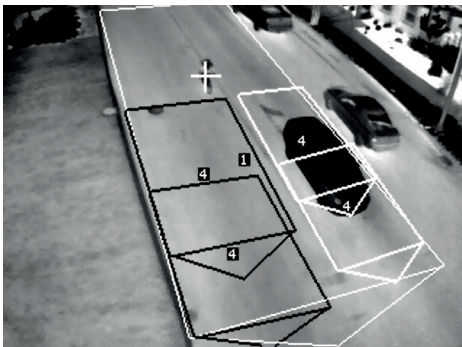




INTELLIGENT THERMAL TRAFFIC SENSOR

THERMICAM2

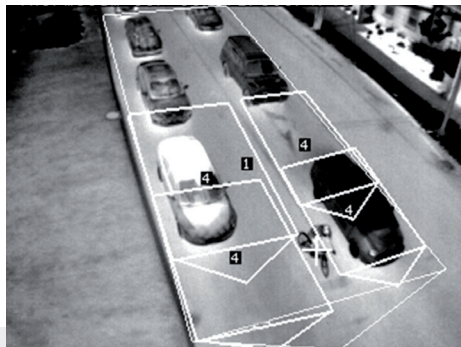
ThermiCam2 is an intelligent thermal sensor capable of detecting vehicles, bicyclists and pedestrians for dynamic traffic signal control and data collection. Integrated Wi-Fi technology allows simultaneous thermal detection, travel time and delay time calculation. Since the ThermiCam2 relies on thermal energy rather than light, it offers 24/7 traffic monitoring and can detect road users at night, through glare, and in harsh weather conditions.



Traffic Signal Control

ThermiCam2 allows for dynamic control of traffic signals by detecting vehicles, bicyclists and pedestrians 24/7.

- Adapt signal times according to actual demand and optimize traffic flow
- Distinguish between vehicles and bicyclists on the road
- Protect vulnerable road users



Traffic Data Collection

ThermiCam2 collects valuable traffic data using thermal detection and Wi-Fi monitoring at the same time.

- Anonymously track how road users move with Wi-Fi and calculate travel and delay times at intersections
- Determine origin destination and turning movement counts
- Collect vehicle class and measure traffic volume, speed, occupancy, headway and gap time



Data Analytics

ThermiCam2 connects to the Acyclica cloud where smart analytics transform data into meaningful traffic insights, critical to understanding performance.

- Wide range of analytics to help agencies monitor travel times, traffic patterns and congestion
- User friendly dashboards for traffic engineers to run reports and take measures where they are needed
- High resolution, high quality intersection data through data fusion in the Acyclica cloud

TECHNICAL SPECIFICATIONS

System Overview

Functionality	Vehicle and bicycle presence detection Traffic flow monitoring ITS-IQ Cloud communication (real-time data)
License based functionality (optional)	Wrong way driver detection Premium traffic data collection ITS-IQ Tier 1 Data analytics (historical & real-time data, images, APIs) ITS-IQ Tier 2 Data analytics (Advanced Wi-Fi travel & delay time, O/D)
# detection zones	24 vehicle detection zones \ 8 bicycle detection zones \ 6 traffic data zones \ 6 wrong way driver zones
Configuration	Web page setup via secure Wi-Fi, Ethernet or BPL

Camera

Type	Focal Plane Array (FPA), uncooled VOx microbolometer Long wave Infrared (7 – 14 µm)
Resolution	QVGA (320 x 240)
Frame Rate	30 fps
Compression	H.264, MPEG-4, MJPEG
Streaming Video	RTSP

Product Types

	Part Number	Resolution	Field of view	Detection distance for vehicle presence
ThermiCam2 390	10-7430	QVGA	Horizontal: 90° Vertical: 69°	1-25 m
ThermiCam2 345	10-7432	QVGA	Horizontal: 45° Vertical: 35°*	5-50 m
ThermiCam2 335	10-7434	QVGA	Horizontal: 35° Vertical: 27°	15-75 m
ThermiCam2 325	10-7436	QVGA	Horizontal: 25° Vertical: 19°	30-90 m
ThermiCam2 317	10-7438	QVGA	Horizontal: 17° Vertical: 13°	45-120 m

Housing

Material	Aluminum housing with integrated polycarbonate sunshield
Dimensions (incl. mounting bracket)	Vertically mounted: 45 cm x 16 cm x 12 cm Horizontally mounted: 41 cm x 18 cm x 12 cm

Power, outputs, communication

Input power	24-42 VAC / 24-48 VDC
Power consumption	Avg 10.5 W Peak 15 W
Output contacts	1 N/O and 1 N/C dry contacts direct 16 N/C dry contacts via TI BPL2 interface
PoE	PoE mode A for configuration, video streaming and data communication
BPL	50 Mbps Broadband over Powerline communication via TI BPL2 interface
Wi-Fi	IEEE 802.11 b/g/n for configuration and Wi-Fi travel time monitoring

Environmental

Schock & Vibration	NEMA TS2 specs
Materials	All weatherproof UV resistant
IP Rating	IP 67
Temperature Range	-34°C to +74°C

Regulatory

FCC / EU Directives	FCC part 15 class A, EMC 2014/30/EU, RoHS 2011/65/EU, LVD 2014/35/EU, RED 2014/53/EU
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Specifications are subject to change without notice.



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