

# Vision Solutions Dismounted Soldier



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We reserve the right to alter, without notice, the specification of our products described in this handbook.



# NIGHT VISION AND THERMAL SOLUTIONS FOR THE DISMOUNTED SOLDIER

Weapon Sights: Image Intensifiers



# Weapon Sights: Uncooled Thermal Imagers



Surveillance: Uncooled Surveillance Thermal Imagers



Cameras:



DAGIR LIGHT

Display Systems:



# TARGET ACQUISITION AND SURVEILLANCE EQUIPMENT

Qioptig, is one of the world's principal designers and manufacturers of infra red and image intensified night vision equipment. More than 60,000 individual night sights have been supplied to over 56 different countries for a wide range of defence, police, border security, coastquard and search and rescue applications.

# Weapon aiming and target acquisition

Oioptig provides a range of world leading weapon sights for a wide variety of platforms including individual assault weapons, light support weapons, crew-served weapons, anti-tank/anti-materiel weapons and specialised sniper applications, using image intensifying and un-cooled thermal imaging technology.

# Surveillance

A range of surveillance equipment is also available utilising both visible image intensifying and uncooled thermal imaging technology. Monocular and Binocular eyepiece variants are available providing maximum flexibility for surveillance applications.

# Surveillance Cameras

Using the experience Qioptig has of developing and manufacturing Weapon Mounted and Hand Held products for the Military and Security market, Qioptig has designed several Uncooled Thermal Imaging and CCD Camera solutions providing a 24 hour surveillance capability for the longer range demands of the Military, Homeland Security and Counter Terrorism market.





# KITE - Weapon Mounted Night Sight

**KITE** is part of a family of highly successful night vision sights currently in-service with more than 56 countries worldwide.

**KITE** is a compact and lightweight military standard night vision sight designed specifically for short-medium range surveillance and target engagement.

- In service in over 56 countries
- Compact and lightweight
- Fully qualified and ruggedised
- x4 magnification
- Image intensifier tube options
- Suitable for short-medium range weapons

The fully ruggedised and qualified design offers x4 magnification and a high resolution image to allow effective operation during lowlight conditions. Image Intensifier options including high performance European or US tubes are available.

**KITE** is particularly suited for use on shorter range / smaller calibre 5.56mm and 7.62mm weapons. Interface brackets are available to mount to a wide variety of weapons.

Power is derived from 2 commercially available 1.5V AA batteries which afford up to 70 hours continuous use. The eyeguard is compatible with a wide range of NBC clothing and in-service respirators.

**KITE** is supplied complete with transit case, carrying pouch, lens cloth, user handbook, spare batteries, ND filter and zeroing screwdriver.

**KITE's** excellent performance is supported by a simple maintenance philosophy, which permits rapid replacement of modular sub assemblies.

**KITE** is available in two variants offering fixed and variable eyepiece configurations Mk4 - fixed eyepiece dioptre, Mk6 variable eyepiece dioptre.

#### CHARACTERISTICS

Magnification: x4

Weight: 1000g

(Excluding Weapon bracket and batteries)

Length: 210mm

Height: 80mm
Width: 105mm

Power Supply: 2 x 1.5V AA batteries

**Eyepiece Dioptre:** Mk4 fixed at -1±0.35 dioptre, Mk6 adjustable at +2 - 6.00 dioptre

Focus Range: 15m to infinity

Eye Relief: 30mm

**Range Performance:** Dependent on specifications of image intensifier tube and

light levels







MAXIKITE-1 - Weapon Mounted Night Sight

**MAXIKITE-1** is part of a family of highly successful KITE night vision sights currently in service with more than 56 countries worldwide.

**MAXIKITE-1** is a compact and lightweight military standard night vision sight designed specifically for medium-long range surveillance and target engagement.

- In service in over 56 countries
- Compact and lightweight
- Fully qualified and ruggedised
- x6 magnification
- Image intensifier tube options
- Suitable for medium-long range weapons

The fully ruggedised and qualified design offers x6 magnification and a high resolution image to allow effective operation during lowlight conditions. Image intensifier options to include high performance European or US image intensifier tubes are available.

**MAXIKITE-1** Offers superior range performance due to its longer focal length and outsized objective aperture optimised to interface with vehicle mounted or static positions on medium to heavy weapons systems.

Power is derived from two commercially available 1.5V AA batteries which afford up to 70 hours continuous use. The eyeguard is compatible with NBC clothing and in-service respirators.

**MAXIKITE-1** is simple to operate and its excellent performance is supported by a simple maintenance philosophy, which permits rapid replacement of modular sub assemblies.

**MAXIKITE-1** is supplied complete with transit case, carrying pouch, lens cloth, user handbook, spare batteries, ND Filter and zeroing screwdriver.

**MAXIKITE-1** is available in two variants offering fixed and variable eyepiece configurations Mk4 - fixed eyepiece dioptre, Mk6 variable eyepiece dioptre.

#### CHARACTERISTICS

Magnification: x6
Field of View: 5.5°

Weight: 1530g

(Excluding Weapon bracket and batteries)

Length: 390mm Height: 130mm

Width: 130mm

**Power Supply:** 2 x 1.5V AA Batteries

**Eyepiece Dioptre:** Mk4 fixed at -1±0.35 dioptre, Mk6 adjustable at +2 - 6.00 dioptre

Adjustable: +2 -6 dioptre

Focus Range: 25m to infinity

Eye Relief: 30mm

Range Performance: Dependent on specifications of image intensifier tube and light levels







MAXIKITE-2 - Weapon Mounted Night Sight

**MAXIKITE-2** is part of a family of highly successful KITE night vision sights currently in service with more than 56 countries worldwide.

**MAXIKITE-2** is a compact and lightweight military standard night vision sight designed specifically for medium-long range surveillance and target engagement.

- In service in over 56 countries
- Compact and lightweight
- Fully qualified and ruggedised
- x6 magnification
- Image intensifier tube options
- Suitable for medium-long range weapons

The fully ruggedised and qualified design offers x6 magnification and a high resolution image to allow effective operation during lowlight conditions. Image intensifier options to include high performance European or US image intensifier tubes are available.

**MAXIKITE-2** Optimised to integrate with the sharpshooters and section support weapons. Interface brackets are available to mount to a wide variety of weapons.

Power is derived from two commercially available 1.5V AA batteries which afford up to 70 hours continuous use. The eyeguard is compatible with NBC clothing and in-service respirators.

**MAXIKITE-2** is simple to operate and its excellent performance is supported by a simple maintenance philosophy, which permits rapid replacement of modular sub assemblies.

**MAXIKITE-2** is supplied complete with transit case, carrying pouch, lens cloth, user handbook, spare batteries, ND Filter and zeroing screwdriver.

**MAXIKITE-2** is available in two variants offering fixed and variable eyepiece configurations Mk4 - fixed eyepiece dioptre, Mk6 variable eyepiece dioptre.

#### CHARACTERISTICS

Magnification: x6
Field of View: 5.5°

Weight: 1450g

(Excluding Weapon bracket and batteries)

Length: 260mm

Height: 95mm
Width: 100mm

Power Supply: 2 x 1.5V AA Batteries

**Eyepiece Dioptre:** Mk4 fixed at -1±0.35 dioptre, Mk6 adjustable at +2 - 6.00 dioptre

Adjustable: +2 -6 dioptre

Focus Range: 25m to infinity

Eye Relief: 30mm

Range Performance: Dependent on specifications of image intensifier tube and

light levels







**MERLIN-SR -** Weapon Mounted Night Sight

**MERLIN-SR** (Short Range) is a lightweight night vision adaptor for military and law enforcement operators who want to retain the use of their existing day scopes.

**MERLIN-SR** is part of the MERLIN family of night vision products from Qioptiq utilising the latest optical technologies to deliver world leading performance and reliability.

# MERLIN-SR - Flexible Night Vision Capability

- Low profile in line clip-on configuration
- Lightweight and compact design
- Ruggedised and stable design

**MERLIN-SR** can be fitted with a wide range of standard and auto gating image intensifier tube variants from US and European manufacturers.

**MERLIN-SR** is a lightweight night vision adaptor for military and law enforcement operators who want to retain the use of their existing day scopes.

**MERLIN-SR** provides users with a 24hr capability by placing the high resolution collimated night sight in front of the existing day sight.

**MERLIN-SR** can be installed and removed without the need for re-zeroing.

**MERLIN-SR** ensures a high night time first round hit probability.

**MERLIN-SR** attaches via a quick release mount onto either a primary or secondary picatinny rail attached to the weapon (other mounting options are available).

**MERLIN-SR** is powered from 1 commercially available 1.5V AA battery which provides up to 40 hours continuous use.

**MERLIN-SR** controls are easily accessible by the user.

#### **CHARACTERISTICS**

Field of View: 17°
Magnification: x1

Weight: 830g (Excluding Weapon bracket, batteries and eyequard)

Intensifier Tube: 18mm - Gen2 / Gen3 Compatible

Power Supply: 1 x 1.5V AA battery

**Running Time:** > 40 hours at 20°C continuous (Lithium)

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Boresight Stability: < 0.5 MoA

**Accessories:** Light and dust shield, weapon bracket, pouch, transit case, cleaning cloth and instruction card

Range Performance:

Detection 740m Recognition 260m Identification 130m







**MERLIN-MR -** Weapon Mounted Night Sight

**MERLIN-MR** (Medium Range) is a lightweight night vision adaptor for military and law enforcement operators who want to retain the use of their existing day scopes.

**MERLIN-MR** is part of the MERLIN family of night vision products from Qioptiq utilising the latest optical technologies to deliver world leading performance and reliability.

# MERLIN-MR - Flexible Night Vision Capability

- Low profile in line clip-on configuration
- Lightweight and compact design
- Ruggedised and stable design

**MERLIN-MR** can be fitted with a wide range of standard and auto gating image intensifier tube variants from US and european manufacturers.

**MERLIN-MR** is a lightweight night vision adaptor for military and law enforcement operators who want to retain the use of their existing day scopes.

**MERLIN-MR** provides users with a 24hr capability by placing the high resolution collimated night sight in front of the existing day sight.

**MERLIN-MR** can be installed and removed without the need for re-zeroing.

**MERLIN-MR** ensures a high night time first round hit probability.

**MERLIN-MR** attaches via a quick release mount onto either a primary or secondary picatinny rail attached to the weapon (other mounting options are available).

MERLIN-MR is powered from 1 commercially available 1.5V AA battery which provides up to 40 hours continuous use

**MERLIN-MR** controls are easily accessible by the user.

#### **CHARACTERISTICS**

Field of View: 13°
Magnification: x1

**Weight:** 1000g (Excluding weapon bracket, batteries and eyeguard)

Intensifier Tube: 18mm - Gen2 / Gen3

Compatible

Power Supply: 1 x 1.5V AA battery

**Running Time:** > 40 hours at 20°C continuous (Lithium)

Boresight Stability: < 0.5 MoA

Accessories: Light and dust shield, weapon bracket, pouch, transit case, cleaning cloth and instruction card

Range Performance:

Detection 900m Recognition 300m Identification 160m







MERLIN-LR - Weapon Mounted Night Sight

MERLIN-LR (Long Range) is a lightweight night vision adaptor for military and law enforcement operators who want to retain the use of their existing day scopes.

MERLIN-LR is part of the MERLIN family of Night Vision Products from Qioptiq utilising the latest optical technologies to deliver world leading performance and reliability

# **MERLIN-LR - Flexible Night Vision Capability**

- Low profile in line clip-on configuration
- Lightweight and compact design
- Ruggedised and stable design

MERLIN-LR can be fitted with a wide range of standard and auto gating image intensifier tube variants from US and European manufacturers.

**MERLIN-LR** is a lightweight night vision adaptor for military and law enforcement operators who want to retain the use of their existing day scopes.

MERLIN-LR provides users with a 24hr capability by placing the high resolution collimated night sight in front of the existing day sight.

MERLIN-LR can be installed and removed without the need for re-zeroing.

MERLIN-LR ensures a high night time first round hit probability.

**MERLIN-LR** attaches via a quick release mount onto either a primary or secondary picatinny rail attached to the weapon (other mounting options are available).

**MERLIN-LR** is powered from 2 commercially available 1.5V AA batteries which provides up to 80 hours continuous use

MERLIN-LR controls are easily accessible by the user.

#### CHARACTERISTICS

Field of View: 9° Magnification: x1

Weight: 1400g (Excluding Weapon bracket, batteries and lightshield )

Intensifier Tube: 18mm - Gen2 / Gen3 Compatible

Power Supply: 2 x 1.5V AA battery

Running Time: > 80 hours at 20°C continuous (Lithium)

Boresight Stability: < 0.5 MoA

Accessories: Light and dust shield, weapon bracket, pouch, transit case, cleaning cloth and instruction card

Range Performance:

Detection 1500m Recognition

600m Identification 200m



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### WEAPON SIGHT: UNCOOLED THERMAL IMAGER



# VIPIR-2 (CQB) - Thermal Weapon Sight

VIPIR-2 (COB) is part of a family of compact and lightweight thermal sights utilising low power uncooled IR camera technology.

VIPIR-2 (CQB) is a compact and lightweight military standard thermal sight designed specifically for short range surveillance and target engagement.

- Low powered uncooled technology
- Compact and lightweight
- Fully qualified and ruggedised
- x1 magnification
- x2 electronic zoom
- 24 hour operational capability

The fully ruggedised and qualified design offers image optimisation features and a 24 hour operational capability.

VIPIR-2 (COB) is particularly suited for use on shorter range / smaller calibre 5.56mm, 7.62mm weapons. Interface brackets are available to mount to a wide variety of weapons.

VIPIR-2 (CQB) utilises uncooled thermal imaging technology to provide a superior performance to weight/size ratio. The low power consumption of this technology allows VIPIR-2 (CQB) to operate with only 4 commercially available AA batteries, greatly reducing through life costs.

#### VIPIR-2 (CQB) controls include:

- Electronic zoom
- Aiming mark selection / adjustment
- Automatic and manual gain and level
- Polarity and display brightness

#### CHARACTERISTICS

Field of View: 24°

Magnification: x1, x2 (electronic zoom)

Range: Detection of man at 500m

Weight: <900g

(Excluding Weapon bracket and batteries)

Detector type: 8-12 µm, 320 x 240 pixel uncooled microbolometer

Batteries: 4 AA batteries

Battery Life: > 6 hours at 20°C

continuous (Lithium)

**Features:** Video out, auxiliary power in RS232

Accessories: Pouch, transit case, instruction

card, tripod mount, interface cables



#### VIPIR-2 Family range performance distance chart (clear air)

Detection	VIPIR CQB								
	VIPIR-2								
	VIPIR-2+								
	SVIPIR-2+								
	Range (Km)	0.25 0.5 0.75	1 1.5	2	2.5	3	3.5	4	4.5

Man. 0.7m. Atm 0.2km-1. Temp Diff 2C MBT. 2.3m. Atm 0.2km-1. Temp Diff 1.25 C



# WEAPON SIGHT: UNCOOLED THERMAL IMAGER



VIPIR-2 - Thermal Weapon Sight

**VIPIR-2** is part of a family of compact and lightweight thermal sights utilising low power uncooled IR camera technology.

VIPIR-2 is a compact and lightweight military standard thermal sight designed specifically for medium-range surveillance and target engagement.

- Low powered uncooled technology
- Compact and lightweight
- Fully qualified and ruggedised
- x2.7 magnification
- x2 electronic zoom
- 24 hour operational capability

The fully ruggedised and qualified design offers image optimisation features and a 24 hour operational capability.

**VIPIR-2** is particularly suited for use on shorter range / smaller calibre 5.56mm, 7.62mm or 12.7mm (0.5") weapons. Interface brackets are available to mount to a wide variety of weapons.

VIPIR-2 utilises uncooled thermal imaging technology to provide a superior performance to weight/size ratio. The low power consumption of this technology allows VIPIR-2 to operate with only 4 commercially available AA batteries, greatly reducing through life costs.

#### VIPIR-2 controls include:

- Electronic zoom
- Aiming mark selection / adjustment
- Automatic and manual gain and level
- Polarity and display brightness

#### CHARACTERISTICS

Field of View: 9°

Magnification: x2.7. x5.4 (x2 electronic zoom)

Range: Detection of man at 1200m

Weight: 1100g

(Excluding Weapon bracket and batteries)

Detector type: 8-12 µm, 320 x 240 pixel uncooled microbolometer

Batteries: 4 AA batteries

Battery Life: > 6 hours at 20°C

continuous (Lithium)

**Features:** Video out, auxiliary power in RS232

Accessories: Pouch, transit case, instruction

card, tripod mount, interface cables



#### VIPIR-2 Family range performance distance chart (clear air)

Detection	VIPIR CQB				
	VIPIR-2				
	VIPIR-2+				
	SVIPIR-2+				
	Range (Km)	0.25 0.5 0.75 1 1.5	2 2.5 3	3.5 4	4.5

Man, 0.7m, Atm 0.2km-1, Temp Diff 2C MBT, 2.3m, Atm 0.2km-1, Temp Diff 1.25 C



#### WEAPON SIGHT: LINCOOLED THERMAL IMAGER



VIPIR-2+ - Thermal Weapon Sight

VIPIR-2+ is part of a family of compact and lightweight thermal sights utilising low power uncooled IR camera technology.

VIPIR-2+ is a compact and lightweight military standard thermal sight designed specifically for medium-range surveillance and target engagement.

- Low powered uncooled technology
- Compact and lightweight
- Fully qualified and ruggedised
- x3.6 magnification
- x2 electronic zoom
- 24 hour operational capability

The fully ruggedised and qualified design offers image optimisation features and a 24 hour operational capability. Objective lens options include a 6.7° field of view x3.6 magnification.

VIPIR-2+ is particularly suited for use on medium to heavy weapon systems, 7.62mm weapons or longer range 12.7mm / 40mm calibre weapons. Interface brackets are available to mount to a wide variety of weapons.

**VIPIR-2+** utilises the latest in uncooled thermal imaging technology to provide a superior performance to weight/size ratio. The low power consumption of this technology allows VIPIR-2+ to operate with only 4 commercially available AA batteries, greatly reducing through life costs.

#### VIPIR-2+ controls include:

- Electronic zoom
- Aiming mark selection / adjustment
- Automatic and manual gain and level
- Polarity and display brightness

#### **CHARACTERISTICS**

Field of View: 6.75°

**Magnification:** x3.6, x7.2 (x2 electronic zoom)

Range: Detection of man at 1500m

Weight: 1300g

(Excluding Weapon bracket and batteries)

Detector type: 8-12 µm, 320 x 240 pixel uncooled microbolometer

**Batteries:** 4 AA hatteries

Battery Life: > 6 hours at 20°C

continuous (Lithium)

Features: Video out, auxiliary power in RS232

Accessories: Pouch, transit case, instruction

card, tripod mount, cables optional



#### VIPIR-2 Family range performance distance chart (clear air)

				_	_		_			_
		VIPIR CQB								
	Detection	VIPIR-2								
		VIPIR-2+								
		SVIPIR-2+								
		Range (Km)	0.25 0.5 0.75 1	1.5	2	2.5	3	3.5	4	4.5

Man, 0.7m, Atm 0.2km-1, Temp Diff 2C MBT, 2.3m, Atm 0.2km-1, Temp Diff 1.25 C



#### WEAPON SIGHT: LINCOOLED THERMAL IMAGER



# SVIPIR-2+ - Thermal Weapon Sight

**SVIPIR-2+** is part of a family of compact and lightweight thermal sights utilising low power uncooled IR camera technology.

**SVIPIR-2+** Thermal Sight attachment is designed specifically to provide surveillance and target engagement capability to the military and law enforcement snipers who want to retain the capability of their existing optical day sights.

SVIPIR-2+ has a low profile and low centre of mass, providing minimal impact on weapon profile and balance. **SVIPIR-2+** provides high performance within a very lightweight, compact and military rugged design.

- Lightweight and compact
- Low power
- Low maintenance
- Low profile
- Affordable
- Military rugged

**SVIPIR-2+** provides snipers with a 24 hour capability by placing the thermal sight attachment in front of the existing day sight fitted with Qioptig's LO GLINT™ coating technology.

SVIPIR-2+ can be installed and removed without the need for re-zeroing.

**SVIPIR-2+** ensures a high first round hit probability, even at night.

**SVIPIR-2+** attaches via a quick release mount to either a primary or secondary picatinny rail attached to the weapon (other mounting options are available).

**SVIPIR-2+** has been optimised for use with the Schmidt & Bender range of day scopes, and is also compatible with most rifle scopes.

**SVIPIR-2+** is powered by 4 commercially available AA batteries which provide up to 6 hours continuous use.

#### SVIPIR-2+ controls include:

- Electronic zoom
- Aiming mark selection / adjustment
- Automatic and manual gain and level
- Polarity and display brightness

#### CHARACTERISTICS

Field of View: 6.75°

Magnification: x1 Unity Magnification

Range: Detect Man 1500m

(Dependent on thermal conditions)

Weight: 1600g

(Excluding Weapon bracket and batteries)

Length: 290mm

Height: 90mm

Width: 105mm

**Detector Type:** 8-12 µm, 320 x 240 pixel uncooled microbolometer

**Batteries:** 4 AA batteries

Battery Life: > 6 hours at 20°C

continuous (Lithium) Features: Video out



#### VIPIR-2 Family range performance distance chart (clear air)

	Detection	VIPIR CQB		П				
		VIPIR-2						
		VIPIR-2+						
		SVIPIR-2+						
		Range (Km)	0.25 0.5 0.75 1 1.5	2	2.5 3	3.5	4	4.5

Man, 0.7m, Atm 0.2km-1, Temp Diff 2C MBT, 2.3m, Atm 0.2km-1, Temp Diff 1.25 C

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#### WEAPON SIGHT: LINCOOLED THERMAL IMAGER



**DRAGON-C** - Multi Purpose Thermal Sight

**DRAGON-C** (Compact) is an ultra lightweight multi purpose thermal weapon/surveillance sight that provides all round capability for the dismounted close combat user.

**DRAGON-C** is part of the DRAGON family of uncooled thermal products from Qioptiq that utilise the latest in uncooled thermal cameras, electronics and optical technologies to deliver world leading performance and reliability.

# DRAGON-C – Versatile Thermal Capability

- Stand-alone thermal weapon sight
- Clip-on thermal weapon sight
- Hand held observation / surveillance sight

**DRAGON-C** is fitted with Qioptiq's LO GLINT™ coating technology to reduce sunlight glint and reflection.

**DRAGON-C** is an ultra lightweight multi purpose thermal weapon/surveillance sight that provides all round capability for the dismounted close combat User.

RIGIDITY - All Aluminium construction for structural rigidity and EMC sealing properties ensures good integration and compatibility with surrounding systems.

STABILITY - Boresight stability guaranteed through state of the art optical design and lens mounting techniques.

SIMPLICITY - Controls have been designed and positioned for ease of access and MMI designed for ease of use across all 3 roles. No focus control is required.

- Stand alone thermal weapon sight
- Clip-on thermal weapon sight
- Hand-held observation/surveillance sight

FUNCTIONALITY - Polarity, NUC, Auto/Manual settings, zoom, boresight, display brightness.

#### DRAGON-C - Stand-alone role

(via E-Zoom).

In the stand-alone configuration, DRAGON-C provides a thermal weapon sight capability with on board text and graphics providing graticules and control functionality. Magnifications of x1, x2 are achievable

#### CHARACTERISTICS

Field of View: 16°

**Magnification:** x1, x2 (electronic zoom)

Range: Detection of man at 500m

**Weight:** 375g (Excluding bracket, batteries and eyequard)

**Detector type:** 8-12 μm, 320 x 240 pixel @ 25μm pitch FPA

Batteries: 2 AA batteries

**Battery Life:** >5 hours at 20°C continuous

(Lithium)

Features: Video out, RS232 comms

Accessories: Eyeguard, light shield, neckstrap, weapon bracket, pouch, transit case, cleaning cloth and instruction card

#### DRAGON-C - Hand-Held role



#### DRAGON-C - Clip-on role

In the clip-on configuration, DRAGON-C can be integrated with a wide range of optical day sights in the range of

x1 – x4 magnification. Light and dust shields can be provided to suit most common sight units.





# WEAPON SIGHT: UNCOOLED THERMAL IMAGER



**DRAGON-LR** - Thermal Weapon Sight

**DRAGON-LR** (Long Range) is a multi purpose thermal weapon/surveillance sight that provides all round capability for the dismounted and mounted close combat users.

**DRAGON-LR** is part of the DRAGON family of uncooled thermal products from Qioptiq that utilise the latest in uncooled thermal camera, electronics and optical technologies to deliver world leading performance and reliability.

#### DRAGON-LR - Ti for Support Weapons

- Suitable for crew served and support weapons
- $\bullet$  640 x 512 25  $\mu m$  thermal core
- Ruggedised military design

**DRAGON-LR** is fitted with Qioptiq's LO GLINT™ coating technology to reduce sunlight glint and reflection.

**DRAGON-LR** is a multi purpose thermal weapon/ surveillance sight that provides all round capability for the dismounted and mounted close combat users.

RIGIDITY - All aluminium construction for structural rigidity and EMC sealing properties ensures good integration and compatibility with surrounding systems.

STABILITY - Boresight stability guaranteed through state of the art optical design and lens mounting techniques.

SIMPLICITY - Controls have been designed and positioned for ease of access and MMI designed for ease of use across all roles.

FUNCTIONALITY - Polarity, NUC, auto/manual settings, zoom, boresight, display brightness.





#### CHARACTERISTICS

Field of View: 9°

Magnification: x2.7, x5.4, x10.8

(electronic zoom)

**Range:** Detection of man at 3500m approximately

**Weight:** 1300g (Excluding bracket, batteries, eyeguard and lens cap)

**Detector type:** 8-12 μm, 640 x 512 pixel @ 25μm pitch FPA

Batteries: 6 AA batteries

**Battery Life:** >7 hours at 20°C continuous (Lithium)

Features: Video out RS232 comms

**Accessories:** Eye guard, light shield, neckstrap, weapon bracket, pouch, transit case, cleaning cloth and instruction card





### SURVEILLANCE: UNCOOLED THERMAL IMAGER



VIPIR-25 - Hand Held Thermal Surveillance Sight

**VIPIR-2S** is part of a family of compact and lightweight thermal sights utilising low power uncooled IR camera technology

**VIPIR-25** is a compact and lightweight military standard thermal sight designed specifically for medium-range surveillance and target observation.

- Low powered uncooled technology
- Compact and lightweight
- Fully qualified and ruggedised
- x2.7 magnification
- x2 electronic zoom
- 24 hour operational capability
- Suitable for short-medium range surveillance

The fully ruggedised and qualified design offers image optimisation features and a 24 hour operational capability. Objective lens options include a 9° field of view x2.7 magnification.

**VIPIR-2S** utilises uncooled thermal imaging technology to provide a superior performance to weight/size ratio.

The low power consumption of this technology allows VIPIR-2S to operate with only 4 commercially available AA batteries, greatly reducing through life costs.

#### VIPIR-2S controls include:

- Electronic zoom
- Aiming mark selection / adjustment
- Automatic and manual gain and level
- Polarity and display brightness

#### CHARACTERISTICS

Field of View: 9°

**Magnification:** x2.7, x5.4 (x2 electronic zoom)

Range: Detection of man at 1200m

Weight: <950g

**Detector type:** 8-12µm, 320 x 240 pixel uncooled microbolometer

Batteries: 4 AA batteries

Battery life: > 6 hours at 20°C

continuous (Lithium)

Features: Video out, auxiliary power in RS232

**Accessories:** Pouch, transit case,instruction card, tripod mount, video cable



#### VIPIR-2S Family range performance distance chart (clear air)

Detection	VIPIR-2S								
Detection	VIPIR-2S+								
	Range (Km)	0.25 0.5 0.75 1	1.5	2	2.5	3	3.5	4	4.5
Man 0.7m Atm 0.2k	rm-1 Temp Diff 2C	MRT 2 3m	Δtm	0.2	km-1	Tor	nn Di	iff 1	25



# SURVEILLANCE: UNCOOLED THERMAL IMAGER



VIPIR-2S+ - Hand Held Thermal Surveillance Sight

**VIPIR-2S+** is part of a family of compact and lightweight thermal sights utilising low power uncooled IR camera technology

**VIPIR-2S+** is a compact and lightweight military standard thermal sight designed specifically for medium-range surveillance and target observation.

- Low powered uncooled technology
- Compact and lightweight
- Fully qualified and ruggedised
- x3.6magnification
- x2 electronic zoom
- 24 hour operational capability
- Suitable for short-medium range surveillance

The fully ruggedised and qualified design offers image optimisation features and a 24 hour operational capability. Objective lens options include a 6.75° field of view x3.6 magnification.

**VIPIR-2S+** utilises uncooled thermal imaging technology to provide a superior performance to weight/size ratio.

The low power consumption of this technology allows VIPIR-2S+ to operate with only 4 commercially available AA batteries, greatly reducing through life costs.

#### VIPIR-2S+ controls include:

- Electronic zoom
- Aiming mark selection / adjustment
- Automatic and manual gain and level
- Polarity and display brightness

#### **CHARACTERISTICS**

Field of View: 6.75°

Magnification: x3.6, x7.2 (x2 electronic zoom)

Range: Detection of man at 1500m

Weight: <1100g

**Detector type:** 8-12µm, 320 x 240 pixel uncooled microbolometer

Batteries: 4 AA batteries

Battery life: > 6 hours at 20°C

continuous (Lithium)

Features: Video out, auxiliary power in RS232

Accessories: Pouch, transit case, instruction

card, tripod mount



#### VIPIR-2S Family range performance distance chart (clear air)

Γ	Detection	VIPIR-2S		_
-1	Detection	VIPIR-2S+		
		Range (Km)	0.25 0.5 0.75 1 1.5 2 2.5 3 3.5 4	4.5
	Man. 0.7m. Atm 0.2k	cm-1. Temp Diff 2C	MBT. 2.3m. Atm 0.2km-1. Temp Diff 1.2	25





**DAGIR -** Uncooled DFOV TI / CCD Surveillance Camera



**DAGIR** utilises low power uncooled IR camera technology. Modular construction offering addition of optional items e.g.

- Colour day camera
- GPS
- DMC
- LRF

#### UNCOOLED DFOV TI SURVEILLANCE CAMERA

# **Suitable Applications:**

- Border surveillance
- Coastal surveillance
- Homeland security
- Infrastructure protection
- Force protection
- Counter terrorism
- Marine platforms
- Land platforms



#### CHARACTERISTICS

Field of View: 4.3° narrow/12.8° wide

Weight: <10kg

**Detector Type:** 8-12μm, 384 x 288 pixel uncooled microbolometer (640 x 480 option available giving approx 40% increase in range performance)

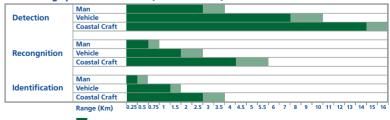
**Day Camera:** SuperHAD CCD (740K pixels) x26 Optical Zoom

Features: Video Out/RS232 interface

Power Range: 12-32V

**Mechanical:** Fits most common Pan and tilt mounts (inc stabilised)

#### DAGIR range performance chart (clear air 20km)



384x288 640x480



# CCD TI SURVEILLANCE CAMERA:

LINCOOLED THERMAL IMAGER



# **DAGIR LIGHT RoS -** (Remote observation System)

**DAGIR Light RoS** provides a complete wireless and / or cabled solution for users who require a highly portable, flexible, mobile observation and remote surveillance capability. Rapidly deployed and self-contained DAGIR Light utilises uncooled technology in a lightweight compact, low power package.

A high degree of commonality ensures a cost effective solution with a growth path which can lead to increased range performance at low cost.

• Colour day camera

# Options available on request

- GPS
- DMC
- LRF

# **Suitable Applications:**

- Patrol protection (rapid deployment)
- Forward operating base protection
- Covert ops remote surveillance
- Force protection
- Counter terrorism
- Marine surveillance
- Land surveillance



#### CHARACTERISTICS

Field of View: 6.82° HFOV (nominal)

Resolution: 1.36 c/mR

Detector: 38µm, 320 x 240 pixel

uncooled microbolometer

**Detection/Recognition:** 

Standing Man > 1501m (1 Cycle, 1.8 x 0.92m,

ΔT2K, Clear air)

Vehicle > 3751m (NFOV) (1 Cycle, 2.3m,

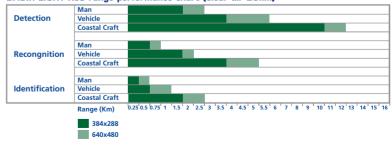
 $\Delta$  T2K, Clear air)

F Number: F/1.4

Focal Length: 103.25mm

Focus Range: 20m to Infinity

# DAGIR LIGHT RoS range performance chart (clear air 20km)







**SMMI** - System Man Machine Interface

The **SMMI** is a lightweight, low power hand held display and control device that provides the user with quick access to Information including situational awareness, navigation, mapping, mission planning and other information that requires rapid access on the move.

- Compact & lightweight
- Single handed operation
- Low power
- Digital magnetic compass
- USB architecture
- SVGA resolution full colour
- Covert operation

The **SMMI** incorporates 7 controls that can be individually mapped via USB to allow optimum flexibility.

The **SMMI** can be fitted with a 3 axis Digital Magnetic Compass (DMC) to provide the user with the ability to navigate and determine his orientation, or the orientation of other features.

The **SMMI** provides the optimum solution for any user with the requirement to access data on the move 24 hours a day.

In recognition of the growing need to provide the dismounted and mounted war fighters with up to date command & control, situational awareness and other mission critical information, the SMMI provides the user with a lightweight, easy to use display controller that provides rapid access to information on the move, therefore allowing the user to focus on the mission.

The ergonomic design of the **SMMI** allows the user to access and control the SMMI with a single hand (either left or right handed) allowing him to retain control of weapons or other equipment.

#### The SMMI comprises of:

- 800x600 pixel resolution full colour display
- User adjustable display brightness control
- 30° FoV Eyepiece with dioptre adjustment
- Eyecup switch for covert operation and power saving 3 Axis digital magnetic compass (optional)
- USB communication protocol
- 7 individually programmable controls (USB)
- Single cable connection to host PC / platform (Fully Screened)
- Lightweight aluminium construction
- Environmentally sealed & rugged design

#### CHARACTERISTICS

Weight: <350g (excluding cable)

Dimensions: 155mm x 75mm x 35mm

Power consumption: <0.5W

Dioptric Adjustment Range: -4 to +2 Dioptre





# LOGISTIC CUSTOMER SERVICES



**The Qioptiq Mission:** To deliver a fully integrated support service that totally satisfies the customers' needs

Qioptiq has the skills, experience and commitment to meet the challenges of Customer Services – today and in the future

- Tailored to provide flexible, cost effective, customer-focused services
- Applied by experienced, highly trained staff with widely acknowledged expertise in all aspects of support

- Working in partnership with the customer to drive down costs across the life of the equipment
- Maximise equipment availability
- Guarantee continuous through-life customer service



# 'GLOBAL PRESENCE...

# ...FAR REACHING CAPABILITIES'



2300 Qioptiq employees work at our 11 sites around the world.

For more information visit www.qioptiq.com

All of our sites are ISO 9000 certified – Three sites are ISO 14000 certified – One site is ISO 13485 certified





