



Infrared Led Solution

**EDISON OPTO
INFRARED LED SOLUTION**



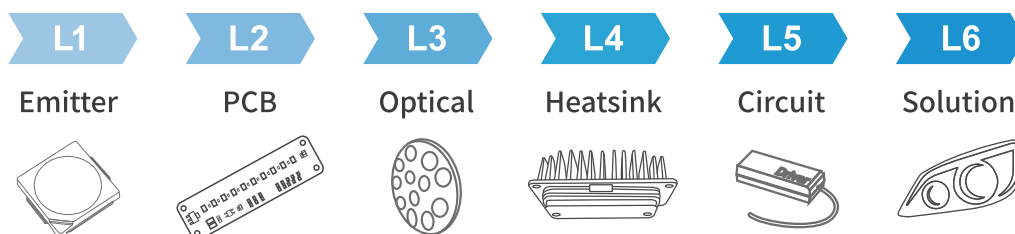
Establish | 2001
Capital | USD 45 Million
Employee | 800 people
Certificated | ISO 9001 / ISO 14001 / IATF 16949





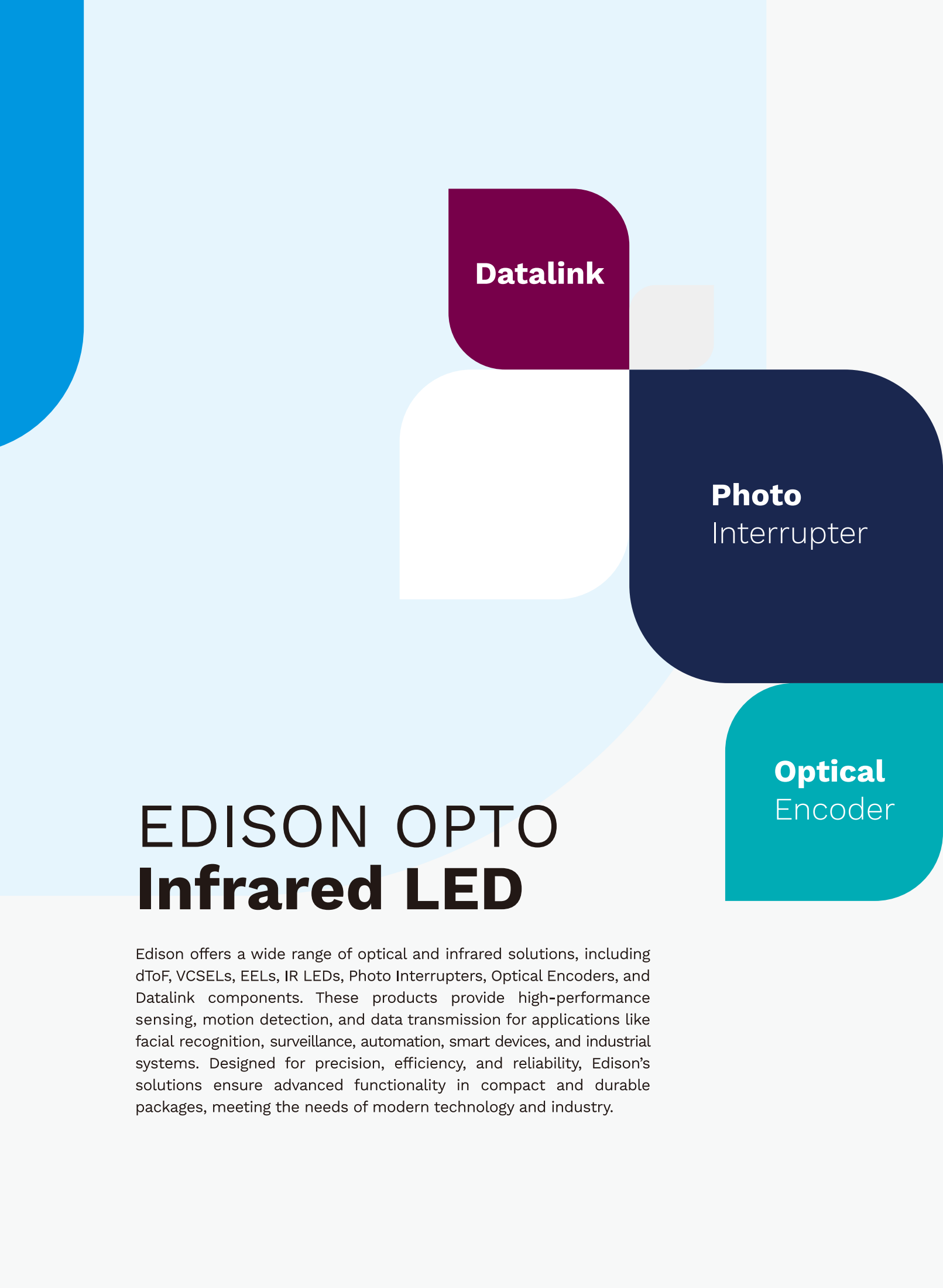
About Us

EDISON OPTO was established by Mr. Jason Wu, the chairman as well as the founder, at New Taipei City of Taiwan in 2001. For its innovated technology strength, EDISON OPTO provides comprehensive LED and solid-state lighting products from LED Component, Light Module, UV / IR LED, LED sensing, Horticulture and Automotive Lighting.



With a focus on enhancing the R&D processes, EDISON OPTO has developed the TEMO™ (Thermal, Electrical, Mechanical, Optical) vertical platform to ensure superior products and services. Additionally, we offer LDMS™ (LED Design Manufacturing Service), covering Automotive LED light sources to Automotive Lamp manufacturing, providing customized solutions for our customers.

Recognized for our commitment to excellence, we have obtained ISO 9001 and ISO 14001 certifications, demonstrating our dedication to quality management and environmental responsibility. Furthermore, our IATF 16949 certification highlights our ability to meet the stringent standards of the automotive supply chain, ensuring superior customized solutions and reinforcing our focus on innovation, quality, and customer satisfaction in the LED lighting and automotive industries.



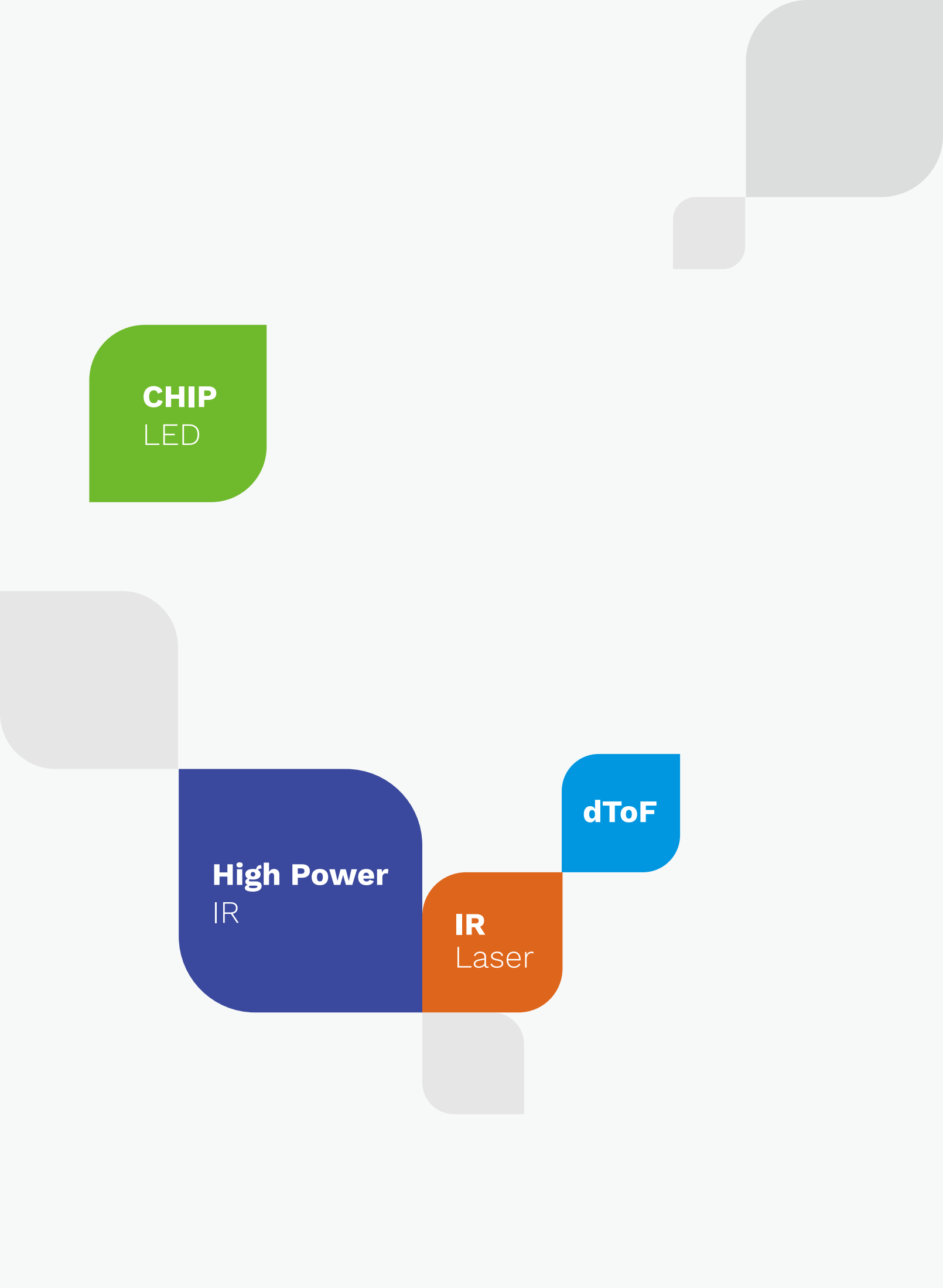
Datalink

Photo
Interrupter

Optical
Encoder

EDISON OPTO **Infrared LED**

Edison offers a wide range of optical and infrared solutions, including dToF, VCSELs, EELs, IR LEDs, Photo Interrupters, Optical Encoders, and Datalink components. These products provide high-performance sensing, motion detection, and data transmission for applications like facial recognition, surveillance, automation, smart devices, and industrial systems. Designed for precision, efficiency, and reliability, Edison's solutions ensure advanced functionality in compact and durable packages, meeting the needs of modern technology and industry.



CHIP
LED

High Power
IR

IR
Laser

dToF

Datalink

Edison's Datalink Series offers high-speed optical transmission, with DLT transmitters for audio and DLR receivers for digital optical links. Supporting up to 25 Mbps, they ensure efficient and reliable communication.

DLT Datalink Transmitter Series

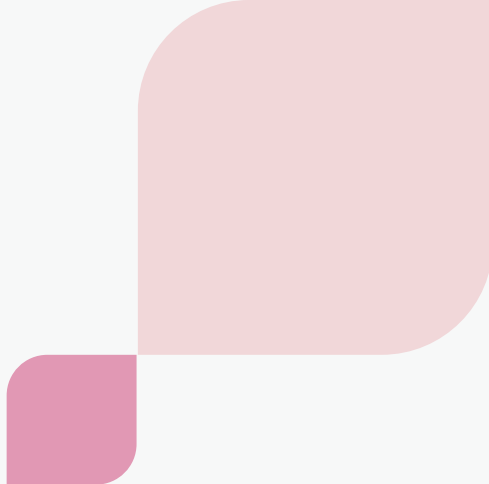
Features

- High speed signal transmission
- Input TTL compatible
- +3~+5V power source

Applications

- Audio equipment
- Industrial equipment

	Order Code	Dimension (mm)	Operating Supply Voltage (V)	Min.	Max.	Trans-mission Speed (Mb/s)	L/F Thickness (mm)
	8DLT230000000000A	5.6*3.1*2.2	3.0-5.0	-21	-14	25	0.25
	8DLT250000000000A	5.6*3.1*2.2	3.0-5.0	-21	-14	25	0.25
	8DLT210000000000A	7.5*3.0*2.2	3.0-5.0	-21	-15	25	0.25
	8DLT270000000000A	7.5*3.0*2.2	3.0-5.0	-21	-15	25	0.4



DLR

Datalink Receiver Series

Features

- High PD sensitivity for red light
- High speed up to 25 Mbps
- Low power consumption and current dissipation
- +3~+5V power source

Applications

- Audio equipment
- Industrial equipment
- Digital optical data link

	Order Code	Dimension (mm)	Operating Supply Voltage (V)	Min.	Max.	Trans-mission Speed (Mb/s)	L/F Thickness (mm)
	8DLR18000000000A	5.6*3.1*2.2	3.0-5.0	-24	-14.5	16	0.25
	8DLR28000000000A	5.6*3.1*2.2	3.0-5.0	-24	-14.5	25	0.25
	8DLR12000000000A	7.5*3.0*2.2	3.0-5.0	-24	-14.5	16	0.25
	8DLR21000000000A	7.5*3.0*2.2	3.0-5.0	-24	-14.5	25	0.25



Photo Interrupter

Edison's Photo Interrupter Series offers high-sensitivity optical sensors for detecting object movement. Available in SMD and DIP types, which feature fast response time, compact design, and Pb-free construction. Ideal for smart lock, thermal printer, camera module, these sensors ensure precise and reliable detection.

Transmissive SMD Type

Features

- Fast response time
- High sensitivity
- Cut-Off visible wavelength
- Thin
- Compact
- Pb free

Applications

- Camera
- Smart lock
- Printer
- Industrial and Medical equipment
- Amusement equipment

	Order Code	PT	Dimension (mm)	Gap (mm)	Ic (on) (mA)		
					min	typ.	max
	8ITR745S23FB0002	2pt	7.0*4.0*5.4	3	0.7	1.6	
	8ITR745S03FB0001	1pt	7.0*4.0*5.4	3	0.2		5
	8ITR645SH3FB0002	1pt	6.4*4.2*5.4	3	0.2		5
	8ITR523S02FB0002	1pt	4.9*2.7*3.3	2	0.2	1	
	8ITR323S01FB0001	1pt	3.2*2.0*2.7	1.1	0.15		1

Transmissive DIP Type

Features

- Fast response time
- High sensitivity
- Cut-Off visible wavelength

Applications

- Camera
- Smart lock
- Printer
- Industrial and Medical equipment
- Amusement equipment



	Order Code	PT	Dimension (mm)	Gap (mm)	Pin (mm)	Ic (on) (mA)		
						min	typ.	max
	8ITR726D05SB0001	1pt	7.5*2.5*6.3	5	6.35	0.2		1.3
	8ITR1406D05SB0001	1pt	14*6*10	5	10.3	0.5		10
	8ITR845D04SB0001	1pt	8.0*4.2*5.2	4	6.8	0.2		5
	8ITR635D03SB0001	1pt	6.0*3.0*5.4	3	4.8	0.2		8
	8ITR745D03SB0001	1pt	7.0*4.0*5.4	3	5.3	0.2		5
	8ITR645DH3SB0002	1pt	6.4*4.2*5.4	3	5	0.2		5
	8ITR523D02SB0003	1pt	4.9*2.7*3.3	2	4	0.2	1	
	8ITR323D01FB0001	1pt	3.2*2.0*2.7	1.1	2.15	0.15		1

Photo Interrupter

Edison's Photo Interrupter Series offers high-sensitivity optical sensors for detecting object movement. Available in SMD and DIP types, which feature fast response time, compact design, and Pb-free construction. Ideal for smart lock, thermal printer, camera module, these sensors ensure precise and reliable detection.

Reflective SMD Type

Features

- Fast response time
- High sensitivity
- Cut-Off visible wavelength
- Thin
- Compact
- Pb free

Applications

- Camera
- Thermal Printer
- Amusement equipment

	Order Code	PT	Dimension (mm)	Ic (on) (mA)		
				min	typ.	max
	8TR3427000000002	1pt	3.4*2.7*1.5	0.18		0.4
	8TR1914000000001	1pt	1.9*1.4*0.6	0.06		0.13



Optical Encoder

Edison's Optical Encoder Series provides high-precision motion detection using an infrared LED and photo IC with digital output (A, B, 2-channel). Featuring incremental output, built-in pull-up resistors, and multiple resolution options, they are ideal for printers, copiers, fax machines, and motor detection, ensuring cost-effective and reliable closed-loop control.

Transmissive

Features

- Gap 2.0mm
- Height 7.35mm
- Incremental output method
- Digital output (A,B 2-Channel) A,B
- Built in pull-up resistor

Applications

- Printer
- Facsimile
- Copier
- Disc driver

	Dimension (mm)	Phase Difference	45 LPI	90 LPI	150 LPI
	10*9.9*7.35	70-90-110	8ECM045A5SB	8ECM090A5SB	8ECM150A5SB
	10*9.9*7.35	70-90-110	8ECM045A5FB	8ECM090A5FB	8ECM150A5FB
	9.6*12*7.55	45-90-135	8ECM045A2SB	8ECM090A2SB	8ECM150A2SB
	9.6*12*7.55	45-90-135	8ECM045A2FB	8ECM090A2FB	8ECM150A2FB
	17.9*12*7.55	45-90-135	8ECM045A3SB	8ECM090A3SB	8ECM150A3SB
	17.9*12*7.55	45-90-135	8ECM045A3FB	8ECM090A3FB	8ECM150A3FB



	Dimension (mm)	Phase Difference	180 LPI	300 LPI	360 LPI
	10*9.9*7.35	70-90-110	8ECM180A5SB	8ECM300A5SB	8ECM360A5SB
	10*9.9*7.35	70-90-110	8ECM180A5FB	8ECM300A5FB	8ECM360A5FB
	9.6*12*7.55	45-90-135	8ECM180A2SB	8ECM300A2SB	8ECM360A2SB
	9.6*12*7.55	45-90-135	8ECM180A2FB	8ECM300A2FB	8ECM360A2FB
	17.9*12*7.55	45-90-135	8ECM180A3SB	8ECM300A3SB	8ECM360A3SB
	17.9*12*7.55	45-90-135	8ECM180A3FB	8ECM300A3FB	8ECM360A3FB

CHIP LED

Edison offers 940nm IR LED solutions for emission and reception applications. The emitting series provides high-intensity LEDs for sensing and automation, while the receiving series includes photo transistors and diodes for optical detection and communication, ensuring high sensitivity and reliability.

940nm Emitter

Features

- Fast response time
- High sensitivity

Applications

- Camera
- Light Curtain

	Order Code	Dimension (mm)	Angle (°)	Forward Voltage (V)	Radiant Intensity (mW/sr)	
					min	max
	2H0603NX1TRA0201	1.6*0.8*0.6	120	1.2 ~ 1.5	0.8	2
	2H0805NX1TJA0201	2.0*1.25*0.85	120	1.2 ~ 1.5	0.9	2.5
	2H1204NX1TLA0201	3.2*1.0*1.5	120	1.2 ~ 1.5	0.8	2.5
	2H1206NX1TMA0201	3.2*1.6*0.9	120	1.2 ~ 1.5	0.9	2.5
	2H1206NX1TQA0101	3.2*1.6*1.85	20	1.2 ~ 1.5	7	10
	2H1206NX1TQA01R1	3.2*1.6*1.85	20	1.2 ~ 1.5	7	10
	2H1206NX1TTA02S1	3.2*1.6*2.65	20	1.2 ~ 1.5	7	10



CHIP LED

Edison offers 940nm IR LED solutions for emission and reception applications. The emitting series provides high-intensity LEDs for sensing and automation, while the receiving series includes photo transistors and diodes for optical detection and communication, ensuring high sensitivity and reliability.

Photo Transistor

Features

- Fast response time
- High sensitivity
- Cut-Off visible wavelength

Applications

- Camera
- Light Curtain
- Optoelectronic Switch

	Order Code	Dimension (mm)	Operating Temperature (°C)	Angle (°)	Wavelength (nm)	Ic (on) (mA) min	Ic (on) (mA) max
	2H0603PT1HRA0201	1.6*0.8*0.6	-40 ~ +85	120	700 ~ 1100	0.7	0.9
	2H0805PT1HJA0201	2.0*1.25*0.85	-40 ~ +85	120	700 ~ 1100	0.7	0.9
	2H1204PT1HLA0201	3.2*1.0*1.5	-40 ~ +85	120	700 ~ 1100	0.7	1.1
	2H1206PT1HMA0201	3.2*1.6*0.9	-40 ~ +85	120	700 ~ 1100	0.7	0.9
	2H1206PT1HQA0101	3.2*1.6*1.85	-40 ~ +85	40	700 ~ 1100	6	9
	2H1206PT1HQA01R1	3.2*1.6*1.85	-40 ~ +85	40	700 ~ 1100	6	9



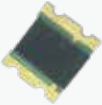
Photo Diode

Features

- Fast response time
- High sensitivity
- Cut-Off visible wavelength

Applications

- Camera
- PM2.5 detection
- Touch Panel

	Order Code	Dimension (mm)	Operating Temperature (°C)	Wavelength (nm)	Isc (μA)	IL (μA)
	2H3227PD1HMA0101	3.2*2.7*0.9	-40 ~ +85	700 ~ 1000	4.0 (min)	4.2 (min)
	2H5040PD1TKA0101	5.0*4.0*1.04	-25 ~ +85	400 ~ 1100	40 (typ.)	30 (min)



High Power IR

Edison's High Power Infrared Series offers 850nm and 940nm IR emitters with wide emission angles and high radiant power, ideal for surveillance, facial recognition. Available in compact EMC 3838 and durable Ceramic 3535 packages, these emitters ensure high performance, reliability, and power efficiency for advanced sensing applications.

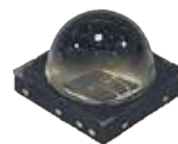
EMC 3838

Features

- Light Emitting angel 50°, 80°, 150°
- Peak wavelength 850 nm, 940nm
- 3.85×3.85mm EMC package

Applications

- Surveillance
- Facial recognition
- Smart door bell
- Industrial equipment



Order Code	Power	Wavelength (nm)	Dimension (mm)	Angle (°)	Radiant Power (mW) @1A	Radiant Intensity (mW/sr) @1A	Forward Voltage (V)
RNBE2713S450500F	3W	850	3.85*3.85*2.90	50	720	650	1.95
RNBE2713S480800F	3W	850	3.85*3.85*2.29	80	870	570	1.95
RNBE2713S4F0F00F	3W	850	3.85*3.85*1.51	150	800	230	1.95
RNBE2713D450500F	5W	850	3.85*3.85*2.90	50	1200	1100	2.95
RNBE2713D480800F	5W	850	3.85*3.85*2.29	80	1470	950	2.95
RNBE2713D4F0F00F	5W	850	3.85*3.85*1.51	150	1320	400	2.95
RNBE2713D750500F	5W	940	3.85*3.85*2.90	50	1050	590	2.95
RNBE2713D780800F	5W	940	3.85*3.85*2.29	80	1270	500	2.95
RNBE2713D7F0F00F	5W	940	3.85*3.85*1.51	150	1140	210	2.95



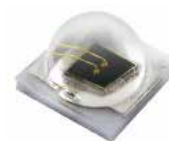
Ceramic 3535

Features

- 3.45×3.45mm Al₂O₃ substrate package
- High power performance
- Promising power maintenance characteristics
- Level 1 on JEDEC moisture sensitivity analysis
- Lower thermal resistance

Applications

- Surveillance
- Facial recognition
- Sweeper detection



Order Code	Power	Wavelength (nm)	Dimension (mm)	Angle (°)	Radiant Power (mW) @350mA	Forward Voltage (V)
2FX002FX00F02006	2W	740	3.45*3.45*2.45	120	200 ~ 400	1.9
2FX003IX00F02006	3W	850	3.45*3.45*2.45	110	200 ~ 400	1.5
2FX003NX00F02006	3W	940	3.45*3.45*2.45	110	200 ~ 400	1.3

Features

- 3.45×3.45mm AlN substrate package
- Light Emitting angle 120°±10°
- High Power Applications
- High Reliability
- Ultra Low thermal resistance

Applications

- Surveillance
- Facial recognition
- Sweeper detection



Order Code	Power	Wavelength (nm)	Dimension (mm)	Angle (°)	Radiant Power (mW) @1A	Forward Voltage (V)
RNFC0613D4B0B003	3W	850	3.45*3.45*2.30	120	800 ~ 1200	3.1
RNFC0613D7C0C003	3W	940	3.45*3.45*2.30	120	700 ~ 1000	3.0
2FX005IX00F02006	5W	850	3.45*3.45*2.45	120	500 ~ 700 @350mA	2.8
2FX005NX00F02006	5W	940	3.45*3.45*2.45	120	500 ~ 700 @350mA	2.6

IR Laser

Edison offers VCSEL and EEL solutions for 3D sensing, AGV logistics, smart factories, and wearables. High-power VCSELs enable ToF and structured light, while low-power VCSELs suit biometric sensing and beauty devices. Low-power EELs enhance machine vision and robotics. Edison ensures precision, efficiency, and reliability across industries.

VCSEL High Power

Features

- High Radiant Power up to 2500mW output
- Supports ToF, structured light, and molding lens type
- Optimized for high-current pulsed operation

Applications

- 3D Vision
- 3D Scanning
- Face Recognition
- ToF ranging

	Type	Order Code	Dimension (mm)	Operating Current (mA)	Radiant Power (mW)	Forward Voltage (V)	Angle (°)
	ToF Emitter	RVIC20L4S7xxx04	3.5*3.2*1.45	1250 / 2750 (Pulse)	1100 ~ 2500	1.9 ~ 2.1	60°x45° / 72°x58° 78°x65° / 87°x67° 110°x90° / 120°x20°
	Structured Light	RVBH06RxS7xxx04	3.5*3.5*3.98	1000 / 1500 (Pulse)	630 ~ 930	1.9 ~ 2.1	62°x64° (11,232 dot) 80°x60° (10,980 dot) 93°x70° (15,372 dot)
	Molding lens	RVFC0612S3181806	3.5*3.5*2.30	2750 (Pulse)	2400	1.9 ~ 2.1	18



VCSEL Low Power

Features

- Small plastic package
- Multiple Wavelength Options
- Low operating current

Applications

- Smart wearable device
- Sensing transmission
- Beauty instrument

	Order Code	Dimension (mm)	Wavelength (nm)	Operating Current (mA)	Radiant Power (mW)	Forward Voltage (V)
	RTSA0117SD252507	3.0*1.4*0.7	660	9	3	2.5
	RTST0120S720200B	3.0*1.4*0.7	940	10	5	1.8
	RTHS15M1X1303007	3.4*3.3*1.9	680 850 940	12 9 9	3 ~ 7	2.1 ~ 2.5

EEL Low Power

Features

- Package: Ag Plated 2 pad design package with silicone resin
- Standard optical power output: 3.5mW
- Single mode lasing

Applications

- Medical Application
- Automation equipment

	Order Code	Dimension (mm)	Wavelength (nm)	Operating Current (mA)	Radiant Power (mW)	Forward Voltage (V)
	RTRT03C1xx36089C	3.5*2.8*0.8	635 ~ 980	25 ~ 180	3.5 ~ 100	2.5
	RTWE12C5xx36089C	3.0*3.0*0.6	808 / 980	350 ~ 1000	200 ~ 700	2.5

dToF

Edison EDToF Series delivers high-precision distance sensing powered by a 940nm VCSEL-based ToF sensor with advanced SPAD architecture. With a 24° to 27° FoV, multi-object detection and ranging capability up to 5,000mm, these sensors offer outstanding accuracy and low power consumption for various applications.

Direct Time-of-Flight Sensor

Features

- Advanced ambient light rejection
- Supply voltage 2.8 to 3.6V
- Ranging distance Up to 5000mm
- High accuracy $\pm 3\%$
- Low Power

Applications

- Smart home-IoT
- Sanitary devices-gesture control
- Robotics-cliff detection, obstacle avoidance
- Industrial-landing assist, camera assist
- Video focus tracking assistance

	Order Code	Dimension (mm)	Zones	Power Consumption	Operating Temperature (°C)	Output Format
	RS28010124249001	4.4*2.4*1.0	1	Ranging 25mA	-20 ~ +85	I ² C Read
	RS29010125259001	3.6*2.2*1.0	1	Ranging 12mA	-20 ~ +85	I ² C Read



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