Raytheon

W1000 Uncooled Thermal Weapon Sight







On today's high-tech
battlefield, ground troops
need every tactical
advantage to fight and
survive. Now, with
Raytheon's W1000 Uncooled
Thermal Weapon Sight, that's
exactly what they have
... a clear advantage.

Benefits

- Detect objects through battlefield obscurants and adverse weather situations
- No visible light is required for operation, allowing 24-hour applications
- Undetectable, no illuminators or IR lights needed
- Combat proven by U.S. and allied armed forces
- Use as a hand-held imager or rifle-mounted sight
- Compatible with a broad range of weapons

Increased Operational Capability

The W1000 uncooled thermal weapon sight enhances mission performance by helping to spot personnel and equipment at greater ranges, adding a critical margin to survivability and lethality. The W1000 gives the warfighter the ability to shoot equally well both day and night, and is combat proven by U.S. and allied armed forces. The W1000 uses Raytheon's long-wave uncooled infrared technology to sense differences in heat emitted by objects in its field of view. It separates people and other objects from cluttered backgrounds and foliage, in either full daylight or the darkest night – even when there is absolutely no light.

Better Than Image Intensifier

The W1000 uncooled thermal weapon sight's thermal imaging also cuts through dust, smoke, fog, haze, and other battlefield obscurants. Its use cannot be

detected as it emits no visible light or RF energy and operates without the use of illuminators or IR lights. Because it senses only heat and not light, it will not shut down or "bloom" when hit by direct light.

Versatility

The W1000's compact, lightweight (under 1.7 kg) design allows it to be used effectively as a rifle-mounted sight or as a handheld imager. The W1000 features an RS-170 or NTSC VCR video format output for external displays. Power can be supplied by military or commercial batteries, or through an optional external AC or DC power converter. The W1000 is compatible with a broad range of weapons, including the M16, M4, AR-15, Dragunov, and others.



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PERFORMANCE SPECIFICATIONS	W1000-9	W1000-15
Range		
Detect/recognize man	1.0 km	0.6 km
Detect vehicle	2.4 km	1.4 km
FOV	9 deg az x 6.75 deg el	15 deg az x 11.25 deg el
Magnification	3.1x	1.8x
Dimensions		
Length	36 cm (14.12 in.)	33 cm (13.00 in.)
Width	11 cm (4.33 in.)	10 cm (3.94 in.)
Height	12 cm (4.72 in.)	11 cm (4.33 in.)
Weight	1.7 kg (3.7 lb) with battery	1.6 kg (3.5 lb) with battery
OPERATIONAL SPECIFICATIONS	W1000-9 AND W1000-15	
Reliability	High reliability, no scanner or cooling motor to wear out	
Operating temperature	-32° to + 49°C	
Storage temperature	-46° to +71°C	
Moisture resistance	Immersible in 1m of water	
Mechanical shock	Withstands weapon fire shock	
Time to operation	Less than 60 seconds	
Image polarity	White hot/black hot	
Maintenance	Only cleaning is required	
Mission operation life	8 hours on BB-2847 lithium ion rechargeable battery, >4 hours on commercial AA lithium, alkaline, or NiMH rechargeable battery	
Interfaces		
Power requirements	BB-2847 military battery, AA commercial battery, or auxiliary power connector for DC sources	
Mounting	Up to fully automatic cal. 7.62 mm, Weaver, NATO/STANAG, or Picatinny MIL-STD-1913	
Video output	EIA-RS-170, NTSC VCR	
Technology		
Detector	320 x 240 staring BST FPA (76,800 pixels) Spectrum: 8 to 12 mm	
Cooling	Uncooled ferroelectric	
Available equipment	Hard plastic storage/transportation case, AA battery cassette (holds 10 batteries), operations manual, hand strap kit, soft carry bag, weapon mount adapter, external power cable, rechargeable (military) batteries	
National stock number (NSN)	5855-01-458-7524	





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