

MapleArashi

Fiber Optic Cable Manufacturer

SC APC Fast Connector



SC UPC Fast Connector



Fiber Optic Fast Connectors

Field Termination | UPC / APC | SC / LC / FC

Field Assembly Connector | FTTH Installation | SC / LC / FC | UPC / APC

Fiber optic fast connectors are field assembly connectors designed for quick fiber termination in FTTH access networks, terminal boxes, wall outlets, indoor distribution, and access network maintenance. Available connector types include SC, LC, and FC options with UPC/APC polish compatibility. Cable compatibility, insertion loss, return loss, operating temperature, and mechanical performance are subject to connector model, installation procedure, fiber preparation quality, and project requirements.

Product	Fiber Optic Fast Connectors
Model	SC / LC / FC Field Assembly Connector Options
Category	Components & Accessories - Fiber Optic Fast Connectors
Structure	Field assembly connector with housing, ceramic ferrule, fiber alignment/clamping structure, boot, and dust cap

This specification is for reference only. Final product parameters, connector type, and cable compatibility are subject to project requirements and confirmed specifications.

1. Product Information

Field	Specification
Product	Fiber Optic Fast Connectors
Model	SC / LC / FC Field Assembly Connector Options
Category	Components & Accessories - Fiber Optic Fast Connectors
Structure	Field assembly connector with housing, ceramic ferrule, fiber alignment/clamping structure, boot, and dust cap
Connector Type	SC / LC / FC, subject to project requirements
Polish Type	UPC / APC, subject to connector type
Fiber / Cable Compatibility	250µm / 900µm fiber, 2mm / 3mm cable, subject to connector model
Ferrule	Ceramic ferrule, subject to connector type
Installation	Field assembly / mechanical termination, subject to installation procedure
Application	FTTH field termination / terminal box / ONT connection / access network maintenance

2. Company Profile

Maplearashi Technology, with 20 years of expertise in fiber optic communication, manufactures fiber optic fast connectors including SC, LC, and FC field assembly connector options in our facility located in the Guangdong-Hong Kong-Macao Greater Bay Area. Fast connectors are produced with ceramic ferrules and mechanical clamping structures for use in FTTH access networks, terminal boxes, wall outlets, and indoor distribution applications. Compliance documents available upon request.

3. Product Overview

Fiber optic fast connectors are field assembly connectors designed for quick fiber termination in FTTH access networks, terminal boxes, wall outlets, indoor distribution, and access network maintenance. Unlike factory-terminated patch cords or pigtails, the fast connector is installed on-site by stripping, cleaning, and cleaving the prepared fiber, then inserting it into the connector body for mechanical alignment and clamping. Available connector types include SC, LC, and FC options with UPC or APC polish, subject to project requirements. The connector incorporates a ceramic ferrule and a fiber alignment or mechanical clamping structure within a rugged housing, with a boot and dust cap for field protection.

4. Key Features

- Field assembly connector for on-site fiber termination
- Available in SC, LC, and FC connector types with UPC/APC polish
- Ceramic ferrule for connector-to-adapter alignment
- Fiber alignment or mechanical clamping structure for rapid termination
- Compatible with 250µm, 900µm fiber, 2mm, and 3mm cable, subject to connector model
- Low insertion loss design subject to connector type, fiber preparation quality, and installation procedure

5. Recommended Use

- FTTH drop cable field termination
- Terminal box and wall outlet fiber end connection
- ONT / ONU side fiber connection
- Access network maintenance and repair
- Indoor fiber distribution quick termination
- Field scenarios where fusion splicing is not preferred or available

6. Installation Benefits

- On-site mechanical termination reduces factory pre-termination lead time
- Faster field installation compared to fusion splicing in many scenarios
- Compact form factor suitable for terminal boxes and wall outlets
- Mechanical clamping design eliminates need for adhesive curing on site

7. Technical Specifications

7.1. General Specifications

Layer	Component	Material / Function
Connector T	SC, LC, FC	
Polish Typ	UPC, APC	
Fiber / Cable Cor	250µm fiber, 900µm fiber, 2mm cable, 3mm cable, subject to connector model	
Ferrule	Ceramic ferrule	
Insertion L	Typical ≤0.5 dB, subject to connector type, fiber preparation quality, installation procedure, and test conditions	
Return Lo	UPC ≥45 dB / APC ≥55 dB, subject to connector type, polish type, fiber preparation quality, and test conditions	
Operating Temp	-40°C to +75°C, subject to connector model and material configuration	
RoHS Compl	Compliance documents available upon request	

Specifications may vary by connector type, fiber compatibility, and installation quality. Confirm with project specifications.

8. Applications

- FTTH drop cable field termination
- Fiber terminal box and wall outlet end-face connection
- ONT and ONU fiber termination
- Access network fiber repair and maintenance
- Indoor fiber distribution quick termination
- Field fiber connection where fusion splicing is not preferred

9. Design Notes

- Fast connector is a field assembly connector that terminates a prepared fiber end, not an adapter
- Fast connector becomes the connector at the cable end after installation
- Adapter connects two existing connectors; fast connector is not an adapter
- Typical installation requires fiber stripping, cleaning, cleaving, insertion, and clamping
- Installation procedure and tooling requirements vary by connector model
- For connector-to-adapter performance, use the appropriate fast connector type and polish

10. Installation Notes

- Prepare fiber end face by stripping, cleaning, and cleaving before insertion
- Confirm fiber or cable diameter compatibility with connector model
- Insert fiber to correct depth per connector instructions
- Secure clamping mechanism according to connector design
- Inspect connector end face after installation to confirm fiber position
- Install dust cap if connector is not immediately used

11. Handling & Cleaning Notes

- Keep dust cap on connector when not in use to prevent end-face contamination
- Clean connector end face using appropriate cleaning tools before mating
- Do not use abrasive materials on the ceramic ferrule end face
- Store connectors in clean, dry environment before installation
- Handle connector housing and boot carefully during field installation

12. Connector Type Options

Fiber Type	Description
SC Fast Connector	Push-pull coupling; UPC / APC; FTTH drop cable and terminal box application
LC Fast Connector	Small form factor; UPC / APC; high-density and indoor patching
FC Fast Connector	Screw-on coupling; UPC / APC; telecom and test equipment application

13. Installation Guidance

- Select fast connector type matching required interface and polish type
- Confirm fiber and cable type compatibility with the connector model
- Use proper stripping tools to remove cable jacket without damaging fiber
- Cleave fiber to required length using appropriate cleaver
- Insert fiber into connector body to correct alignment depth
- Secure clamping mechanism to fix fiber in position
- Conduct optical testing after installation to verify insertion loss and return loss

14. Product Comparison & Reference

Fast Connector vs Adapter

Parameter	Fast Connector	Adapter
Function	Terminates a prepared fiber or cable end	Connects two existing connectors
Installation	Field assembly on fiber end	Panel-mount component
Result	Becomes the connector at the cable end	Provides connector-to-connector coupling
Note	Fast connector is a field-terminated connector	Adapter is a passive alignment component

Fast Connector vs Patch Cord / Pigtail

Parameter	Fast Connector	Patch Cord / Pigtail
Function	Field termination of fiber end	Factory-terminated cable assembly
Cable Length	No fixed cable length by default	Fixed cable length
Installation	On-site termination	Factory pre-terminated
Note	Field assembly component	Cable assembly product

Fast Connector vs PLC Splitter / Attenuator

Parameter	Fast Connector	PLC Splitter / Attenuator
Function	Connector termination of fiber end	Optical power splitting or reduction
Ports	One fiber input, one connector output	Multiple ports (splitter) or fixed attenuation (attenuator)
Note	Creates a connector at cable end	Power division or reduction device

15. Customization Options

- Connector type per project requirements
- Polish type per fiber mode and application
- Cable compatibility per connector model
- Housing color and marking per customer specification
- Packaging per project or shipping requirements

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