



IM500 INDUSTRIAL IOT MODULE

FEATURES

- Dual thermal and visual camera
- Secure LTE-M connection to IoT Cloud
- I/O connections enable external sensors
- Low power consumption
- Optional connection to SCADA/GIS and asset management applications

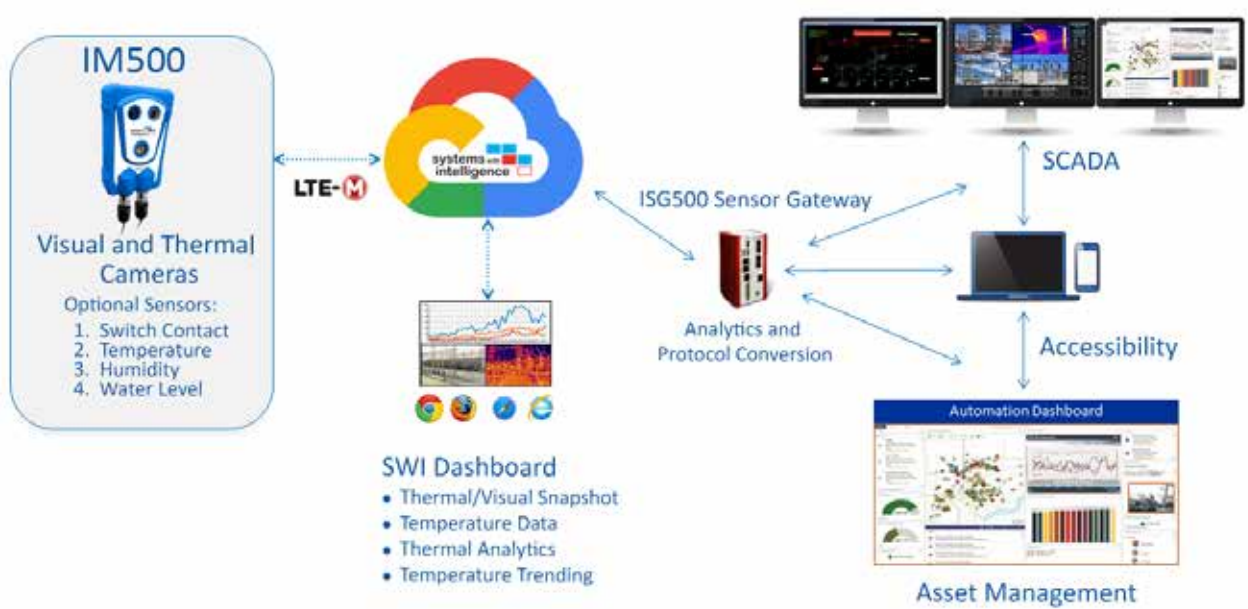
KEY BENEFITS

- High reliability operation in extreme environments, low maintenance costs
- Simple to install and maintain
- Early detection of heat, flooding, tampering etc. to prevent failures and outages
- Analytics provide real time operator alerts
- Optimized data usage with adjustable polling rates

The IM500 Industrial IoT Module monitors and collects asset health data from remote sites. Thermal monitoring mitigates the risks of failure from overheating assets and connection points. Analytics detect anomalies and provide automatic warnings. The visual camera provides situational awareness in remote locations.

The IM500 can enable flood warning and other safety, environmental and quality monitoring with externally connected sensors. Signals are transmitted securely from the device to a dashboard on a phone, laptop or other platform. Remote updates ensure the firmware is current as well as enabling customization of the devices.

INDUSTRIAL IOT ARCHITECTURE



DASHBOARD

- Monitor the site and control remote sensor module
- Thermal trending of monitored assets
- Thermal and visual snapshots
- Configure thermal analytics and alarms

CONNECTED SENSORS

- Onboard I/O allows connection of external sensors
- Monitor water level, door closures, temperature etc.
- Adjust polling rates

WIRELESS COMMUNICATION

- LTE-M wireless communications
- Secure encrypted connection to SWI cloud
- Bi-directional data flow

UTILITY GRADE

- Designed for the harsh conditions found in electric power environments
- Immune to the effects of EMI, ESD and voltage surges and interrupts



Dashboard example

TECHNICAL SPECIFICATIONS

IM500 SPECIFICATIONS	
THERMAL	
Resolution	160 x 120 pixels
Detector Type	Uncooled Vox Microbolometer
Spectral range	8 to 14 μm
Field of View (H)	57°
VISUAL CAMERA	
Resolution	800 x 600 pixels
Sensor	1/4" CMOS
Field of View (H)	71.50° ~ 2.4°
FLASH Light	LED, pulsed
NETWORK/SOFTWARE	
Cellular	3G or LTE-M
Software interface	SWI IoT Cloud
Camera Snapshot	Scheduled or Alarm triggered
Thermal reporting	Thermal box comparison Absolute temperature trigger
Thermal analytics	UP to 15m (49ft)
Others	IO control, Email, Map (location), Historical alarms, Camera Setup
DNP3 (optional)	via SWI CloudNP setup
IO	
Digital Input	2 - wet contact (12 - 24VDC)
Solid State Relay	1 - 30VDC, 500mA
POWER	
Vin	12VDC nominal (9 to 14VDC)
Power consumption	~1W nominal (no flash)
Power Supply requirement	at least 5W per device
ENVIRONMENTAL	
IP Rating	IP67
Op. Temp	-10° C to 75° C
Storage Temp	-40° C to 85° C
MECHANICAL	
Dimensions	78.5mm x 126.5mm x 1.45 mm
Enclosure	UV resistant Plastic
Connector	M12 - 4 pin Power input M12 - 8 pin IO

CONFIGURATION

Part Number - Options	
IM500	Base Unit
CM	3G: 3G communication LT: LTE-M communication (available soon)
OT	AN: Exterior antenna
PL	O2: 2 years access to SWI Cloud included O5: 5 years access to SWI Cloud included
<i>Basic package includes: 2 years of full warranty and premium support. Up to 60 snapshots a month while access to cloud is available. Thermal readings as often every 15 minutes.</i>	
Upgrades	
IM500-PL01	1 year access to cloud for IM500
IM500-WR01	1 years extended warranty for IM500
IM500-SA04	Increase snapshot limit to 240 snapshots a month for one year*
IM500-SQ04	Increase snapshot limit to 240 snapshots a month for three months*
*Other options available	
Accessories	
SM-A01	Standard mounting arm for IM500
CJBSM-02	Junction box supports 2 x IM500
CJBSM-05	Junction box supports 5 x IM500
PCSM-MM4P-10	Standard male to male power cable from Junction box to IM500. 10m length.
PCSM-MF4P-10	Standard male to female power cable from Junction box to IM500. 10m length.
PTSM-M8P-01	Standard pig tail for DIO connector IM500



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