

# AI server PCB upstream



## Overview

PCB performance largely depends on upstream materials. High-frequency, high-speed copper-clad laminates from suppliers like Shengyi Technology, Rogers, and Panasonic form the foundation for premium AI server PCBs. It is often called the “Mother of Electronic Products.” It is a carrier where conductive circuits and connection holes are etched onto an insulating substrate, like a copper clad laminate. Its core functions go far beyond physical support: Electrical. Key PCB material suppliers announced price hikes of 10-30% for 2026, citing rising chemical and raw material costs. The supply crunch is causing production delays for AI. TrendForce data shows that the AI server market value will reach US\$298 billion in 2025, and shipments in 2026 will increase by 28. Within this hardware ecosystem, printed circuit boards (PCBs) play a critical role as the structural foundation for electronic components and the provider of electrical. Across the PCB sector, supply chain pressure is no longer cyclical background noise — it has become a structural reality that must be actively managed. Over recent months, upstream raw materials including glass yarns and fabrics, copper foils (particularly VLP 1-5, RTF, and heavy copper), low-loss. “AI servers have higher requirements on chip performance and transmission rate, and usually need to use high-end GPU graphics cards and higher PCIe standards, which will drive the value of AI server PCB to increase significantly.” Fangrong Technology Senior Engineer Zhou Di told the Financial.

## Article Content

Cmc | Ai Computing Boom Pushes Solder Mask Ink Into The Spotlight

Rising AI computing demand is accelerating growth across the PCB supply chain, including upstream materials. Leading PCB manufacturers such as Victory Giant Technology, Pengding Holdings, and

AI Server PCB Latest Industry Trends: Revenue, Price, Sales Analysis ...

Market Research Industry Today AI Server PCB Latest Industry Trends: Revenue, Price, Sales Analysis Report 2026 This report systematically analyzes the current status, future trends

AI servers are becoming increasingly integrated systems. GPUs,

SemiVision (semivision\_tw). 29 likes. AI servers are becoming increasingly integrated systems. GPUs, CPUs, NICs, switch ASICs, optical modules, power modules, liquid

Glass Fiber Cloth and Copper Foil Costs Continue to Rise 2026 Full ...

Glass Fiber Cloth and Copper Foil Costs Continue to Rise 2026 Full-Year CCL Price Hikes "Far From Over" As demand for high-end PCBs from AI servers and switches surges, the

PCB Prices Jump 30% as AI Server Boom Strains Global Supply

A global Printed Circuit Board (PCB) supply chain crisis is escalating due to soaring AI server demand and raw material shortages, leading to significant price increases from major suppliers.

Agentic AI Is Pulling CPUs Back Into the Spotlight, and ...

The PCB maker forecasts 1.8x its 2024 production load next year, signaling that server CPU demand is climbing even as PC orders slip.

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PCBONLINE Provides Turnkey AI Server PCBs (See

AI server PCB fabrication with HDI via-in-pad copper filling for GPU designs with 24+ layers. We provide one-stop AI server PCB manufacturing, including

PCBs: Powering AI Servers 2025

This article will delve into the technological evolution, market dynamics, and future trends of PCBs within the AI server market.

## AI Server PCB Revolution: High-Frequency Materials & Market

The AI-driven PCB upgrade starts with stricter demands on upstream core materials. According to Huajin Securities, the high-end copper foil, electronic cloth, and specialty resins needed

### PCB For AI Server Market's Decade-Long Growth Trends and Future ...

The booming AI server market fuels explosive growth in the demand for specialized PCBs. Discover key market trends, forecasts (2025-2033), leading manufacturers, and regional market

Don't just focus on memory! AI infrastructure is igniting a supercycle ...

Following the memory supercycle, PCBs and CCLs have also become the focus of market attention. A recent Goldman Sachs report points out that with the accelerated expansion of AI

AI server PCBs quadruple in three years: The truth about the supply ...

The AI server PCB market is experiencing explosive growth, with the market size increasing by more than 80% year-on-year in 2026. This paper provides an in-depth analysis of the technical thresholds

CCL price hikes to extend through 2026 with rising glass fiber and ...

Surging demand for high-end PCBs driven by AI servers and switches is intensifying supply imbalances for upstream materials. Industry sources said the rising cost of copper-clad

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### AI Computing Surge Reshapes PCB Material Landscape

As AI servers evolve toward B300 and GB300 platforms, the PCB supply chain is benefiting from both higher value-added requirements and incremental demand growth.

AI servers spawn strong demands for PCB

AI servers have higher requirements on chip performance and transmission rate, and usually need to use high-end GPU graphics cards and

### Global AI Server PCB Market Research Report 2025 (Status and

Global AI Server PCB Market: Market Segmentation Analysis The research report includes specific segments by region (country), manufacturers, Type, and Application.

## AI Demand Is Reshaping PCB Supply Chains: Allocation Pressures

Across the PCB sector, supply chain pressure is no longer cyclical background noise — it has become a structural reality that must be actively managed. Over recent months, upstream raw

## The Invisible Foundation of AI Computing: Unveiling the "High-Speed ...

This article reveals how AI server PCBs are the crucial, unsung heroes of AI computing. It details the unique demands and advanced manufacturing processes, such as low-loss materials,

## Taiwan stock market ends 2025 at record closing high

Analysts said that the strong performance of these stocks was primarily driven by AI server demand. Upgrades in server specifications, increased need for upstream PCB materials and

## 2025 Overview of China's PCB Industry:

>A technological revolution driven by AI and green manufacturing is reshaping the global electronics industry chain. In the wave of global AI

## AI chip demand tightens ABF substrate supply, three-year upcycle in ...

Jukan (@jukan05). 193 likes. AI chip demand tightens ABF substrate supply, three-year upcycle in sight As AI CPUs, GPUs, and application-specific integrated circuits (ASICs) advance to

## Data Centers Account for 49.5% of PCB in AI Server Application

This report profiles key players of PCB in AI Server such as Delton Technology, Tripod Technology, Gold Circuit Electronics. In 2023, the global top five PCB in AI Server players account for 48.2% of

## NVIDIA GB200 Supply Chain: The Global Ecosystem

NVIDIA's detailed briefings to investors mention dozens of upstream issues being tracked (from quick-disconnect leakage to PCB trace design) (). This level of

## PCBs: Powering AI Servers 2025

The AI server PCB market exhibits high concentration and technology-driven characteristics, with global and regional manufacturers

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