

# ***Crossbow: Software defined radio analysis platform***

## ***Situational awareness – for when you really need to know!***

### Product Overview

The Crossbow multi-role software defined radio scanning/decoding system integrates:

- Complex RF spectrum analysis with clarity
- Modular and scalable RF Front End Devices (FED)
- A reconfigurable processing platform (VITA 49 data stream to convey digitised signal and meta data)
- Application driven – using government proprietary or open standard applications
- A modular orchestration layer built on COM Express (Computer-On-Module)
- An intuitive and reconfigurable User Interface (UI)
- High bright touchscreen
- Secure and encrypted storage
- Secure Ethernet and USB
- Optional 4G backhaul and control (with optional Wi-Fi)
- Optional fibre optic antenna system for high risk or remote environments.



### Application

The Crossbow system is designed to provide special operations users with actionable, real-time, mission-critical information on the electromagnetic environment. This allows for safe operation whilst delivering a strategic advantage.

The system delivers decoding, analysis, recording and manipulation of off-air data for customisable user applications. The data is protected on an integral encrypted solid state drive (SSD) up to TS.

With the reconfigurable user interface, Crossbow can be re-tasked in the field using a full-suite update process, allowing for ongoing and changeable mission support.



**Technical Specification**

<b>Description</b>	Wideband electromagnetic environment detect, decode, and analysis platform for use in electronic countermeasures (ECM), electronic surveillance (ES), electronic defeat (ED) and electronic attack (EA) applications.
<b>Functional</b>	Frequency range (consult factory) Capture BW (consult factory) System sensitivity (consult factory) Phase noise (consult factory)
<b>Screen</b>	Size 15.6" high bright LCD (1600 Cd/m2) FHD (1920x1280,16:9) Integral micromesh EMC filter Integral privacy screen ( $\pm 30^\circ$ ) 24-bit colour Resistive touchscreen interface Auto adjusting backlight with manual override
<b>External Interfaces</b>	GbE USB3 Serial 24V DC out for remote optical antenna platform. External GPS antenna and 10 MHz reference output options N-types – External antenna / vehicle connectivity
<b>Antenna</b>	Integrated wideband antenna External input for optional remote antenna Internal GPS antenna Optional 4G / Wi-Fi backhaul ( Factory upgrade )
<b>Size &amp; Weight</b>	460 x 300 x 270 mm , 21 kg (without battery) <25 kg (with battery )
<b>Environmental</b>	DEF STAN 00-35 (environmental) Operating temperature range (consult factory) IP67 DEF STAN 59-411 (EMC) CE Mark
<b>Power</b>	LIPS10/12 lithium ion battery as standard Conversion plate for alternative power sources ( consult factory ) Power consumption (consult factory)

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