



Artisan Scientific

QUALITY INSTRUMENTATION ... GUARANTEED

Looking for more information?

Visit us on the web at <http://www.artisan-scientific.com> for more information:

- Price Quotations
- Drivers
- Technical Specifications, Manuals and Documentation

Artisan Scientific is Your Source for Quality New and Certified-Used/Pre-owned Equipment

- Tens of Thousands of In-Stock Items
- Hundreds of Manufacturers Supported
- Fast Shipping and Delivery
- Leasing / Monthly Rentals
- Equipment Demos
- Consignment

Service Center Repairs

Experienced Engineers and Technicians on staff in our State-of-the-art Full-Service In-House Service Center Facility

InstraView™ Remote Inspection

Remotely inspect equipment before purchasing with our Innovative InstraView™ website at <http://www.instraview.com>

We buy used equipment! We also offer credit for Buy-Backs and Trade-Ins

Sell your excess, underutilized, and idle used equipment. Contact one of our Customer Service Representatives today!

Talk to a live person: 888-88-SOURCE (888-887-6872) | Contact us by email: sales@artisan-scientific.com | Visit our website: <http://www.artisan-scientific.com>

MULTI CHANNEL BOX
MT9812B



For Adding Light Sources and Optical Sensors for Maximum of 9 Channels



The MT9812B is a mainframe supporting devices such as DFB-LD multiple light sources and multi-channel device evaluation systems. A maximum of 9 MT9810B compatible light sources (DFB-LD, FP-LD, SLD) and optical sensor units can be inserted. In addition to being able to set and verify setting conditions for each unit on the front panel, a remotely controlled measurement system can be supported as GPIB and RS-232C interfaces are standard equipment.

Comparison of the features of MT9810B and MT9812B

	Functions	MT9810B	MT9812B
Main frame	Number of channels	2	9
	Remote functions	√	√
	Date/time setting	√	
	Optical channel selector control	√	
	Laser safety protection mechanism	√	√
	Optical sensor	Measuring power display	√
Measuring range		√	Can be set remotely
BW/interval		√	Can be set remotely
Averaging		√	Can be set remotely
Optical modulation mode		√	Can be set remotely
Max/min value memory		√	
Measurement condition/measuring value saving		√	
Relative measurement		√	
Reference measurement		√	
Calibration measurement		√	
Wavelength calibration		√	√
Unit*		√	√
Sensor head*	√		
DFB-LD	Attenuation	√	√
	Variable wavelength	√	√
	Modulation frequency	√	Can be set remotely
FP-LD	Attenuation	√	√
	Modulation frequency	√	Can be set remotely
	Changed wavelength (2 wavelength unit)	√	√

* Unit: MU931311B, MU931421B, MU931422B, MU931431A
Sensor head: MA9331A, MA9332A, MA9333A

Specifications

• MT9812B Multi Channel Box

Plug-in units*1	9 max.
Display	7 segments LED, 7 digits (sign: 1 digit, numerical value: 6 digits)
Remote control	PIB, RS-232C
Laser safety mechanism	Remote inter-lock, optical output control (key control)
Environmental conditions	Operating temperature/humidity*2: 0° to 40°C/≤90% (no condensation) Storage temperature: -30° to +71°C
Power	85 to 132/170 to 250 Vac, 47.5 to 63 Hz, ≤250 VA
Dimensions and mass	426 (W) x 133 (H) x 451 (D) mm, ≤9 kg (without units)
EMC	EN61326: 1997/A1, 1998 (Class A) EN61000-3-2: 1995/A2, 1998 (Class D) EN61326: 1997/A1, 1998 (Annex A)
LVD	EN610101-1: 1993/A2, 1995 (Installation Category II, Pollution degree 2)

*1: Only one MU951001A can be installed into MT9812B

*2: Narrowest temperature range of the plug-in units or MT9812B

• DFB-LD light sources

Model	MU952501A/952502A/952503A/952504A/952505A	MU952601A/952602A/952603A/952604A/952605A/952606A
Optical element	DFB-LD	
Applicable optical fiber	SM (ITU-T G.652)	
Specified wavelength range (fp)*1	191.7 to 195.9 THz (1563.86 to 1530.33 nm)	186.3 to 191.6 THz (1609.19 to 1564.68 nm)
Center optical frequency*2	fp ±0.01 THz (approx. ±0.08 nm)	
Spectrum half width*2	≤30 MHz	
Optical output power*2	+10 ±1 dBm	+7 ±1 dBm
Optical power stability	Time stability (short term)*2, *3, *4: ≤±0.005 dB Time stability (long term)*2, *3, *5: ≤±0.02 dB Temperature stability*2, *3, *6: ≤±0.25 dB	Time stability (short term)*2, *3, *4: ≤±0.01 dB Time stability (long term)*2, *3, *5: ≤±0.02 dB Temperature stability*2, *3, *6: ≤±0.25 dB
Center frequency stability	Time stability (short term)*2, *4: ≤±2 GHz (approx. ±0.02 nm) Time stability (long term)*2, *5: ≤±4 GHz (approx. ±0.04 nm)	
Optical frequency tuning	Tuning range: fp ±60 GHz (approx. ±0.48 nm), Step: 1 GHz (approx. 0.01 nm) Accuracy*2: ≤±10 GHz (setting to fp + 60 GHz or fp - 60 GHz, 25°C)	
Internal modulation	Frequency*2: 270 Hz, 1 kHz, 2 kHz ±0.1% Duty: 50% ±5%, Extinction ratio: ≥13 dB	
Optical output attenuation	0.00 to 6.00 dB (0.01 dB steps), Accuracy: ≤±0.5 dB (at 25°C when set to 6.00 dB)	
Laser safety mechanism	IEC60825-1: Class 3A, 21CFR1040.10: Class IIIb	
Optical connector	FC-PC, ST, DIN, HMS-10/A, SC*7	
Warm-up time	1 h (after optical output on)	
Environmental conditions	Operating temperature/humidity: +15° to +35°C/≤90% (no condensation); Storage temperature: -25° to +71°C	
Dimensions and mass	41 (W) x 78 (H) x 335 (D) mm, ≤700 g	

Note: Wavelengths in vacuum

*1: Specify an optical frequency (wavelength) and model name from the ordering information.

*2: At CW, optical attenuation setting (0.00 dB), center optical frequency (fp) using SM fiber (ITU-T G.652) and FC-PC connector

*3: When return loss seen from light source side is 40 dB min.

*4: 5 min at constant temperature (at one point from 20 to 30°C)

*5: 1 h at constant temperature

*6: 8 h at 15° to 35°C

*7: Specified connector for optical connector option supplied as standard accessory.

If connector not specified, FC-PC (Option 37) supplied as standard.

• FP-LD light sources

Model	MU951301A	MU951501A	MU951001A*1
Optical element	FP-LD		
Fiber	SM fiber (ITU-T G.652)		
Wavelength*2	1310 ±20 nm	1550 ±20 nm	1310/1550 ±20 nm
Spectral half-width*2	≤5 nm	≤10 nm	≤5 nm (1310 nm), ≤10 nm (1550 nm)
Optical output power*2	+7 ±1 dBm		
Optical output power stability	Time stability (short term)*2, *3, *4: ≤±0.002 dB Time stability (long term)*2, *3, *5: ≤±0.02 dB Temperature stability*2, *3, *6: ≤±0.1 dB	Time stability (short term)*2, *3, *4: ≤±0.005 dB Time stability (long term)*2, *3, *5: ≤±0.05 dB Temperature stability*2, *3, *6: ≤±0.15 dB	
Internal modulation	Frequency: 270 Hz, 1 kHz, 2 kHz ±0.1%, Duty: 50% ±5%, Extinction ratio: ≥13 dB		
Optical output attenuation	0.00 to 6.00 dB (0.01 dB steps), Accuracy: ≤±0.5 dB (at 25°C when set to 6.00 dB)		
Laser safety mechanism	IEC60825-1: Class 3A, 21CFR1040.10: Class IIIb		
Optical connector	FC-PC, ST, DIN, HMS-10/A, SC*7		

Continued on next page

Model	MU951301A	MU951501A	MU951001A*1
Warm-up time	1 h (after optical output on)		
Environmental conditions	Operating temperature/humidity: 0° to +50°C/≤90% (no condensation); Storage Temperature: -25° to +71°C		
Dimensions and mass	41 (W) x 78 (H) x 335 (D) mm, ≤700 g		

Note: Wavelengths in vacuum

*1: Only one MU951001A can be installed into MT9812B.

*2: At CW, optical attenuation setting (0.00 dB), using SM fiber (ITU-T G.652) and FC-PC connector

*3: When return loss seen from light source side is 40 dB min.

*4: 15 min at constant temperature (at one point from 20 to 30°C)

*5: 6 h at constant temperature

*6: 8 h at 0° to 50°C

*7: Specified connector for optical connector option supplied as standard accessory. If connector not specified, FC-PC (Option 37) supplied as standard.

• Optical sensors

Model	MU931311A	MU931421A	MU931422A
Element	InGaAs-PD		
Input type	Fiber		
Applicable optical fiber	SM (ITU-T G.652)		9/125 to 62.5/125 μm (NA: ≤0.29)
Wavelength range	800 to 1600 nm	750 to 1700 nm	
Optical power measurement range*1	CW: +10 to -110 dBm MOD: +7 to -90 dBm	CW: +10 to -80 dBm MOD: +7 to -90 dBm	
Noise level*2	≤-93 dBm	≤-73 dBm	
Polarization dependency*3	≤0.02 dB		≤0.05 dB
Return loss*3	≥40 dB		-
Optical power measurement uncertainty	Reference conditions*4: ±2%, Operating conditions*5: ±3.5%		
Linearity*6	±0.05 dB (+10 to 0 dBm), ±0.01 dB ±0.3 pW (-90 to 0 dBm)	±0.05 dB (+10 to 0 dBm), ±0.01 dB ±30 pW (-70 to 0 dBm)	
Calibration factor input	-99.999 to +99.999 dB		
Wavelength sensitivity correction	Measurement wavelength input in 0.01 nm units		
Zero set operation	Automatic zero calibration		
Range select	Auto, manual		
Modulated light reception	CW/MOD selectable, MOD: 270 Hz, 1 kHz, 2 kHz		
Measurement interval*7	1, 10, 20, 50, 100, 200, 500 ms, 1 s to 99 h 59 min 59 s		
Average setting	Off, 2, 5, 10, 20, 50, 100, 200, 500, 1000 times		
Analog output*8	Approx. +2 V		
Bandwidth select*9	Auto, manual Manual setting: 0.1, 1, 10, 100 Hz, 1, 10, 100 kHz (CW mode only)	Auto, manual Manual setting: 0.1, 1, 10, 100 Hz, 1, 10 kHz (CW mode only)	
Optical connector*10	FC-PC, ST, DIN, HMS-10/A, SC		
Environmental conditions	Operating temperature/humidity: 0° to +50°C/≤90% (no condensation); storage: -40° to +71°C		
Dimensions and mass	41 (W) x 78 (H) x 335 (D) mm, ≤700 g	41 (W) x 78 (H) x 335 (D) mm, ≤550 g	

*1 Wavelength: 1300 nm

*2 Measurement interval: 100 ms, average: 10 times, peak to peak noise, wavelength: 1300 nm

*3 SM fiber (ITU-T G.652), return loss: ≥45 dB, wavelength: 1550 nm

*4 Reference conditions

SM fiber (ITU-T G.652), master FC connector

Power level: 100 μW (-10 dBm), CW light, wavelength: 1300 nm, ambient temperature: 23° ±2°C

At day of calibration, warm-up: 1 h (MU931311A) and 30 min (MU931421A/931422A)

*5 Operating conditions

SM Fiber (ITU-T G.652), master FC connector, CW light, any wavelength in 1000 to 1600 nm (MU931311A) and 1000 to 1650 nm (MU931421A/931422A), ambient temperature: 23° ±5°C, within 1 year after calibration, warm-up: 1 h (MU931311A) and 30 min (MU931421A/931422A), Uncertainty increase by 1% if either a fiber other than a SM fiber (ITU-T G.652) or an APC connector is used with the MU931422A.

*6 Measurement conditions: Constant temperature within 23° ±5°C, bandwidth: auto/0.1/1/10 Hz, any wavelength in 1000 to 1600 nm (MU931311A) and 1000 to 1650 nm (MU931421A/931422A), CW light, power level: 100 μW (-10 dBm) reference, warm-up: 1 h (MU931311A) and 30 min (MU931421A/931422A)

*7 Only record measurements for measurement interval of ≤100 ms

*8 Full-scale value for each measurement range

*9 Approx. 3 dB bandwidth. Response time at bandwidth setting of 100 kHz varies according to analog output amplitude

*10 Specify connector for optical connector option supplied as standard accessory. If connector not specified, FC-PC (Option 37) supplied as standard.

• **MA9331A (with MU931001A Optical Sensor Adapter)**

Sensor element	InGaAs-PD
Input type	Fiber
Supported fiber	9/125 to 62.5/125 μm (NA: ≤0.29)
Wavelength range	940 to 1640 nm
Optical power measurement range*1	+35 to -50 dBm
Noise level	≤-43 dBm
Polarization dependent loss*2	≤0.01 dB (PC connector), ≤0.05 dB (APC connector)
Optical power measurement accuracy	±3% (at +30 dBm)*3, ±4% (at +30 dBm)*4
Linearity*5	±0.05 dB ±30 nW (-40 to +35 dBm)
Environmental conditions	Operating temperature/humidity: 0° to +40°C/≤90% (no condensation) Storage temperature/humidity: -40° to +71°C/≤90% (no condensation)
Dimensions and mass	60 (W) x 78 (H) x 90 (D) mm, ≤750 g

*1 1550 nm

*2 SM fiber (ITU-T G.652), 1550 nm

*3 Reference conditions: SM fiber (ITU-T G.652), 1550 nm, APC connector, +30 dBm, CW light, 23° ±2°C (RH: 60% ±10%)

*4 Operating conditions: SM fiber (ITU-T G.652), 980 nm ±1 nm, 1240 to 1340 nm, 1440 to 1640 nm, APC connector, +30 dBm, CW light, 23° ±5°C (2% increase when using wavelength outside above range), RH: 60% ±10%

*5 Constant temperature within 23° ±5°C range

Ordering information

Please specify the model/order number, name and quantity when ordering.

Model/Order No.	Name
MT9812B	Main frame Multi Channel Box
	Standard accessories
J0895	RCA short pin (for remote inter-rock): 1 pc
J0896	RCA plug (for remote inter-rock): 1 pc
Z0391	Key (for laser output control): 2 pcs
F0013	Fuse, 5 A (for 100/200 Vac): 2 pcs
	Power cord, 2.6 m: 1 pc
B0425	Blank panel: 8 pcs
W1555AE	MT9812B operation manual: 1 copy
	Option
MT9812B-01	High power sensor option (for MU931431A)
	Application parts
J0006	GPIB cable, 0.5 m
J0007	GPIB cable, 1 m
J0008	GPIB cable, 2 m
J0009	GPIB cable, 4 m
J0655A	RS-232C cable (9P-25P, cross)
J0654A	RS-232C cable (9P-9P, cross)
B0333B	Rack mount kit
	[Light sources]
	Main frame
MU952501A	DFB-LD Light Source*1
MU952502A	DFB-LD Light Source*1
MU952503A	DFB-LD Light Source*1
MU952504A	DFB-LD Light Source*1
MU952505A	DFB-LD Light Source*1
MU952601A	DFB-LD Light Source*1
MU952602A	DFB-LD Light Source*1
MU952603A	DFB-LD Light Source*1
MU952604A	DFB-LD Light Source*1
MU952605A	DFB-LD Light Source*1
MU952606A	DFB-LD Light Source*1
MU951301A	FP-LD Light Source
MU951501A	FP-LD Light Source
MU951001A	Switchable FP-LD Light Source
	Standard accessory
	Optical connector adapter*2

Model/Order No.	Name
	Options
MU952501A-01	Light source (fp: 193.10 THz, 1552.52 nm)
MU952501A-02	Light source (fp: 193.20 THz, 1551.72 nm)
MU952501A-03	Light source (fp: 193.30 THz, 1550.92 nm)
MU952501A-04	Light source (fp: 193.40 THz, 1550.12 nm)
MU952501A-05	Light source (fp: 193.50 THz, 1549.32 nm)
MU952501A-06	Light source (fp: 193.60 THz, 1548.51 nm)
MU952501A-07	Light source (fp: 193.70 THz, 1547.72 nm)
MU952501A-08	Light source (fp: 193.80 THz, 1546.92 nm)
MU952501A-09	Light source (fp: 193.90 THz, 1546.12 nm)
MU952501A-10	Light source (fp: 194.00 THz, 1545.32 nm)
MU952502A-01	Light source (fp: 192.10 THz, 1560.61 nm)
MU952502A-02	Light source (fp: 192.20 THz, 1559.79 nm)
MU952502A-03	Light source (fp: 192.30 THz, 1558.98 nm)
MU952502A-04	Light source (fp: 192.40 THz, 1558.17 nm)
MU952502A-05	Light source (fp: 192.50 THz, 1557.36 nm)
MU952502A-06	Light source (fp: 192.60 THz, 1556.55 nm)
MU952502A-07	Light source (fp: 192.70 THz, 1555.75 nm)
MU952502A-08	Light source (fp: 192.80 THz, 1554.94 nm)
MU952502A-09	Light source (fp: 192.90 THz, 1554.13 nm)
MU952502A-10	Light source (fp: 193.00 THz, 1553.33 nm)
MU952503A-07	Light source (fp: 191.70 THz, 1563.86 nm)
MU952503A-08	Light source (fp: 191.80 THz, 1563.05 nm)
MU952503A-09	Light source (fp: 191.90 THz, 1562.23 nm)
MU952503A-10	Light source (fp: 192.00 THz, 1561.42 nm)
MU952504A-01	Light source (fp: 194.10 THz, 1544.53 nm)
MU952504A-02	Light source (fp: 194.20 THz, 1543.73 nm)
MU952504A-03	Light source (fp: 194.30 THz, 1542.94 nm)
MU952504A-04	Light source (fp: 194.40 THz, 1542.14 nm)
MU952504A-05	Light source (fp: 194.50 THz, 1541.35 nm)
MU952504A-06	Light source (fp: 194.60 THz, 1540.56 nm)
MU952504A-07	Light source (fp: 194.70 THz, 1539.77 nm)
MU952504A-08	Light source (fp: 194.80 THz, 1538.98 nm)
MU952504A-09	Light source (fp: 194.90 THz, 1538.19 nm)
MU952504A-10	Light source (fp: 195.00 THz, 1537.40 nm)
MU952505A-01	Light source (fp: 195.10 THz, 1536.61 nm)
MU952505A-02	Light source (fp: 195.20 THz, 1535.82 nm)
MU952505A-03	Light source (fp: 195.30 THz, 1535.04 nm)
MU952505A-04	Light source (fp: 195.40 THz, 1534.25 nm)
MU952505A-05	Light source (fp: 195.50 THz, 1533.47 nm)
MU952505A-06	Light source (fp: 195.60 THz, 1532.68 nm)
MU952505A-07	Light source (fp: 195.70 THz, 1531.90 nm)
MU952505A-08	Light source (fp: 195.80 THz, 1531.12 nm)
MU952505A-09	Light source (fp: 195.90 THz, 1530.33 nm)
MU952601A-01	Light source (fp: 191.10 THz, 1568.77 nm)
MU952601A-02	Light source (fp: 191.20 THz, 1567.95 nm)
MU952601A-03	Light source (fp: 191.30 THz, 1567.13 nm)
MU952601A-04	Light source (fp: 191.40 THz, 1566.31 nm)
MU952601A-05	Light source (fp: 191.50 THz, 1565.50 nm)
MU952601A-06	Light source (fp: 191.60 THz, 1564.68 nm)
MU952602A-01	Light source (fp: 190.10 THz, 1577.03 nm)
MU952602A-02	Light source (fp: 190.20 THz, 1576.20 nm)
MU952602A-03	Light source (fp: 190.30 THz, 1575.37 nm)

Continued on next page

Model/Order No.	Name
MU952602A-04	Light source (fp: 190.40 THz, 1574.54 nm)
MU952602A-05	Light source (fp: 190.50 THz, 1573.71 nm)
MU952602A-06	Light source (fp: 190.60 THz, 1572.89 nm)
MU952602A-07	Light source (fp: 190.70 THz, 1572.06 nm)
MU952602A-08	Light source (fp: 190.80 THz, 1571.24 nm)
MU952602A-09	Light source (fp: 190.90 THz, 1570.42 nm)
MU952602A-10	Light source (fp: 191.00 THz, 1569.59 nm)
MU952603A-01	Light source (fp: 189.10 THz, 1585.36 nm)
MU952603A-02	Light source (fp: 189.20 THz, 1584.53 nm)
MU952603A-03	Light source (fp: 189.30 THz, 1583.69 nm)
MU952603A-04	Light source (fp: 189.40 THz, 1582.85 nm)
MU952603A-05	Light source (fp: 189.50 THz, 1582.02 nm)
MU952603A-06	Light source (fp: 189.60 THz, 1581.18 nm)
MU952603A-07	Light source (fp: 189.70 THz, 1580.35 nm)
MU952603A-08	Light source (fp: 189.80 THz, 1579.52 nm)
MU952603A-09	Light source (fp: 189.90 THz, 1578.69 nm)
MU952603A-10	Light source (fp: 190.00 THz, 1577.86 nm)
MU952604A-01	Light source (fp: 188.10 THz, 1593.79 nm)
MU952604A-02	Light source (fp: 188.20 THz, 1592.95 nm)
MU952604A-03	Light source (fp: 188.30 THz, 1592.10 nm)
MU952604A-04	Light source (fp: 188.40 THz, 1591.26 nm)
MU952604A-05	Light source (fp: 188.50 THz, 1590.41 nm)
MU952604A-06	Light source (fp: 188.60 THz, 1589.57 nm)
MU952604A-07	Light source (fp: 188.70 THz, 1588.73 nm)
MU952604A-08	Light source (fp: 188.80 THz, 1587.88 nm)
MU952604A-09	Light source (fp: 188.90 THz, 1587.04 nm)
MU952604A-10	Light source (fp: 189.00 THz, 1586.20 nm)
MU952605A-01	Light source (fp: 187.10 THz, 1602.31 nm)
MU952605A-02	Light source (fp: 187.20 THz, 1601.46 nm)
MU952605A-03	Light source (fp: 187.30 THz, 1600.60 nm)
MU952605A-04	Light source (fp: 187.40 THz, 1599.75 nm)
MU952605A-05	Light source (fp: 187.50 THz, 1598.89 nm)
MU952605A-06	Light source (fp: 187.60 THz, 1598.04 nm)
MU952605A-07	Light source (fp: 187.70 THz, 1597.19 nm)
MU952605A-08	Light source (fp: 187.80 THz, 1596.34 nm)
MU952605A-09	Light source (fp: 187.90 THz, 1595.49 nm)
MU952605A-10	Light source (fp: 188.00 THz, 1594.64 nm)
MU952606A-03	Light source (fp: 186.30 THz, 1609.19 nm)
MU952606A-04	Light source (fp: 186.40 THz, 1608.33 nm)
MU952606A-05	Light source (fp: 186.50 THz, 1607.47 nm)
MU952606A-06	Light source (fp: 186.60 THz, 1606.60 nm)
MU952606A-07	Light source (fp: 186.70 THz, 1605.74 nm)
MU952606A-08	Light source (fp: 186.80 THz, 1604.88 nm)
MU952606A-09	Light source (fp: 186.90 THz, 1604.03 nm)
MU952606A-10	Light source (fp: 187.00 THz, 1603.17 nm)
J0617B	Replaceable optical connector (FC, user replaceable)
J0618D	Replaceable optical connector (ST, user replaceable)
J0618E	Replaceable optical connector (DIN, user replaceable)
J0618F	Replaceable optical connector (HMS-10/A, user replaceable)
J0619B	Replaceable optical connector (SC, user replaceable)
Z0282	Ferrule cleaner
Z0283	Ferrule cleaning tape (6 pcs/set)
Z0284	Adapter cleaner (stick type, 200 pcs/set)
MU931311B	[Optical sensor] Main frame Optical Sensor
MU931421B	Optical Sensor
	Standard accessory Optical connector adapter*2
J0617B	Replaceable optical connector (FC, user replaceable)
J0618D	Replaceable optical connector (ST, user replaceable)
J0618E	Replaceable optical connector (DIN, user replaceable)
J0618F	Replaceable optical connector (HMS-10/A, user replaceable)
J0619B	Replaceable optical connector (SC, user replaceable)
Z0282	Ferrule cleaner
Z0283	Ferrule cleaning tape (6 pcs/set)
Z0284	Adapter cleaner (stick type, 200 pcs/set)
J0575	Optical fiber cord (both-end FC-PC type with connector, RL >50 dB, SM), 2 m
MZ8012A	Connector Cleaning Set
J0127A	Coaxial cord (BNC-P · RG-58A/U · BNC-P), 1 m
J0003A	Coaxial cord (SMA-P · 3D-2W · SMA-P), 1 m
J0901A	HRM-517 (09) conversion connector (SMA-P · BNC-J)
J0902A	HRM-518 (09) conversion connector (SMA-J · BNC-P)

Model/Order No.	Name
MU931422B	Main frame Optical Sensor (MA9005A Connector Adapter attached)
	Standard accessory Optical connector adapter (for MU931311B/931421B)*2 MU931422B operation manual
W1624AE	Applications parts Connector adapter (MU, user replaceable) Connector adapter (LC, user replaceable) Connector adapter (FC, user replaceable) Connector adapter (ST, user replaceable) Connector adapter (DIN, user replaceable) Connector adapter (SC, user replaceable) Connector adapter (HMS-10/A, user replaceable) Fiber Adapter (for bare fiber) Fiber Adapter (for bare fiber) Connector Adapter (for MA9901A) Ferrule cleaner Ferrule cleaning tape (6 pcs/set) Adapter cleaner (stick type, 200 pcs/set) Optical fiber cord (both-end FC-PC type, with connector, RL >50 dB, SM), 2 m Connector Cleaning Set Coaxial cord (BNC-P · RG-58A/U · BNC-P), 1 m Coaxial cord (SMA-P · 3D-2W · SMA-P), 1 m HRM-517 (09) conversion connector (SMA-P · BNC-J) HRM-518 (09) conversion connector (SMA-J · BNC-P)
MA9005A-32	Connector adapter (MU, user replaceable)
MA9005A-33	Connector adapter (LC, user replaceable)
MA9005A-37	Connector adapter (FC, user replaceable)
MA9005A-38	Connector adapter (ST, user replaceable)
MA9005A-39	Connector adapter (DIN, user replaceable)
MA9005A-40	Connector adapter (SC, user replaceable)
MA9005A-43	Connector adapter (HMS-10/A, user replaceable)
MA9013A	Fiber Adapter (for bare fiber)
MA9901A	Fiber Adapter (for bare fiber)
MA9902A	Connector Adapter (for MA9901A)
Z0282	Ferrule cleaner
Z0283	Ferrule cleaning tape (6 pcs/set)
Z0284	Adapter cleaner (stick type, 200 pcs/set)
J0635B	Optical fiber cord (both-end FC-PC type, with connector, RL >50 dB, SM), 2 m
MZ8012A	Connector Cleaning Set
J0127A	Coaxial cord (BNC-P · RG-58A/U · BNC-P), 1 m
J0003A	Coaxial cord (SMA-P · 3D-2W · SMA-P), 1 m
J0901A	HRM-517 (09) conversion connector (SMA-P · BNC-J)
J0902A	HRM-518 (09) conversion connector (SMA-J · BNC-P)
MU931431A	Main frame Optical Sensor
	Standard accessory Optical connector adapter*2 MU931431A operation manual
W1896AE	Applications parts Connector adapter (MU, user replaceable) Connector adapter (LC, user replaceable) Connector adapter (FC, user replaceable) Connector adapter (ST, user replaceable) Connector adapter (DIN, user replaceable) Connector adapter (SC, user replaceable) Connector adapter (HMS-10/A, user replaceable) Fiber Adapter (for bare fiber) Fiber Adapter (for bare fiber) Connector Adapter (for MA9901B) AG adapter Conversion cord (FC · PC-FC · APC), 1 m Conversion cord (SC · PC-SC · APC), 1 m
MA9005B-32	Connector adapter (MU, user replaceable)
MA9005B-33	Connector adapter (LC, user replaceable)
MA9005B-37	Connector adapter (FC, user replaceable)
MA9005B-38	Connector adapter (ST, user replaceable)
MA9005B-39	Connector adapter (DIN, user replaceable)
MA9005B-40	Connector adapter (SC, user replaceable)
MA9005B-43	Connector adapter (HMS-10/A, user replaceable)
MA9013A	Fiber Adapter (for bare fiber)
MA9901B	Fiber Adapter (for bare fiber)
MA9902B	Connector Adapter (for MA9901B)
J0178A	AG adapter
J0952A	Conversion cord (FC · PC-FC · APC), 1 m
J0954A	Conversion cord (SC · PC-SC · APC), 1 m
MA9331A	Main frame Optical Sensor
	Standard accessory Optical connector adapter*2
	Applications parts Connector adapter (MU, user replaceable) Connector adapter (LC, user replaceable) Connector adapter (FC, user replaceable) Connector adapter (ST, user replaceable) Connector adapter (DIN, user replaceable) Connector adapter (SC, user replaceable) Connector adapter (HMS-10/A, user replaceable) Fiber Adapter Fiber Adapter Connector Adapter (for MA9901B) Ferrule cleaner Ferrule cleaning tape (6 pcs/set) Adapter cleaner (stick type, 200 pcs/set) Connector Cleaning Set
MA9008A-32	Connector adapter (MU, user replaceable)
MA9008A-33	Connector adapter (LC, user replaceable)
MA9008A-37	Connector adapter (FC, user replaceable)
MA9008A-38	Connector adapter (ST, user replaceable)
MA9008A-39	Connector adapter (DIN, user replaceable)
MA9008A-40	Connector adapter (SC, user replaceable)
MA9008A-43	Connector adapter (HMS-10/A, user replaceable)
MA9013A	Fiber Adapter
MA9901B	Fiber Adapter
MA9903A	Connector Adapter (for MA9901B)
Z0282	Ferrule cleaner
Z0283	Ferrule cleaning tape (6 pcs/set)
Z0284	Adapter cleaner (stick type, 200 pcs/set)
MZ8012A	Connector Cleaning Set

Continued on next page

Model/Order No.	Name
MA9332A MA9333A	<p>Main frame Optical Sensor Optical Sensor</p> <p>Standard accessory Optical connector adapter*2</p> <p>Applications parts Connector adapter (MU, user replaceable) Connector adapter (LC, user replaceable) Connector adapter (FC, user replaceable) Connector adapter (ST, user replaceable) Connector adapter (DIN, user replaceable) Connector adapter (SC, user replaceable) Connector adapter (HMS-10/A, user replaceable) Fiber Adapter (for bare fiber) Fiber Adapter (for bare fiber) Connector Adapter (for MA9901A) Ferrule cleaner Ferrule cleaning tape (6 pcs/set) Adapter cleaner (stick type, 200 pcs/set) Connector Cleaning set</p>
MU931001A	<p>[Sensor adapter] Main frame Sensor Adapter</p> <p>Standard accessory Optical sensor connect cable, 1.5 m MU931001A/MA9331A/MA9332A operation manual</p> <p>Applications parts Coaxial cord (BNC-P · RG-58A/U · BNC-P), 1 m Coaxial cord (SMA-P · 3D-2W · SMA-P), 1 m HRM-517 (09) conversion connector (SMA-P · BNC-J) HRM-518 (09) conversion connector (SMA-J · BNC-P)</p>
MU931002A	<p>Main frame Sensor Adapter</p> <p>Standard accessory Optical sensor connect cable, 1.5 m</p> <p>Applications parts Coaxial cord (BNC-P · RG-58A/U · BNC-P), 1 m Coaxial cord (SMA-P · 3D-2W · SMA-P), 1 m HRM-517 (09) conversion connector (SMA-P · BNC-J) HRM-518 (09) conversion connector (SMA-J · BNC-P)</p>
[Model]-32 [Model]-33 [Model]-37 [Model]-38 [Model]-39 [Model]-40 [Model]-43	<p>Optical connector options (for light sources and optical sensors) MU connector (user replaceable) LC connector (user replaceable) FC connector (user replaceable) ST connector (user replaceable) DIN connector (user replaceable) SC connector (user replaceable) HMS-10/A connector (user replaceable)</p>

*1: Specify an optical frequency (wavelength) and model name when ordering.

*2: When ordering, the option specified connector is supplied as standard.

Specified the option number after the light source or optical sensor model number. If a connector is not specified, a FC (Option 37) connector is supplied as standard. These are applied to DFB-LD unit, FP-LD unit, SLD unit and optical sensor. However, MU and LC connector option are only apply to MU931422B, MA9331A, MA9332A and MA9333A.



Artisan Scientific

QUALITY INSTRUMENTATION ... GUARANTEED

Looking for more information?

Visit us on the web at <http://www.artisan-scientific.com> for more information:

- Price Quotations
- Drivers
- Technical Specifications, Manuals and Documentation

Artisan Scientific is Your Source for Quality New and Certified-Used/Pre-owned Equipment

- Tens of Thousands of In-Stock Items
- Hundreds of Manufacturers Supported
- Fast Shipping and Delivery
- Leasing / Monthly Rentals
- Equipment Demos
- Consignment

Service Center Repairs

Experienced Engineers and Technicians on staff in our State-of-the-art Full-Service In-House Service Center Facility

InstraView™ Remote Inspection

Remotely inspect equipment before purchasing with our Innovative InstraView™ website at <http://www.instraview.com>

We buy used equipment! We also offer credit for Buy-Backs and Trade-Ins

Sell your excess, underutilized, and idle used equipment. Contact one of our Customer Service Representatives today!

Talk to a live person: 888-88-SOURCE (888-887-6872) | Contact us by email: sales@artisan-scientific.com | Visit our website: <http://www.artisan-scientific.com>