

**Aumictech**

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Data Sheet

August 13, 2026

FUJIKURA

Fujikura 41S+ Fusion Splicer

Fujikura 41S+ Active Clad Alignment Fusion Splicer The Fujikura 41S+ is a ruggedized single-fiber active cladding alignment fusion splicer with Active Fusion Control (AFC) and Active Blade Management (ABM). AFC analyzes fiber brightness intensity in real time and adjusts fusion parameters; it also evaluates left/right cleave end-face condition and compensates for poor cleaves. ABM uses Bluetooth wireless connectivity with the CT50 cleaver for motorized blade rotation and remaining blade-life display. Warm Splice Imaging (WSI) improves loss estimation versus cladding-only methods. Typical SM FAST splice is about 6 to 7 seconds (6-9 s class). Typical average loss is about 0.03 dB SM (G.652/G.657), 0.01 dB MM (G.651), 0.05 dB DS (G.653), and 0.05 dB NZDS (G.655). Standard package uses BTR-11A, ADC-19A, and ELCT2-16B electrodes; CT50 is the companion cleaver. The Fujikura 41S+ is a ruggedized single-fiber active cladding alignment fusion splicer with Active Fusion Control (AFC) and Active Blade Management (ABM). AFC analyzes fiber brightness intensity in real time and adjusts fusion parameters; it also evaluates left/right cleave end-face condition and compensates for poor cleaves. ABM uses Bluetooth wireless connectivity with the CT50 cleaver for motorized blade rotation and remaining blade-life display. Warm Splice Imaging (WSI) improves loss estimation versus cladding-only methods.



MODEL

Fujikura 41S+

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

41S+

LISTING

<https://aumictechlabs.com/products/41s-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Fujikura 41S+ is a core alignment fusion splicer designed for single-mode and multimode optical fibers in field and laboratory environments. It delivers low splice loss through Profile Alignment System (PAS) technology, automated splicing cycles, and integrated protection mechanisms. The unit stores up to 10,000 splice records and communicates via Bluetooth for remote operation and data logging.

Technical Specifications

Splicing Performance

Fiber Alignment: Core Alignment (PAS Profile Alignment System)

Applicable Fibers: Single-mode (SMF), Multimode (MMF), Dispersion-shifted (DSF), NZ-DSF, custom fibers with appropriate settings

Average Splice Loss: – SMF: ≤ 0.02 dB – MMF: ≤ 0.01 dB – DSF/NZ-DSF: ≤ 0.04 dB

Splice Time: ~6 seconds (SMF-SMF, normal mode)

Splice Protection: Compatible with protection sleeves up to 64 mm

Data Storage: 10,000 splice records

Heating and Environmental Control

Integrated Tube Heater: Ceramic heater for rapid protection sleeve fusion

Heating Time: ~9 seconds (60 mm protection sleeve, typical)

Automated Wind Protectors: Environmental isolation with automatic open/close mechanism

Optical System Magnification: Dual camera system - 200x (X-Y view), 400x (Z view)

Display: High-resolution color LCD, 4.1 inches

Power and Connectivity

Battery: Rechargeable Lithium-ion pack; ~200 splice/heat cycles per charge

Power Supply: AC adapter for mains operation and charging

Connectivity: Bluetooth wireless data transfer and remote control; USB port for firmware updates and data logging

Key Features

Profile Alignment System delivers consistent low-loss splices across fiber types

Automated cycle reduces operator variability

Ceramic heater with integrated wind protection minimizes environmental splice degradation

High-magnification dual-camera system enables precise fiber alignment verification

Onboard data logging supports compliance and troubleshooting workflows

Lithium-ion battery enables field deployment with 200-cycle endurance

Typical Applications

Long-distance telecommunications networks

High-speed data transmission systems

Fiber-optic cable installations and repairs

Field and laboratory splicing operations

Compatibility & Integration

The 41S+ accepts single-mode, multimode, dispersion-shifted, and NZ-DSF fibers. Bluetooth connectivity integrates with external data management systems and enables remote monitoring. USB interface supports firmware maintenance and splice record export.

Features & description

From manufacturer datasheet

Features

- Active clad alignment with dual cameras

41S Characteristics / Specifications

PARAMETER	VALUE
Model	41S+
Manufacturer	Fujikura / AFL
Instrument Type	Active clad alignment fusion splicer with AFC/ABM
Fiber Alignment Method	Active clad alignment
Fiber Count	Single
Applicable Fibers	SM, MM (ITU-T G.652 / G.657 / G.651 / G.653 / G.655 class)
Cladding Diameter	approx. 125 um
Coating Diameter (sheath clamp)	max about 3000 um
Cleave Length	5 to 16 mm (coating-dependent notes apply)
Typical Average Splice Loss	0.03 dB G.652; 0.01 dB G.651; 0.05 dB G.653; 0.05 dB G.655; 0.03 dB G.657
Splice Time	SM FAST avg about 6 to 7 s (6-9 s class)
Heat Time	60 mm mode avg about 25 to 27 s
Protection Sleeve Length	max about 66 mm
Protection Sleeve Diameter	max about 6.0 mm before shrinking
Fiber Tensile Test Force	approx. 2.0 N
Electrode Life	approx. 5000 splices
Electrodes	ELCT2-16B
Splicing Modes	100
Heating Modes	30
Splice Result Storage	10000 splices
Splice Image Storage	100 images
LCD Monitor	TFT about 4.9 to 5 inches with touch screen
Magnification	approx. 132 to 300X
PC Interface	USB 2.0 Mini-B
External USB	USB 2.0 Type-A

PARAMETER	VALUE
Wireless	Bluetooth 4.1 LE (cleaver management)
Battery Pack	BTR-11A; approx. 200 splice and heat cycles
Battery Type	rechargeable Li-ion; approx. DC 14.4 V, 3190 mAh class
AC Adapter	ADC-19A; input AC 100-240 V, 50/60 Hz, max 1.5 A
Companion Cleaver	CT50 (Bluetooth blade management)
Operating Temperature	-10 to 50 C
Storage Temperature	-40 to 80 C
Operating Humidity	0 to 95% RH non-condensing
Altitude	max 5000 m
Dimensions	approx. 131 × 201 × 79 mm without projection
Weight	approx. 1.3 kg including battery
Tripod Screw	1/4-20 UNC Notes Specs from Fujikura 41S+ kit brochure and AFL launch materials. Confirm CT50 pairing, firmware AFC/ABM enablement, and exact heat-mode sleeve type on the unit.
Humidity	0 to 95% RH non-condensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	40 to 80 C
Operating temperature	10 to 50 C
Operating Temperature	10 to 50 C
Humidity	0 to 95% RH non-condensing
Operating Humidity	0 to 95% RH non-condensing
Altitude	max 5000 m
Dimensions	approx. 131 × 201 × 79 mm without projection
Weight	approx. 1.3 kg including battery
Tripod Screw	1/4-20 UNC Notes Specs from Fujikura 41S+ kit brochure and AFL launch materials. Confirm CT50 pairing, firmware AFC/ABM enablement, and exact heat-mode sleeve type on the unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	41S+
Manufacturer	Fujikura / AFL
Instrument Type	Active clad alignment fusion splicer with AFC/ABM
Specifications	
PARAMETER	VALUE
Fiber Alignment Method	Active clad alignment
Fiber Count	Single
Applicable Fibers	SM, MM (ITU-T G.652 / G.657 / G.651 / G.653 / G.655 class)
Specifications	
PARAMETER	VALUE
Cladding Diameter	approx. 125 um
Coating Diameter (sheath clamp)	max about 3000 um
Cleave Length	5 to 16 mm (coating-dependent notes apply)
Specifications	
PARAMETER	VALUE
Typical Average Splice Loss	0.03 dB G.652; 0.01 dB G.651; 0.05 dB G.653; 0.05 dB G.655; 0.03 dB G.657
Splice Time	SM FAST avg about 6 to 7 s (6-9 s class)
Heat Time	60 mm mode avg about 25 to 27 s
Specifications	
PARAMETER	VALUE
Protection Sleeve Length	max about 66 mm
Protection Sleeve Diameter	max about 6.0 mm before shrinking
Fiber Tensile Test Force	approx. 2.0 N

Specifications

PARAMETER	VALUE
Electrode Life	approx. 5000 splices
Electrodes	ELCT2-16B
Splicing Modes	100

Specifications

PARAMETER	VALUE
Heating Modes	30
Splice Result Storage	10000 splices
Splice Image Storage	100 images

Specifications

PARAMETER	VALUE
LCD Monitor	TFT about 4.9 to 5 inches with touch screen
Magnification	approx. 132 to 300X
PC Interface	USB 2.0 Mini-B

Specifications

PARAMETER	VALUE
External USB	USB 2.0 Type-A
Wireless	Bluetooth 4.1 LE (cleaver management)
Battery Pack	BTR-11A; approx. 200 splice and heat cycles

Specifications

PARAMETER	VALUE
Battery Type	rechargeable Li-ion; approx. DC 14.4 V, 3190 mAh class
AC Adapter	ADC-19A; input AC 100-240 V, 50/60 Hz, max 1.5 A
Companion Cleaver	CT50 (Bluetooth blade management)

Specifications

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Operating Temperature	-10 to 50 C
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Specifications

PARAMETER	VALUE
Altitude	max 5000 m
Dimensions	approx. 131 x 201 x 79 mm without projection
Weight	approx. 1.3 kg including battery

Tripod Screw: 1/4-20 UNC

Notes

Specs from Fujikura 41S+ kit brochure and AFL launch materials. Confirm CT50 pairing, firmware AFC/ABM enablement, and exact heat-mode sleeve type on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.