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(57) Abstract :
The invention discloses a quantum-inspired algorithm for high-speed data encryption methods, comprising Input Data Module (101), Entropic Key Generator (102), State Vector Transformation Unit (103), Probabilistic Transition Matrix Processor (104), Ciphertext Output Module (105), and Communication Interface (106). Leveraging entropic randomness, probabilistic transitions, and vector transformations, the invention ensures secure, unpredictable, and efficient encryption. Optimized for multi-core CPUs, GPUs, and IoT systems, it provides superior speed, scalability, and resilience against classical and quantum attacks, offering future-proof solutions for protecting sensitive information across diverse digital infrastructures.

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