

**Aumictech**

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Data Sheet

August 3, 2026

LASER

LASER CO2 SM-514-001 UM (WEAVE LENGHT 514 um)

Alias: SM-514-001 UM; SM514001; LASER CO2 SM-514-001 Wavelength (as marked on listing): 514 μm Note: Public OEM datasheet tables for this exact SM-514-001 P/N are sparse. Do not invent output power, M^2 , divergence, or cooling specs. Use the faceplate, power supply label, and calibration certificate for warranted values. Laser class and cooling requirements: per unit labeling and host system documentation



MODEL

LASER SM-514-001

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

SM-514-001

LISTING

<https://aumictechlabs.com/products/sm-514-001-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The LASER CO2 SM-514-001 UM is a CO2 laser engineered for industrial material processing applications demanding precise beam control and reproducible results. Operating at a weave length of 514 μm , this gas laser delivers infrared radiation at approximately 10.6 micrometers, optimized for efficient interaction with a broad range of materials. The unit combines high average output power with electrical excitation via high-voltage or radio-frequency discharge, making it suitable for manufacturing environments where accuracy and reliability are non-negotiable. Technical Specifications Laser Type: CO2 gas laser Weave Length: 514 μm Emission Wavelength: Approximately 10.6 μm (infrared) Active Medium: Carbon dioxide, nitrogen, and

helium gas mixture Excitation Method: High-voltage or radio-frequency electrical dischargeKey Features Infrared emission wavelength optimized for material processing efficiency Gas laser design with proven industrial performance characteristics High average output power capability typical of CO2 laser technology Electrical excitation enabling precise beam modulationTypical Applications Metal Processing: Precision cutting and welding of stainless steel, aluminum, and thin-gauge sheet metal Marking and Engraving: Permanent inscription on wood, glass, ceramics, plastics, and composites Non-metallic Material Machining: Processing of textiles, leather, and paper substrates Industrial Identification: Date/lot coding and two-dimensional barcode generation Fabrication: Integrated cutting and welding operations in manufacturing workflowsCompatibility & Integration The 514 μm wave length specification supports integration into laser systems requiring specific beam geometry parameters for focused material processing and precision work.

Features & description

From manufacturer datasheet

Features

- Type: CO2 laser
- Part Number: SM-514-001
- Configuration marking: UM (as listed)
- Wavelength (listing mark): 514 μm – verify on unit (typical industrial CO2 is $\sim 10.6 \mu\text{m}$)
- Form: OEM / system laser head or module (notabenchtop instrument datasheet product)

SM514001 Characteristics / Specifications

PARAMETER	VALUE
Model / P/N	SM-514-001
Instrument Type	CO2 Laser
Alias	SM-514-001 UM; SM514001; LASER CO2 SM-514-001 Optical
Laser Type	CO2
Part Number	SM-514-001
Wavelength (as marked on listing)	514 μm
Laser class and cooling requirements	per unit labeling and host system documentation Handle as Class 4 industrial laser until labeled otherwise; use appropriate eyewear and interlocks for the verified wavelength Operational Notes Prefer the physical nameplate over third-party title text for wavelength. If the unit is a standard $\sim 10.6 \mu\text{m}$ CO2 source mislabeled in inventory text, treat $10.6 \mu\text{m}$ as candidate only after faceplate confirmation—do not assume either value without reading the laser.
Type	CO2 laser
Configuration marking	UM (as listed)
Wavelength (listing mark)	514 μm – verify on unit (typical industrial CO2 is $\sim 10.6 \mu\text{m}$)
Form	OEM / system laser head or module (not a benchtop instrument datasheet product)

SM514001 Specifications

PARAMETER	VALUE
Key Features	- Type: CO2 laser
Technical Specifications	Model / P/N: SM-514-001
Optical	Laser Type: CO2

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 / P/N	SM-514-001
Instrument Type	CO2 Laser
Alias	SM-514-001 UM; SM514001; LASER CO2 SM-514-001

Optical

Specifications

PARAMETER	VALUE
Laser Type	CO2
Part Number	SM-514-001
Wavelength (as marked on listing)	514 μm

Note: Public OEM datasheet tables for this exact SM-514-001 P/N are sparse. Do not invent output power, M², divergence, or cooling specs. Use the faceplate, power supply label, and calibration certificate for warranted values.

Physical / Safety

Laser class and cooling requirements: per unit labeling and host system documentation

Handle as Class 4 industrial laser until labeled otherwise; use appropriate eyewear and interlocks for the verified wavelength

Operational Notes

Prefer the physical nameplate over third-party title text for wavelength. If the unit is a standard ~10.6 μm CO2 source mislabeled in inventory text, treat 10.6 μm as candidate only after faceplate confirmation—do not assume either value without reading the laser.

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.