ROSEEK

ROSEEK Product Guide

Contents

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About ROSEEK Company

- **ROSEEK was founded in 2006 with headquarter in Shanghai, China**

- **Focus on embedded machine vision equipment**

- **Main business**

  ITS (Intelligent Transportation System)

  Railway inspection products

  SONY image sensor agent

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ITS Cameras Features

- **Global shutter camera from 1.6MP to 127 MP**

- **Open platform x86 smart camera by INTEL CPU**

- **Supports Windows 10 IoT and Linux Ubuntu**

- **Powerful AI inference performance**

- **Powerful ITS ISP by FPGA**

- **Wide operational temperature range: -40 to +80°C**

- **15 years of ITS professional experience**

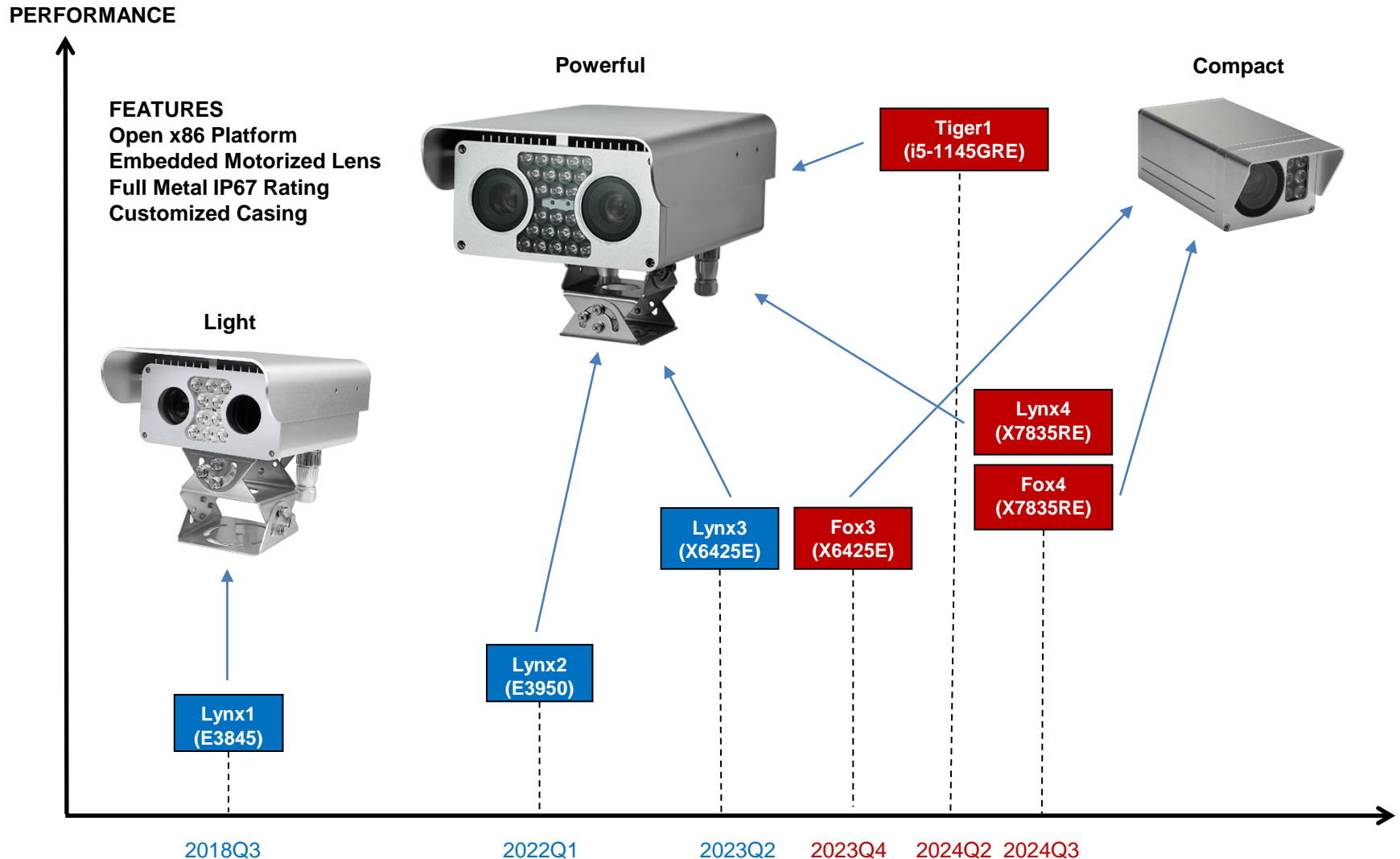- **More than 100,000 ITS smart cameras are running in more than 20 countries at this moment**

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All-in-one Smart Camera - Overview

Item	Lynx1	Lynx2	Lynx3	Tiger1	Fox3
Launch Date	2018Q3	2022Q1	2023Q2	2024Q2	2023Q4
Sensor	1.6 to 8.9MP	1.6 to 20MP	1.6 to 20MP	2 to 127MP	1.6 to 20MP
CPU Type	E3845	E3950	X6425E	i5-1145GRE	X6425E
DDR	4GB	8GB	8GB	16GB	8GB
AI performance	NA	1.5 TOPs	4 TOPs	15 TOPs	4 TOPs
LED Strobe	9/10 LED	24/30 LED	24/30 LED	24/30 LED	8 LED
Features	Light	Sync Sensors	AI performance	Powerful	Compact

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All-in-one Smart Camera - Roadmap

PERFORMANCE

FEATURES
Open x86 Platform
Embedded Motorized Lens
Full Metal IP67 Rating
Customized Casing

Powerful

Compact

Light

Tiger1
(i5-1145GRE)

Lynx4
(X7835RE)

Fox4
(X7835RE)

Lynx3
(X6425E)

Fox3
(X6425E)

Lynx2
(E3950)

Lynx1
(E3845)

2018Q3   2022Q1   2023Q2   2023Q4   2024Q2   2024Q3

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Box Smart Camera

Item	Cheetah1	Cheetah2	Cheetah3	Sparrow2
Launch Date	2015Q3	2020Q1	2022Q3	2021Q1
Sensor	1.6 to 8.9MP	1.6 to 20MP	1.6 to 20MP	1.6 to 2MP
CPU Type	X86: E3845	X86: E3950	X86: X6425E	ARM: MIMX8MM6
DDR	4GB	4GB	8GB	1GB
AI performance	NA	1.5 TOPs	4 TOPs	NA
Features	1st X86 smart camera	CPU performance	AI performance	ARM-based
Status	Not recommended	Mainstream	Promotion	Cost-effective

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Integrated Camera Housing

Item	TreeFrog1	TreeFrog3
Launch Date	2012Q1	2018Q2
Camera Position	1	2
LED Strobe	6/12 LED	12/23 LED
Power Supply	24VDC/48VDC/85~265VAC	24VDC/48VDC
Features	85~265VAC switch power Motorized lens drivers	5-port giga-Ethernet switch Motorized lens drivers
Status	Active	Active

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LED Strobes
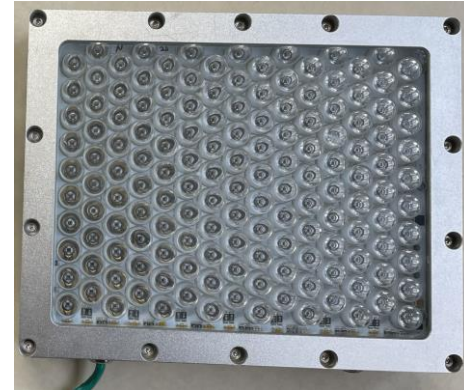
Item	Squirrel1	Squirrel2
Launch Date	2017Q4	2022Q4
LED Chip Quantity	48	150
LED Pulsed Power	220W for NIR flash 480W for white flash 153W for far-red flash	1980W for NIR flash 2160W for white flash 690W for far-red flash
Power Supply	24VDC/150W	48VDC/500W
Features	Cost-effective	High brightness
Status	Active	Active

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Railway Cameras Features

- Global shutter camera from 1.6MP to 127 MP

- Open platform x86 smart camera by INTEL CPU

- Supports Windows 10 IoT

- Seamlessly interface with each other

- Wide operational temperature range: -40 to +80°C

- IP67 rating, shockproof

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Railway Smart Camera – Lizard3 Series

- Embedded x86 industrial PC

- SONY high-speed global shutter CMOS sensors

- Embedded motorized high-resolution lens

- Embedded high-power LED strobes flash

- Embedded isolated power module
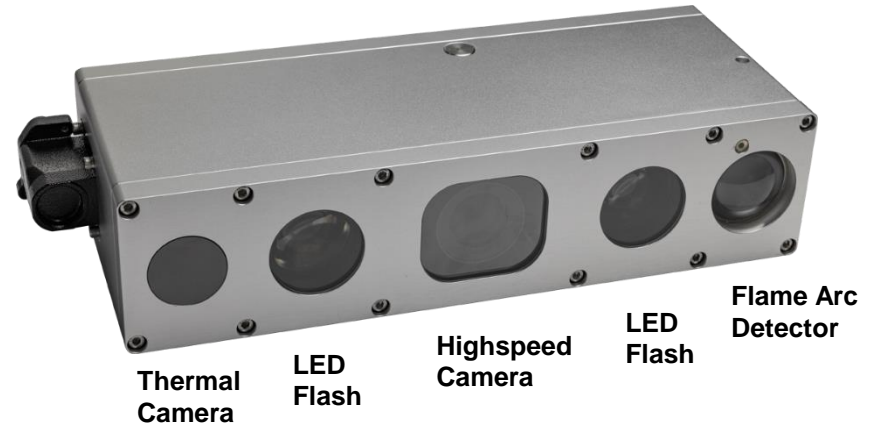
- IP67 rating, shockproof

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Railway Smart Camera – Lizard3 Series

| Code	Pixel Number	Frame Rate (FPS)	Resolution	Optical Size (Inch)	Pixel Size (um)	Match Lens (code)	Note
21	2.8MP	409	1936×1464	2/3	4.5	B5	
51	5.1MP	250	2448×2048	1/1.8	2.74	B5	
71	7.1MP	200	3208×2200	1.1	4.5	TT, SF	
R0	24MP	35	5328×4608	1.2	2.74	SF	
R1	24MP	60	5328×4608	1.2	2.74	SF	
T0	31MP	35	6464×4852	1.8	3.45	28, 35, 55	
T3	65MP	14	9344x7000	2.3	3.2	55	
V1	127MP	8.6	13392x9528	3.6	3.45	55	
V3	150MP	5.8	16556x9200	3.8	3.2	55	

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Railway Smart Camera – Mantis3 Series

- **Embedded x86 industrial PC**

- **SONY high-speed global shutter CMOS sensors**

  5.1MP/250fps, 2448×2048, 2.74um

- **Embedded Pantograph Flame Arc Detector**

- **Embedded LED strobes flash**

- **Embedded M12 lens**

- **Power Supply 110VDC**

- **Extremely low product height**

- **IP67 rating, shockproof**

Thermal Camera · **LED Flash** · **Highspeed Camera** · **LED Flash** · **Flame Arc Detector**

LED Flash · **Flame Arc Detector** · **LED Flash** · **Highspeed Camera** · **Thermal Camera** · **Flame Arc Detector** · **LED Flash**

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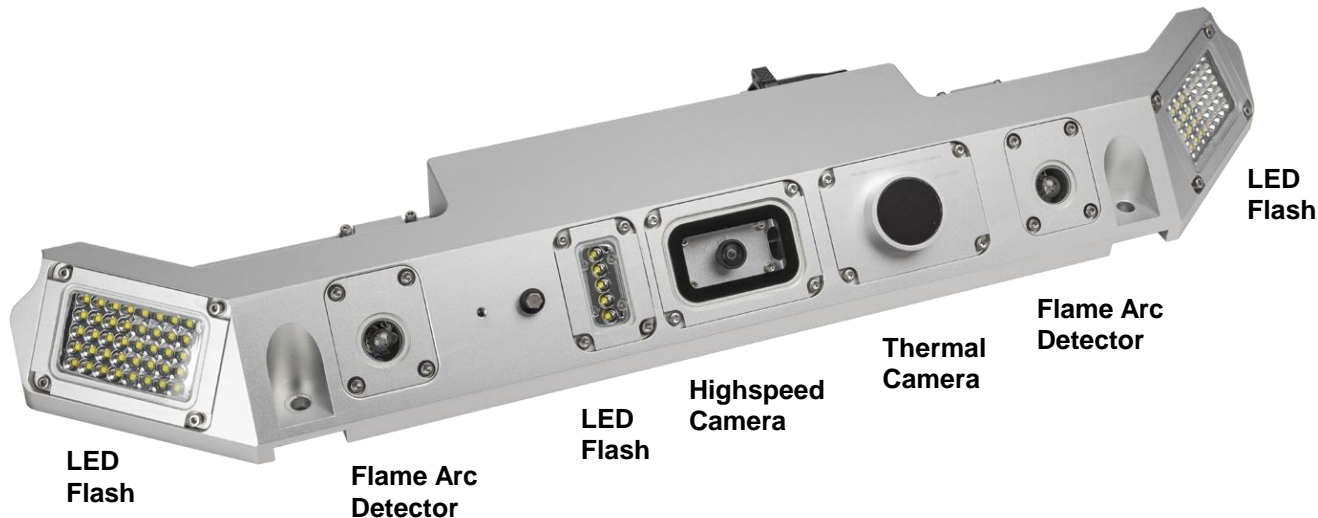
Railway Pantograph Flame Arc Detector - Bee1 Series

- **Sensitive detection of pantograph flame arc within 8 meters**

- **Only sensitive to the solar blind zone (185-260nm) in the deep ultraviolet band to prevent false triggering**

- **Fast Ethernet port and isolated RS485 interface, output the start and end time of arcing event, and arc intensity information**

- **One opto-coupler port, real-time output arcing status**

- **Seamlessly interface with Spider1 Ethernet switch**

- **IP67 rating**

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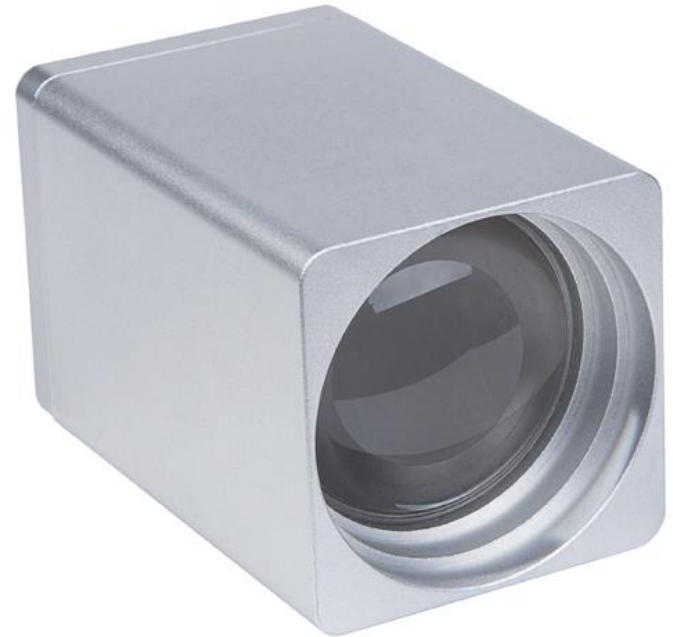
Railway Products Integration Example

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SONY Image Sensor Agent

- **The agent of SONY industrial image sensors: Mainland China, Hong Kong, Macau**

- **Powerful technical support**

- **Good cooperative relationship with SONY for 16 years**

- **The only VAR (value-added reseller) of SONY in the world in the field of CMOS image sensors**

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End

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