

# MilDef DS13



## A powerful rugged tablet in a slim factor

You shouldn't have to compromise with the DS13 to get a slimmed, powerful and fully rugged tablet.

Keeping true to the MilDef brand the MilDef DS13 puts emphasis on low weight, a powerful Intel® Core™ i7 CPU and a rugged design.

The tablet features a high-brightness 10.1" resistive multi-touch display, CNC milled lightweight aluminium chassis and a wide selection of customization options that ranges all from military connectors to wireless connectivity options.

When it gets tough out in the field you don't have to worry, the MilDef DS13 is IP65 rated as well as certified to both MIL-STD-810 and MIL-STD-461 standards.

## 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
- 10.1" display
- Resistive Multi-Touch
- Docking connector
- Wi-Fi, BT, &GPS (optional)
- Ground Army (optional)
- Water and dust resistant (IP65)

## Technical Specification

CPU	Intel® Core™ i7-7Y75
Display	10.1" WUXGA (1920 x 1200) Brightness: 800 nits
Touch screen	Resistive Multi-Touch Screen
Case	CNC milled Aluminum (Green or black)
<b>Software</b>	
Operating system	Windows 10
<b>Memory</b>	
RAM	Up to 16GB LPDDR3 1866 MHz
Storage	Removable mSATA III SSD 128GB/256GB/512GB
<b>Graphics</b>	
GPU	Intel® HD Graphics 615
<b>Battery</b>	
Standard	11.1V / 4200 mAh Li-Ion battery.
Dual capacity	11.1V / 8400 mAh Li-Ion battery.
<b>Sound</b>	
Audio	HD Audio
<b>Security &amp; Management</b>	
TPM	TPM2.0 <i>optional</i>
<b>Interfaces</b>	
Ethernet	2x Ethernet 1000Base-T <i>optional</i>
WiFi/Bluetooth	802.11 a/b/g/n/ac <i>optional</i> Bluetooth 5.0 <i>optional</i>
GPS	Ublox Neo-M8N GPS/GLONASS <i>optional</i>
USB	2x USB 3.1 1x USB 2.0 <i>optional</i>
Video	Mini DP
Audio	Headphone out/Mic in combo <i>optional</i> Headphone out/mic in combo <i>optional</i>
Docking port	Yes
SD card	Yes (micro SD)
Speaker	Mono Speakers
Antenna	2x Antenna signals <i>optional</i>
Serial	2x COM* <i>optional</i>
Buttons	- Power button 13 x Function keys with LED Backlight
Sensor	Light sensor

## Technical Specification (cont.)

<b>Size &amp; Weight</b>	
Dimensions with bumpers (W x D x H)	286 x 193 x 27 mm (11.3 x 7.6 x 1.1 in)
Weight	1.5 kg (3.3 lbs) with battery
<b>Temperature Range</b>	
Operational DC	-20°C to +60°C (-4°F to +140°F) Extended Low Temperature <i>option</i> -30°C to +60°C (-22°F to +140°F)
	Battery is charging between 0°C to +50°C (32°F to 122°F)
Operational Battery	-10°C to +60°C (14°F to +140°F)
Storage	-40°C to +71° (-40°F to +160°F)
<b>Reliability</b>	
MTBF (Ground Benign)	58 256 hours
MTTR	TBD
<b>Power</b>	
Power input	12- 32 VDC w. surge protector
Operating time	4 hours (std battery)
Power consumption	Idle: 8W Max: 50W
AC Adapter	Please see the accessories section
<b>Standards</b>	
CE / FCC	Yes / Yes
REACH	Yes
Environment	MIL-STD-810G IP65
EMC/EMI	MIL-STD-461G Ground Navy MIL-STD-461G Ground Army <i>optional</i>
<b>Warranty</b>	
Warranty	5 years
<b>Customization</b>	
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

### Mounting & Transport

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
Single Battery Charger	Work with Standard battery or dual capacity battery

### 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	IP65
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### Freeze/Thaw

Freeze/Thaw – Operational 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 – Storage MIL-STD-810G w/ change 1, Method 509.6	Salt concentration of 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 - Operational 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 exposure 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