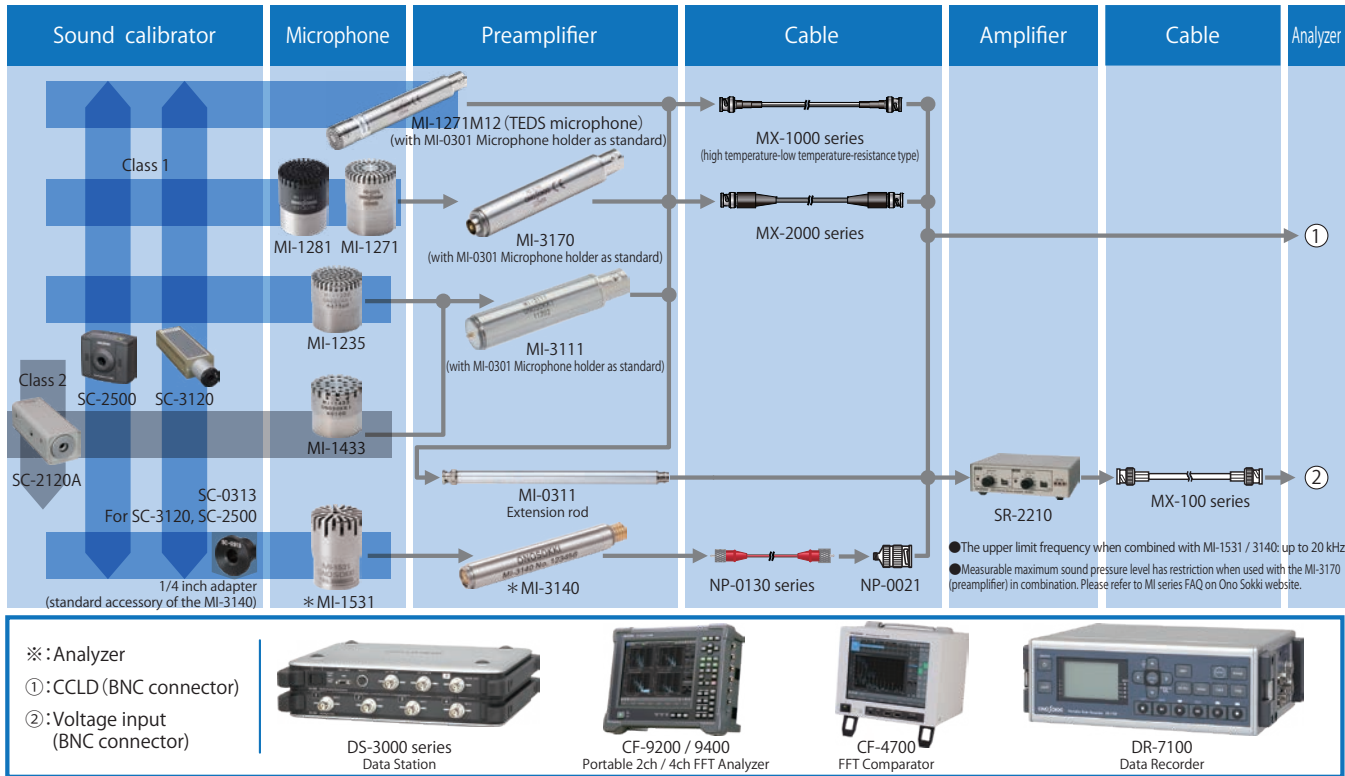


Measurement Microphone

System Configuration



*For specifications up to 100 kHz, 100 kHz unit of CF-9200 / 9400 and DS-3000 series are recommended. CF-7200, DS-2000 series 100kHz unit (discontinued product) also can support.

Peripheral Products

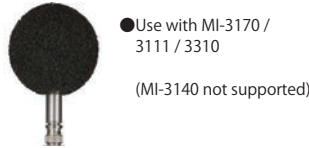
2ch Sensor Amplifier SR-2210

- Feature
- 2ch input
- Can be connected to CCLD type microphone preamplifier or accelerometer

Constant current voltage	Current: 2.4 mA / applied voltage: approx. 18 V
Operating frequency range	1Hz to 20 kHz (±0.5 dB) (when output load impedance 100 kΩ or more)
Gain	-10, 0, 10, 20, 30, 40, 50, 60 dB
Frequency weighting	A/C/FLAT(Z) (Conforming standard: IEC 61672-1, JIS C 1509-1)
Output cut-off frequency	approx. 0.2 Hz (load impedance 100 kΩ or more) approx. 0.4 Hz (load impedance 50 kΩ or more)
Input/output connector	BNC (CO2)
Power requirement	4 pieces of size AA battery cell or exclusive AC adapter
Battery life	20 hours or more when used 4 pieces of size AA alkaline battery cell (LR6)
Outer dimensions	140 (W) x 40 (H) x 125 (D) mm (not including protruded section)
Weight	approx. 500 g (including battery cells)

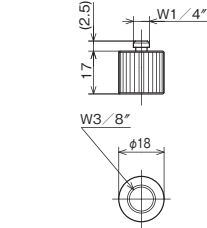
*Note: The measurement range of the microphone may be limited depending on the combination of Microphone/Preamplifier and SR-2210.

Windscreen φ70 mm



- Use with MI-3170 / 3111 / 3310
(MI-3140 not supported)

Conversion screw (1/4" → 3/8") MI-0302



Microphone holder MI-0301



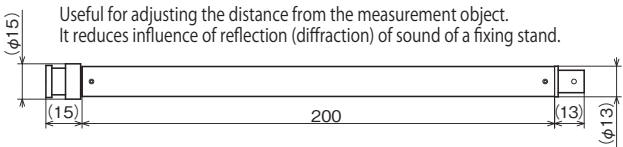
- Standard accessory of the MI-3111 / 3170 MI-1271M12

Tripod LA-0203D (Made by SLIK Corporation)



Used for fixing a microphone preamplifier, adjusting height. Free camera platform type, with a case. Shortened : 417 mm Lowest position : 170 mm Highest position : 1543 mm Weight : 980 g

Extension rod (for MI-3111/3170) MI-0311



Useful for adjusting the distance from the measurement object. It reduces influence of reflection (diffraction) of sound of a fixing stand.

Measurement Microphone and Preamplifier/Peripherals

MI series

NEW



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*Outer appearance and specifications are subject to change without prior notice.
URL: <https://www.onosokki.co.jp/English/english.htm>

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URL : <http://www.onosokki.net/>

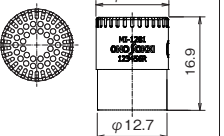
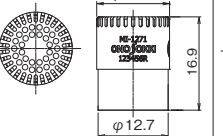
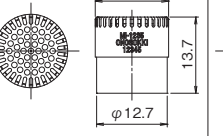
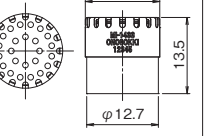
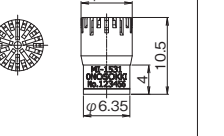
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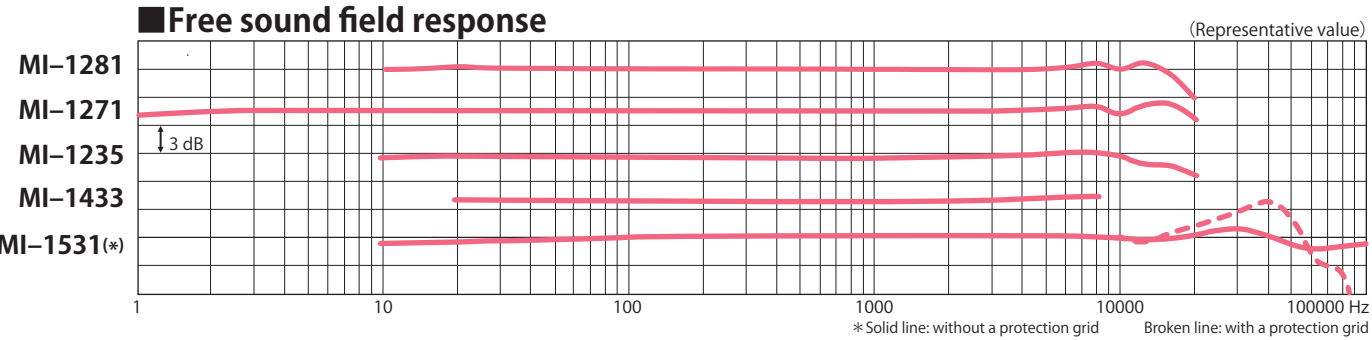
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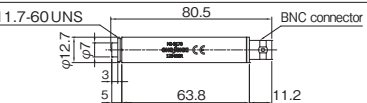
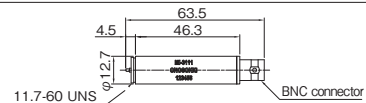
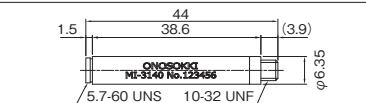
ONOSOKKI

Measurement Microphone Specification

型式	NEW MI-1281	MI-1271	MI-1235	MI-1433	MI-1531
Appearance					
Feature	•1/2-inch back electret type •High sensitivity	•1/2-inch back electret type •High sensitivity •Supports low frequency •Supports measurement under severe temperature environment	•1/2-inch back electret type •Supports audible region •Cost-effective type	•1/2-inch back electret type •Cost-effective type	•1/4-inch back electret type •Wide band measurement (up to 100 kHz) •Space-saving design
Polarization voltage	0V				
Sensitivity	-20±1.5 dB re. 1 V/Pa 100 mV/Pa (1 kHz)	-26±1.5 dB re. 1 V/Pa 50 mV/Pa (1 kHz)	-29±3 dB re. 1 V/Pa 36 mV/Pa (1 kHz)		-48±3 dB re. 1 V/Pa 4 mV/Pa (250 Hz)
Frequency range	10 Hz to 20 kHz	1 Hz to 20 kHz	10 Hz to 20 kHz	20 Hz to 8 kHz	10 Hz ~ 100 kHz (without protection grid) 10 Hz ~ 20 kHz (with protection grid)
Maximum sound pressure	128 dB (when using the MI-3170)	135dB (when using the MI-3170)	135 dB (when using the MI-3111)		157 dB (when using the MI-3140)
Self-noise level (A-weighting)	8 dB (representative value, when using MI-3170)	14 dB (representative value, when using MI-3170)	19 dB (representative value, when using MI-3111)		30 dB (representative value, when using MI-3140)
Operating temperature range	-10 to 50 °C	-30 to 80 °C	-10 to 50 °C		-30 to 60 °C
Operating humidity range	0 to 90 %RH (with no condensation)		20 to 90 %RH (with no condensation)		0 to 90 %RH (with no condensation)
Storage temperature range	-20 to 60 °C	-40 to 70 °C	-20 to 60 °C		-30 to 80 °C
Storage humidity range	0 to 90 %RH (with no condensation)		10 to 90 %RH (with no condensation)		0 to 90 %RH (with no condensation)
Outer dimensions / weight	φ 13.2×16.9 mm / approx. 6 g		φ 13.2×13.7 mm / approx. 6 g	φ 13.2×13.5 mm / approx. 6 g	φ 6.9×10.5 mm / approx. 1.5 g
Applicable preamplifier	MI-3170		MI-3111		MI-3140
Outer appearance (Unit: mm)					



Preamplifier Specification

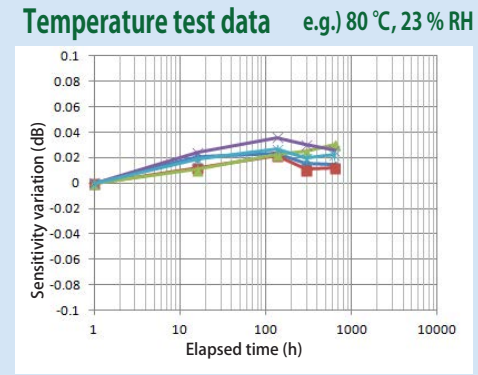
Model name	MI-3170	MI-3111	MI-3140
Appearance			
Feature	•Low frequency •Measurement under severe temperature environment •Measurement of very small sound	•Cost-effective type •Multi-channel measurement	•Space-saving design •Wide frequency range
Size	1/2-inch		1/4-inch
Attenuation (typical)	0.15 dB	1.0 dB	0.25 dB
Frequency range	10 Hz to 40 kHz (+0.1 dB, -0.2 dB, 1 kHz as reference) 1 Hz to 40 kHz (+0.1 dB, -1.5 dB, 10 Hz as reference)	10 Hz to 20 kHz (±1.0 dB, 1 kHz as reference) 20 Hz to 20 kHz (±0.6 dB, 1 kHz as reference)	10 Hz to 100 kHz (±0.5 dB as reference)
Self-noise (effective value voltage, A-weighting)	3.3 μV or less	5.0 μV or less	2.5 μV or less (20 Hz to 20 kHz)
Max. Output voltage	±8 V (peak) Sound pressure conversion 135 dB (when using the MI-1271)	±5.6 V (peak) Sound pressure conversion 135 dB (when using the MI-1235 / 1433)	±8 V (peak) Sound pressure conversion 157 dB (when using the MI-1531)
Operating temperature range	-30 to 80 °C	-10 to 50 °C	-30 to 60 °C
Operating humidity range	0 to 90 % (with no condensation)	30 to 90 % (with no condensation)	0 to 90 % (with no condensation)
Storage temperature range	-40 to 70 °C	-20 to 60 °C	-30 to 80 °C
Storage humidity range	0 to 90 % (with no condensation) CCLD 2 to 4.5 mA (rated 4 mA)	10 to 90 % (with no condensation) CCLD 0.5 to 5 mA (rated 4 mA)	0 to 95 % (with no condensation) CCLD 2 to 20 mA (rated 4 mA)
Power supply	18 VDC to 26 VDC (rated 24 V)	15 VDC to 25 VDC (rated 24 V)	15 VDC to 25 VDC (rated 24 V)
Applicable connector	CO2(BNC)		10-32 UNF
Outer dimensions	φ 12.7 × 80.5 mm	φ 12.7 × 63.5 mm	φ 6.35 × 44 mm
Cable	MX-1000 series (recommended), MX-2000 series	MX-2000 series (recommended)	NP-0130 series (recommended)
Weight	Approx. 35 g (not including microphone)	Approx. 25 g (not including microphone)	Approx. 5.5 g (not including microphone)
Accessory	Protection cap for input connector × 1 MI-0301 (microphone holder for mounting tripod) × 1 Instruction manual × 1		Protection cap for input connector × 1 SC-0313 conversion adapter (1/2 to 1/4 inch) × 1 Instruction manual × 1
Outer appearance (Unit: mm)			

TEDS Measurement Microphone

MI-1271M12
(MI-1271+MI-3170 Microphone with built-in amplifier)



A microphone with a built-in amplifier. This microphone can be directly connected to a device equipped with a CCLD (constant current drive) power supply using a BNC cable. When connected to a TEDS-compatible device, information such as sensitivity is automatically read, eliminating the need for complicated calibration work. Reliable measurement and time reduction are achieved.



Diameter, response type, polarization voltage	1/2 inch, free sound field, 0 V
Sensitivity	-26.0 ±1.5 dB re.1 V/Pa (50 mV/Pa)
Frequency range	1 Hz to 20 kHz (±2 dB)
Capacitance	12 pF (re.)
Maximum sound pressure level (250 Hz, 3% distortion)	135 dB or more
Cartridge thermal noise (A-weighting)	14.0 dB (re.)
Pressure coefficient (250 Hz)	-0.013 dB/kPa
Temperature coefficient (250 Hz)	+0.005 dB/K
Humidity coefficient (250 Hz)	-0.0004 dB/%
Estimated long-term stability	0.03 dB/year or less (in reference environmental condition) 0.30 dB/year or less (at 80 °C, 23 % RH)
Operating temperature range	-30 to 80 °C
Operating humidity range	0 to 90 % RH (with no condensation)
Storage temperature range	-40 to 70 °C
Storage humidity range	0 to 90 % RH (with no condensation)
Power requirement	Constant Current Line Drive
Drive current	2 to 4.5 mA (rated 4 mA)
Drive supply voltage	DC18 to 26V (rated 24V)
Output connector	CO2 type (BNC)
TEDS version	IEEE1451.4.2004 (Template: Microphone with built-in Preamplifier Ver.1.0)
Outer dimensions, weight	φ 13.2 x 91.9 mm, approx. 41 g
Accessory	Calibration chart, instruction manual, microphone holder (MI-0301)

*Reference environmental condition : 23 °C, 50 % RH,101.3 kPa
*Cable length conforming to CE marking: up to 30 m
*For the TEDS compatibility of the measuring instruments and amplifiers to be connected, contact the store where you purchased.

Sound Calibrator Specification

Model name	SC-3120	SC-2500	SC-2120A
Appearance			
Applicable standard	IEC 60942:2003 Class 1/C JIS C 1515:2004 Class 1/C	IEC 60942:2017 Class 1 ANSI S1 40 2006 (R2011) Class 1 JIS C 1515:2020 Class 1 *1	IEC 60942:2003 Class 2 JIS C 1515:2004 Class 2
Method	Piston-phone	Dynamic speaker	
Applicable microphone	1/2-inch microphone : MI-1211/1233/1234/1235/1271/1281, MI-1431/1432/1433 1/4-inch microphone : MI-1531* *SC-0313 adapter attached to MI-3140 1/4-inch preamplifier is required.		1/2-inch microphone MI-1431 / 1432 / 1433
Sound pressure level	Nominal sound pressure level : 114 dB Deviation of sound pressure level: ±0.4 dB or less*2	Nominal sound pressure level : 114 dB Deviation of sound pressure level: ±0.25 dB or less*2	Nominal sound pressure level : 94 dB Deviation of sound pressure level: ±0.5 dB or less*2
Total distortion	2.5 % or less	0.5 % or less	
Frequency	Nominal frequency : 250 Hz Frequency deviation ±0.4 % or less*2	Nominal frequency : 1000 Hz Frequency deviation ±0.5 % or less*2	Nominal frequency : 1000 Hz Frequency deviation ±1 % or less*2
Operating environment	Air temperature : -10 to 50 °C (with no condensation) Static pressure : 65 to 108 kPa Relative humidity : 25 to 90 % (Excluding a combination of air temperature and humidity that exceeds dew-point temperature of 39 °C or higher.)		
Power requirement	Size AA battery (R6P or LR6) × 3	Size AA battery (LR6 or HR6) × 2	9V flat battery (6F22 or 6LR61) × 1
Battery life	2.5 hours or more continuous operation (when using R6P)	4 hours or more continuous operation (when using LR6)	20 hours or more continuous operation (when using 6F22)
Outer dimensions (not including protruded section)	60 (W) × 38 (H) × 200 (D) mm	84 (W) × 53 (H) × 76 (D) mm	52 (W) × 45 (H) × 130 (D) mm
Weight	Approx. 600 g (not including battery cells)	Approx. 200 g (not including battery cells)	Approx. 300 g (not including battery cells)
Accessory	Instruction manual × 1 Barometer × 1 Size AA battery (R6P) × 3 Storage case × 1 SC-0312 (1/2-inch adapter) × 1	Instruction manual × 1 Size AA battery (LR6) × 2	Instruction manual × 1 9V flat battery (6F22) × 1

*1: The main body display of sound calibrator: JIS C 1515: 2020 Class 1 from May 2020 onwards, (previous display JIS C 1515: 2004 Class 1).
*2: Under reference environment (reference environment condition: air temperature 23°C, static pressure 101.325 kPa, relative humidity 50%)