Qlight

INNOVATION IN ALARM & SIGNAL

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WARNING LIGHTS / SIGNAL LIGHTS

EXPLOSION PROOF WARNING LIGHTS

HEAVY-DUTY WARNING LIGHTS

SIGNAL TOWER LIGHTS

USB INTERFACE / ETHERNET LED TOWER LIGHTS

ELECTRIC HORNS

LED LIGHT BARS / WORK LIGHTS

EMERGENCY LIGHT BARS

WATERPROOF & EXPLOSION PROOF LIMIT SWITCHES

www.qlight.com

Qlight Gives You a Brighter Future!

Qlight has been a world-leading provider of visual and audible status indicating systems and solutions for the last three decades. We pride ourselves in developing products which help our customer's improvement, productivity, safety, and quality control in the industrial automation and commercial improve. Our strong dedication to innovative products, quality assurance, well-established supply chain, customizable manufacturing and strong customer relationships have helped us earn the top market share in Korea and China. These core values have also been fundamental to our continued growth into new markets. Qlight's products are certified by the International Quality management System (ISO9001), IECEx, ATEX, UL, CE, Lloyd, KIMM, and KOSHA which display our dedication to stringent quality control and product development based on safety-pursuing industry standards. Our assembly lines in Busan, South Korea and Shanghai, China presently provide a variety of more than 450 of products to more than 40 countries, based on sales offices in South Korea (Seoul, Busan) China (Shanghai, Shenzhen, Shenyang, Tianzhen, Tianjin, Wenzhou), and the U.S. (Silicon Valley). The Qlight brand reflects 30 years of research and development, certification, and manufacturing experience. We will continue to establish ourselves as a industry-leading provider by pushing the boundaries of technology in order to enhance our customer's efficiency and safety in every industry and region of the world.

CONTENTS

HISTORY

Qlight has been striving to accomplish our mission to provide visual and audible status indicating systems and solutions to enhance our customer's work safety and efficiency for the last three decades.

1986~1992

1993~2005

2006~2010

Business Foundation and Consolidation

- Established in 1986
- Nominated as the Company for development of Domestic Explosion-Proof Warning Light by Korean Ministry of Science & Technology
- Established Shanghai Qlight Electronic Co., Ltd. In China
- Quality Assurance Company Certificate acquired

Growing as a Signal Transmission Device Specialist

- UL (Underwriters Laboratory) certificate acquired
- CE (conformity marking within European Economic Area) certificate acquired
- Lloyd's (UK's maritime classification society) certificate acquired
- 17 types of ABS (American classification society) certificates acquired
- ISO 9001 and 2000 certificates acquired
- Products applied in KIA Motors automation equipment
- Products applied in KTX (Korea High Speed Rail) safety systems
- KR (Korean Register of Shipping) certificate acquired

A Great Leap Forward & Business Reconstruction

- Established Research & Development Center
- ABS and KIMM explosion proof certificates acquired
- Explosion proof certificate from Korea Industrial Safety Health Agency acquired
- Obtained a patent for revolving bulb warning light
- Obtained a patent for LED rotating warning light
- NEPSI (National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation) certificate acquired
- Products applied in Hyundai Motors factories in Beijing, India and Czech Republic
- Products applied in Hyundai Motors factory automation equipments in Alabama
- Products applied in highway safety signal system of Korea Expressway Corp.
- UL certificate for signal tower lights acquired

2011~PRESENT

Continued Growth and Globalization

New Engines for Growth

- Obtained UL certificate for LED Signal lights Q series
- Obtained UL certificate for LED Work light
  (QPL, QPLC200/ 300/ 400/ 500)
- The second headquarter factory built
- Obtained RMRS(Russian Maritime Register of Shipping)
  certificates for three items including SW2TS limit switch
- Obtained UL certificates for LED work lights for
  QML150/250 and QMFL500/600
- ATEX (European certification of explosion proof)
  certificate acquired
- Venture company certificate acquired
- Technology innovation company (INNOBIZ)
  certificate acquired
- Commercialized LED work lights
- CCS (Chinese classification society) certificate acquired
- ICAO (International Civil Aviation Organization)
  certificate acquired - Selected as a promising export
  company by the Small & Medium Business Admin., Korea
- KGS certificate acquired

Qlight will continue to take chances for the second growth and globalization to establish itself as the world-leading provider in the industry.

VISION & PHILOSOPHY

Qlight strives to continue its lead in producing quality
products for the industry by forming a compassionate corporate culture,
fulfilling customer oriented needs,
and maximizing manufacturing efficiency.

Global Network

We are able to maximize our management efficiency through the presence of our global network of production and sales sites. Our global teams are held accountable for short delivery times, industry leading customer service, cost competitiveness and quality products appropriate for any industry environment.

Customer-Oriented Management

We aim to help our customers maximize their profits and work efficiency by providing them with a diversified product portfolio with an emphasis on innovation, quality assurance, and customer focused support.

Shared Management

We practice a "Business Sharing" policy by allocating a portion of our profit and time with the local community. We support organizations which encourage children's dreams and hopes through reading activities.

Differentiation

In order to support the critical needs of our customers, Qlight accomplishes cost efficiency by differentiating the business strategy in R&D, production, marketing, and customer service.

Specialization

We concentrate our management and R&D efforts on developing and improving the quality of signal transmission devices which make us the world's leading company and experts in our field.

Companionate Corporate Culture

With the cooperation of both company and employees pursuing a common goal, we promote and encourage many policies that support employee creativity, welfare, communication, vision sharing and motivation within the company.
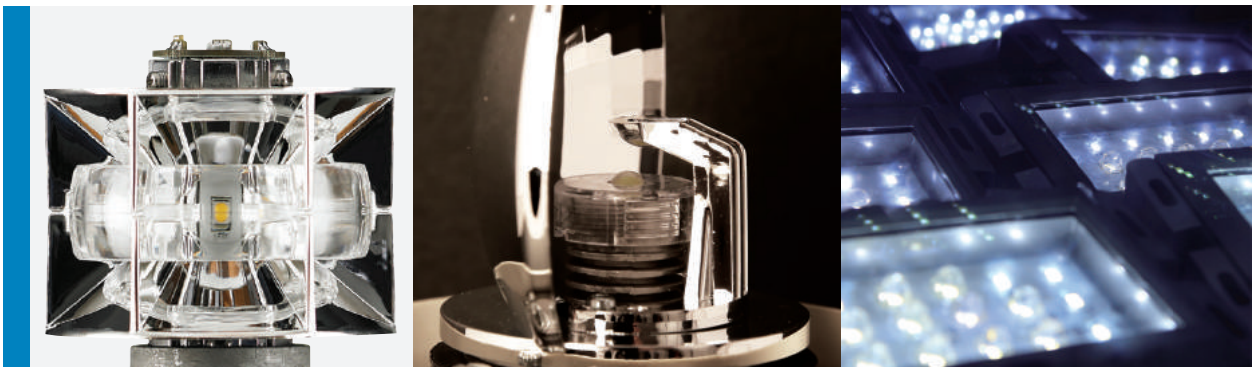
R&D CENTER

Qlight's R&D Laboratory continually strives to enhance our technology in the areas of product miniaturization, unmanned operation, and strengthened durability in order to develop products that can satisfy our customer's sophisticated needs. Considering our customer's diverse operational conditions, we constantly pursue the best product quality by testing and measuring our products under the most extreme conditions.
We achieve our high quality through standardized processes acknowledged by world-leading certificate organizations such as UL, CE, ATEX, IECEx and etc.

Research Achievements

01 Interchangeable layer type tower lights
02 Warning light globes applying optical-path direction lighting system
03 Floodlight with high efficiency LED for inspecting cracks in industrial sites and industrial machinery
04 A lens that helps deliver the LED's light in the lateral direction, and bulbs applying this lens (LR-transparent)
05 High intensity LED revolving warning lights applying multi-directional reflector
06 Explosion Proof electric horns applying sintered flame arrester
07 Brushless DC Motor
08 Rotors applying V-belt drive, featuring high energy efficiency and minimized noise
09 Multiple color LED warning lights
10 Signal lights applying LED bulbs as light source
11 Solar powered warning lights
12 Direct-drive warning lights
13 Special driving gear for revolving warning lights
14 LED Bulb applying special lens
15 Warning lights for heavy industry applying multi lens system
16 Signal horns embedded in the enclosure body that functions as a light source
17 LED work light bars specifically designed for machine tools with IP69K protection rating

Explosion Proof Testing Laboratory

To maximize our efficiency in developing products within market driven timelines, Qlight has invested our own explosion proof test facilities in order to quickly develop new technologies and conduct pre-certification testing.
The pre-certification testing follows the strict IEC 60079-0, IEC 60079-1 standards to ensure our quality and smooth certification process when submitted to universal standards bodies.

Process of Explosion Proof Testing

Step 01

MAXIMIM SURFACE TEMPERATURE MEASUREMENT
- DATA LOGGER
- CONSTANT TEMP & HUMI CHAMBER

Step 02

TEST FOR THERMAL SHOCK & THERMAL ENDURANCE TO HEAT
- CONSTANT TEMP & HUMI CHAMBER

Step 03

TEST OF RESISTANCE TO IMPACT
- IMPACT TEST EQUIPMENT

Step 04

AERATION MEASUREMENT
- DIGITAL MICROSCOPE

Step 05

REFERENCE PRESSURE MEASUREMENT & TEST FOR FLAME SPREAD
- EXPLOSION CHAMBER
- GAS MIX CYLINDER
- GAS ANALYZER
- BLASTING MACHINE
- GAS MIX TUBE

Step 06

PRESSURE TEST
- WATER PRESSURE TESTER

PRODUCTION CAPABILITIES

By adopting technology standards and quality assurance systems,
Qlight has achieved quality gentrification and standardization with a wide range of
products in order to to meet our customer's sophisticated needs.

■ **Enterprise Resource Planning(ERP) system maximizes our management's efficiency**

The comprehensive enterprise resource planning system allows Qlight to quickly understand, communicate, and manage current business conditions in an efficient and transparent platform.

■ **Highly efficient Supply Chain Management (SCM) ensures quick delivery time**

Our SCM's ability to visualize the entire supply chain at a glance from purchasing to production and to distribution allows for enhanced production efficiency for quick on-time delivery.

■ **Cell Based Manufacturing Systems applied where operators are responsible for the entire production procedure from beginning to end**
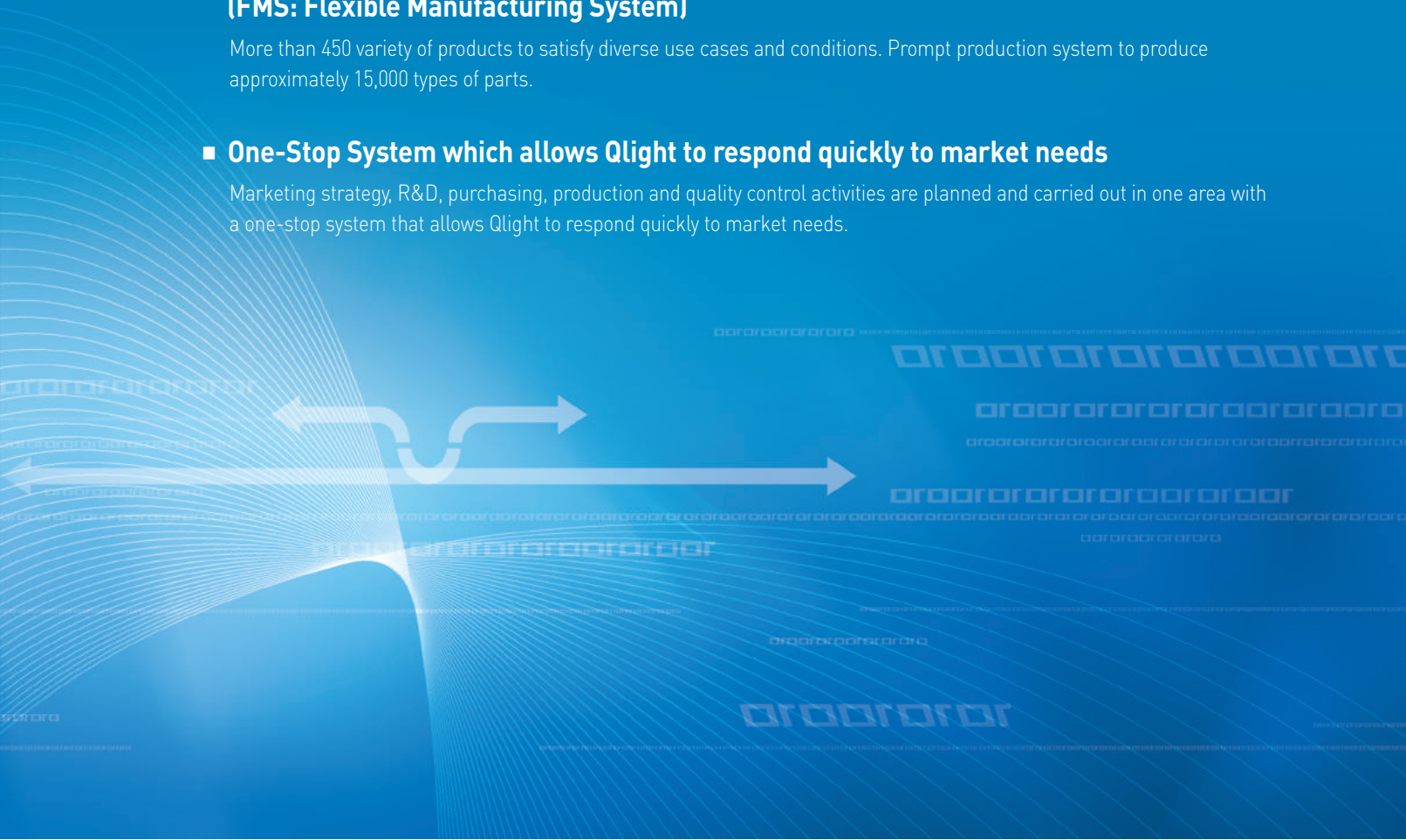
Modular parts and cell manufacturing systems allow for flexible manufacturing and mass product customization.

■ **Flexible Customer-Driven Small Quantity Batch Production System (FMS: Flexible Manufacturing System)**

More than 450 variety of products to satisfy diverse use cases and conditions. Prompt production system to produce approximately 15,000 types of parts.

■ **One-Stop System which allows Qlight to respond quickly to market needs**

Marketing strategy, R&D, purchasing, production and quality control activities are planned and carried out in one area with a one-stop system that allows Qlight to respond quickly to market needs.

PRODUCTS

Warning Lights / Signal Lights

We produce a diverse portfolio of xenon and LED warning/ signal/ stackable light products that vary in size from 50mm to 180mm in diameter. The xenon and LED filaments are used to improve the lifetime and brightness of the products.

Signal Lights & Electric Horns/ Speakers

Excellent products that provide visual signals and audible sound. These products recently added an SDcard slot which allows users to input their own sound suitable for their application condition.

Heavy-Duty Warning Lights / Horns

Products for vessels, heavy-duty, and heavy equipment require anti-vibration, corrosion, and waterproof qualities. Qlight's products are compliant with ABS, LR, CCS, KR, CE certifications.

Explosion Proof Warning Lights / Horns

Explosion proof products are used in places such as offshore plants, petrochemical plants and gunpowder factories where lingering explosive gas/chemicals pose a higher risk for fire and explosion. Qlight produces products which are compliant to IECEx, ATEX, NEPSI, KGS, KOSHA standards.

PRODUCTS

Warning Light Bars

Warning light bars require various shapes and sizes depending on the vehicle and purpose. Qlight's products can meet varying requirements due to the modular design of the light bar.

Aviation Obstruction Lights

Aviation obstruction lights are placed in high locations that can be costly for repair and inspection. Qlight's products use LED lights which provide long lasting durability and are virtually maintenance free. Qlight's products can meet the mid, low brightness and flame proof standards.

Signal Tower Lights

Signal tower lights are often required to indicate both visual and audible signal at the same time depending on the application cases. Qlight offers various kinds of warning lights with built-in buzzer and warning lights and electric horn configuration products with various built-in warning sounds, melodies, and alarm sounds.

Modular LED Tower Lights

Modular type LED tower lights allow for easy addition of modules and change in color arrangement without use of tools by using the Lock-type structure. You can select from size selections of Ø50mm, Ø60mm, and Ø70mm to fit your sophisticated application needs.

USB, ETN Signal Tower Lights

Qlight offers three types of special-controlled LED tower lights - Ethernet LED tower lights controlled and connected remotely by TCP/IP Ethernet through Internet or LAN, USB interfaced LED tower lights connected and powered by a PC's USB port, and wireless LED tower lights controlled by a PC that can interlock up to 620 devices through wireless mesh network. All special-controlled tower lights are available with built-in buzzer type and electric horn combination type and you can choose the size of tower lights ranging from Ø45mm to Ø80mm.

Electronic Horns/ Speakers/ Motor Sirens

Electric horn products include 7 warning sounds, 13 melodies, and 30 MP3 sounds (via multiple channels) built-in. Products with the MP3 option allow users to input the proper sound for their working condition and environment.

Industrial LED Lights

Qlight produces industrial LED work lights for machine tools that are durable and water-proof. These industrial work lights can also be used in distribution panels and are IP67/IP69K compliant for high pressure water cleaning environments.

Water / Explosion Proof Limit Switches

Qlight provides compact size limit switches suitable for the petrochemical industry, food processing machineries, and machinery tools for compact applications. These products are impenetrable to water, oil, and particles with a protection rating of IP56. We also provide heavy-duty limit switches with bronze housing perfectly suitable for heavy industry which require excellent corrosion resistance.

QUALITY CERTIFICATIONS

Qlight products are designed to meet strict quality and technical standards.
Thus, the Qlight brand is widely recognized for its high quality and
technical innovations from leading institutions around the world.

ISO

International Organization for Standardization

Qlight quality assurance systems have been certified by ISO by applying the ISO 9001:2008,KS Q ISO 9001:2009 regulation.

IECEx

International Explosion Proof certification (IECEx)

Certified that Qlight's products are being manufactured and manage according to international standards.

ATEX

The european Regulatory Framework or Manufacture, Installation and Use of Equipment in Explosive Atmospheres

Qlight explosion proof products comply with ATEX Directives 94/9/EC.

NEPSI

National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation

Qlight's design and manufacturing system meets the People's Republic of China National explosion-proof Standard (ChineseStandard-GB3836/GB12476).

KGS

Korea Gas Safety Corporation

Approved from "Korea Gas Safety Corporation" that Qlight's design and manufacturing system meets the standard of KGS

KOSHA

Korea Occupational Safety and Health Agency

Approved by the "Korea Occupational Safety and Health Agency" that Qlight's design and manufacturing system meets the standard of KOSHA.

ABS

American Bureau of Shipping

Qlights design and quality assurance system has been certified by the American Bureau of Shipping.

LR

Lloyd's Register

Qlights design and quality assurance system has been certified from Lloyd's Register

CCS

China Classification Society

Qlights design and quality assurance system has been certified by the China Classification Society.

RMRS

Russian Maritime Register of Shipping

Qlights design and quality assurance system has been certified from Russian Maritime Register of Shipping

KR

Korean Register of Shipping

Qlights design and quality assurance system has been certified by the Korean Register of shipping.

CE

European Commission

Qlight has been certified by the European Commission.

UL

Underwriters Laboratories

Qlights design and quality assurance system has been certified from UL to ensure the stability of consumption goods and to protect consumers

KC

Korea Safety Certification

Qlight products are certified by KC for preventing accident caused by fire.

CCC

China Compulsory Certificate

Qlight products have acquired China Compulsory Certificate, a compulsory safety mark for products imported, sold or used in the Chinese market.

ICAO

International Civil Aviation Organization

Qlight aviation obstruction light series are in compliance with ICAO/FAA standards.

E-mark

Economic Commission of Europe (ECE)

Qlight warning lights for vehicles have acquired E-marking, a compulsory mark for vehicle safety system and component issued by EU committee, EC directive.

RoHS

Restriction of Hazardous Substances Directive

Qlight complies with the Restriction of Hazardous Substances Directive by limiting its use of hazardous materials.

QUALITY ASSURANCE & CUSTOMER SERVICE POLICY

Qlight follows a quality assurance policy that supports our customer's work efficiency by implementing state of the art quality control and customer service systems.

By adopting an ISO9001 quality management and assurance system, Qlight has achieved certified standards in quality. This adoption of strict technology standards and test systems minimizes production issues and allows us to focus our attention on customers needs to ensure their success.

Quality Assurance Policy with Embrace and Understanding

- Cost competitiveness through cost reduction
- Short delivery through applying time-efficient SCM system
- Enhanced empowerment of employees dealing with customers
   - allows for shortened service time to serve customer
- Customized product production capability to support specific customer application needs

Customer-Oriented Service Policy

- Provide fast and accurate customer service
- Strong technical teams that tackle issues when they occur
- Embracing customer service that understand customer's situation
- Open technical data available so customers can select the most suitable products for their application site

Customer Service Policy

• All Qlight products offer free warranty for the first year after purchasing
• RMA tickets are initiated within a week after a customer claim is filed - customer fault excluded
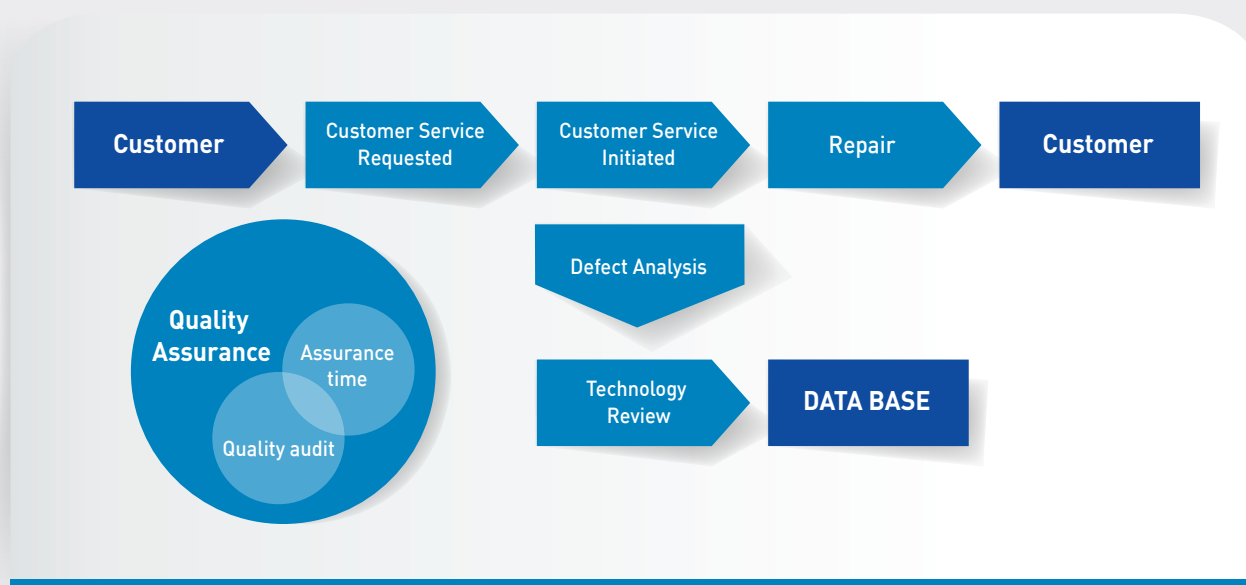
Warranty Timelines and Conditions

Support under Warranty

Classificatio	Timeline	Support Conditions
All products	One Year	Failures that occur with normal operation within warranty timeline

Out of Warranty Support

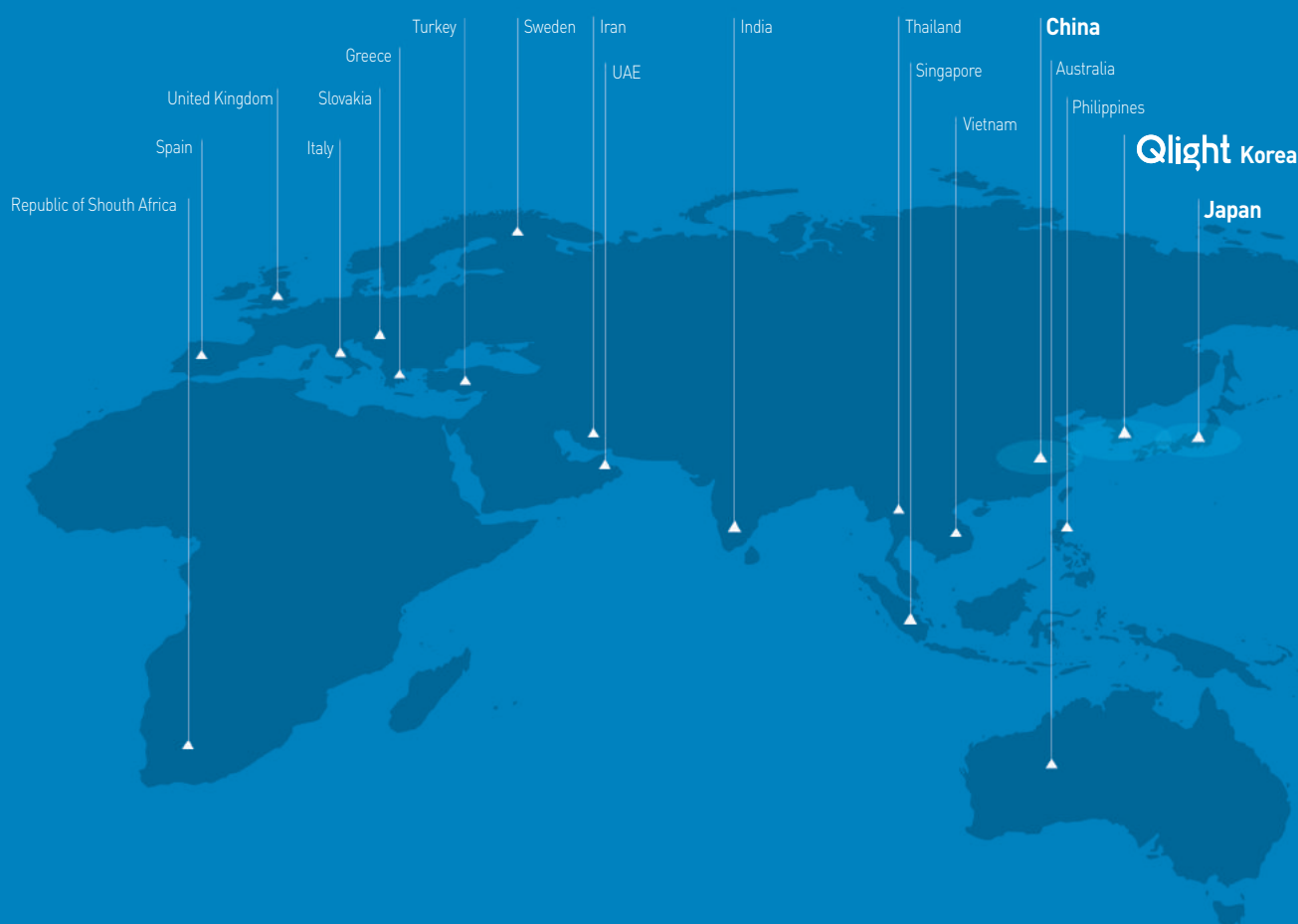|	
Timeline	· One year after the expired warranty date
Wear	· Warranty does not support Parts and options which are not from Qlight
Customer Faults	· Case where parts break as a result of customer negligence · When instructions are not followed · Parts that are modified by customer
Etc.	· Customer's inspection request without product failure (It will be charged even under warranty) * Installation and cautions are important to follow to avoid problems

Customer Service Process

Customer Service Request and Repair

• Please contact distributor's office or Qlight head office.
• Send us a customer service request note along with the defected product for smooth processing.

Contact Point   Tel : +82-55-328-4082 | e-mail : trade@qlight.com

GLOBAL SALES NETWORK

Thanks to Qlight's outstanding technology and excellent customer service,
our products have been served in more than 40 countries,
and the market share is continuously increasing throughout the world.

Turkey
Greece
United Kingdom
Slovakia
Spain
Italy
Republic of Shouth Africa

Sweden
Iran
UAE
India

Thailand
Singapore
Vietnam

China
Australia
Philippines

Qlight Korea

Japan

Qlight Sales Subsidiary / Local Branches

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USA (Local corporation)	QLight US Inc.	3003 North First Street, Suite #341, San Jose, CA 95134 USA	+1-408-519-5739	+1-408-519-5739	www.qlight.com www.qlightUSA.com
China (Local corporation)	SHANGHAI QLight Electronics. co., Ltd.	#19, Nanda Road, Baoshan Area, Shanghai	+86-21-6651-7100 +86-21-6651-7200 +86-21-6651-7106	+86-21-6315-3929	www.qlight.com www.qlightcn.com
Japan (Local office)	QLight Japan	1-327 Tsurugasawa, Midori-Ku, Nagoya 458-0814, Japan	+81-52-876-6163	+81-90-6592-5150	www.qlight.com www.qlightjp.com

REFERENCES

Qlight has robust partnership with prominent corporations all over the world thanks to our R&D center, cutting-edge CRM system, and stringent service policy.

USA

Mexico   Costa Rica

Canada   Peru

Colombia   Brazil

Qlight Clients

Heavy industry / Ship building / Automotive /
Steel / Machinery / Petrochemical /
Power plants / Electronics /
Semiconductor / Emergency Vehicles

SAMSUNG ELECTRONICS — DOOSAN Doosan Infracore — GS Caltex — POSCO

Hanwha — DSME — HYUNDAI — SK hynix

HYUNDAI WIA — HYUNDAI HEAVY INDUSTRIES CO.,LTD. — HYUNDAI STEEL — LG Electronics

BOEING — BROMMA — CAT — Danfoss

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