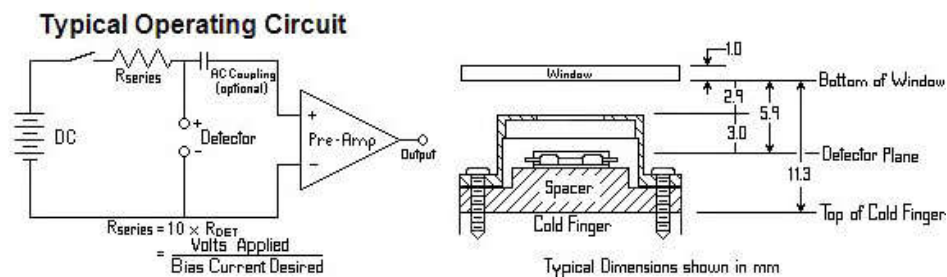


LN2 Cooled HgCdTe Detectors

Each detector is optimized for specified wavebands of; 2µm to 5µm, 2µm to 13µm or our FTIR Series with wavebands up to 2µm to 24µm, as shown in the table below.

The FTIR series of HgCdTe detectors are designed to achieve optimum performance in Fourier Transform Infrared spectrometers. The detectors offer the highest sensitivities with cutoffs ranging from 750 to 400 cm⁻¹.

A variety of dewar designs are available, all supplied with wedged windows to eliminate interference effects. In addition to the standard sizes listed in the following table, custom configurations are available on request. Custom packaging, both metal and glass, designed to interface with customer specified cooling systems, is also available.



Standard Liquid Nitrogen cooled HgCdTe Detectors

FOV=60°									
Model Number	Element Size (mm)	Wave-length Peak λ_p (μm)	Wavelength Response (20% λ_{co}) (μm)	D* ($\lambda_p, 10000, 1$) ($\text{cmHz}^{1/2}\text{W}^{-1}$)	Responsivity (pk, (V/W))	Resistance (Ω)	Time Constant(μsec)	Std. Pkg.	Std. Window
2 μm to 5 μm									
MCT-5-N-0.05	0.05 X 0.05	~4.5	≥ 5.0	$\geq 1.0\text{E}11$	$\geq 100,000$	50-500	~1.0	MSL-8 MSL-12 OR MDL-8 MDL-12	Sapphire
MCT-5-N-0.10	0.10 X 0.10				$\geq 50,000$				
MCT-5-N-0.25	0.25 X 0.25				$\geq 10,000$				
MCT-5-N-0.50	0.50 X 0.50				$\geq 4,000$				
MCT-5-N-1.00	1.00 X 1.00			$\geq 2,000$					
MCT-5-N-2.00	2.00 X 2.00			$\geq 8.0\text{E}10$	$\geq 1,000$				
2 μm to 13 μm									
MCT-13-.025	.025 X .025	~12.0	≥ 13.0 (750 cm^{-1})	$\geq 5.0\text{E}10$	$\geq 100,000$	20-100	~0.4	MSL-8 MSL-12 OR MDL-8 MDL-12	ZnS ZnSe (2-14mm)
MCT-13-0.05	0.05 X 0.05				$\geq 60,000$				
MCT-13-0.10	0.10 X 0.10				$\geq 30,000$				
MCT-13-0.25	0.25 X 0.25				$\geq 10,000$				
MCT-13-0.50	0.50 X 0.50			$\geq 5,000$					
MCT-13-1.00	1.00 X 1.00			$\geq 2,000$					
MCT-13-2.00	2.00 X 2.00			≥ 500					
MCT-13-3.00	3.00 X 3.00			≥ 200					
MCT-13-4.00	4.00 X 4.00			$\geq 2.0\text{E}10$	≥ 100				
2 μm to 24 μm "FTIR Series"									
FTIR-16-0.10	0.10 X 0.10	~14.0	≥ 16.6 (600 cm^{-1})	$\geq 4.0\text{E}10$	$\geq 10,000$	20-100	~0.2	MSL-8 MSL-12 OR MDL-8 MDL-12	ZnSe/W
FTIR-16-0.25	0.25 X 0.25				$\geq 3,000$				
FTIR-16-0.50	0.50 X 0.50				$\geq 1,500$				
FTIR-16-1.00	1.00 X 1.00				≥ 800				
FTIR-16-2.00	2.00 X 2.00			≥ 200					
FTIR-22-0.25	0.25 X 0.25	~18.0	≥ 22.2 (450 cm^{-1})	$\geq 1.0\text{E}10$	≥ 700	20-100	~0.1	Same as FTIR-16	KRS-5/W
FTIR-22-0.50	0.50 X 0.50				≥ 350				
FTIR-22-1.00	1.00 X 1.00				≥ 150				
					≥ 200				
FTIR-24-0.25	0.25 X 0.25	~18.0	≥ 24.0 (415 cm^{-1})	$\geq 5.0\text{E}9$	≥ 50	20-100	~0.1	Same as FTIR-16	KRS-5/W
FTIR-24-1.00	1.00 X 1.00								
MSL-8 Side Looking Metal Dewar---8 Hour Hold Time					MSL-12 Side Looking Metal Dewar---12 Hour Hold Time				
MDL-8 Down Looking Metal Dewar---8 Hour Hold Time					MDL-12 Down Looking Metal Dewar---12 Hour Hold Time				