

MCP

MCP ASSEMBLY

F2223-21SH

FEATURES

- High sensitivity
- High S/N ratio
- Wide dynamic range
- Center hole for beam line
- Compact and lightweight

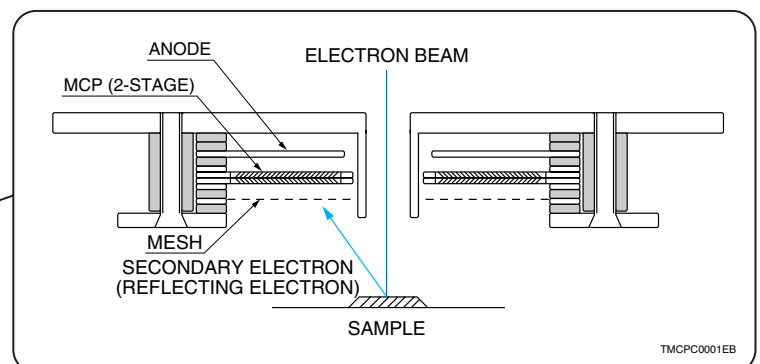
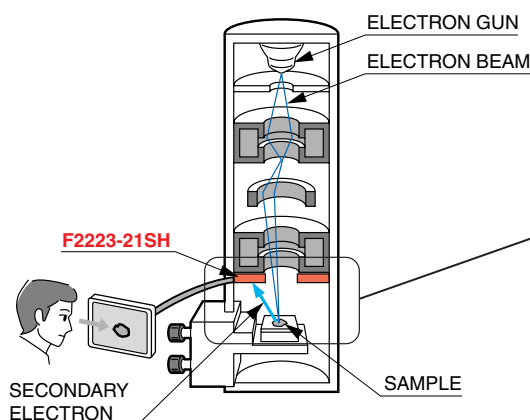


OVERVIEW

This MCP assembly is a suitable detector for an electron or ion beam in SEM, SIM or Lithography. It is possible to detect some signal from a sample with high sensitivity, that can be performed with the compactness and the center hole of this assembly. It allows to set this assembly at close position to the sample and gives better efficiency in the beam detection.

APPLICATIONS

- Scanning electron microscopy
- Scanning ion microscopy
- Electron lithography
- Mask aligner
- Electron beam measuring system
- Ion scattering spectroscopy



SPECIFICATIONS

GENERAL

Parameter	Value	Unit
MCP Channel Diameter	12	μm
Number of MCPs	2	—
Effective Area	φ27	mm
MCP Center Dead Area	φ8	mm

ELECTRICAL CHARACTERISTICS

(Supply Voltage: 2 kV, Vacuum: 1.3×10^{-4} Pa, Operating Ambient Temperature: +25 °C)

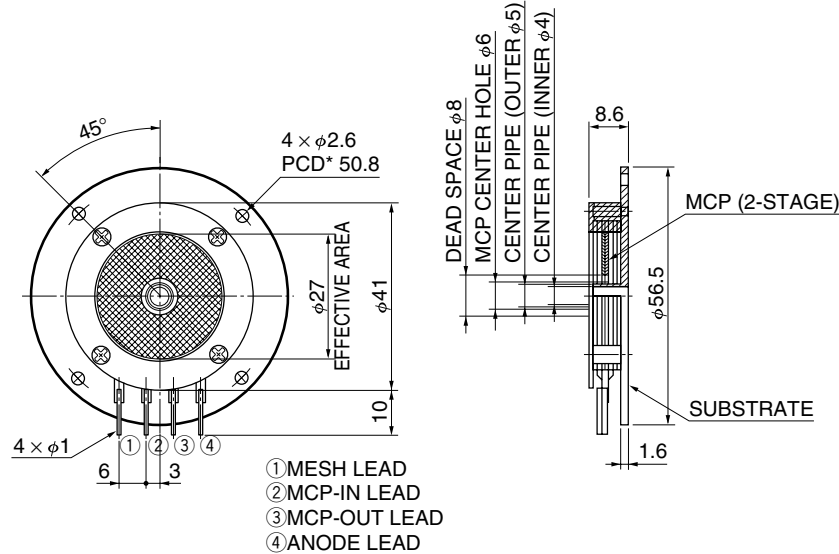
Parameter	Value	Unit
Gain (Min.)	1×10^6	—
Resistance (Typ.)	20 to 100	MΩ
Dark Current (Max.)	120	pA·cm ²

MAXIMUM RATINGS

Parameter	Value	Unit
MCP Supply Voltage (Max.)	2	kV
MCP-Out to Anode Supply Voltage (Max.)	0.5	kV
Mesh to MCP-In Supply Voltage	0.5	kV
Anode to Substrate Supply Voltage	3	kV
Operating Vacuum Condition ^(A)	1.3×10^{-4}	Pa
Ambient Operating Temperature	+10 to +40	°C
Baking Temperature ^(A)	150	°C

^(A)Better vacuum than 1.3×10^{-4} Pa

DIMENSIONAL OUTLINES (Unit: mm)



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