



SCORPION Rugged Tablets and Handhelds Installation Guide

[Home](#) » [SCORPION](#) » SCORPION Rugged Tablets and Handhelds Installation Guide 



SCORPION Buyers Guide

Everything you need to know before buying our rugged tablets and industrial handhelds





Contents

- [1 Checklist](#)
- [2 Application Field](#)
- [3 1D/2D Barcode Reader](#)
- [4 Certifications](#)
- [5 Comparison Table](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)

Checklist

Your checklist before buying a rugged tablet or handhelds

- Application Field: Will the mobile device be used indoors or outdoors?
- 1D/2D Barcode Reader: Which codes can our scan modules read?
- Certifications: Which type of protection should you choose?
- Comparison Table: All SCORPION models in direct comparison



Before purchasing a SCORPION rugged tablet or industrial handheld, we provide you with an essential checklist you can go through step by step in this buyers guide. Experience has shown that not only the most important technical questions can be clarified in advance, but also problems and misunderstandings after an order can be avoided. In this buyers guide, we inform you about the features you should look for in the hardware.

The first and foremost requirement is the application for which you want to use the rugged tablet or handheld. In general, our SCORPION devices are suitable for almost any industrial application fields, but it is important to clarify, if the mobile terminal will be used primarily for indoor or outdoor applications (or both). Furthermore, we explain which scan modules are installed in the individual SCORPION models and which codes can be read by each. Our 1D/2D scanners are only available as optional accessories on most of our rugged tablets and can be omitted if not needed.

Additionally, we'll be getting into details about the hardware certifications in this buying guide. All SCORPION models have a standardized MIL-STD-810G and at least IP65 certification, but the meaning of these cryptic abbreviations, will be cleared up as well.

Last but not least, we give you a significant spec sheet of all our SCORPION rugged tablets and handhelds in direct comparison. In a tabular view, you will find all important specifications as well as suitable accessories at a glance. More detailed information on the individual devices as well as data sheets, quick-start guides and drivers can be found online at: www.scorpion-rugged.de/en

Application Field

Will the mobile device be used indoors or outdoors?

As a user, you basically have to be clear about whether you prefer to use a rugged tablet or handheld indoors or outdoors. For indoor use in industrial facilities, using a MIL-SPEC certification and IP65 certification is usually sufficient. Our entire SCORPION portfolio is well equipped for this application field. But the working conditions in outdoor areas require an entirely different approach.

Do you often or occasionally have to work outside in direct sunlight?

It is important to clarify this question, because although all SCORPION's are outdoor capable, not all screens are readable in direct sunlight by default. Only with a display brightness of at least 800 cd/m² (nits) a device can be considered sunlight-readable. We have so-called high brightness models in our portfolio specifically for this use case, namely the SCORPION 10X series.

The SCORPION's are suited for:

- Warehouses and stores

- Craftsmen and workshops
- Industrial production lines
- Transportation and logistics
- Police and fire vehicles
- Forklift terminals
- Agriculture or construction sites
- Drone / multi copter control
- Military field operations



www.scorpion-rugged.de/en

1D/2D Barcode Reader

Which codes can our scan modules read?



1D codes have long been established in the industries or retail and denote a series of arranged bars forming a so-called one-dimensional code. Each of our SCORPION devices offers the possibility to read 1D barcodes, these include for example Code 39, Code 128, EAN, UPC and Code 2/5 interleaved.



All SCORPION barcode readers are capable of recognizing two-dimensional codes, allowing more data to be read on the same space. This includes stacked 2D codes such as PDF417 and Codablock A as well as 2D matrices. In addition, the built-in camera also recognizes classic QR codes.

Which scan modules are integrated into the SCORPIONS?

1D/2D scan module	Available for SCORPION model
Honeywell N3680	SCORPION 12", SCORPION 10" PLUS, SCORPION 10X Windows and SCORPION 6" (scanner included)
Motorola Zebra SE2707	SCORPION 8" PLUS
Newland LV3096	SCORPION 10X Android (scanner included)

Certifications

Which type of protection should you choose?

What does MIL-STD-810G mean?

MIL-STD-810 certifications designate a set of standardized testing methods for the U.S. military, defining, among others, the compatibility of equipment in dealing with high temperature fluctuations, atmospheric pressure, humidity, vibration or solar radiation.

All SCORPION rugged tablets and handhelds are already offered with a MIL-STD-810G certification as a standard, which among others grants them a drop resistance of up to 1.5 meters.

Testing method	Content
501.5	High temperature
502.5	Low temperature
503.5	Temperature shock
504.1	Contamination by liquids
507.5	Humidity
510.5	Sand and dust
514.6	Vibrations

What does the IP rating mean?






All-round protection no extraprotective cover needed

IP XX

1. Digit	Protection against contact and dirt	2. Digit	Water protection
0	Not protected	0	Not protected
1	Protected against large-surface contact and solid foreign bodies ($\varnothing \geq 50\text{mm}$)	1	Protected from vertically falling dripping water
2	Protected against contact with fingers and solid foreign bodies ($\varnothing \geq 12.5\text{mm}$)	2	Protected against falling dripping water, with housing inclination up to 15°
3	Protected against contact with tools and solid foreign bodies ($\varnothing \geq 2.5\text{mm}$)	3	Protected against falling spray water up to 60° from the vertical
4	Protected against contact with wires and solid foreign bodies ($\varnothing \geq 1.0\text{mm}$)	4	Protected from splashing water on all sides
5	Complete protection against any direct contact as well as against dust in harmful quantities	5	Protected against water jets from any angle
6	Complete protection against contact and dust	6	Protected against strong jets of water
<p>All SCORPION models have at least an IP65 rating, which can reach up to IP67 for some devices.</p>		7	Protected against temporary submersion in water
		8	Protected against continuous submersion in water up to 1 meter depth (unless otherwise specified)
		9	Protected from water during high-pressure and steam cleaning





Comparison Table

All SCORPION models in direct comparison

Model	SCORPION 12"	SCORPION 10" SLIM And roid	SCORPION 10X Android
			
Display Sizes	12.2-inch (30.98cm)	10.1-inch (25.65cm)	10.1-inch (25.65cm)
Resolution	1,920 x 1,200	1,920 x 1,200	1,280 x 800
Touchscreen	10-point capacitive	10-point capacitive	Capacitive multi-touch screen , supports glove and rain mode
Brightness	280 nits	400 nits (min.)	1,000 nits (sunlight readable)

Processor	Intel® Skylake Core™ m3-6Y30	MT8788 Octa-Core (Quad-Core Cortex A73 2.0GHz / Quad-Core Cortex A53 2.0GHz)	Qualcomm Cortex-A53 64-bit OctaCore processor, 1.8GHz
Memory	4GB LPDDR3 (up to 8GB for projects)	4GB LPDDR 4X	4GB LPDDR3
Storage Capacity	128GB up to 512GB M.2 SSD	64GB / 128GB	64GB
Operating System	Windows 10 IoT	Android 11.0	Android 9.0
Interface	1x RJ-45 LAN 2x USB 2.0, 1x USB 3.0, 1x USB Type C 1x HDMI 1.4a Type C 1x RS-232 (COM1), 1x RS-2485 (COM2) 1x micro-SIM slot 1x microSD slot 2x Speakers + Audio-Out	1x USB Type A, 1x USB Type C 1x Micro HDMI Mode 1: 2x Nano SIM, Mode 2: 1x Nano SIM + microSD 1x Speaker + 2x Microphone 1x microSD slot	1x USB Type C Compatible with USB 3.0 (for data transmission; supports OTG) 1x micro-SIM slot 1x microSD slot 1x Speaker + Audio-Out
Barcode Reader	1D / 2D (optional)	1D / 2D (included)	1D / 2D (included)
Camera	2MP (front) / 5MP (rear)	8MP (front) / 13MP (rear) or 21MP (optional) with flash light	5MP (front) / 16MP (rear)
Battery	6,300 mAh, 7.4 Volt, (hot swap) + 1,000 mAh, 7.4 Volt (internal)	10,000 mAh, 3.8 Volt, hot swap, 1,000 mAh, internal	8,000mAh, 3.7V, removable (warm swap)
Operating Temp.	-10° ~ 50°C	-10° ~ 50°C	-10° ~ 65°C
Certifications	IP65 + MIL-STD-810G	IP65	IP67 + MIL-STD-810G
Accessories (Option)	Dockable keyboard, spare battery, 1D/2D scanner, power adapter and cable, office docking, active vehicle mount, vehicle charging cable, shoulder strap, backstrap	Multi I/O docking, office docking, hand strap	Included in delivery: 1D/2D scanner, active vehicle mount, mounting arm, hand strap, power adapter

SCORPION 10X Windows	SCORPION 10" PLUS	SCORPION 8" PLUS	SCORPION 6"
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10.1-inch (25.65cm)	10.1-inch (25.65cm)	8.0-inch (20.32cm)	6.0-inch (15.24cm)
1,280 x 800	1,280 x 800	1,280 x 800	1,280 x 720
10-point capacitive	10-point capacitive (Windows) 5-point capacitive (Android)	10-point capacitive (Windows) 5-point capacitive (Android)	5-point capacitive
1,000 nits (sunlight readable)	280 nits (Windows), 400 nits (Android)	320 nits (Windows), 450 nits (Android)	430 nits
Intel® Atom™ Cherry Trail x5-Z8350	Intel® Atom™ Cherry Trail Z8350 (Windows) or MSM8953, 2.0 GHz (Android)	Intel® Atom™ Cherry Trail Z8350 (Windows) or MSM8953, 2.0 GHz (Android)	Intel® Atom™ Cherry Trail Z8350 (Windows) or Qualcomm MT8735B Quad-Core Cortex A53, 1.45GHz (Android)
4GB LPDDR3	4GB LPDDR3	4GB	4GB (Windows) or 2GB (Android)
64GB	64GB	64GB	64GB (Windows) or 32GB (Android)
Windows 10 IoT	Windows 10 IoT or Android 9.0	Windows 10 IoT or Android 10.0	Windows 10 LTSC 2019 or Android 10.0
1x USB 3.0 + 1x USB Type C 1x HDMI 1.4a Type C 1x micro-SIM slot 1x SDHC/SDXC slot 1x Speaker + Audio-Out	1x USB 2.0 + 1x microUSB OTG (Windows) 1x USB 2.0 + 1x USB Type C (Android) 1x HDMI 1.4a Type C 1x RJ-45 LAN + 1x RS-232 1x micro-SIM slot 1x microSD slot 1x Speaker + Audio-Out	1x USB 2.0 + 1x microUSB OTG (Windows) 1x USB 2.0 + 1x USB Type C (Android) 1x HDMI 1.4a Type C 1x SIM slot 1x microSD slot 1x Speaker + Audio-Out	1x microUSB OTG 1x micro-SIM slot 1x microSD slot 1x Speaker + Audio-Out
1D / 2D (optional)	1D / 2D (optional)	1D / 2D (optional)	1D / 2D (included)
2MP (front) / 5MP (rear)	2MP (front) / 5MP (rear) – (Windows) 2MP (front) / 13MP (rear) – (Android)	2MP (front) / 5MP (rear) – (Windows) 2MP (front) / 13MP (rear) – (Android)	2MP (front) / 5MP (rear) – (Windows) 2MP (front) / 8MP (rear) – (Android)

10,000 mAh, 3.7 Volt, removable	10,000 mAh, 3.7 Volt, removable (Windows) 8,500 mAh, 3.7 Volt, removable (Android)	8,500 mAh (for LTE: 7,800 mAh), 3.7 Volt, internal (Windows) 8,500 mAh, 3.7 Volt, internal (Android)	5,000 mAh, 3.7 Volt, removable (Windows), 5,000 mAh, 3.7 Volt (Android)
-10° ~ 50°C	-10° ~ 50°C	-10° ~ 50°C	-10° ~ 50°C
IP65 + MIL-STD-810G	IP65 + MIL-STD-810G	IP65 + MIL-STD-810G	IP67 + MIL-STD-810G
Spare battery, 1D/2D scanner, power adapter and cable, office dock, active vehicle mount, vehicle charging cable, stylus, shoulder strap, backstrap	Spare battery, 1D/2D scanner, power adapter and cable, office dock, active vehicle mount, vehicle charging cable, stylus, shoulder strap, backstrap	1D/2D scanner, power adapter and cable, office docking, active vehicle mount, vehicle charging cable, touch pen	Spare battery, power adapter and cable, office docking, multidocking cradle, pistol grip, active mount, active pistol grip mount, vehicle power supply, touch pen, shoulder/belt pouch, 1D/2D scanner (incl.)

www.scorpion-rugged.de/en

Contact

BRESSNER Technology GmbH

Industriestrasse 51

82194 Groebenzell

Germany

Phone: +49 8142 47284-76

E-Mail: scorpion@bressner.de

Web: www.scorpion-rugged.de/en

Documents / Resources



[SCORPION Rugged Tablets and Handhelds](#) [pdf] Installation Guide
Rugged Tablets and Handhelds, Rugged, Tablets and Handhelds, Handhelds

References

- [SCORPION - Rugged Tablets & Handhelds for extreme uses](#)
- [SCORPION - Rugged Tablets & Handhelds für extreme Einsätze](#)
- [SCORPION - Rugged Tablets & Handhelds for extreme uses](#)
- [SCORPION 10" Windows | Industrial Rugged Tablet](#)
- [SCORPION 10" SLIM Android | Industrial rugged tablet](#)
- [SCORPION 10X V2 Android | High Brightness Outdoor Tablet](#)
- [SCORPION 12" Windows | Industrial Rugged Tablet](#)
- [SCORPION 6" Windows | Industrial Rugged Handheld](#)

- [!\[\]\(5b5f54d676d0a35b03e6f778221a069b_img.jpg\) SCORPION 8" Windows | Industrial Rugged Tablet](#)

[Manuals+.](#)