

Ocelot Chip

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Ocelot Chip Latest News

Recently, Amazon unveiled a prototype of its first-ever in-house quantum computing chip called Ocelot.

About Ocelot Chip

- It is a **new quantum computing chip** with a **nine-qubit chip** that has been internally **fabricated by Amazon**.
- It is developed by the team at the **Amazon Web Services** Center for Quantum Computing at the California Institute of Technology.
- AWS used a novel design for Ocelot's architecture, building error correction in from the ground up and using the '**cat qubit**'. Cat qubits-named after the famous **Schrödinger's cat**.
- It intrinsically **suppresses certain forms of errors**, reducing the resources required for quantum error correction.
- It has been designed to help Amazon **build highly efficient hardware systems**.

Components of Ocelot Chip

- The Ocelot chip consists of two integrated silicon microchips with an area of roughly one square centimeter each, bonded one on top of one another in an electrically-connected chip stack.
- It has 14 core components: five data qubits (the cat qubits), five 'buffer circuits' for stabilizing the data qubits, and four additional qubits for detecting errors on the data qubits.
- The cat qubits store the quantum states used for computation, for which it relies on components called oscillators, which generate a repetitive electrical signal along with steady timing.

Ocelot Chip FAQs

Q1. Why is Schrödinger's cat so famous?

Ans. Schrödinger's Cat is a famous thought experiment that demonstrates the idea in quantum physics that tiny particles can be in two states at once until they're observed.

Q2. What is qubit in quantum computing?

Ans. A qubit (or quantum bit) is the quantum mechanical analogue of a classical bit.

Q3. Where do you find ocelot Cats?

Ans. Ocelots require dense cover that is found in a variety of habitats, including thorn scrub, coastal marshes, mangrove, and tropical forests.

Source: [IE](#)

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