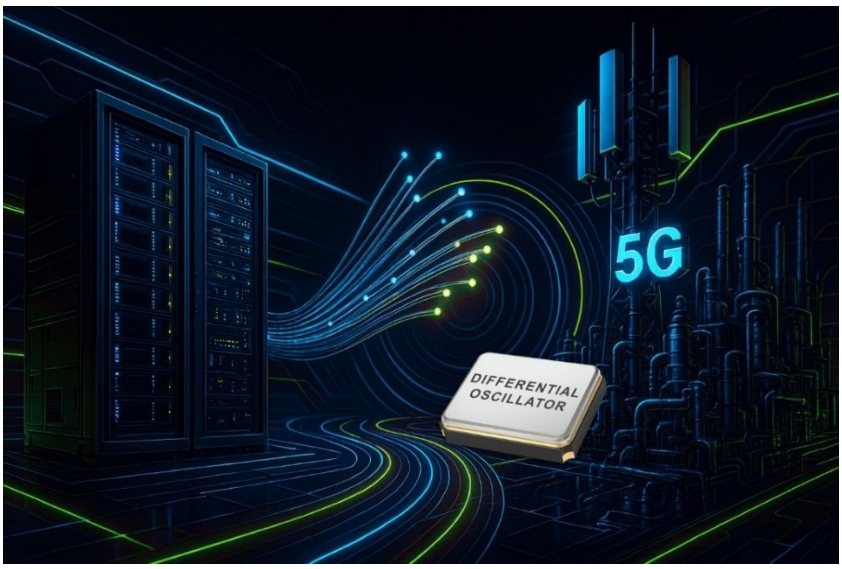
Differential Oscillators for High-Speed Communication and Optical Networks



Optical networks transmit data as light pulses over fiber optics and form the backbone of modern high-speed communication.

In optical transceivers, signals are converted between the electrical and optical domains - making precise, low jitter clock signals essential.

The differential Oscillators of the JOx Series from Jauch (JOx32 to JOx21) provide a stable, noise resistant clock reference, ensuring reliable data transmission at high data rates.

3 Key Technical Features

- Differential output (HCSL, LVDS, or (LV)PECL) for robust, interference resistant signal transmission
- Ultra low phase jitter (down to < 60 fs) for precise clocking
- Wide frequency range beyond 300 MHz to support modern data rates

3 Typical Areas of Applications

- Optical modules / transceivers in fiber optic networks
- Network switches, routers, and data centers
- Ethernet, 5G infrastructure, and high speed communication

3 Special Features

- High signal integrity through differential signaling, minimizing interference in high speed optical links
- Multiple package sizes (from 2.0 × 1.6 mm to 7.0 × 5.0 mm) for flexible integration into compact optical modules
- High frequency stability (up to ±25 ppm) across a wide temperature range

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