

Covert intelligence through-wall radar



Tactical advantage

prism 200 is a lightweight, durable and highly sophisticated through-wall radar. It is designed to provide police, special forces and the emergency services with accurate covert intelligence of the location and movement of people in situations where it would otherwise be impossible to gain such insight.

Using ultra-wide band radar, **prism 200** can see through brick, block and concrete walls, and doors, and over a range of up to 20 metres, providing comprehensive coverage of internal spaces. It can be used for the rapid evaluation of room occupancy or it can be used for more detailed intelligence gathering.

prism 200 is the most advanced portable through-wall radar system in the world for three significant reasons:

- Advanced signal processing highlights moving people and objects in complex environments
- The user interface is quick to respond, fast to load and intuitive to use
- Its ergonomics allow the operative to use it one-handed or two-handed

Covert intelligence

prism 200 has been designed for dangerous and life-threatening situations, where without invasive sensors it presents reliable information to the operative. Using highly sophisticated software, the unit can analyse radar signals and instantly filter out objects that are not moving behind a wall or door. This means that **prism 200** can be used in a range of different environments – even offices with their angular surfaces and metal objects, which act as a ‘hall of mirrors’ to standard radar equipment. This level of analysis means that users do not waste their valuable time in translating spurious data; they can focus their attention on what is most important – the people inside.

Easy to use

Whether police, special forces or emergency services, the people using **prism 200** need to be able to act quickly on the information presented. This means that the user interface is of critical importance and this is why it has been a focus of the product’s development.

Based around just four navigation buttons, the interface is structured in such a way that the user can quickly switch between views (front, plan and profile), as well as view the scenario within a 3D environment, which can be rotated to look at a room from various entry points. The display can also be switched from day to night mode, which means that **prism 200** has use in the widest possible range of real-life situations.

Laptop Application

This Windows based application provides the capability of remotely monitoring and recording the intelligence collected by **prism 200** and then displaying it on a laptop computer’s screen. This can be used by both operators and command staff to enhance the operational flexibility of the system.





Maximum range	Will detect personnel up to 20m
Field of view	120° horizontally and 90° vertically
Display	2D and 3D colour display with 640 x 480 resolution
Wall materials	Proven with: brick and block separated by a cavity; timber; cinder block; concrete block; 9" brick; reinforced concrete (subject to reinforcing bar spacing)
Frequency range	1.6–2.2 GHz
Resolution	30cm
Environmental	Rugged, IP68; operating temperature –20°C to 55°C
Transmit power	–10dBm per MHz average across the band
Dimensions and Weight	305 × 450 × 210mm; 5.7kg inc battery
Battery	4.5 hours' continuous use on a single charge (typically up to 24hrs standby)
Remote display	Laptop application for display, controls and recording
NATO Stock Number (NSN)	5840-99-679-8569

Highlights

- Advanced signal processing to highlight moving objects and people in cluttered environments
- Tough, durable, lightweight and waterproof casing
- Colour display with front, plan, profile and 3D views, easy to use menu
- TCP/IP interface for networking, laptop connection, remote monitoring and recording
- Battery powered, providing 4 hours' continuous use
- One-handed, two-handed or tripod operation

Cambridge Consultants

With over 20 years of experience in short-range radar technology, Cambridge Consultants has an excellent pedigree in harnessing the power of radar and designing it around real applications. The company initially used its technology to measure the thickness of arctic ice flows in the 1980s, before designing a range of missile scoring systems, which the company still develops and supplies in France, Italy, Australia and the USA. Cambridge Consultants has also used its radar technology in various automotive applications and, more recently, handheld through-wall radar.

Cambridge Consultants is a design and development company with offices in Cambridge, UK and Boston, USA. It uses a multi-disciplinary set of engineering and design skills to help organisations, both big and small, harness a broad range of technologies and develop next-generation products.





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