

# Single Programmable Power Supply Market Size to Hit USD 1,095.7 Mn by 2030 – Astute Analytica

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/EINPresswire.com/ -- The [global single programmable power supply market](#) was valued at US\$ 660.3 Million in 2021 and is estimated to reach US\$ 1,095.7 Million by 2030, registering a CAGR of 5.9% during the forecast period.

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Programmable power supply systems use a digital control system that uses an analog input or a digital interface to function. These single-channel supply systems are typically used to test portable electronics like radios, mobile phones, and wireless devices. They offer a wide range of voltage outputs of up to 1,500 W. As a result of advances in programmable power supplies, charging technologies have evolved, allowing applications to obtain precise and programmable levels of voltage, current, and repetition from power supply systems.

## Factors Leading to the Global Market Growth

### Market Driver

#### Development of the automotive electronics testing sector

The automotive sector makes extensive use of single-programmable power supplies because they provide testing options for electric drives, hybrid drive technology, and damping control. For businesses, faster testing rates mean shorter manufacturing times and higher profit margins. In the same way that the need for faster-charging technologies creates a demand for greater capacity batteries working at higher voltages, which drives the need for a single programmable power supply, improved profits led to more investment in advanced testing solutions.



Current trends in the market:

Increasing investment and product launches in the global markets

Mobility, communication, and other functions are all aided by proper power supply investment, which also makes other services more accessible and less expensive. Reduced energy consumption does not hinder economic growth; instead, it reallocates resources and promotes growth by diverting consumer spending to other sectors of the economy. As a result, businesses are spending money on research and development to create cutting-edge items for the market. In Aug 2021, the Intelligent Laboratory Series TM (iLSTM) of programmable DC power supplies will be introduced to the test and measurement market by Advanced Energy, a global pioneer in precise power conversion, highly designed, measurement, and control systems. The iLS600, iL600-R, and iLS1500 have an industry-leading small footprint and high power density, making them ideal for testing and measuring.

Factors restraining market growth

Restricted usage and changing regulatory efficiency standards

AC, DC, or both outputs can be provided by programmable power sources. One or three phases are used for AC outputs. While three-phase programmable power supplies find their applications in motors, power pumps, electric heaters, etc., single-phase outputs are frequently reserved for low-voltage uses exclusively. Different product restrictions, such as quick changes in these products' regulatory standards, abrupt changes in safety laws, and inefficient criteria, can seriously disrupt the market's supply chain. Trade restrictions, problems with intellectual property, and other market supply chain bottlenecks may be caused by several nations, including the European Union.

Overview of COVID-19 on the Global Market

Due to government-imposed lockdowns and other limitations during the COVID-19 epidemic, power usage in the industrial and commercial sectors dramatically decreased. As a result, during the pandemic, the demand for commercial and industrial energy fell, which had a significant impact on the single programmable power supply market's growth prospects.

Segmentation Overview

Product Type Analysis

In 2021, the DC programmable power supply segment accounted for the share of 61.2% and will continue to dominate between 2022-2030. The widespread use of DC programmable power supply and the need to educate upcoming engineers in fields like the production of ultra-low power are two reasons for their strong demand. For laboratories or other purposes, DC

programmable power sources come in a variety of power, voltage, and current outputs.

Additionally, the DC programmable power supply segment maintains a growth opportunity of US\$ 435.4 Mn over the analysis period. A large operating range with higher current ranges, constant power, etc., are features of several kinds of DC programmable power supplies. They also have the capacity to build complex DC transient waveforms to evaluate device behavior under different voltage conditions.

### Mount Analysis

In 2021, the rack mount segment revenue was US\$ 388.7 Mn, with a share of 58.9% of the global market. Programmable DC power is available in the entire rack width from rack-mount power supplies. Firms provide adjustable current limits and voltage up to 650 VDC with power up to 1500 W in 1U, full-rack form factor, making them the perfect choice for test systems that need a lot of power with a wide variety of voltage and current values. Industrial application for manufacturing or processing activities makes extensive use of rack-mounted power supply devices' adaptable voltage and current restrictions.

### Application Analysis

In 2021, the industrial production segment led the global market with a share of 24.7%, followed by the batteries segment with a minimum share of 1.9%. The segment's expansion is due to the increasing need for effective testing equipment across a variety of sectors. Between 2022 and 2030, the industrial production segment will have a revenue of US\$135.4 million. Additionally, automatic test equipment is a component of industrial production because it is frequently used in the production of automobiles, electronics, aircraft, and other products.

### Regional Summary

In 2021, the Asia Pacific region had the leading market share of 38.7%, and it is anticipated that it will hold this position throughout the forecast period. During 2022 -2030, the regional market will present a US\$ 194.2 Mn revenue opportunity. The need for DC programmable power supply is anticipated to increase as a result of the quick expansion of wireless infrastructure and the optimistic growth of the aerospace and defense sector in nations like China and India.

The second-largest telecommunications industry in the world, India, has grown significantly during the past ten years. In 2021, India overtake the US as the second-largest market for app downloads. As per the report released by the GSM application in partnership with Boston Consulting Group, the mobile economy of India is expanding quickly and will have a major impact on the GDP of the nation. Thus, the country is anticipated to see the maximum CAGR throughout the projection period.

Browse Detailed Summary of Research Report: <https://www.astuteanalytica.com/industry->

## Prominent Competitors

The well-known competitors in the global single programmable power supply market are:

Kepeco

AMETEK Programmable Power

Versatile Power

CHROMA ATE

Rigol Technologies

TEKTRONIX

B&K Precision

Keysight Technologies

ITECH Electronic

Magna-Power Electronics

Other Prominent players

## Segmentation Outline

The global single programmable power supply market segmentation focuses on Product Type, Mount, Application, and Region.

By Product Type

DC Programmable Power Supply

- o <100 kW

- o 100 kW-2000 kW

- o >2000 kW

Bi-Directional DC Programmable Power Supply

- o <10 kW

- o 10 kW- 100 kW

- o >100 kW

Programmable AC Sources

- o 1 kVA-50 kVA

- o 50 kVA-250 kVA

- o 250 kVA-1000 kVA

- o >1000 kVA

Programmable Grid Simulators 1 kVA~50 kVA

- o 1 kVA-50 kVA

- o 50 kVA-250 kVA

- o 250 kVA-1000 kVA

- o >1000 kVA

Regenerative DC Loads 1 kW~100 kW

By Mount

Rack

Chassis  
Bench  
Custom

#### By Application

Semiconductor Manufacturing  
Automotive Testing  
Electric Vehicles  
Renewable Energy Applications

- o Solar Inverters
- o PV Panels Manufacturing
- o Fuel Cell Manufacturing

Industrial Production  
Energy Management System Manufacturing  
Batteries  
Consumer Electronics  
Universities and Laboratories  
Medical  
Others

#### By Region

North America  
U.S.  
Canada  
Mexico

#### Europe

UK  
Germany  
France  
Italy  
Spain  
Poland  
Russia  
Rest of Europe

#### Asia Pacific

China  
India  
Japan  
Australia & New Zealand  
South Korea  
ASEAN

Rest of Asia Pacific

Middle East & Africa (MEA)

UAE

Saudi Arabia

South Africa

Rest of MEA

South America

Brazil

Argentina

Rest of South America

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