



CRYOGENIC TERMINATION

7mm CONNECTOR, DC TO 18 GHz

The following is a listing of the options, accessories and complementary equipment available for use with model MT7118. For complete specifications on model MT7118, refer to Maury data sheet 4A-008.

Options

- Option 01:** Instrument case, a practical and attractive foam-lined wooden case for transporting and storing this instrument with its small accessories and documents.
- Option 02:** Additional calibration* at 2.295 and 2.388 GHz
- Option 03:** Additional calibration* at 3.7 and 4.2 GHz.
- Option 04:** Additional calibration* at 5.925, 6.175 and 6.425 GHz.
- Option 05:** Additional calibration* at 7.25 and 7.75 GHz.
- Option 06:** Additional calibration* at 11.7, 11.95 and 12.2 GHz.
- Option 07:** Additional calibration* at 11 and 14 GHz.
- Option 08:** Additional calibration* at 14.0, 14.25 and 14.5 GHz.
- Option 10:** Provided with instrument case and pressurizing system MT152A in one shipping container.
- Option 11:** Provided with heater circuit for 240V, 50 Hz operation
- Option 12:** Provided calibrated* at two additional frequencies, customer to specify.
- Option 13:** Provided calibrated* at three additional frequencies, customer to specify.
- Option 14:** Provided calibrated* at four additional frequencies, customer to specify.

* For noise temperature (T') and VSWR.

Accessories

The following are adapters or adapter sets available for use with model MT7118. All these units are calibrated for VSWR and insertion loss so that their input noise temperature can be calculated, they are provided with a test report and operating note. It is recommended that they be purchased at the same time as the cryogenic termination and the appropriate option is also ordered. However, they can be purchased at a later date. VSWR calibration of the adapter(s) assembled to the cryogenic termination is subject to additional charge and will be quoted on request.

- 2606M:** Set of precision Type N to 7mm adapters both male and female. Calibrated at 3.95, 7.5, 12.4 and 18 GHz¹.
- 8022M:** Set of precision type 3.5mm to 7mm adapters both male and female. Calibrated at 3.95, 7.5, 12.4 and 18 GHz.
- 2607M:** Precision GR900 to 7mm adapter calibrated at 3.95, 7.5 and 8.5¹.
- R299E:** Calibrated WR430 waveguide to 7mm end launch adapter. Calibrated at 2.295 and 2.388 GHz. Option 02 should also be ordered².
- E229D:** Calibrated WR229 waveguide to 7mm end launch adapter. Calibrated at 3.7, 3.95 and 4.2 GHz. Option 03 should also be ordered².
- F229D:** Calibrated WR159 waveguide to 7mm end launch adapter. Calibrated at 5.925, 6.175 and 6.425. Option 04 should also be ordered².
- H229D:** Calibrated WR112 waveguide to 7mm end launch adapter. Calibrated at 7.25, 7.5 and 7.75 GHz. Option 05 should also be ordered².



Accessories (Continued)

X229D: Calibrated WR90 waveguide to 7mm end launch adapter. Calibrated at 11.7, 11.95 and 12.2 GHz. Option 06 should also be ordered².

M229D: Calibrated WR75 waveguide to 7mm end launch adapter. Calibrated at 11.0, 12.4 and 14.0 GHz. Option 07 should also be ordered².

P229D: Calibrated WR62 waveguide to 7mm end launch adapter. Calibrated at 14.0, 14.25 and 14.5 GHz. Option 08 should also be ordered².

NOTE: *These adapters are provided to increase the utility of the MT7118 so that calibration can be performed in other connector types and/or in waveguide configurations. However, as in any other precision microwave measurement, using adapters will degrade the accuracy of the basic instrument. For optimum accuracy, it is always recommended that a cryogenic termination with the specific connector or waveguide flange be used. Also, in the case of waveguide measurements, stability or repeatability will not be as good as when using a waveguide cryogenic termination.*

Complementary Equipment

MT152A: Pressurizing system provides necessary valves, gauges and hardware required to connect an external helium gas supply to this instrument. (Helium gas supply is not provided.) Refer to Maury data sheet 4F-001.

2659A: Precision ambient termination is a highly stable low VSWR termination provided with a dial thermometer. Refer to Maury data sheet 4C-008.

MT7108A: Precision thermal termination (hot load) is a companion unit to the MT7118 with similar electrical specifications designed to operate at 100° C. Refer to Maury data sheet 4D-008.

Should you require calibration or adapters not covered herein, please contact the factory. Maury produces an extensive line of precision noise calibration devices such as cryogenic (cold), thermal (hot) and ambient terminations in both coaxial and waveguide structures from DC to 40 GHz. Refer to the Maury catalog for additional information on these products.

¹ Refer to the Maury catalog for VSWR of the adapters used in this option.

² All waveguide to coaxial adapters are rated at 1.05 maximum VSWR over the option frequency range.