

Global Liquid Crystal Phase Retarder Supply, Demand and Key Producers, 2023-2029

<https://marketpublishers.com/r/GB2E17615439EN.html>

Date: July 2023

Pages: 109

Price: US\$ 4,480.00 (Single User License)

ID: GB2E17615439EN

Abstracts

The global Liquid Crystal Phase Retarder market size is expected to reach \$ million by 2029, rising at a market growth of % CAGR during the forecast period (2023-2029).

A liquid crystal phase retarder is a device that uses the optical properties of liquid crystal materials to control the phase retardation of light. Liquid crystal is a kind of liquid with orderly arrangement of molecules, and has electro-optic effect, that is, the propagation speed of light and the polarization state of light can be changed under the action of electric field. A liquid crystal phase retarder usually consists of a liquid crystal layer, a glass substrate, electrodes and a control circuit. The liquid crystal layer is sandwiched between two parallel glass substrates, each coated with electrodes. When an electric field is applied to the liquid crystal layer, the liquid crystal molecules rearrange, thereby changing the phase difference when light passes through the liquid crystal layer. By adjusting the electric field strength or voltage applied to the liquid crystal phase retarder, the phase retardation of light can be precisely controlled. The phase retarder can adjust the phase delay of the light in a continuously adjustable range as required. This makes liquid crystal phase retarders widely used in the fields of optical modulation, optical interference, polarization control, and optical imaging. The working principle of liquid crystal phase retarder is based on the orientation adjustment of liquid crystal molecules and the change of molecular arrangement under the action of electric field. By rationally designing the arrangement structure of liquid crystal molecules and the applied electric field, high-precision control of the phase delay of light can be achieved, thereby realizing phase modulation and control of light.

This report studies the global Liquid Crystal Phase Retarder production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Liquid Crystal Phase Retarder, and provides market size (US\$ million) and Year-over-Year (YoY) Growth, considering 2022 as the base year. This report explores demand trends and competition, as well as details the characteristics of Liquid Crystal Phase Retarder that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Liquid Crystal Phase Retarder total production and demand, 2018-2029, (Units)

Global Liquid Crystal Phase Retarder total production value, 2018-2029, (USD Million)

Global Liquid Crystal Phase Retarder production by region & country, production, value, CAGR, 2018-2029, (USD Million) & (Units)

Global Liquid Crystal Phase Retarder consumption by region & country, CAGR, 2018-2029 & (Units)

U.S. VS China: Liquid Crystal Phase Retarder domestic production, consumption, key domestic manufacturers and share

Global Liquid Crystal Phase Retarder production by manufacturer, production, price, value and market share 2018-2023, (USD Million) & (Units)

Global Liquid Crystal Phase Retarder production by Type, production, value, CAGR, 2018-2029, (USD Million) & (Units)

Global Liquid Crystal Phase Retarder production by Application production, value, CAGR, 2018-2029, (USD Million) & (Units).

This reports profiles key players in the global Liquid Crystal Phase Retarder market based on the following parameters – company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Merck KGaA, Samsung Electronics Co., Ltd., LG Display Co., Ltd., BOE Technology Group Co., Ltd., Tianma Microelectronics Co., Ltd., Japan Display Inc., Innolux Corporation, AU Optronics Corporation and Sharp Corporation, etc.

This report also provides key insights about market drivers, restraints, opportunities,

new product launches or approvals, COVID-19 and Russia-Ukraine War Influence.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Liquid Crystal Phase Retarder market.

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (Units) and average price (US\$/Unit) by manufacturer, by Type, and by Application. Data is given for the years 2018-2029 by year with 2022 as the base year, 2023 as the estimate year, and 2024-2029 as the forecast year.

Global Liquid Crystal Phase Retarder Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global Liquid Crystal Phase Retarder Market, Segmentation by Type

Single Channel Liquid Crystal Phase Retarder

Multi-channel Liquid Crystal Phase Retarder

Global Liquid Crystal Phase Retarder Market, Segmentation by Application

Optical Communication

Optical Imaging

Optical Interference

Optical Sensor

Optical Modulation

Others

Companies Profiled:

Merck KGaA

Samsung Electronics Co., Ltd.

LG Display Co., Ltd.

BOE Technology Group Co., Ltd.

Tianma Microelectronics Co., Ltd.

Japan Display Inc.

Innolux Corporation

AU Optronics Corporation

Sharp Corporation

HannStar Display Corporation

Truly International Holdings Ltd.

Chunghwa Picture Tubes, Ltd.

Nanjing CEC Panda LCD Technology Co., Ltd.

Shenzhen China Star Optoelectronics Technology Co., Ltd.

Key Questions Answered

1. How big is the global Liquid Crystal Phase Retarder market?
2. What is the demand of the global Liquid Crystal Phase Retarder market?
3. What is the year over year growth of the global Liquid Crystal Phase Retarder market?
4. What is the production and production value of the global Liquid Crystal Phase Retarder market?
5. Who are the key producers in the global Liquid Crystal Phase Retarder market?
6. What are the growth factors driving the market demand?

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