

# Business Briefing

Communications Solutions Business

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# Agenda

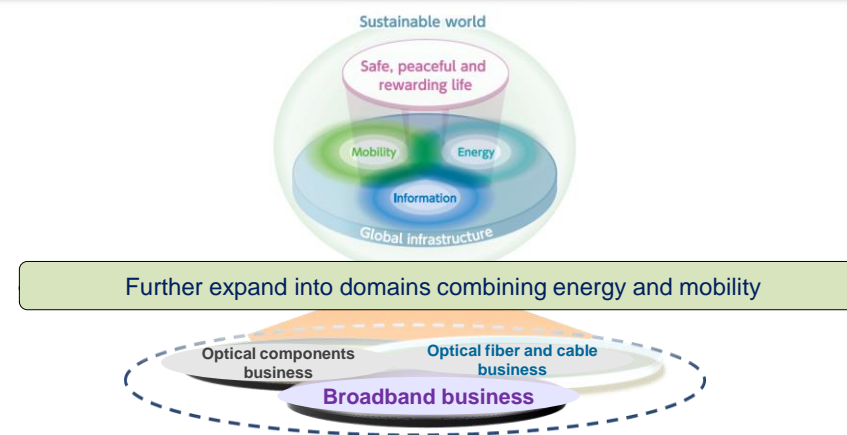
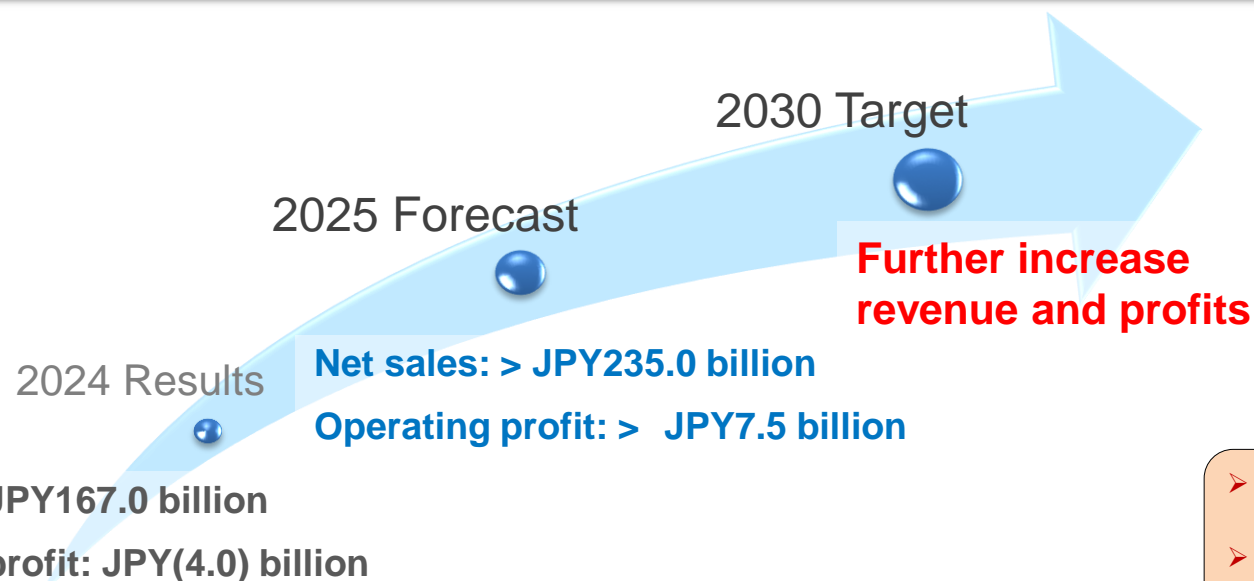
- **Overview**
- **Optical Solutions (Optical Fiber & Cable)**
- **FITEL Products**
- **Broadband Solutions**

# Communications Solutions segment targets

**Become a business that “supports and leads” the evolution of data transmission and realization of a sustainable society**

Directed at “creating global infrastructure combining information, energy and mobility” set forth in Vision 2030,

- In the telecommunications domain, secure a key position in the supply chain toward the era of IOWN and B5G, and provide around the world high value-added product lineups and solutions based on the keyword of “energy saving”
- In the non-telecommunications domains, provide high value-added product lineups and services that contribute to the generation, transmission and detection of information and energy that will lead to “increased safety and quality of life”



- Expand the solutions and grow the existing businesses of each division (company)
- Search for domains that combine the strengths of several business divisions, and expand the presence in the non-telecommunications domain

# Toward 2030 – Realization of a B5G society

Based on photonics technology, contribute to the realization of B5G and IOWN next-generation networks



AI



IOT / Remote work



Autonomous driving



Remote medical care

## Data centers

Solutions in DC

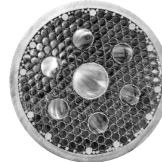
Solutions for connecting DC



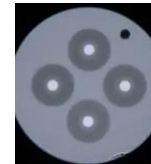
External light source for CPO



Connector for CPO



HCF\*1



MCF\*2



CDM\*3



Transceiver



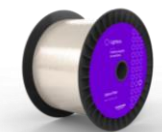
DFB chip



MT ferrule



Preterminated cable assembly



High performance fiber



Ultra-high count RR cable



LN\*4 modulator



Multi-service router

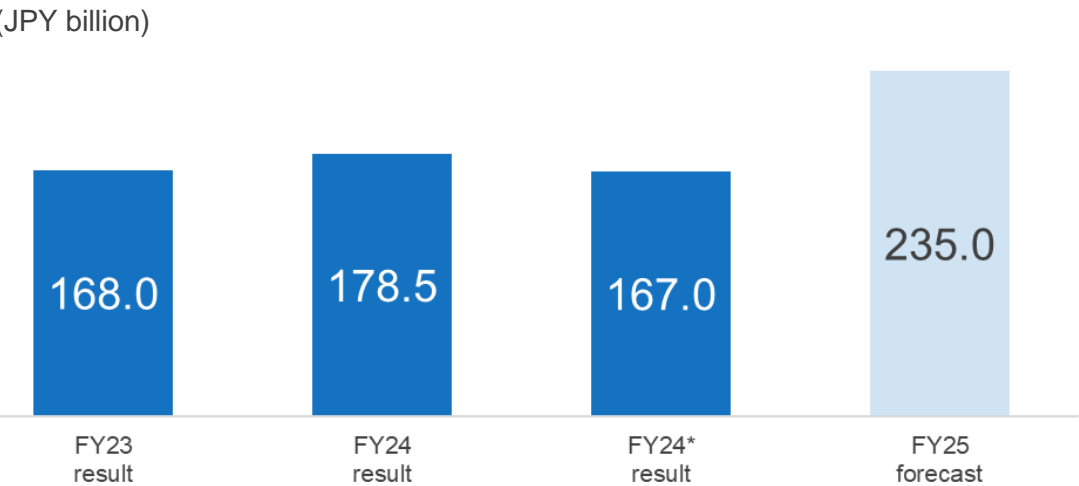


PON

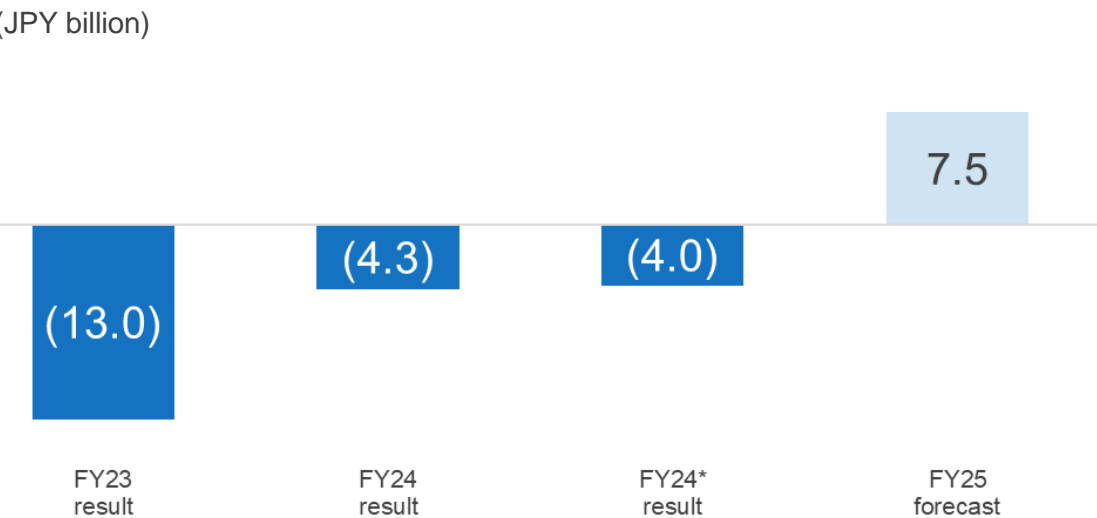
\* 1 HCF: Hollow-core Fiber, \* 2 MCF: Multicore Fiber, \* 3 CDM: Coherent Driver Modulator, \* 4 LN: LiNbO3 (Lithium niobate)

# Net sales and operating profit trends

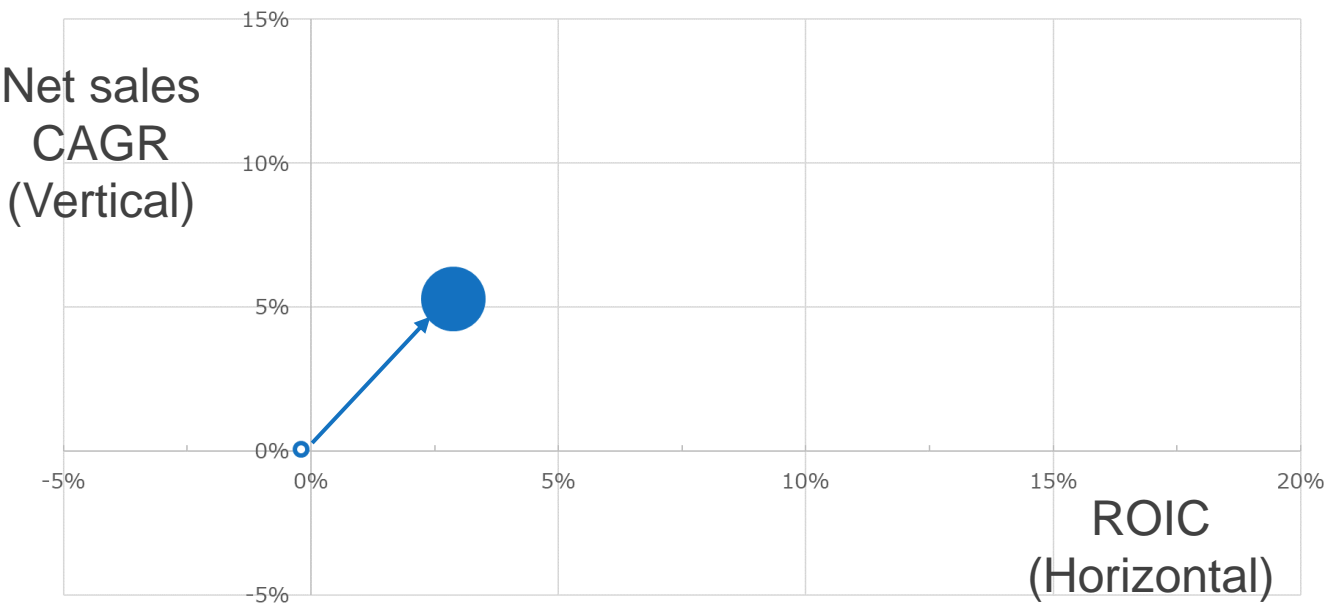
## Net sales



## Operating profit



## ROIC (FY21 result → FY25 forecast)



Vertical ↑ : Net sales CAGR (FY17-FY21 → FY21-FY25)  
 Horizontal → : ROIC (FY21 → FY25)  
 Bubble○ : NOPAT (FY21 → FY25)  
 ※Negative value for the white balance of the bubble

※ CAGR: Compound annual growth rate, ROIC: Return on invested capital (after taxes)  
 NOPAT: Calculated as net income + interest expenses after taxes in accordance with IFRS

- \* Changes to segments and sub-segments, as well as partial changes to head office expenses allocated from FY25. As a result, actual results for FY24 were restated
- Industrial laser business will be transferred from the Infrastructure segment (Communications Solutions) to the Service & Developments, etc. segment
  - Metal power cable business will be transferred within the Infrastructure segment (from Communications Solutions to Energy Infrastructure)

# Looking back on FY24

## Segment

## Looking back

### Optical solutions

- ✓ Slow sales to the telecom market mainly in the Americas
- ✓ In the active AI / data center market, made progress in steadily capturing hyperscaler and dark fiber provider demand
- ✓ Executed the various measures for growth
  - Integrated 3 business units (launched Lightera Holding G.K.), increased production of data center products (including acquisition of Hakusan Inc.), etc.

### FITEL products

- ✓ Delayed recovery in the telecom market
- ✓ In the active AI / data center market, made progress in steadily capturing hyperscaler demand
- ✓ Enhanced the value chain (acquired Furukawa FITEL Optical Components Co., Ltd., etc.)

### Broadband solutions

- ✓ Japan CATV business was firm

## Recognition of the business environment and envisioned risks

- ✓ AI / data center and enterprise market
  - Strong growth will continue
- ✓ North America
  - Telecom market will start to recover
    - Dark fiber demand will provide a boost
    - Outlook for BEAD\*<sup>1</sup> demand is unclear
- ✓ LATAM and Europe telecom market
  - Difficult price competition will continue
- ✓ China
  - AI / data center market will grow, and telecom market will start to recover
- ✓ Japan
  - CATV market will remain firm

Risks: Impact of US tariffs and trade friction between the US and China

## Priority initiatives

### Optical solutions

- ✓ Capture as much data center demand as possible
  - Increase production capacity for the main products
  - Enhance the solutions portfolio
  - Expand the customer base (MTDC\*<sup>2</sup>)
- ✓ Establish a system for increasing North America cable sales
- ✓ Expand solution sales
  - Strengthen the sales channels and the sales/engineering functions

### FITEL products

- ✓ Capture as much data center demand as possible
  - Increase production capacity for the main products
  - Enhance the solutions portfolio
- ✓ Expand the lineup in partnership with Furukawa FITEL Optical Components Co., Ltd.
- ✓ Develop products for CPO

### Broadband solutions

- ✓ Capture as much Japan CATV demand as possible
- ✓ Promote co-creation with other companies

\* 1 Broadband Equity Access and Deployment Program

\* 2 MTDC: Multi Tenant Data Center

## **Optical Solutions (Optical Fiber & Cable)**

# Reorganization of the Optical Fiber & Cable Products business

April 2025 launch “Lightera”, new corporate structure has been initiated

To enhance operational efficiency, expand business scale, and strengthen market presence, we have integrated Optical Fiber & Cable Products division (Japan and Asia), OFS (North America and Europe) and FEL (LATAM)



North America  
and Europe

OFS

LATAM

FEL



Japan and Asia

Optical Fiber &  
Cable Products  
division

## Objective of the new structure

Matrix organization comprising four regional businesses (APAC, NAR, LATAM, EMEA, Africa, specialty fiber business) and cross-functional headquarters

Strategic alignment  
Enhancing global business management  
Maximizing synergies  
Focus and concentration

Global business expansion  
and acceleration of  
innovation

## Provide high value-added solutions in 4 market segments

### ● Communications networks

- Telecommunications companies (Land line & mobile)
- Internet service providers
- Dark fiber providers



BROADBAND NETWORK

### ● DC / Enterprise

- HSDC\*1, MTDC\*2
- Enterprise
- Submarine cable



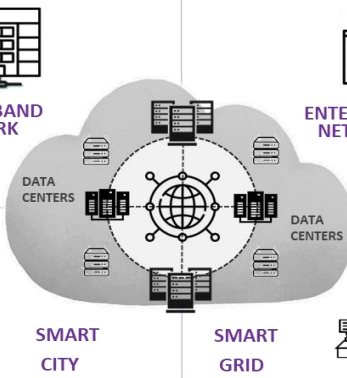
ENTERPRISE NETWORK

### ● Specialty fiber

- Medical
- Aerospace/ defense
- Industrial networks
- Sensing



SMART CITY



SMART GRID

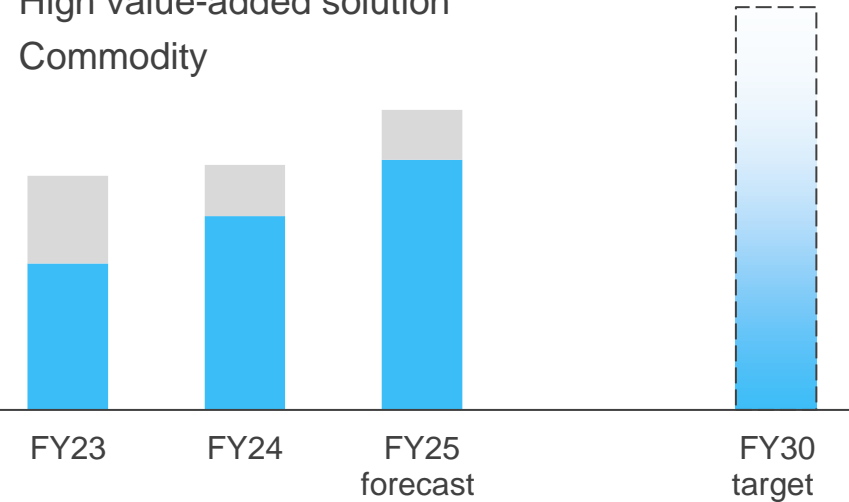
### ● Public infrastructure, etc.

- Utilities (Electric power, railroads, roads, etc.)
- Smart cities
- Government projects



## Changes in net sales

- High value-added solution
- Commodity



## Increase profits in the data center market

## Increase profits in the North America market

KSF

Strengthen the solutions business

Strengthen cost competitiveness

## Priority initiatives

- Capture as much data center and dark fiber demand as possible
- Develop new market channels
- Expand ultra-high count and high density solutions, and increase production capacity
- Introduce new products and new solutions

\* 1 HSDC: Hyper Scale Data Center, : \* 2 MTDC: Multi Tenant Data Center

# Business strategy – Solutions for data centers

- Leverage high density and low latency technology to establish superiority in the HSDC market
- Build a system for increasing global sales for MTDC and enterprise solutions

## Data center requirements

- High density assemblies
- Stable, swift supply system
- Enhanced installation training and service



## Furukawa Electric's superiority

- Ultra-high count rollable ribbon (RR) cable
- Low loss MT ferrules & MPO <sup>\*1</sup>
- Ultra-low loss fiber, MCF <sup>\*2</sup>, HCF <sup>\*3</sup>
- Global production and service network

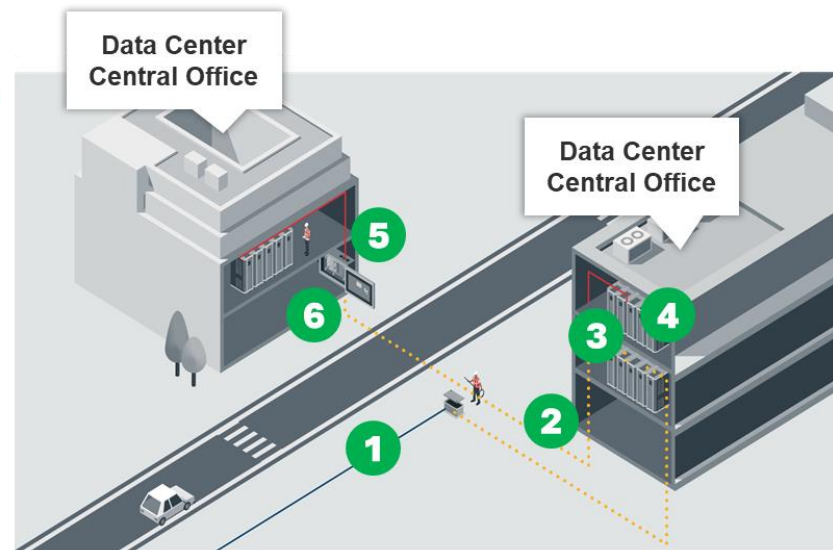
\* 1 Multi-fiber Push On   \* 2 Multicore Fiber   \* 3 Hollow-core Fiber

## Main products and solutions

Entry Splice Point **5**



Splicer for Mass Fusion Splice **6**



HFC Rollable Ribbon Cables **1**



UHFC Rollable Ribbon Cables **2**



Optical Distribution Frames **4**



Rollable Ribbon Preterminated Assemblies **3**

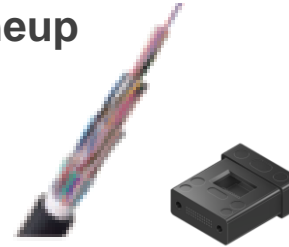


## Priority initiatives

### HSDC

Hyper Scale  
Data Center

- Increase production of the main product lineup (compared to FY23)
  - RR cable (FY25 2 times)
  - MT ferrules (FY25 5 times)
- Expand the connection solutions
  - Ultra-high count preterminated cable (Start sales in FY25 H2)
- Develop and mass produce next-generation solutions



### MTDC

Multi Tenant  
Data Center

- Expand the business in each region based on the global customer base
- Build a comprehensive solution portfolio



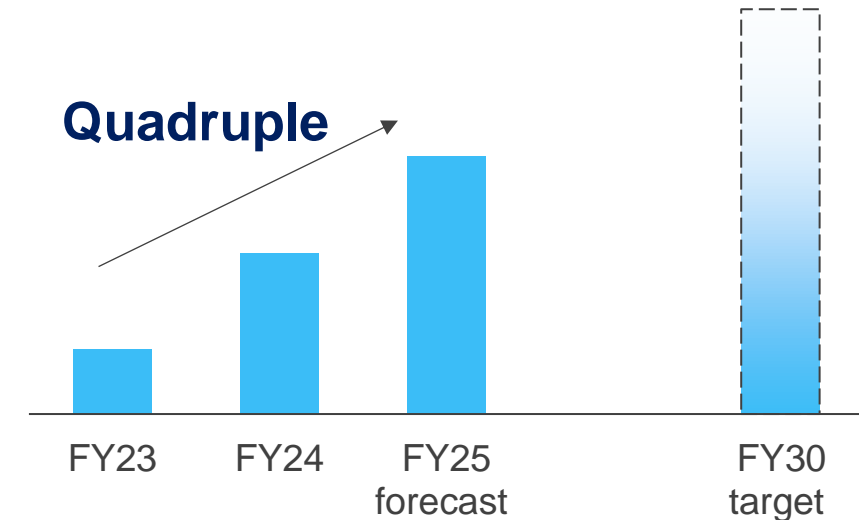
### Enterprise

- Promote global co-creation with Nokia
  - Global rollout of PON-LAN solutions



## Changes in net sales to the data center market

Quadruple



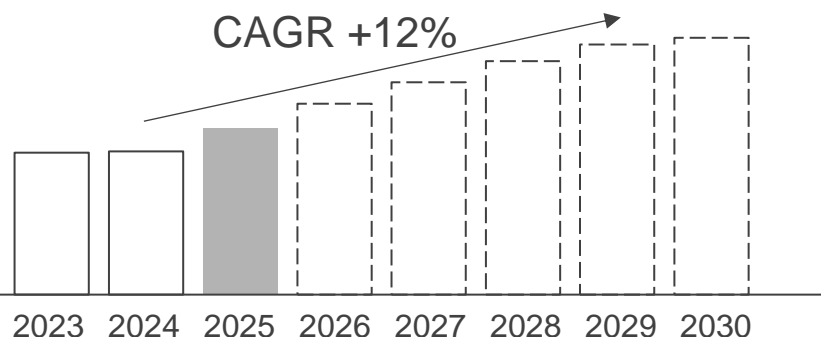
# Status of the North America business

- Market growth will continue, driven by data center and AI demand
- Increase cable production capacity and respond to higher core counts

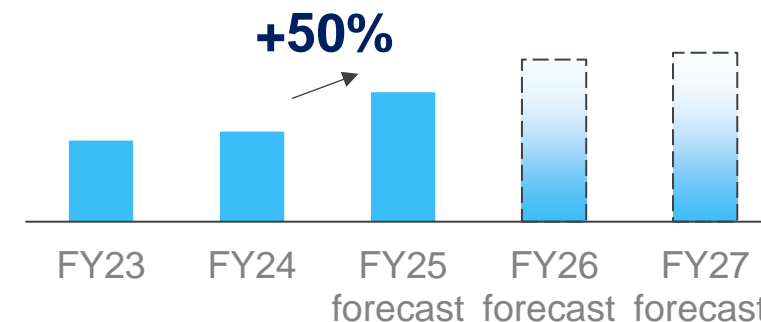
## Market outlook

- Forecast 5-year average growth rate of +12%
- Active dark fiber market due to AI / data center demand
- Further delays in the allocation of BEAD funding
- Focus on the impact of tariffs on investments

North America  
optical cable demand forecast



Changes in North America cable net sales



## Priority initiatives

### Sales

- In partnership with the major internet service providers (ISP), definitely capture dark fiber demand

### Manufacturing

- Increase production capacity (FY25 net sales +50% from FY24)
- Expand RR cable products (component ratio >50%)

### Other

- Respond to tariffs  
(Adjust sales prices, optimize the supply chain, etc.)

# Future initiatives (next-generation products and next-generation solutions)

Leveraging ultra-high density, narrow diameter technology and low latency technology, realize larger data volume transmission

## Ultra-high count rollable ribbon cable

Respond to further increased transmission volumes

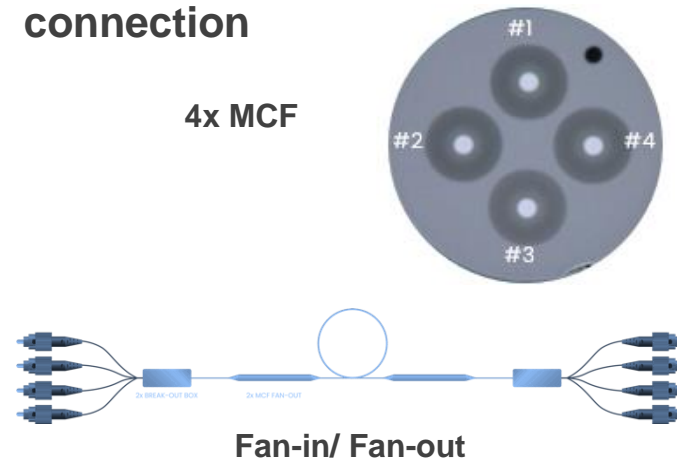
Ultra-high count cable  
(>10,000 cores)



## Multi-Core Fiber Solution (MCF)

Transmits 4 times more data compared to normal fiber

Provide solutions that include connection

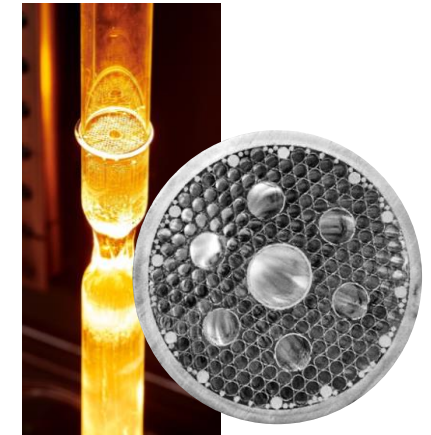


Fusion splicer  
S185 series



## Hollow Core Fiber (HCF)

Increase distance between DC buildings by 50%

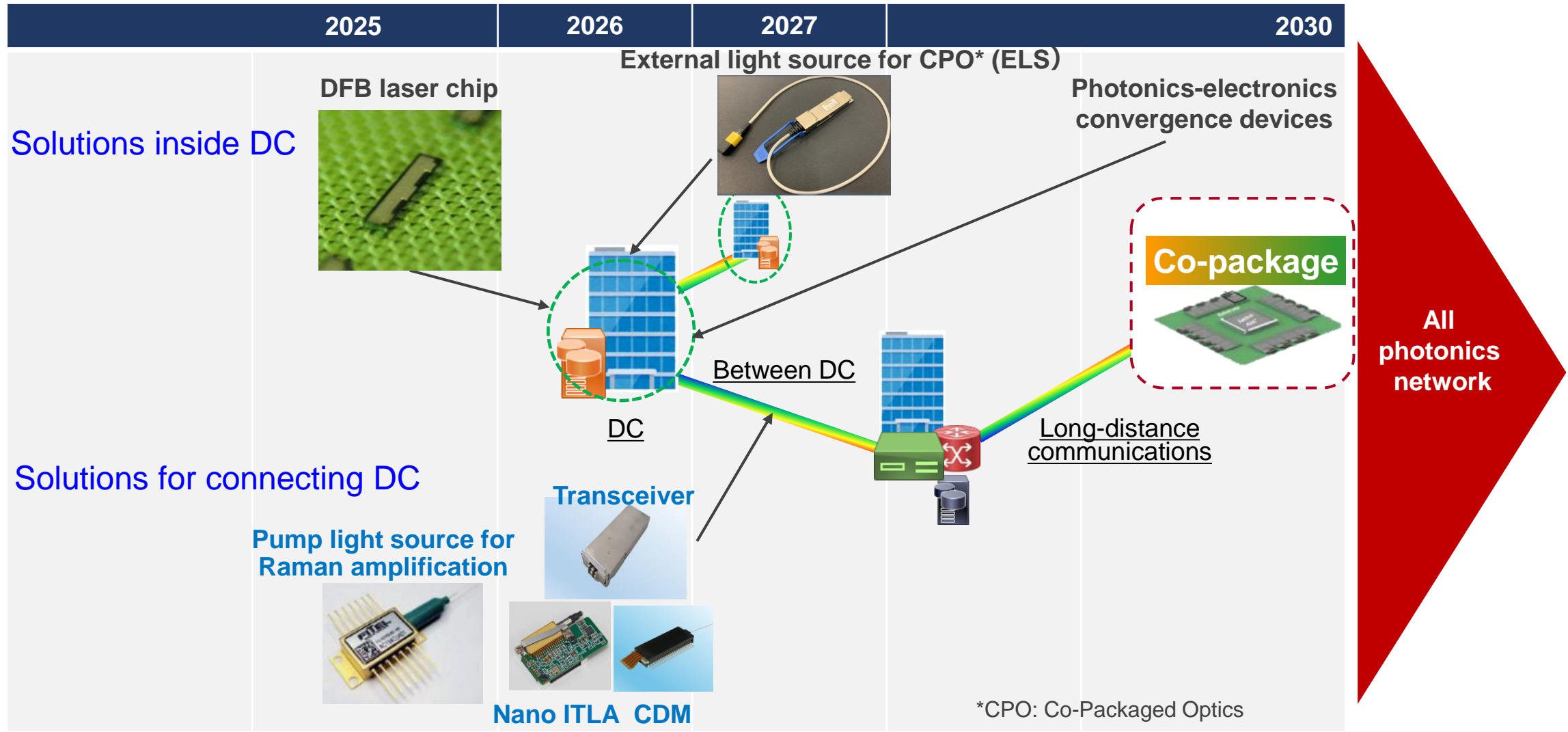


# FITEL Products

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# Direction of the FTEL products business

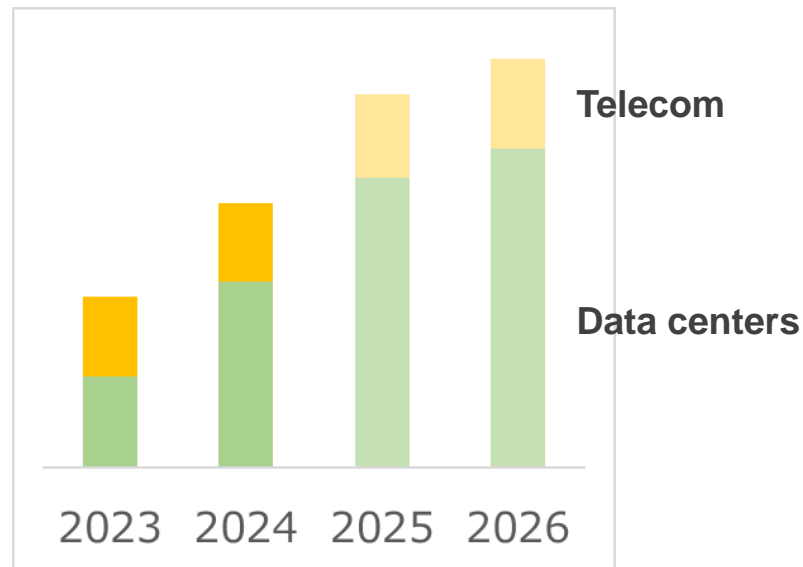
- Leverage high output, low power consumption technology to establish superiority in the AI / data center market
- Enhance the lineup of products for short distance communications within DC and for coherent communications between DC



# Progress of the priority initiatives

- **Definitely capture the demand in the strong data center market**
- **Increase production and sales of DFB laser chips for data centers**

- AI / data center demand will continue to be strong
- Increased demand between data centers
- Telecom demand has been gradually recovering from FY24 H2



Optical component market forecast

Source: SignalAI

## Solutions inside DC

### DFB laser chip

- Increase manufacturing capacity in response to growing demand for 400G/800G  
(Increase by 5 times in FY25 H2 compared to FY23)
- Develop products and increase sales for 800G/1.6T
- Continue the activities to reduce costs, including by improving productivity

## Solutions for connecting DC

### Nano-ITLA

- Develop and mass produce products for 800G/1.6T
- Continue the activities to reduce costs, including by improving productivity

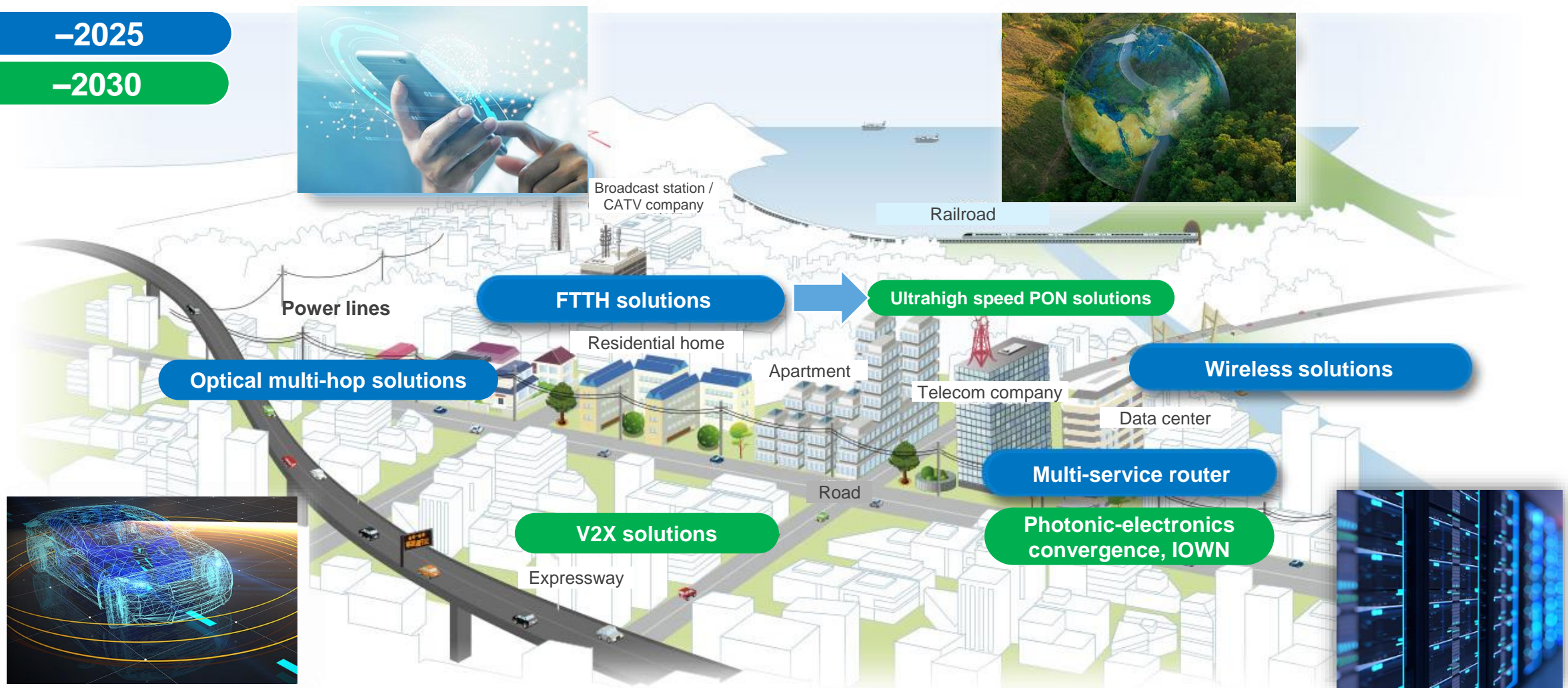
# Broadband Solutions

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## Rollout solutions that will transform lifestyles

–2025

–2030



No. 1 global share in the PON market



- Leader in next-generation telecommunications standards based on **advanced product and software capabilities**

Comprehensive optical communications solutions



- Through wide-ranging optical products and technological capabilities, **providing one-stop solutions**



Accelerate the building of next-generation optical access networks

# Thank you

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FURUKAWA ELECTRIC GROUP PURPOSE

**Composing the core  
of a brighter world.**

# Appendix

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- Business overview
- Product overview

## [2025 Mid-term Plan (Road To Vision 2030 –Transform and Challenge–) Basic policy]

Contribute to “creating global infrastructure combining information, energy and mobility” set forth in Vision 2030 by evolving the elemental telecommunications technology accumulated over the years and providing further solutions.

### [Business environment, strengths and issues]

Business environment Main revenue opportunities	Strengths as a division
<ul style="list-style-type: none"> <li>Increased data traffic worldwide (high speed, large volume, low latency, energy saving)</li> <li>Expansion of data centers, widespread use of AI technology, B5G, cloud services, advances in IoT</li> </ul>	<ul style="list-style-type: none"> <li>Global production network in growing markets</li> <li>Differentiation through high performance products and technology (optical fiber &amp; cable, digital coherent and IP network technology)</li> </ul>
Business environment Main menaces and risks	Issues as a division
<ul style="list-style-type: none"> <li>Impact of US tariffs</li> <li>Trade friction between the US and China</li> <li>Supply chain problems</li> <li>Soaring personnel expenses, energy costs and raw material expenses due to inflation</li> </ul>	<ul style="list-style-type: none"> <li>While taking into consideration the business environment on the left, maximally utilize the global production network to provide optimum solutions to the market</li> </ul>

### [Priority initiatives for achieving the 2025 Mid-term Plan]

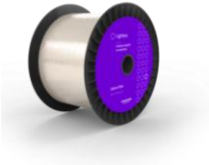


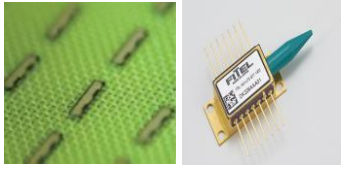


- Telecommunications domain: Secure a key position in the supply chain and provide high value-added product solutions that contribute to “energy saving” in data transmission
- Non-telecommunications domain: Provide high value-added product lineups and services for contributing to the generation, transmission and detection of data and energy that will lead to “increased safety and quality of life”

Optical solutions: Capture as much data center demand as possible, build a system for increasing North America cable sales and expand solution sales

FITEL products: Capture as much data center demand as possible, expand the lineup in partnership with FFOC and develop products for CPO

Broadband solution: Capture as much CATV demand in Japan as possible, and promote co-creation with other companies

# Appendix – Product overview

	Optical solutions			FITEL products		Broadband solutions
						
5G/B5G	●	●	●	●	●	●
Tougher infrastructure	●	●	●	●	●	●
Carbon neutral	●	●	●	●	●	
Main products	<ul style="list-style-type: none"> <li>● Low loss fiber</li> <li>● Low bending loss fiber</li> <li>● Low latency fiber</li> <li>● Submarine fiber</li> <li>● Specialty fiber</li> </ul>	<ul style="list-style-type: none"> <li>● Optical cable (including rollable ribbon cable)</li> <li>● LAN cable</li> </ul>	<ul style="list-style-type: none"> <li>● Optical connection products (including MT ferrules)</li> <li>● Fusion splicer</li> </ul>	<ul style="list-style-type: none"> <li>● DFB</li> <li>● Variable wavelength laser module</li> <li>● Laser excitation module</li> </ul>	<ul style="list-style-type: none"> <li>● Optical transmission device</li> <li>● Optical transceiver module</li> </ul>	<ul style="list-style-type: none"> <li>● FTTH systems</li> <li>● Wireless systems</li> <li>● Network router</li> </ul>
Main applications	<ul style="list-style-type: none"> <li>● Broadband networks</li> <li>● Enterprise networks</li> <li>● Dark fiber networks</li> <li>● Data centers/Connections between data centers</li> <li>● Submarine networks</li> </ul>		<ul style="list-style-type: none"> <li>● Smart grids</li> <li>● Smart cities</li> <li>● Surveillance and sensing</li> </ul>	<ul style="list-style-type: none"> <li>● Large capacity communications for data centers</li> <li>● Digital coherent signal light source</li> <li>● Excitation light source for optical signal amplification</li> </ul>	<ul style="list-style-type: none"> <li>● High speed communications for telecommunications companies</li> <li>● Large volume communications for data centers</li> </ul>	<ul style="list-style-type: none"> <li>● Telecommunications and broadcast services</li> <li>● Video broadcasts</li> <li>● Wireless infrastructure</li> <li>● High speed, large volume telecommunications services</li> <li>● VPN services</li> </ul>
Main customers	<ul style="list-style-type: none"> <li>● Telecommunications carriers, telecommunication construction companies, internet service providers</li> <li>● Data center operators, dark fiber operators</li> <li>● Infrastructure companies, including electric power, railroads and expressways</li> </ul>			<ul style="list-style-type: none"> <li>● System vendors</li> <li>● Transmission device manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>● Telecommunications providers</li> <li>● System vendors</li> <li>● Transmission device manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>● Telecommunications providers</li> <li>● CATV companies</li> <li>● Municipalities</li> <li>● General companies</li> </ul>