



01-Jan-26

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Optical Fiber Fusion Splicer

TECHNICAL DATA SHEET

SA1 Fusion Splicer

SA1 FUSION SPLICER

Optical fiber
fusion splicer
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DEPT VIEW
A. CONTACT

SOFTWARE
WORKS
OFF VIEW

SA1 Fusion Splicer

Product Description:

The SA1 Fusion Splicer is a portable, high-precision optical fiber fusion splicing machine designed for field installation, maintenance, and repair of fiber optic networks such as FTTx, telecom, LAN/WAN and data center cabling. It uses core-to-core alignment technology to ensure extremely low splice loss and reliable optical connections between fiber ends.

Equipped with a large 4.3-inch HD touch screen, the SA1 offers an intuitive interface that simplifies operation and provides clear visual guidance throughout the splicing process. Its universal fiber holder supports a wide range of fiber types and cable types including single-mode, multimode, drop cable, pigtails, and other common fiber formats.

Thanks to its compact and lightweight design (approximately 1.95 kg including battery), the SA1 is well-suited for technicians who perform splicing in diverse environments including outdoor sites and indoor closets. The machine includes a removable 5200 mAh rechargeable battery capable of performing over 200 splice and heat cycles per charge, making it effective for long work days without frequent recharging.

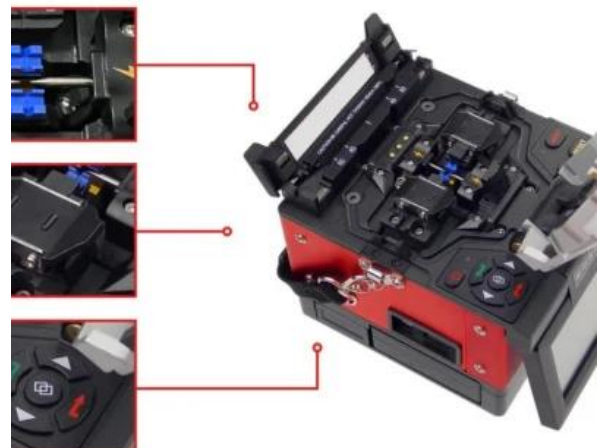
The SA1 Fusion Splicer integrates automatic arc calibration and pre-heating functions, reducing the time required for both fusion and heat shrink processes. Typical fusion splicing takes around 8 seconds, and heat shrink protection sleeve application completes in roughly 20 seconds, improving overall efficiency on site.

Key Features:

- **Core-to-core alignment** for precise splicing and low optical loss.
- **Wide fiber compatibility:** SM (G.652/G.657), MM (G.651), DS (G.653), NZDS (G.655).



MAIN FEATURES





- **Universal fiber holder** — suitable for bare fiber, drop cables & pigtails.
- **4.3" HD touchscreen** for easy setup and monitoring.
- **Portable & lightweight** design ideal for field use.
- **Removable battery** with long runtime (≈ 200 cycles).
- **Fast splice & heat times** (≈ 8 s splice, 20 s heat).
- **Large result memory** — stores thousands of splice records.
- **High return loss** (>60 dB typical).

LITHIUM BATTERY



5200mA

Removable lithium batt
Long-life battery for 280
splicing and heating.



Applications:

The SA1 fusion splicer is suitable for:

- **FTTH/FTTx network installations**
- **Telecom & broadband backbone splicing**
- **Data center fiber management**
- **Network maintenance and troubleshooting**

Specification:

Category	Specification
Product Type	Optical Fiber Fusion Splicer
Brand / OEM	YHT / CSYHT (varies by supplier)
Application	FTTH, Telecom, LAN/WAN, Data Center Splicing
Dimensions	130 × 154 × 132 mm



Weight	~1.95 kg (with battery)
Battery	Removable Li-ion 5200 mAh
Splice Alignment	Core-to-Core (automatic)
Applicable Fiber Types	SM (G.652 / G.657), MM (G.651), DS (G.653), NZDS (G.655)
Fiber Diameter	Cladding: 80–150 μm , Coating: 100–1000 μm
Fiber Cleave Length	8–16 mm
Fiber Holder	Multi-function (bare fiber, drop cable, pigtail)
Splice Time	~8 seconds
Tube Heating Time	~20 seconds
Protection Sleeve Length	40 mm / 60 mm
Typical Splice Loss	SM: ~0.02 dB, MM: ~0.01 dB, DS/NZDS: ~0.04 dB
Return Loss	≥ 60 dB
Display	4.3" HD Touchscreen
Data Storage	~3000 splice results
End-Face Test & Loss Evaluation	Supported
Magnification	300 $\times$ (X/Y), 100 $\times$ (X&Y combined)
Ports / Interface	Mini USB, Ethernet
Power Supply	AC 100–240 V, 50/60 Hz; Output DC 11–13.5 V



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Operating Temperature	–20 °C to +50 °C
Humidity	0–95 % RH (non-condensing)
Altitude	Up to 5000 m
Wind Tolerance	Up to 15 m/s
Electrode Life	~5000 ARC discharges
Splice + Heat Cycles per Charge	>200 cycles
Key Features	Core-to-core alignment, multi-fiber support, fast splice & heat, removable battery, pre-heating function, LED lighting