



DST CONTROL

THERMAL IMAGER

Features

- Small size and lightweight
- Low power requirements
- Multiple choice of interfaces
- Maximum exportability

Options

- Fixed or zoom lenses
- Integrated NUC shutter
- Customized housing



SAITIS-640

Features

- One of the smallest LWIR imagers on the market
- Minimum power dissipation
- On-board image processing
- Worldwide delivery.

Options

- Fixed or zoom lenses
- Integrated NUC shutter or shutter-less
- Customized housing

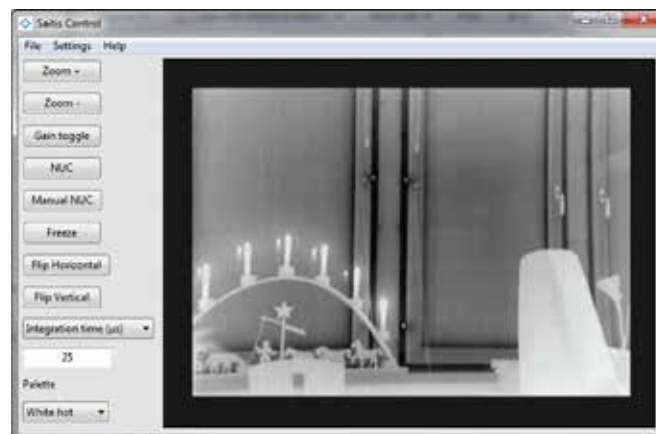


SAITIS-640 is one of the smallest long-wave infrared imagers available on the market. SAITIS-640 is based upon a uncooled microbolometer FPA (amorphous silicon, spectral band 8-14 μm) with 640x480 pixels resolution. Unique features for the SAITIS-640 is its low weight and size (from 27mm x 27mm x 26mm) but also the minimum power requirements (1W).

The video output is PAL/NTSC video but also digital video output is available. The camera is controlled via a standard RS-232 interface.

The camera is available with or without integrated shutter for NUC (Non-Uniformity Correction). The shutter-less version, SAITIS-640-X, requires an external shutter to perform the NUC. The camera with integrated shutter, SAITIS-640-S, has an automatic NUC manager integrated for easy-to-use operations.

Control Software Included



With or Without Integrated Shutter

Scale 1:1



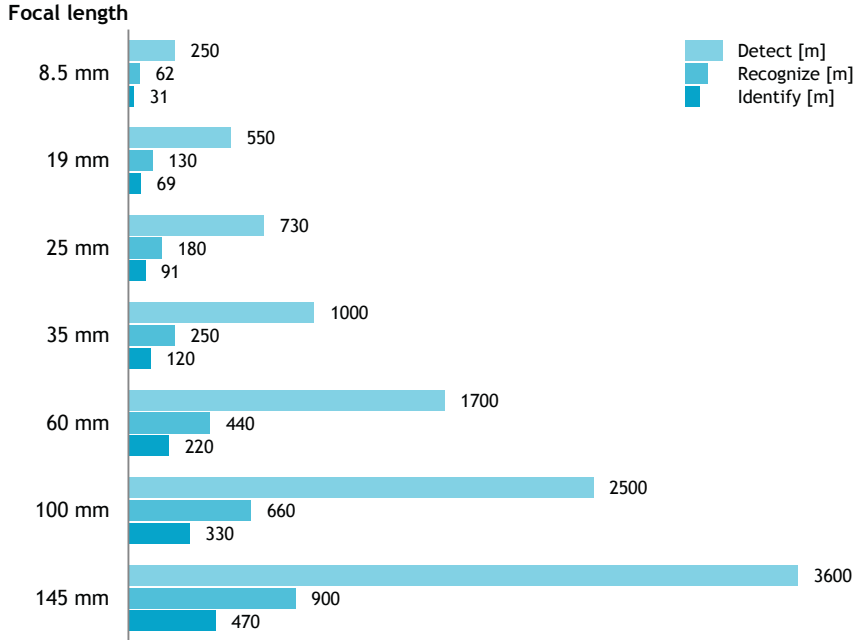
The camera is ready-to-use without any training. All image processing is executed on-board, hence no external units are required.

The SAITIS-640 can be equipped with a wide range of optics optimized for short-, medium or long range operations and has maximum exportability even in full frame rate.

Applications include thermal inspection, security and law enforcement, surveillance, border control and system integration.

Technical Specification	
Thermal Imager	Uncooled microbolometer LWIR camera (amorphous silicon)
Spectral Band	8-14 μm
Array Resolution	640 x 480 pixels
Pixel Pitch	17 μm
Sensitivity (NETD)	< 50 mK
Frame Rates	9 or 25 or 30 Hz
Power Requirements	1 W (typical), 5.5 -7 Vdc
Temperature	-40 °C to +60°C operational, -40 °C to 80 °C storage
Vibration	20Hz - 2kHz, 0.1g ² /Hz
Shock	50g half sine for a duration of 10ms
Control Interface	RS-232 (CMOS levels, 115200 baud)
Analog Video Interface	CVBS (PAL or NTSC)
Digital Video Interface	LVDS (16 bit resolution)

Range Chart, Man: 1.8 m x 0.5 m



Lens, Focal Length	8.5 mm	19 mm	25 mm	35 mm	60 mm	100 mm	22/66 mm	18-60 mm	25-145 mm	Thread M25x0.5	Thread M34x0.5
f/#	1.2	1.2	1.2	1.2	1.25	1.5	1.15 / 1.25	1.4	1.4	Lens-less	Lens-less
HFoV [deg]	73.2	32,3	24.6	17.7	10.4	6.2	27.8 / 9.4	33. - 10.4	24.6 - 4.3	-	-
VFoV [deg]	54.4	24.5	18.5	13.3	7.8	4.7	21.0 / 7.1	25.5 - 7.8	18.5 - 3.2	-	-
IFoV [mrad]	2.0	0.90	0.68	0.49	0.28	0.17	0.77 / 0.26	0.94 - 0.28	0.68 - 0.12	-	-
Focus	Manual	Manual	Manual	Manual	Manual	Manual	Motor	Motor	Motor	-	-
Camera + Lens	SAITIS-640-X without shutter, external NUC shutter required										
Weight [g]	56	44	62	155	205	430	320	330	1400	22	58
Dimensions, W x H x L [mm]	27x27x41	27x27x38	31x31x47	50x46x62	61x61x82	74x74x102	80x80x86	74x68x80	127x127x170	27x27x26	50x46x29
Camera + Lens	SAITIS-640-S with integrated shutter for automatic NUC										
Weight [g]	117	105	123	180	230	455	340	350	1400	83	80
Dimensions, W x H x L [mm]	50x46x41	50x46x38	50x46x47	50x46x62	61x61x82	74x74x102	80x80x86	74x68x80	127x127x170	50x46x31	50x46x29

DST CONTROL is a supplier of lightweight, high performance gyro-stabilised electro-optical systems with both EO and IR capabilities. And also, small, light-weight long-wave thermal imagers.

DST CONTROL has released a number of advanced inhouse developed products. The OTUS gyro-stabilised electro-optical micro-gimbal is optimized for use in small & medium sized unmanned vehicles and small manned aircrafts. The SAITIS uncooled microbolometer LWIR camera (amorphous silicon, spectral band 8-14 μm) is one of the smallest LWIR available. Both the OTUS gimbals and the SAITIS thermal imagers have maximum exportability (non-ITAR).



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