charger

-30°C/-22°F Operating Temperature Surge protector/BVA module

### Accessories

Here you'll find a selection of accessories to compliment your MilDef computer. Please contact your local MilDef office to discuss your needs and requirements.

### Flex Bay

Available for all MilDef 9/10-series notebooks

(RT, RK and RF)

### Specifications:

2×Gbit LAN

2×COM-ports 1×Full RS232/RS485

1×Tx / Rx USB

PCIe SATA

Power in/out

2nd HDD/SSD: SATA & Heater 2nd Batery: 7200 mAh Lithium Ion

DVD±RW: 3.5" CD/DVD SATA



### **IP54 Keyboard**

### Specifications:

89 key layout (emulates 101 /102 keys) Windows keys, Elastomer keys (backlight)

Operating force: 60 +/-20 g
Full travel: 2 mm
Life: > 1 million times

**Weight:** 1.2 kg, 1.7 kg with rubber plate (option) Size of the key caps part: 275×100 mm Size of the keyboard: 325×172 mm (W×D)

Designed to meet: IP54, MIL-STD-461D (option) Temp operating: -20 to +50 °C Temp storage: -30 to +70 °C



### DB7 Mini KBD

### Specifications:

USB, 66 keys, backlight, right/left click,

stickpointer, Magnesium **Designed to meet:** IP54 **Certifications:** CE/FCC **Temp operating:** -20 to +5

Temp operating: -20 to +50 °C Temp storage: -40 to +70 °C Dimensions: 190 × 90 × 12 mm

(W×D×H) **Weight:** 170 g



### KBD301 Keyboard

### Specifications:

Backlit Keyboard with 87 key layout + numpad, integrated trackpad (including buttons).

CNC milled Aluminum

Weight: 0.8 kg

**Designed to meet**: IP54, MIL-STD-810G,

MIL-STD-461F

Temp operating: -40 to +71°C Temp storage: 40 to +71°C



### DR Keyboard KBD211

### Specifications:

66 key B/L, Elastormer keys (backlight), USB **Designed to meet**: IP54, MIL-STD-810G

Temp operating: -30 to +55 °C
Temp storage: -40 to +70 °C
Dimensions: 235 × 200 × 15.5 mm

(W × D × H) **Weight:** <0.7 kg



### **DockLite Standard**

(option for DK, DR and DT)

### Connections:

1×RJ45 GigaLAN

2×USB 2.0

2×Sealed MIL USB 2.0

1×VGA (DB15)

2×RS232(DB9)

1×MIL DC in with surge protection

1× Audio Out

1×Mic



### **DockLite Fiber**

(option for DK, DR and DT)

### Connections:

1×100 Mbit 1310 nm MultiMode LC

2×USB 2.0

2×Sealed MIL USB 2.0

1×VGA (DB15)

2×RS232 (DB9)

1×MIL DC In with surge protection

1× Audio Out

1×Mic



### DockLite DS

(option for DS11)

### Connections:

1×VGA (DB15)

1×MLAN 2×USB 2.0

1×RS232(DB9)

1×MIL DC in with surge protection

### **BMS Docking station**

### Specifications:

Docking station for DR886/DR10

Signals:

1×COM2 (RS232)

1×COM3 (RS232)

1×VGA

1× Video

1×GPS-Antenna (optional)

1×USB

1×COM4 = USB > RS232

1×GPS (Military or Industrial)

1×LAN/FiberLAN

5 V out

Designed to meet: IP54, MIL-STD-810F, MIL-STD-461E

and MIL-STD-1275 1×DC Dimensions: 250×80×216 mm

### 19"/6 MC701 Media converter

### Specifications:

Converts between Ethernet copper and fiber (Minic Tyco connector) Also available with LC connector Temp operating: -40 to +55°C Temp storage: -40 to +70°C

Dimensions: 73×140×44 mm (W×H×D)

Ports: 1×LAN RJ45 (1000 Mbps)

1×LAN Fiber MiniTyco, Single Mode (1000 Mbps, 1310 nm) 1×DC In 5 V (Binder)

1×DC In 10-32 V DC (ITS)

Coppar LAN can be configured to 10/100/1000 Mbps. Variants with Mulitmode fiber is available.

### 19"/6 MC702 Media converter

### Specifications:

Converts between Ethernet copper and fiber (LC connector)

Temp operating: -40 to +55°C Temp storage: 40 to +70 °C

Dimensions: 1×LAN RJ45 (1000 Mbps) 1×LAN Fiber LC, Single Mode (1000 Mbps, 1310 nm)

1×DC In 5 V (Binder) 1×DC In 10-32 V DC (ITS)

Coppar LAN can be configured to 10/100/1000 Mbps. Variants with Mulitmode fiber is available.

### Adjustable stand DR/DT

### Specifications:

Stand for our MilDef DR886/DR10 Adjustable in all directions. The joint consists of a rubber ball, which acts as a vibration damper. Dimensions: 244×312×165 mm

 $(W \times H \times D)$ Weight: 2.3 kg





## 19"/2® Product range

# Save up to 75% of space or add more functionality

Our innovative approach to product design can be seen with our new modular 19"/2® units. Being only 50% of the size of the existing 19" form factor, they create up to 75% more space in racks. This makes it possible to mount more units and hence add functionality. Smaller units are particularly valuable for use in cramped spaces, such as found in ground vehicles and aircraft.

This is a perfect example of where we are truly reshaping your communication power.

### **Endless configuration possibilities**

The ability to readily combine communication units of the 19" form factor with units of MilDef's 19"/2® form factor gives the practical benefits of integrated solutions and endless configuration possibilities to quickly build the communication system you want.

### More important benefits

The smaller size of our 19"/2® modules provides you with the additional important benefits of:

- · Less weight
- Less energy consumption
- · Less heat generation

### Sustainable form factor

A key consideration taken into account when designing our 19"/2® form factor was to make it sustainable. This satisfies the demand of defence



19" rack installation



Two modules can be mounted together in a 19" rack



Stand-alone installation

equipment purchasers for the long-term stable supply of particular types of equipment. Such sustainability also matches the long lifecycles of most military vehicles and aircraft, and the need to continually update systems.

Moreover, we assure you of lifetime support for all MilDef equipment.

### Typical application segments

The various communication units of the MilDef 19"/2® product series are typically used within the following military segments:

- · Ground vehicles
- Deployed forces
- · Special forces
- · Air force
- Navy

### Customized units or special electronics

Our 19"/2® communication units are supplied as military off-the-shelf (MOTS) products, but MilDef can complement these with our hardware according to customer specifications. In addition, if there are no MOTS products that suit your needs, we can design special electronic units based on your particular specifications.



Two or more modules can be stacked on top of each other



The possibilities are endless

## Computers and storage

### 19"/2® CS1100 series

A rugged server based on the Intel® Xeon® platform. Up to 128 GB RAM and a hardware RAID with removable disks. MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +55°C; Temp storage: -40 to +71°C Dimensions: 220 × 400 × 88 mm, Weight: 8 kg

Interfaces (front): 1×KPT

1×DC in 16-32 V 1×Dual USB

2×USB-A 3.0

 $2 \times HMC$ 1×ETH (1000BASE-SX, OM2)

1×38999

1×VGA

1× Audio In / out 2×USB 2.0

1×RS232 3×SSD Caddy

1×2.5" SATAIII

CS1100 series are available in different configurations, either with MIL connectors or rugged industrial connector. Configuration above is based on the CS1101.

### Interfaces (back):

1×Binder

1×Service port (serial)

1×38999 3×LISB 2 O

1× Remote Power on



### 19"/2® CS2100 series

A rugged computer based on the Intel® Xeon® E3-1505L V5 CPU, supporting up to 32GB RAM and M.2 SSD for storage.

MIL Standards: MIL-STD-810F, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +71 °C, Temp storage: -40 to +71 °C

Dimensions: 220 × 391 × 44 mm, Weight: 4,5 kg

Interfaces (front): 1×ODU 1×38999 1×DVI 1×DC in 12-32V DC 2×ODU 1×38999 1×USB3

3 x LISB2 O Interfaces (back):

3 × RS232 1×Binder 1×38999 1×Service port (serial)

4×ETH (1000BASE-T)

1×38999

1×VGA 1× Remote Power On

1× AUDIO in/out

CS2100 series are available in different configurations, either with MIL connectors or rugged industrial connector. Configuration above is based on the



A rugged server based on the Intel® Xeon® platform, up to 32GB RAM and a hardware RAID with removable disk (optional).

MIL standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP54 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 332 × 88 mm, Weight: 7 kg

Interfaces (front):

1×ITS

1×DC in 10-32 V 1×38999

1×VGA 1×RS232

1× Audio in/ out 2×USB 2.0

1×38999

4×ETH (1000BASE-T)

3×SSD Caddy 1×2.5" SATAII

CS300 series are available in different configurations, either with MIL connectors or rugged industrial connector. Configuration above is based on the CS371. \*Rx/Tx/RTS only

1×38999 1×DVI

3×USB 2.0 2×RS232 (COM3/COM4)\*

1×Remote power on Interfaces (back):

1×Binder

1×Service port (serial)



### 19"/2® CS9100 series

A rugged computer based on the Intel® Core™ i7- 6822EO CPU. supporting up to 32 GB RAM and a built in M.2 SSD.

MIL standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 360 × 44 mm. Weight: ≤5 kg

Interfaces (front): 1×ITS

1×DC in 10-32 V

8 × RJ45

1×ETH (1000BASE-T) 2×R]45

1×ETH w. PoE (1000BASE-T) 1×Dual USB

2 × USB-A 3.0

Interfaces (back):

0.8 1010

1×Binder

1×Service port (serial)

1× Dual USB

2×USB-A 2.0

1×HDMI

1×DSUB HD15

1×VGA



### 19"/2® ST1100 series

A Storage Computer that can be used either stand alone or as a NAS with iSCSI. Support up to 5 removable 2.5" SSDs.

MIL standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 372 × 88 mm, Weight: 8 kg

Specification:

CPU: Intel® Xeon® E3-1505L v5 Memory: Up to 32RAM **RAID:** 0, 1, 4, 5, 6 & 10

Interfaces (front):

5×2.5" SSD SATAIII 1×ETH 1000BASE-T (R)45) 1×ETH 10GBASE-T (R)45)

1×RS232 Console (RJ45) 1×System Button

Interfaces (back):

1×ETH 1000BASE-LX (LX) 2×USB 3.0 (Dual USB-A) 1×DC in 16-32V DC (ITS)

1×Service (Binder)



## Displays, KVM & gateways

### 19"/2® KSW400 series

A seven port KVM switch with possibility to daisy chain up to 3 units. MIL standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP54 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 183 × 44 mm, Weight: 2 kg

#### Interfaces (front):

1×ITS

1×DC in 10-32 V

1×DSUB HD15 (output)

1×VGA

1×Dual USB-A (KBD/Mouse)

2×USB 2.0 host

1× Dual USB-A (USB2.0)

2×USB 2.0 host

KSW400 series are available in different configurations. configuration above is based on the KSW402.

### Interfaces (back):

1×Binder

1×Service port (serial)

7×DSUB HD15 (computer)

1×VGA

1×USB

1×DSUB HD15 (link out)

Link out



### 19"/2® KSW1100 series

KVM switch for DVI and USB input, allows up to 6 computers to share the use of a one console with DVI and USB (kbd/mouse). Input can be done either using pushbuttons on the switch or by an external switch.

MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +71°C, Temp storage: 40 to +71°C

**Dimensions:** 220 × 222 × 44/88 mm, **Weight:** 2/4 kg

### Interfaces (front): 1×Remote (38999)

2×USB 2.0 Console (USB A)

1×DVI Console (DVI-D)

1×Service (Binder)

1× Power (ITS)

### Interfaces (back):

4×or 6×DVI Computer

6×USB 2.0, Computer 1 to 6



### 19"/2® SSW200 series

Share serial devices in an IP-network. Individual IP addressing to each serial port. Software switchable between RS232, RS422 and RS485.

MIL Standards: MIL-STD-810F, MIL-STD-461F, & IP54
Temp operating: -40 to +55°C, Temp storage: -40 to +71°C
Dimensions: 220 × 182 × 44 mm, Weight: 2 kg

### Interfaces (front):

6×ITS

1×DC out

1×PTO2 1×Serial port

1×38999

1×ETH (100Base-TX)



SSW200 series are available in different configurations, either with MIL connectors or rugged industrial connector. Configuration above is based on the SSW211.

### 19"/2® SSW2100 series

The USB switch shall allow any combination of USB inputs to be connected to any combination of USB outputs at any given time (e.g. USB Input X1/X2 and X3/X4 are routed simultaneously to USB Output X7 through X10).

MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +55°C, Temp storage: -40 to +55°C Dimensions: 220 × 199 × 44 mm, Weight: 1,8 kg

### Interfaces (front):

4 × USB 2.0 input (38999) 1 × Remote control RS422 (38999) 1 × DC in 10-32V (38999)

### Interfaces (back):

4×USB2.0 output (38999) 1×Service (Binder)



### 19"/2® SSW1100 series

A USB Network Hub to is built to share up to 5 USB devices over the LAN.

MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +60°C, Temp storage: -40 to +71°C Dimensions: 220 × 261 × 88 mm, Weight: 2,4 kg

### Interfaces (front):

5×38999 (ÙSB source)

1×USB 2.0

1×HMC (LAN) 1×ETH (100Base-FX)

1×38999

1×DC in 10-32V

1×Binder

1×MilDef Service port



### 19"/2® DS1100 series

Compact display with built in two port KVM.

MIL standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP54 Temp operating: -20 to  $+55^{\circ}$ C, Temp storage: -40 to  $+71^{\circ}$ C

Dimensions: 220 × 400 × 44 mm, Weight: ≤5 kg

Interfaces display (left side): 2 × Brightness button

1×Computer toggle button

1×System button

Interfaces display (right side):

1× Dual USB-A

2×USB 2.0 host 1×Fisher

Display link cable

### Interfaces (back):

1×ITS

1×DC in 10–32 V

2×DSUB HD15 (input)

1×VGA

1×USB 2.0

1×DSUB HD15 (output)

1×Display link cable

1×Binder

1×Service port (serial



### Switches & time servers

### 19"/2® ESW1100 series

A rugged unmanaged gigabit ethernet switch, with option for Power over Ethernet and fiber.

MIL standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +71°C, Temp storage: -40 to +71°C Dimensions: 220 × 200 × 44 mm

Connectors (front): 1×ITS

1×DC in 10-32 V 8×RJ45

1×ETH (1000BASE-T)

2×LC

1×ETH (1000BASE-LH)

ESW1100 series are available in different configurations, including PoE and fiber options. Configuration above is based on the ESW1123.

Connectors (back):

1×Binder

1×Service port (serial)



### 19"/2® ESW2100 series

A rugged layer 3 Cisco switch, based on the Cisco 3560CX platform. 1Gbps access ports and 1 or 10 Gbps uplinks (optional) MIL standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating:  $-40 \text{ to } +65^{\circ}\text{C}$ , Temp storage:  $-40 \text{ to } +71 ^{\circ}\text{C}$ Dimensions: 220 × 400 × 44 mm, Weight: 4,2 kg

Connectors (back):

1×Service port (serial)

1×Binder

8 × R]45

Connectors (front):

1×ITS 1×DC in 12-32 V

6×RJ45

1×ETH (1000BASE-T)

2×Tyco PRO BEAM® mini 1×ETH (1000BASE-LX/LH)

ESW2100 series are available in different configurations, including PoE and diffrent fiber options. Configuration above is based on the ESW2123.

1×ETH (1000BASE-T)

### 19"/2® ESW400 series

Managed layer 3 switch with static routing with 10Gbps uplinks (optional)

MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 290 × 44 mm, Weight: ≤3kg

Connectors (front):

5×38999 2×ETH (1000BASE-T)

ESW400 series are available in different configurations, either with MIL connectors or rugged industrial connector. Configuration above is based on the ESW453.

Connectors (back):

3×38999

2×ETH (1000BASE-T)

1×38999

1×Cisco Console (Serial) 1×ITS

1×DC in 10-32 V

1×Binder

1×Service port (serial)



### 19"/2® ESW9200 series

Rugged Cisco fiber switch, based on the Cisco IE4000 series switch. MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -20 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 400 × 88 mm, Weight: 7 kg

Interfaces (front): 4×HMC

2×ETH (1000BASE-SX) 1×LC

1×ETH (1000BASE-SX)

1×RJ45 1×Cisco Console (serial)

1×ITS 1×DC in 10-32 V

Interfaces (back): 1×Binder 1×Service port (serial)



### 19"/2® SSW500 series

Based on a Meinberg LANTIME module.

MIL Standards: MIL-STD-810G, MIL-STD-461F, & IP54

Temp operating: O °C to +55 °C, Temp Storage: -40 °C to +71 °C

Dimensions: 220 × 366 × 44 mm, Weight: 3.5 kg

Interfaces (front):

1×ITS

1×DC in 10-32 VDC 1×RJ45

ETH (100Base-TX)

1×RJ45 Console (Serial)

1×USB Console

1×USB

Host USB 1×BNC

1×Antenna

1×BNC 1×PPS out

1×BNC

1×PPS input 1×DB9 NMEA (RS232)

Interfaces (back): 1×Binder

1×Service port (serial)

### Router

### 19"/2® RM200 series

Fully rugged router based on the Cisco 5915 ESR card.

MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65

Temp operating: -40 to +71°C, Temp storage: -40 to +71°C Dimensions: 220 × 202 × 44 mm, Weight: 4 kg

Connectors (front):

1×38999 (WAN) 2×ETH (100BASE-TX)

1×38999 (LAN)

2×ETH (100BASE-TX)

1×38999 (LAN)

1×ETH (100BASE-TX)

1×KPT

1×DC in 10-32 V

1×38999 (WAN)

1×ETH (100BASE-TX)

RM200 series are available in different configurations, either with MIL connectors or rugged industrial connector. Configuration above is based on the RM212.

### Connectors (back):

1×Binder

1×Service port (serial)



### 19"/2® RM1100 series

A firewall based on the Cisco ASA 5506H-X including:

- Next-generation firewall (NGFW)
- Next-generation intrusion prevention system (NGIPS)
- Advanced malware protection (AMP)
- Virtual private network (VPN

MIL Standards: MIL-STD-81OG, MIL-STD-461F, MIL-STD-1275D & IP65

Temp operating: -40 to  $+55^{\circ}$ C, Temp storage: 40 to  $+71^{\circ}$ C Dimensions:  $220 \times 360 \times 44$  mm, Weight: 5 kg

### Connectors (front):

1×DC in 10-32V (ITS) 1×ETH MGMT 1000BASE-T (RJ45)

1×ETH 1000BASE-T (RJ45) 1×ETH 1000BASE-SX (HMC)

1× RS232 Service (Binder)



### 19"/2® RM3100 series

A gigabit router based on the Cisco ISR-1100 series router including:

- Cisco IOS XE Software
- Dynamic Routing (BGP, OSPF, IGMP v3, etc)
- Encapsulation (GRE, 802.1Q, Etc)
- OoS
- Access control
- VPN (IP Sec, etc.) SEC SW needed
- Zone based Firewall SEC SW needed

MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65

Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 360 × 44 mm, Weight: 5 kg

### Connectors (front):

- 1× Power (38999)
- 4×ETH 1000BASE-T LAN (RJ45)
- 1×ETH 1000BASE-T WAN (RJ45)
- 1×USB 2.0 (USB-A)
- 1×USB Console (USB-B)



### 19"/2® RM6100 series

Rugged Cisco 4G router with built in switch, based on the Cisco 809 router and the Cisco 2020 switch.

MIL Standards: MIL-STD-810G, MIL-STD-461F, MIL-STD-1275D & IP65 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C

Dimensions: 220 × 400 × 44 mm, Weight: 5 kg

### Interfaces (front):

2×RJ45 2×ETH (100BASE-TX)

1×RJ45

1×ETH (100BASE-T) 1×R45

1×Cisco Console Router (serial)

1×R]45

1×Cisco Console Switch (serial)

1×N-type

1× MAIN antenna

1×N-type

1×DIV antenna

1×SMA 1×GPS

1×USB

1×Cisco Console

1×SIM card



Interfaces (back):

1×DC in 12-32 V

1×Cisco Console

1×Service port (serial)

1×ETH (100BASE-TX)

1×Binder

1×ITS

2×RJ45

1×USB

### 19"/2® Sat Router - SRM200 series

The Satellite Router is based on the iDirect iCONNEX e850mp Satellite Router card

Temp operating: -20 to +50 °C, Temp storage: -40 to +71 °C Dimensions: 220 × 360 × 44 mm

Interfaces (front):

1×ITS

1×DC in 10-32 VDC

1×N-type

1×Rx

1×N-type

1×Tx

1×N-type

1×Rx Simple

1×N-type

1×GPS 1× Mighty Mouse



Interfaces (back): 1× Mighty Mouse

### ower

### 19"/2® PWR1100 series

A power distribution unit with AC-input and built in UPS. MIL Standards: MIL-STD-810G, MIL-STD-461F, & IP65
Temp operating: -40 to +55°C, Temp storage: -40 to +70°C
Dimensions: 220 × 400 × 88 mm, Weight: 9.3 kg

Connections on front:

9x ITS 1×DC out. 28 V DC (Normal mode) 1×RJ45

1×Ethernet SNMP

1×Ethernet SNMP port (R)45)

1×System button 1×Mute button 1×Load button

PWR1100 series are available in different configurations. Configuration above is based on the PWR1121.

Connections on back: 1×Power in 110/230 VAC 1×Service port



### 19"/2® PWR2100 series

A power distribution unit with AC-input and built in UPS. MIL Standards: MIL-STD-810G, MIL-STD-461F, & IP65
Temp operating: -40 to +55°C, Temp storage: -40 to +70°C
Dimensions: 220 × 400 × 44 mm, Weight:kg

Interfaces (front): 4×ITS 1×DC out 28 VDC

1×RJ45

1×Eth SNMP port 1×System button 1×Mute button

1×Load button

PWR2100 series are available in different configurations. Configuration above is based on the PWR2121.

Interfaces (back): 1×EU Plug 1×AC in 110/230 VAC 1×Binder 1×Service port (serial)



### 19"/2® PWR100 series

A 19"/2 $^{\circ}$  AC/DC converter, provide 28 VDC, with an input of 110 or 230

MIL Standards: MIL-STD-810G, MIL-STD-461F, & IP54 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 202 × 44 mm, Weight: 3 kg

Interfaces (front):

2×ITS 1×DC out 28 VDC Interfaces (back): 1×EU Plug 1×AC in 110/230 VAC 1×Binder

1×Service port (serial)

PWR100 series are available in different configurations. Configuration above is based on the PWR101.



### 19"/2® PWR300 series

6 port power distribution unit, with fuse on each output. MIL Standards: MIL-STD-810G, MIL-STD-461F, & IP54 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 220 × 182 × 44 mm, Weight: 1.5 kg

Interfaces (front): 6×ITS

1×DC out 1×ITS

1×DC in 10-32 V DC

PWR300 series are available in different configurations. Configuration above is based on the PWR301.



### 19"/2® PWR501 series

A power distribution unit with DC-input.

MIL Standards: MIL-STD-810G, MIL-STD-461F, & IP65 Temp operating: -40 to +55°C, Temp storage: -40 to +71°C

Dimensions: 220 × 214 × 133 mm, Weight: 6 kg

Interfaces (front): 1×38999

1×DC in, 24-32 V, max 60 A

1×38999

1×DC out, 12 V, max 20 A

9×38999

1×DC out. 24-32 V DC

(Pass through), max 25A 1×On/Off toggle switch



## Special electronics

MilDef can offer our customers a complete realization of any product idea or concept. Our creative, experienced and well-motivated personnel understand what is required to convert a customer's idea into a finished product - keeping cost, quality and time in full focus.

Below are examples of custom special electronics, all of which were tailored for customers' specific requirements and needs.

### 19" ESW9110

Switch based on the Cisco 2020 Switch

MIL Standards: IP65, MIL-STD-810G, MIL-STD-461F & MIL-STD-1275D Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 440×230×44mm Weight: 4,6 kg

Interfaces front:

10 × LAN Fiber (100 Mbps, 1300 nm) 1×VGA (DSUB HD15)

Interfaces (back): 2×LAN 38999 (100 Mbps) 2×LAN Fiber (100 Mbps, 1300nm) 2×LAN Fiber (1000 Mbps, 850 nm) 1×Cisco Console Serial R145 1×Service port



### **Batt Pack MSP105**

Battery Pack compatible with Harris battery box, 10513-4800-02. The Battery Pack MSP105 will give you several different power out options to power mobile devices, e.g. radios, computers, mobile phones etc. MIL Standards: MIL-STD-810G, MIL-STD-461F, & IP55

Temp operating: -40 to +55°C, Temp storage: -40 to +71°C Dimensions: 270 x 75 x 200mm Weight: 1,2 kg

Interfaces front: 1×12/24V DC out 1×19V DC out 1× Dual USB Power 1×MilDef system button with status indicator 1×Service port



### **Disk Clone Station CSP114**

Clone one master disk to up to 8 disks simultaneously. Clone station can be used with both 19"/2 caddies and DR8/DR10 disk caddies. MIL Standards: MIL-STD-810G

Temp operating: O to +40°C, Temp storage: -40 to +71°C

Dimensions: 440 x 400 x 88 mm Weight: 8 kg

### Interfaces front:

1×LAN Master disk bay 1×USB 3.0 (ISO file loading, Single 1×VGA (DSUB HD15) 1×Display

4×Navigation button 1×System button with status

indication 8×Clone disk bay

### Interfaces (back):

1×Power input, 110/240 VAC 2×USB 2.0 (Dual A) 1×Service port





# Rugged Displays



# Forged in the thick of battle

Every MilDef RD display was inspired by action in the field. Each design was developed in cooperation with armed forces to meet the ongoing communication challenges of their armored vehicles and command posts. The range we have today is the result of 10 years of such in-depth collaboration.

We push display technology forward by finding the critical areas of improvement as revealed by on the ground use. That's why MilDef displays are not only some of the toughest on the market, but adapted to the finer points of military operations like the need for stealth, to save space in tight quarters and to be easily integrated with other equipment.

Today, the RD range is a staple of military operations with thousands in use by armed forces around the world.

### Performance where it matters most

You can count on our RD displays even in the harshest conditions. They are combat proven to withstand severe shocks, function in extreme temperatures and to be moisture resistant. We build them according to MIL-STD-810 and MIL-STD-461 and put them through an extensive burn-in program before they leave our facilities to guarantee each unit can take everything that's thrown at it.

### Hi-res and multifunctional

Your displays need to keep up with modern computing power. We offer hi-res screens with up to 20 mega-pixel resolution and options like PIP functionality to run multiple programs simultaneously, infrared touch screens and programmable hotkeys.

### Plays well with others

The RD displays are compatible with most equipment thanks to their wide range of input and output options and flexible mounting solutions. They also have a long "form, fit, and function" period so you don't have to worry about upgrading any time soon. And no matter how long your displays are in use, you can count on efficient service as we offer lifetime support.

### **Endless customization options**

We specialize in customizing our displays to your needs. Creating your own unique solution is a quick process with rapid prototyping and a short time to production. These projects usually include customized mounting systems, selecting functionality from our wide range of options and tailoring in- and outputs.





## Operational advantages that give you an edge

- Wide storage and operating temperature ranges
- · Optional infrared touch screen
- Night vision (NVIS) compatible
- PIP functionality
- Invisible Mode automatically dims backlight in stealth situations
- Wide range of inputs and outputs including DVI, USB, composite, serial port, resistive touchscreen, etc.
- On site service is available in many countries
- All MilDef computers can be remote controlled by RD displays over a distance up to 5m
- Designed, developed, produced and maintained according to ISO 9001 and AQAP standard
- Built according to MIL-STD-810, MIL-STD-461 and Ingress Protection standards

### Armored vehicle displays

The RD10 and RD15 resist the punishment of the road with rugged metal housings designed specifically for use in armored vehicles. They are multi-functional with features like NVIS, PIP and Invisible Mode. And custom mounting systems are available for smooth integration with your equipment.

The RD10 enhanced temperature range has been designed according to the GVA standard for use inside armored vehicles. With the enhanced temperature range operations are possible even within the harshest environmental conditions are possible. The high brightness display and the keyboard with backlight allow easy use in bright and dark surroundings. The connectors can be customized according to your specific requirements.

### **RD10**

### Specifications:

XGA 1024 × 768, typ. 500 cd/m<sup>2</sup>, 400:1 contrast Invisible Mode (wire), NVIS, PIP, Heater, Speaker, F1–F13 keys Key backlight, USB hub, Touch screen, Remote ON/OFF (with DP-DVI), Built In Vehicle adapter 18-32 V

Compliant to: MIL-STD-810F, IP65, MIL-STD-461E

Temp operating: -32 to +55°C Temp storage: -46 to +70°C

Dimensions: 293 × 62 × 235 mm (W × D × H)

Weight: ca. 3 kg

#### Connections on back:

1×Earth stud M8

1×MIL DC Power Jack 18-32 V

1×MIL Composite Video In, RS232

1×MIL DP-DVI

1×MIL VGA (RGB)

2×MIL USB 1.1

### Options and accessories:

Connecting cables AC/DC adapter Stylus pen Nightvision Stealthmode



### **RD15 B**

### Specifications:

XGA 1024×768, typ. 300 cd/m<sup>2</sup>

1000:1 contrast, Invisible Mode (wire and manual), NVIS, Speaker, F1-F8 keys, Key backlight, USB hub, Mouse stick with Left/Right mouse buttons, Touch screen, Remote ON/OFF (with DP-DVI or Combo cable)

Compliant to: MIL-STD-810F, IP65 (front), MIL-STD-461E, VG95373,

EN61000-4-2, EN61000-4-3 Temp operating: -31 to +63°C

Temp storage: -40 to +85°C

Dimensions: 351×57×300 mm (W×D×H)

Weight: ca. 3.6 kg

### Connections on back:

1×Earth stud M8

1×MIL DC Power Jack 19 V

1×Combo Port

1×DP-DVI

1×VGA(RGB)

2×USB 2.0 Back

1×USB 2.0 Front

### Options and accessories:

Connecting cables AC/DC adapter Stylus pen MIL connectors



### **RD15 MIL PiP**

### Specifications:

XGA 1024×768, typ. 280cd/m<sup>2</sup>

700:1 contrast, Invisible Mode (wire), NVIS, PiP, Heater, Speaker, F1-F8 keys, key backlight, USB hub, Touch screen, Remote ON/OFF (with DP-DVI), Mouse stick with Left/Right mouse buttons, Built In Vehicle adapter 18-32 V

Compliant to: MIL-STD+810G, IP64, MIL-STD-461E

Temp operating: -31 to +61°C Temp storage: -40 to +80°C

Dimensions: 351×63×300 mm (W×D×H)

Weight: ca. 4.2 kg

### Connections on back:

1× Earth stud M8

1×MIL DC Power Jack 18–32 V

1×MIL Composite Video In, RS232

1× MIL DP-DVI

1×MIL VGA (RGB)

2×MIL USB 1.1

### Options and accessories:

Connecting cables AC/DC adapter Stylus pen



### **RD19**

### Specifications:

SXGA 1280 × 1024, typ. 350 cd/m<sup>2</sup>

1000:1 contrast, Invisible Mode (wire), USB hub, Heater,

Remote ON/OFF (with DP-DVI)

Compliant to: MIL-STD-810F, IP65 (front),

MIL-STD-461F, VG96916 T5, CE

Built In Vehicle adapter 18-32 V Temp operating: -20 to +55 °C

Temp storage: -40 to +60 °C

Dimensions: 480×77.5×405 mm (W×D×H)

Weight: ca. 10.7 kg

### Connections on back:

1×Earth stud M8

1×MIL DC Power Jack 18-32 V

1×DP-DVI

1×VGA (RGB)

1×MIL Invisible Mode

2×MIL USB 2.0

1×Circuit Breaker

### Options and accessories:

Connecting cables

AC/DC adapter Stylus pen

Touch screen

EMI glass and qualification





### Command center displays

Optimize control of your command center communications with the hi-res RD19 and RD40. They are fully ruggedized with an IP65 rating and can be equipped with a heater for operations down to -20° C. They also come with options like PIP, touch screen functionality

and remote control to give you an operational edge. Available mounting solutions also allow use in tactical vehicles.

### RD22

### Specifications:

FHD 1920 × 1080, typ. 850 cd/m<sup>2</sup> 5000:1 contrast, Invisible Mode (wire), Heater

### Compliant to:

MIL-STD-810G, IP54, MIL-STD-461F, CE Built In Vehicle adapter 18–32 V Temp operating: -20 to +50 °C Temp storage: -20 to +60 °C Dimensions: 580 × 80 × 375 mm (W×D×H)

#### Connections on back:

1× MIL DC Power Jack 18 – 32 V 1× DVI 1× VGA (RGB) 1× MIL Invisible Mode 2× USB 2.0

### Options and accessories:

Connecting cables AC/DC adapter Stylus pen Nightvision



### **RD24**

### Specifications:

Weight: ca. 13 kg

FHD 1920×1080, typ. 300 cd/m2 5000:1 contrast,

### Designed to meet:

MIL-STD-810G, IP65, MIL-STD-461F, CE EN55022 and EN55024

Built In Vehicle adapter 18–32 V Temp operating: -20 to +70 °C Temp storage: -30 to +80 °C Dimensions: 614 × 76 × 370 mm

(W×D×H)
Weight: ca. 20 kg

### Connections on back:

1 × MIL DC Power Jack 18 – 32 V 1 × DVI 1 × VGA (RGB) 2 × USB 2.0

### Options and accessories:

Connecting cables
AC/DC adapter
Stylus pen
-30 °C Operating Temperature
with heater



### **RD40**

### Specifications:

HD1080 1920×1080, typ. 700 cd/m² 1000:1 contrast, Invisible Mode (wire), USB hub, Heater, Remote ON/OFF (with DP-DVI), Built In Vehicle adapter 18–32 V

**Designed to meet:** MIL-STD-810G, IP54, MIL-STD-461E, VG96916 T5, CE

Temp operating: 0 to +40 °C (-20 °C with heater)

Temp storage: -20 to +60 °C Dimensions:  $1009 \times 120 \times 617$  mm (W×D×H)

**Weight**: ca. 40 kg

### Connections on back:

1×Earth stud M8

1×MIL DC Power Jack 18 – 32 V

1×MIL DP-DVI

1×MIL VGA (RGB)

1×MIL Invisible Mode

2×MIL USB 2.0

### Options and accessories:

Connecting cables
AC/DC adapter
Stylus pen
Touch screen
PIP
Pedestal

1× Circuit Breaker



## Ruggedized multi-monitoring system

The high-resolution electronic large-screen (HEL) display is the ideal solution for conveying mission critical data in a command post or situation room. It gives you up to 20 megapixel resolution and powerful split graphics computing so you can connect multiple sources for real time viewing.



Highly mobile with demountable parts, the HEL 2.1 display is tough enough to withstand harsh environments where dust, humidity and vibrations are ever present.

The HEL 2.1 is available in both 3x3 and 4x4 versions. During ISAF mission some HELs were in duty 24/7 for mission planing and situation report.

### **HEL 2.1**

### Specifications:

3.×3: 3840 ×3072, 4×4: 5120 ×4096, typ. 600 cd/m<sup>2</sup> 2000:1 contrast, heater, Split server with XEON EM64T 3.73GHz processor, 2 GB RAM, 2×HDD Raid I, Built In Vehicle adapter 18–32 V (monitor bar) Windows 7 and 8 ready

Compliant to: MIL-STD-810F, IP54, EN61000-4-2

Temp operating: 0 to +40 °C, Temp storage: -20 to +65 °C

Dimensions: 1720.5×124×329 mm (W×D×H)
Weight: ca. 50 kg (one 4×4 monitor bar)
1000×500×700 mm (W×D×H)
Weight: ca. 77.5 kg (Split server)

### Connections on back (monitor bar):

1×DC-In 18–32 V 2×serial OSD 1×Heater 1×VGA

### Ports and connections (Split server):

1×DC-In

4×USB 2.0

2×RJ45 Ethernet

8×BNC Composite Video

2×OSD

4×VGA (RGB) Input

4×VGA (RGB) Output

4×Heater

1×IR-Touch screen

### Options and accessories:

IR-Touch screen

Transport and storage boxes



## From concept to creation



### **Specification**

Upon receipt of a customer order a development specification is produced. This specification will ensure that both MilDef and the customer have a common understanding of the required deliverables.

The agreed specification is also the key document on commencement of a detailed design. The development specification is the backbone of the project and will be referred to and reviewed throughout the R&D process.



### Design

After the development specification has been approved by the customer, the detailed design work may commence for the mechanical, electronic and software elements. All drawings, layouts, and specifications needed to produce the prototype are prepared

in-house with the support of the latest available systems, such as 3D CAD and PCB layout. Potential design solutions are continuously evaluated with a practice of "Upstream Design" ensuring that MilDef prototypes are in accordance with customer expectations.



### **Suppliers**

MilDef works with both local subcontractors and global vendors. Key suppliers include CNC (Computer Numerical Control) service suppliers, who machine chassis from single billets of aluminium, SMA (Surface Mounted Assembly) suppliers, conducting the assembly of PCBs and selected vendors, supplying inter-connectivity solutions especially developed for the defence industry.



### Prototype builds

Once suppliers have delivered the parts to MilDef requirements, these are processed through the R&D lab and prototypes are built. The prototypes are always assembled in co-operation

between the R&D engineers and production personnel. This ensures that a volume production perspective is gleaned from an early phase.



### Prototype Verification and Validation

MilDef has its own test standard called the MilDef Verification Handbook, which details the minimal tests that are carried out on all prototypes. After prototype assembly, verification

and validation consist of functional, environmental and EMC tests, allied with inspection activities (more extensive testing can be provided on request).



### **Test Certificate**

All tests and inspection activities that are conducted when verifying and validating prototypes are referenced from the requirements laid down in the development specifications.

After verification and validation, a report will be issued proving compliance with the development specification and customer expectations.



### **Finished Product**

For short production runs or custom solutions, MilDef delivers the customer requirement after the prototype has been successfully verified and validated. For volume products to be built by MilDef the development will continue until the item is verified for serial production.

# Designing the solutions of the future

Not every challenge has an off-the-shelf solution. Many of the innovations forces around the world rely on today started out as customization initiatives. Whether it's a few tailored products or hundreds of units, MilDef can help convert a concept for a better solution into reality with speed and efficiency.

Such projects generally involve modifying computers and connectors, designing a space-saving setup and enhancing units with a huge range of accessories. MilDef is also capable of integrating data security solutions and tempest requirements. Every new unit is tested in an EMI chamber to ensure it meets all the required standards.

#### Innovation at work

Thousands of MilDef solutions are in operation around the world. The German Army is using 2,500 customized MilDef units in their FüInfoSys Heer battle management system. Airbus in France have equipped all of their A400 military transporters with portable maintenance access terminals (PMATs) built from MilDef III and RK886s. And MilDef recently helped the Norwegian Armed Forces create a compact and mobile communication solution using 19"/2 units for their CV90's.



To help the Norwegian Armed Forces take control of the sprawling equipment in their CV90's, we created a compact solution based on 19"/2 units. The solution houses all critical tech like computers, switches, UPS, etc. in one mobile unit.

### Custom built solutions



### MilDef Design House

MilDef offers its customers complete realisation of their product ideas or concepts. This is achieved by experienced and well-motivated personnel, who have a clear understanding of what is required to convert a customer's idea into a finished product. MilDef focuses on cost, quality and time for both high and low volume products and solutions.

# Efficient beyond line-of-sight (BLOS) blue force tracking



As military, police and government forces find themselves conducting operations across greater distances and with more autonomy from their higher commands, reliable and efficient blue force tracking is becoming a critical requirement for effective operations. By implementing the SCC TITAN system, commanders gain access to a complete and seamless operational picture, which allows them to quickly and precisely manage unfolding events. SCC TITAN provides a solution to lost or no communications at the tactical level.

SCC TITAN does not replace Battlefield Management Systems (BMS/C4i platforms) which are, in the main, radio based. It is a Beyond Line of Sight (BLOS) bolton that augments existing national systems and cost-effectively resolves the potential deficiency of lost or no communications at the tactical level in every military communications infrastructure and therefore guarantees Situational Awareness and Command and Control.

The SCC TITAN solution provides 3-way messaging functionality and consists of four components: the SCC Platform, SCC Tactical software, SCC Mobile hardware and MilDef rugged computers and special electronics. These components can operate independently, but when combined they provide an interoperable, affordable, beyond line-of-sight blue force tracking (BFT) solution with powerful configuration options.

All communications use a secure virtual private network and unique AES256 encryption into a standalone server solution. Satellite data is sent via a secure network offering no-weak-link, point-to-point encryption. By enabling the transmission and receipt of important information, simple but structured military reports, geospatial display of deployed assets at the tactical level, SCC TITAN ensures that Situational Awareness (SA) and Command and Control (C2) are maintained when tactical voice radio is unavailable. This ensures that commanders have the information they need to act intelligently whatever the voice communications situation.

### SCC Platform

The SCC Platform is a secure server solution that enables full BFT for military, police and government organizations. It includes situational awareness, operational command and control, emergency response and the ability to provide comprehensive post operation debriefing.

Providing a single, shared tactical Common Operational Picture (COP) for up to 10,000 separate assets on land, in air and at sea, it allows commanders to conduct synchronized planning, control movement and rapidly respond to changing conditions. By giving access to near real-time situational data it facilitates making faster and better decisions. Secure web protocols, password encryption and satellite communication links using the highest commercial point-to-point encryption ensure complete data security.

### **SCC Tactical**

SCC Tactical is the mobile situational awareness component of the SCC TITAN solution. It is designed to be accessed on a tablet or laptop computer and is used in conjunction with the SCC Platform as a client-based standalone BFT solution. Using secure satellite communications, it allows tactical commanders to pass information to asset groups and/or HQ to ensure continuous secure operation, anywhere in the world.

SCC Tactical is designed to connect and operate directly with Whisper and Echo – the primary personnel satellite tracking and command and control devices. Combining them with the SCC Tactical application allows field personnel total, beyond line-of-sight BFT and situational command and control, enabling tactical awareness, advanced communications capability and ultimate mission success.

### **SCC Mobile**

SCC Mobile hardware is designed for asset tracking and basic C2 in the field. It includes portable communications and tracking devices that can be handheld or installed into vehicles, aircraft or ships.

The primary SCC Mobile device is the Whisper, which can be used in conjunction with personnel and vehicles. When combined with the SCC Platform and SCC Tactical, it enables commanders to view their position in near real time, and pass this data into the COP. Our Echo device is the ideal dismounted device for soldiers and police forces, with basic functionality.

Both Whisper and Echo are designed to be robust, rugged and waterproof.

The SCC Pocket app allows for information such as positional data, messages and emergency alerts to be presented in real time on the SCC Platform. It enables commanders to quickly identify the exact location of personnel in case of an emergency and initiate effective response. The application can sit in a passive mode while staff are in lower risk areas so as not to use power or data, but can be pinged for instant location in an emergency. The application is fully encrypted, allowing the device to serve as a secure communications channel between team members and back to HQ if necessary.

### MilDef logistics system

Our logistics system includes tracking devices that increase your situational awareness by giving logistics the same mapping capability, operational picture and messaging possibilities as maneuver forces. Keep track of your cargo no matter how remote the journey with the Shadow and our tracking gateway and sensor.



## Tracking solutions for personnel and vehicles anywhere in the world

### Wave

The Wave is the latest addition to SCC TITAN's Iridium satellite-based C2 Friendly Force Tracking (FFT) comms solution with ES256 encryption. It provides GPS tracking, emergency alerting, IoT sensors and 2-way chat messaging.

Operating Frequency (Iridium): 1616 to 1626 MHz GPS Receiver: UBlox MAX-M8Q

Battery: Lithium-ion (2,2 Ah)

Standards: CE, IP67 Temp operating: -20 to +o60C; Temp storage: -20 to +50°C

**Dimensions:** 158 x 68 x 28 mm, Weight: 300g

### Interfaces (front):

Screen: Resistive 240 x 400 color touchscreen

1 x USB 2.0+RS-232+ two GPIO's (USB-C)

1 x Antenna Iridium (Embedded helical)

1 x Antenna GPS (Patch)

7 x Key (Up, Down, Left, Right, Enter, Emergency, Power)

#### Accessories:

- External Antenna
- Pouch
- Multi battery charger

### **Echo**

Specifications:

Rating: IP68 Waterproof to 2 m Security: AES 256 encryption

Dimensions: 108 mm (152 mm at the antenna) × 57 mm × 25 mm

Weight: 150 g (add 8.5 g for belt clip) I/O and power interface: Standard mini USB

Communication interface: Class two Bluetooth (10 m range)

Software upgrade: Via mini USB Operating temp: -20 °C to +55 °C Operating humidity: <95 % RH Iridium frequency: 1616 to 1626.5 MHz GPS frequency: 1575.42 MHz (L1 carrier) GPS: Ultra high sensitive -165 dBm Part number: T24-0001457-ECHO NATO stock No (NSN): 5895-99-216-4223

### **Shadow**

Specifications:

Communication: Iridium Satellite/GPRS/GSM Dimensions: 30 mm × 320 mm × 105 mm Weight: 660 g (with integrated antenna) Operating temp: -20 °C to +60 °C (Rechargeable)

Rating: IP67

I/O: 4 digital I/P, 2 analogue I/P, WiFi, Bluetooth, RS232

Security: AES 256 encryption Mounting: Magnetic mount or bolt







### MilDef Tracking System TGW102

Specifications:

Mesh radio network: Runs on the ISM 2.4 GHz band

Range: 500 m range between nodes (free line of sight and 5dBi antenna)
Sensors: 3-axis shock sensor (max 50 g readout), temperature sensor (-40 °C to 85 °C), humidity sensor (0 % RH to 100 % RH), positioning sensor (GPS)

Power consumption: <500 mW (max), <5 mW (typical)

Alarm: Selectable alarm threshold via SAT, GPRS or service interface

Satellite network: Iridium

Interfaces (front): 1× service port, 1× system button with status indicator,

1×battery compartment

Interfaces (left): 1×door sensor interface (binder), 1×satellite interface

(compatible with Whisper)

Interfaces (top): 1×mesh radio antenna (SMA), 1×GPS antenna (SPA), 1×GPRS

antenna (SMA), 1×SAT antenna (SMA)

Interfaces (back): 4 rubberized magnetic fasteners Interfaces (internal): 1×SIM card compartment Battery: 3×3.6 V/2000 mA Lithium-Ion battery Power input: DC 3.6 V (external power optional)

Case: Aluminium alloy

**Dimensions:** 153 × 48 × 98 mm (W × D × H with connectors and magnetic

fasteners)
Weight: ≤1300 g
Certifications: IP64



Specifications:

Mesh radio network: Runs on the ISM 2.4 GHz band

Range: 500 m range between nodes (free line of sight and 5dBi antenna) Sensors: 3-axis shock sensor (max 50 g readout), temperature sensor (-40 °C to 85 °C), humidity sensor (0% RH to 100% RH), positioning sensor (GPS)

**Power consumption:** <100 mW (max), <1.6 mW (typical)

Alarm: Selectable alarm threshold via SAT, GPRS or service interface Interfaces (front): 1×service port, 1×system button with status indicator,

1×battery compartment

Interfaces (top): 1× mesh radio antenna (SMA), 1× GPS antenna (SPA)

Interfaces (back): 2 rubberized magnetic fasteners Interfaces (internal): 1×SIM card compartment Battery: 3.6 V/2000 mA Lithium-Ion battery

**Power input:** DC 3.6 V **Case:** Aluminium alloy

**Dimensions:** 81×48×98 mm (W×D×H with connectors and magnetic fasteners)

Weight: ≤500 g Certifications: IP64



### Accessories

### MilDef can also supply accessories for example:

- Antennas
- Connecting cables, adapters and batteries
- Mounts
- Pouches
- Etc.

Please contact your local MilDef office to discuss your needs and requirements.



# Enhancing military communication





MilDef is an international company at the forefront of designing, developing and manufacturing combatrugged computers and special electronics for communication in extreme environments where reliability, robustness and high performance are crucial.

Our offer includes a battle-field 19"/2® standard military form factor that saves significant space and enables more functionality, customized communication units of this form factor, and special electronics based on your own specifications and dedicated to your particular needs.

We also supply the MilDef Crete range of communication products, including notebooks, tablets and PDAs. Our equipment complies with IP54, IP65, MIL-STD-810 and MIL-STD-461. We are certified according to ISO 9001:2015 regarding design, development and production. Naturally, we provide all the service required for individual units and provide them with lifetime support. Our environmental program is guided by our ISO 14001:2015 certification.

In close cooperation with you, MilDef is dedicated to reshaping your communication power.

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