

INVENTION TITLE:

SYSTEM AND METHOD FOR RECOVERING OVERLAPPED OPTICAL SPECTRA

Principal Inventor:

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What is the problem the technology solves?

This invention is used for recovering individual multiplexed optical spectra that are overlapping in wavelength space.

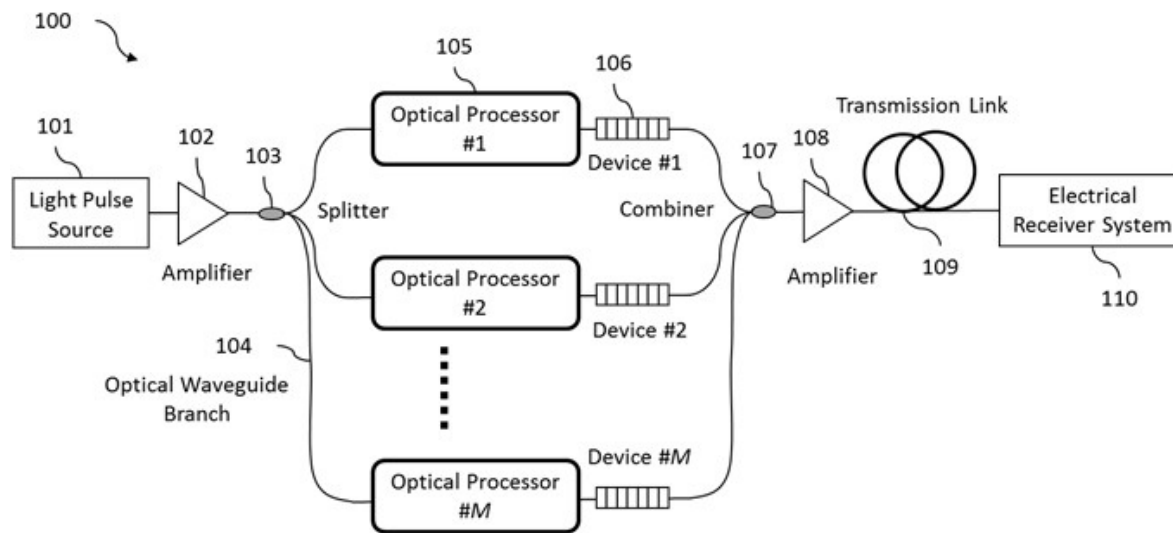
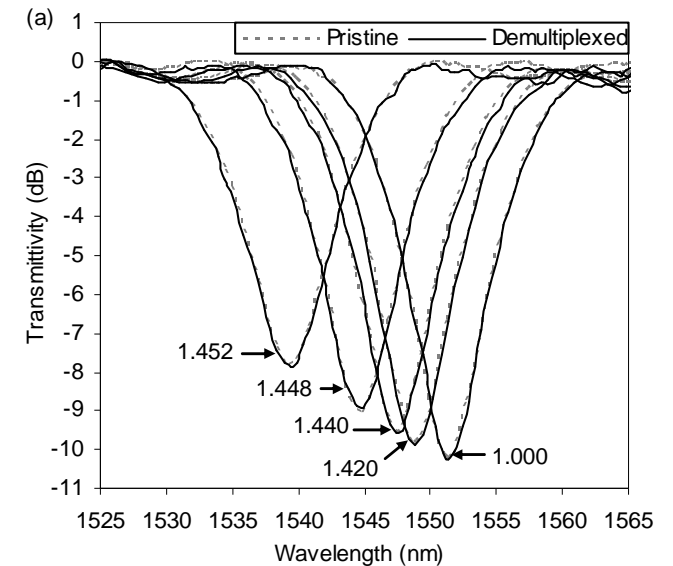


FIGURE 1



Why is the solution better than the competitors?

Economies of Scale



The invention allows exact reconstruction of whole overlapped optical spectra, e.g. identical devices.

The invention also significantly reduces the cost of optical network through the use of passive optical devices, sharing of light source, use of low frequency equipment, and no complicated temporal synchronization components.

Moreover, the invention offers fast results due to simultaneous spectra reconstruction process.



Who would use it?



How big is the market?



Global Industry Analysts, Inc.

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Market Forces

Drivers

- Emergence of Wireless Sensing Technologies ↑
- Rising Significance of Biophotonic Sensors ↑
- Demand for Photonic Sensors in the Military & Homeland Security Sector ↑
- Expanding Applications in Biomedical and Oil & Gas Sectors ↑
- Growing Investments in Advanced & Disruptive Technologies ↑

Inhibitors

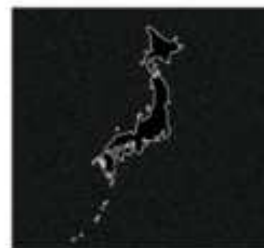
- High Initial Costs ↓
- Inadequate Resource Pool ↓
- Lack of Appropriate Industrial/Regulatory Standards ↓

Global Market Outlook

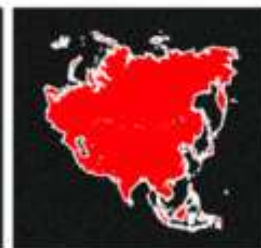


Market projected to reach US\$17.4 billion by 2020
The United States: The Largest Market

Top Three High Growth Regions



Japan



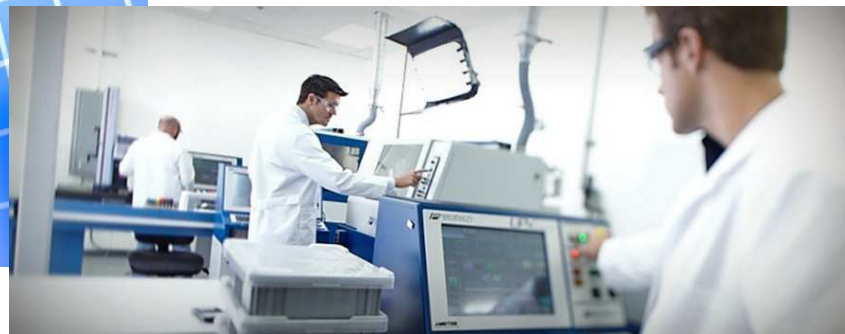
Asia-Pacific
(CAGR to top 22.4% through 2020)



Europe

Technology status/readiness?

The invention is ready to be manufactured and marketed via patent and know-how licensing or outright sale.



Next steps?

Miniaturizing and bandwidth enhancement.

Licensee to develop into commercial products.

