

Gem Chain Specs

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Introduction

Gem Chain is a high-performance, decentralized blockchain designed to provide fast, secure, and cost-effective transactions. Utilizing Delegated Proof of Stake (DPoS) consensus, Gem Chain ensures rapid block finality within 5 seconds, supporting a wide range of transactions including simple transfers, swaps, and limit order creations. The network's staking and fee coin, \$GEM, plays a central role in its ecosystem, incentivizing validators and facilitating seamless transactions.

In addition to its core functionalities, Gem Chain offers sophisticated trading capabilities with support for marginal trading and perpetual futures. The blockchain's unique timestamping mechanism mitigates Miner Extractable Value (MEV) exploitation, ensuring a fair and transparent order execution process. Gem Chain is committed to providing a user-friendly experience, offering features like fee grants and simplified top-up processes to enhance accessibility and usability.

Features

- **Framework:** Cosmos SDK
- **Consensus Type:** Delegated Proof of Stake (DPoS)
- **Staking and Fee Coin:** \$GEM
- **Address Format:** bech32 with "g" prefix
- **Block Time:** 5 seconds with instant finality
- **Cross Chain Transfers:** Supported Assets: any TON blockchain jettons, Ethereum ERC-20 tokens and Solana Assets
- **Transaction Throughput:**
 - Simple Transactions (e.g., Send): 100-200 per second
 - Swaps: Up to 100 per second
 - Limit Order Creation: Up to 1000 per second
- **Price per Send/Swap:** A few US cents
- **Limit Order Creation Price:** Zero
- **Limit Order Cancellation Price:** A few cents
- **Gem Chain v2:**
 - Marginal Trading (up to 50x)
 - Perpetual Futures
- **MEV prevention:** Validators timestamp orders to prevent MEV exploitation, maintaining an unchangeable order of transactions.
- **Fee Grants** Allows one account to delegate transaction fee payments to another account.
- **Personalized Deposit Addresses:** Each user is assigned a unique deposit address, making it easy to add funds to their account. This eliminates the need for users to generate a new address for each transaction, simplifying the process of managing their assets.