

M200

High Sensitivity Fourier Transform Infrared (FTIR) Spectrometer



The M200 is a rugged, lightweight, highly sensitive Fourier Transform Infrared (FTIR) spectrometer that incorporates Block's decades long experience developing and delivering sophisticated instruments. The M200 increases the optical throughput of the Model 90/100 by a factor of 10. The M200 is a standalone device that provides spectral readings for subsequent data processing by the users and it is being used today by several government and DoD customers.

MODEL 200-LW SPECIFICATIONS - Rev 2010

(Model 200 Longwave)

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PARAMETER	SYSTEM VALUE	UNITS
Sensor Type	Michelson	N.A.
Spectral Range	7 to 13.5	µm
Spectral Resolution	(2 optional), 4, 8, 16	cm ⁻¹
Scan Format	Double Sided	N.A.
Field-of-View (see Narrow Option)	1.5 x 1.5 with 8 cm Aperture Telescope	Degrees
Scan Rate @ 4 cm ⁻¹ , 5 cm/sec.	6.6 (measured)	Spectra/second
Retardation Rate	0.625, 1.25, 2.5, 5 (Pick one)	cm/second
Sampling Frequency @ 1x	10, 20, 40, 80	kHz
NESR (13µm, 769 cm ⁻¹)* per scan	< 2.0 x 10 ⁻⁹	Watts/(cm ² cm ⁻¹ sr)
NESR (11µm, 909 cm ⁻¹)* per scan	< 1.0 x 10 ⁻⁹	Watts/(cm ² cm ⁻¹ sr)
NESR (8µm, 1250 cm ⁻¹)* per scan	< 2.0 x 10 ⁻⁹	Watts/(cm ² cm ⁻¹ sr)
Laser Reference	0.63 µm HeNe Laser	N.A.
White Light	Yes	N.A.
Signal Detector	HgCdTe, D*peak > 4 10 ¹⁰ cm Hz ^{1/2} /Watt	N.A.
Detector Size	1.5 x 1.5	mm x mm
Detector Cooling	Pour Fill (optional Closed Cycle Stirling)	N.A.
System Power	< 35 (steady state)	Watts
System Voltage Input	28 (+4, -7)	Volts DC
Physical Size (LxWxH) w/o Telescope	9 x 6 x 6.25	Inches
System Weight	~ 35	Pounds
Mounting	Hard Mounted	N.A.
Mounting Orientation	Any Orientation Closed Cycle Cooler; +/-45 Degrees Pour Fill Option	N.A.
Operating Temperature	0 to 50	Degrees C
Output Signal	24 Bit Digital RS422	N.A.
Cable	12' Power/Comm cable, to 15 Pin D, 9 Pin D, 5 Pin Power Connector	N.A.
Test Box & Cable	Included	N.A.
Optional Narrow Field-of-View	0.4 x 0.4 with 12" Aperture Telescope	Degrees
Optional Narrow Aperture	12" Cassegrain Telescope (30.5 cm)	N.A.
Optional Retardation Rates	0.625, 1.25, 2.5, 5.0	cm/second