

MilDef DE13



7" rugged handheld tablet for demanding environments

You shouldn't have to compromise to get a unit with both a slim and rugged design, the MilDef DE13 is based on a slim aluminium chassis for minimal footprint without losing robustness and high performance in extreme environments.

It can be utilized as a handheld unit for mobile operations or installed in cramped confined spaces. Either way DE13 will fill up the gap between smart phones and tablets with a familiar Windows operating system.

The DE13 features a high-brightness 7" resistive multi-touch display, CNC milled lightweight aluminium chassis and a powerful Intel i7 CPU. Built for the toughest environment and for use in combat, the DE13 is IP67 rated as well as certified to both MIL-STD-810 and MIL-STD-461.

Customizable

Are you looking for features and functions beyond the standard solutions offered by large commercial manufacturers? MilDef products are designed to enable customization to your specific program requirements, e.g. connectors, chassis modifications, mounting solutions, etc. Contact your nearest MilDef Sales Office and we will help you to find a solution that meets your requirements.

Guaranteed performance

All MilDef products come with comprehensive lifecycle sustainment support to ensure your equipment maintains peak performance for many missions to come. We also guarantee the availability of spare parts for 5 years after product end-of-life.

Features

- Intel® Core™ i7-7Y75
- 16 GB RAM
- 7" display
- Resistive Multi-Touch
- Docking connector
- WiFi, Bluetooth and GPS (optional)
- Ground Army (optional)
- Water and dust resistant (IP67)

Technical Specification

CPU	Intel® Core™ i7-7Y75
Display	7" WXGA LCD, 1280 x 800 Brightness 800 nits
Touch screen	Resistive Multi-Touch Screen
Case	CNC milled Aluminum (Green or black)
Software	
Operating system	Windows 10
Memory	
RAM	Up to 16GB LPDDR3 1866 MHz
Storage	M.2 2280 M key SATAIII SSD
Graphics	
GPU	Intel® HD Graphics 615
Battery	
Primary Battery	7.2V / 4700 mAh Li-Ion
Secondary battery	7.2V / 4700 mAh Li-Ion optional
Sound	
Audio	HD Audio
Security & Management	
TPM	TPM2.0 optional
Interfaces	
Ethernet	1x Ethernet 1000Base-T optional
WiFi/Bluetooth	802.11 a/b/g/n/ac optional Bluetooth 5.0 optional
GPS	Ublox Neo-M8N GPS/GLONASS optional
USB	1x USB 3.1 (Type C) 1x USB 2.0 optional
Audio	Headphone out/Mic in combo optional Headphone out/mic in combo optional
Docking port	Yes
Speaker	Mono Speakers
Mic	Embedded Digital Mic optional
Antenna	2x Antenna signals optional
Serial	2x COM* optional
Buttons	- Power button - Function Keys with LED Backlight

Technical Specification (cont.)

Size & Weight	
Dimensions with bumpers (W x D x H)	250 x 144 x 30.5 mm (9.8 x 5.7 x 1.2In)
Weight	1.2 kg (2.6 lbs) with battery
Temperature Range	
Operational DC	-20°C to +60°C (-4°F to +140°F) Extended Low Temperature option -30°C to +60°C (-22°F to +140°F)
	Battery is charging between 0°C to +40°C (+32°F to +104°F)
Operational Battery	-10°C to +60°C (14°F to +140°F)
Storage	-40°C to +71° (-40°F to +160°F)
Reliability	
MTBF (Ground Benign)	27 192 hours
MTTR	13.1464 minutes
Power	
Power input	12- 32 VDC w. surge protector
Operating time	5 hours
Power consumption	Idle: 11W Max: 45W
AC Adapter	Please see the accessories section
Standards	
CE / FCC	Yes / Yes
REACH	Yes
Environment	MIL-STD-810H IP67
EMC/EMI	MIL-STD-461G Ground Navy MIL-STD-461G Ground Army optional
Warranty	
Warranty	5 years
Customization	
Need anything not included in the data sheet? MilDef products are designed to enable customization to your specific program requirements. Please contact your MilDef sales team member to find the best solution for your requirements.	

* Can be selected via BIOS RS232/RS422/RS485



Accessories & Options

AC/DC Adapters

AC Adapter 90W (EU) – Indoor Use	110/220VAC (100~240 VAC), 50/60 Hz
AC Adapter 90W (US) – Indoor Use	110/220VAC (100~240 VAC), 50/60 Hz
AC Adapter 90W Ground Army – Indoor Use (EU)	110/220VAC (100~240 VAC), 50/60 Hz
AC Adapter 90W Ground Army – Indoor Use (US)	110/220VAC (100~240 VAC), 50/60 Hz
AC90 – AC adapter 90W Ground Navy (IP65, MIL-STD-810G, MIL-STD-461F & Wide temp)	110/220VAC (90~264 VAC), 50/60 Hz or 400Hz
AC90 – AC adapter 90W Ground Army (IP65, MIL-STD-810G, MIL-STD-461F & Wide temp)	110/220VAC (90~264 VAC), 50/60 Hz or 400Hz

Chargers

Single Battery Charger	Versions for primary battery or secondary battery is available
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Mounting & Transport

Hand strap kit	
Sunshade kit	
Docking and mounting solutions	Please get in contact with your MilDef sales office for options
Bag / Backpack	Please get in contact with your MilDef sales office for options

Operating system

Windows 10

Environmental Specification

Low Air pressure

Low air pressure – Rapid Decompression MIL-STD-810G w/ change 1, Method 500.6, <i>Procedure I - Storage/Air Transport</i>	12.192 m / 40.000 ft
Low air pressure - Operating MIL-STD-810G w/ change 1, Method 500.6, <i>Procedure II - Operation/Air Carriage</i>	4.572 m / 15.000 ft

IP Class

IP	IP67
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Freeze/Thaw

Freeze/Thaw – Operating MIL-STD-810G w/ change 1, Method 524.1 <i>Procedure III - Rapid Temperature Change</i>	According to method and procedure
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Humidity

Humidity – Storage MIL-STD-810G w/ change 1, Method 507.6 <i>Procedure II (Aggravated) - Figure 507.6-7</i>	24-hours per cycle / Total of 10 cycles Between 30°C (86°F) and 60°C (140°F) with the relative humidity at 95% constant
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Rain

Rain – Operating MIL-STD-810G w/ change 1, Method 506.6 <i>Procedure II</i>	276kPa(40psig) 5-surfaces 40-minutes/surface
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Shock

Functional Shock - Operating MIL-STD-810G w/ change 1, Method 516.7 <i>Procedure I - Figure 516.7-10</i>	Table 516.7-IV Terminal-peak sawtooth shock pulse 40g, 11ms
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Salt Fog

Salt fog MIL-STD-810G w/ change 1, Method 509.6	Salt concentration 5 % +- 1 % 24 h wet + 24 h dry /cycle Total 2 cycles / 96 hours
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Temperature

Low temperature - Operating MIL-STD-810G w/ change 1, Method 502.6 <i>Procedure II – Operation</i>	-20 °C / -4 °F (optional -30 °C / -22 °F)
Low temperature - Storage MIL-STD-810G w/ change 1, Method 502.6 <i>Procedure I – Storage</i>	-40 °C / -40 °F
High temperature - Operating MIL-STD-810G w/ change 1, Method 501.6 <i>Procedure II – Operation</i>	60 °C / 140 °F
High temperature - Storage MIL-STD-810G w/ change 1, Method 501.6 <i>Procedure I – Storage</i>	71 °C / 160 °F
Temperature Shock – Non-Operating MIL-STD 810G w/ change 1, Method 503.6 <i>Procedure I–C (Figure 503.6-3)</i>	-40°C / -40°F to 71°C / 160°F

Vibrations

Vibration - Operating MIL-STD-810G w/ change 1, Method 514.7 <i>Category 20 - Ground Vehicles-ground mobile</i>	Table 514.7C-V Composite wheeled vehicle vibration exposures Figure 514.7C-4, 60-minutes/axis
Vibration Storage MIL-STD-810G w/ change 1, Method 514.7 <i>Category 24 - General minimal integrity</i>	60-minutes/axis



EMC Specification (optional)

MIL-STD-461G

MIL-STD-461G, Method CE101	Conducted emissions, power leads 30Hz to 10kHz
MIL-STD-461G, Method CE102	Conducted emissions, power leads 10 kHz to 10 MHz
MIL-STD-461G, Method CS101	Conducted susceptibility, power leads 30 Hz to 150 kHz
MIL-STD-461G, Method CS114	Conducted susceptibility, bulk cable injection 10kHz to 200MHz
MIL-STD-461G, Method CS115	Conducted susceptibility, bulk cable injection, impulse excitation
MIL-STD-461G, Method CS116	Conducted susceptibility, damp sinusoidal transients, cables and power leads 10 kHz to 100 MHz
MIL-STD-461G, Method CS118	Personnel borne electrostatic discharge – All (ESD)
MIL-STD-461G, Method RE101	Radiated emissions, magnetic field 30Hz to 100kHz
MIL-STD-461G, Method RE102	Radiated emissions, electric field 10kHz to 18GHz
MIL-STD-461G, Method RS101	Radiated susceptibility, magnetic field 30Hz to 100kHz
MIL-STD-461G, Method RS103	Radiated susceptibility, electric field 2MHz to 18GHz