REG FARRELL
ENGINEERING LIMITED

Distributors of Electro-Technical Engineering & Safety Equipment

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Solving Problems ... Providing Solutions

SAT S280 Thermal Imaging Camera

With over 10 years engineering experience SAT-IR introduces the newly developed upright series of Infrared Cameras (patent pending). It has powerful analysis tools, such as thermal video recording, advanced triggering, and alarm capability. The S280 IR camera is an ideal tool for predictive maintenance and various measurement and control applications.

Dual display and easy operation

This compact, lightweight, portable camera is operator friendly. It's design, facilitates one hand operation, with fingertip controls. The 270 ° rotating 3.5" colour LCD display and high-resolution viewfinder make it easy to shoot from difficult positions.

High resolution and high thermal sensitivity

To assure a level of thermal image quality, the S280 equipped with a new 384 x 288 array microbolometer FPA detector which delivers 30% more active IR pixels than traditional 320 x 240 array based cameras.

Powerful Measurement Tool

Built-in multiple measurement tools allow you to meet multiple needs. It has features like real-time thermal video recording; the S280 is ideal for some demanding applications.

Continuous digital zoom and scrolling

The S280 employs 2 memory devices: large capacity movable flash memory (up to 2G) and built-in high-speed memory. All of the images and video can be stored to the movable memory or built-in memory. Multi-frame searching is designed for easy imaging finding.

SAT-S280 Technical Specifications (PRELIMINARY)	
Image Performance	
Thermal	
Field of view/min. focus distance	24° x 18°/0.26m
Spatial Resolution (IFOV)	1.3mrad
Thermal Sensitivity	80Mk@30°C
Image Frequency	50/60Hz non-interlaced
Focus	Manual
Digital zoom	1x-8x (0.1 increment)
Detector Type	Focal Plane Array (FPA) Uncooled Micro bolometer 384 x 288 pixels
Spectral Range	7.5 to 13 µ m
Visual	
Build-in digital camera	640 x 480 pixels, full colour
Image Presentation	
View finder	Built-in, 640 x 480 colour LCD (TFT)
External Display	320 x 240 colour (TFT)
Measurement	
Measurement Range	-20°C to +600°C (-4°C to +1112°C) in 2 ranges. Up to 1500°
Accuracy	± 2°C, ± 2% of reading
Measurement Mode	
Spot	(Up to 10 moveable), manual or automatic placement
Area	1 moveable box or circle, reading of max, min and average temperature within area
Isotherm	1 isotherm, above, below, interval, dual above and dual below
Line Profile	Horizontal or Vertical
Emissivity correction	Variable from 0.01 to 1.00, automatic correction based on user input or select from predefined emissivity table
Measurement Correction	Automatic correction based on user input for ambient temperature, distance, relative humidity
Image Storage	
Built-in Memory	For thermal image and thermal video recording
External Memory	Removable Flash memory (Up to 2GB Capacity)
Formats	
Thermal Image	SAT Format, 14 bit measurement data included
Thermal Video	AVI Format
Visual Image	CCD Format
Voice Annotation	Input via headset or optional Bluetooth wireless headset up to 30 sec. Of digital voice “clip” stored with thermal image
Text Annotation	Predefined by user and stored with image
System Status Indicator	
LCD Display	Shows status of battery charge and storage media. Indication of power communication and storage modes
Laser Pointer	
Classification	Class 2
Type	Semiconductor AIGainPDiode, 1mw/635 nm red
Power Source	
Battery	Li-on, rechargeable, field replaceable
Battery Operating Time	2.5 hours continuous operation
Charging System	Intelligent Charger
External Power Operation	AC Adaptor 110/220 VAC, 50-60 Hz
Power Saving	Automatic Shutdown and Sleep mode (user-selectable)
Environmental	
Operation temperature range	-15°C to + 50°C (5°F to +122°F)
Storage temperature range	-40°C to + 70°C (-40°CF to +122°F)
Humidity	Operating and Storage 10% to 95%, non condensing
Encapsulation	IP54
Shock	Operational: 25g
Vibration	Operational: 2g
Physical Characteristic	
Size	90mm x 160mm x 184mm
Weight	1kg
Tripod Mounting	¼” – 20
Interface	
USB	Image (Thermal & Visual), measurement data, voice & text, real-time thermal video with measurement data transfer to PC
Video Output	CCIR/PAL or RS170 EIA/NT SC composite video