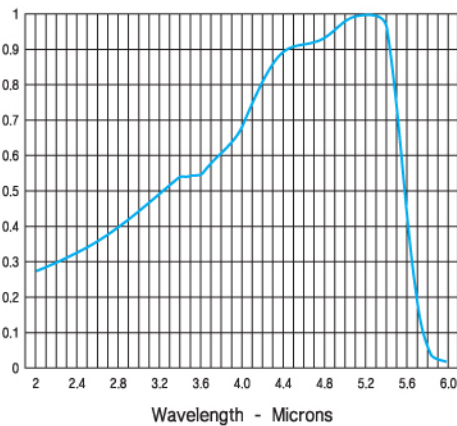


Features

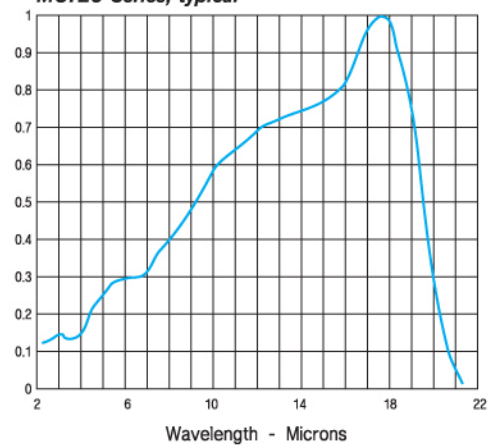
- Selected high sensitivity detector elements
- Ultimate in sensitivity, EMI immunity
- Low microphonic noise
- Compact dual gain preamplifier, switch selectable
- BNC output connector
- Shielded power cable compatible with power supply
- LN₂ fill funnel included
- Custom options include offset control, additional gain control, and multi-stage amplifiers



IS Series Typical Spectral Response



MCT RELATIVE SPECTRAL RESPONSE
MCT20-Series, typical



Type	Part Number	Active Area	Wavelength* Range (nm)	Responsivity @1.3μm (A/W)	NEP* (W/Hz ^{1/2})	Shunt* Resistance	Shunt Capacitance	Bandwidth (Hz)
Germanium	G-030-E-LN	3mm dia.	800-1800 (800-1500)	0.8 min. 0.9 typ.	<0.7x10 ⁻¹² (<1.5x10 ⁻¹⁵)	>40KΩ (>1GΩ)	13000pF typ.	DC-30/300
	G-050-E-LN6N	5mm dia.	800-1800 (800-1500)	0.8 min. 0.9 typ.	<1.5x10 ⁻¹² (<1.5x10 ⁻¹⁵)	>10KΩ (>1GΩ)	30000pF typ.	DC-15/150
InGaAs	IGA-010-E-LN4	1mm dia.	1000-1700 (1000-1500)	1.1 typ. @ 298K	<2x10 ⁻¹⁵ @1.3 μm,100Hz	100MΩ (>10GΩ)	100pF typ. @ 298K	DC-100 typ.
	IGA-020-E-LN4	2mm dia.	900-1700 (900-1550)	0.8 min. 0.9 typ.	-	5MΩ min. (>10GΩ)	500pF typ. @ 298K	DC-100 typ.
	IGA-020-E-LN6N	2mm dia.	1000-1700 (1000-1500)	0.8 min. 0.9 typ.	<5x10 ⁻¹⁴ (<1.5x10 ⁻¹⁵)	>5MΩ (>1GΩ)	400 pF typ.	DC-30/300
	IGA-020-E-LN7	2mm dia.	1000-1500	2x10 ¹⁰ / 2x10 ⁹	1x10 ⁻¹⁵ /4x10 ⁻¹⁵	-	-	DC-150/500
	IGA-030-E-LN4	3mm dia.	900-1700 (900-1550)	0.8 min. 0.9 typ.	-	5MΩ (>10GΩ)	1000pF typ. @ 298K	DC-100 typ.
	IGA-030-E-LN6N	3mm dia.	1000-1700 (1000-1500)	0.8 min. 0.9 typ.	<5x10 ⁻¹⁴ (<1.5x10 ⁻¹⁵)	>5MΩ (>1GΩ)	1000pF typ.	DC-30/300
Extended InGaAs	IGA2.2-010-E-LN4	1mm dia.	1100-2600 (1100-2400)	1.1 typ. @ 298K	<4x10 ⁻¹⁴ @2.2 μm,100Hz	3KΩ (>2MΩ)	200pF typ. @ 298K	DC-100 typ.
	IGA2.2-010-E-LN7	1mm dia.	1300-2300	2x10 ⁹ / 2x10 ⁸ @ amp out	<1x10 ⁻¹³	-	-	DC-500/2500

Note : *@298k, (@77k)

Is Series Cryogenic Receivers

Type	Part Number	Active Area	Wavelength* Range (nm)	Responsivity @5.3 μ m (A/W)	NEP* (W/Hz ^{1/2})	Shunt* Resistance	Shunt Capacitance	Bandwidth (Hz)
InSb	IS-010-E-LN4	1mm dia.	1000-5500	5x10 ⁵ / 1x10 ⁴	(<7x10 ⁻¹³)	(>2M Ω)	450pF typ.	DC-200k
	IS-010-E-LN6N	1mm dia.	1000-5500	5x10 ⁵ / 1x10 ⁴	(<7x10 ⁻¹³)	(>2M Ω)	450pF typ.	DC-50K
	IS-010-E-LN9	1mm dia.	1000-5500	5x10 ⁵ / 1x10 ⁴	(<7x10 ⁻¹³)	(>2M Ω)	450pF typ.	DC-50K
	IS-020-E-LN6N	2mm dia.	1000-5500	1x10 ⁵ / 1x10 ⁴	(<1.5x10 ⁻¹²)	(>200K Ω)	1200pF typ.	DC-2500
	IS-020-E-LN7	2mm dia.	1000-5500	1x10 ⁵ / 1x10 ⁴	(<1.5x10 ⁻¹²)	(>200K Ω)	1200pF typ.	DC-2500
	IS-030-E-LN4	3mm dia.	1000-5500	5x10 ⁴ / 1x10 ³	-	(>200K Ω)	1200pF typ.	DC-2500
	IS-040-E-LN6N	4mm dia.	1000-5500	3.5x10 ⁴ / 10 ³	-	(>50K Ω)	1200pF typ.	DC-2500
	IS-040-E-LN7	4mm dia.	1000-5500	3.5x10 ⁴ / 10 ³	-	-	-	DC-2500

Note : * Wavelength range, NEP and Shunt resistance @ 298K, (@ 77K)
 Field of View : 60° nominal
 Amplifier : Dual-Gain Transimpedance
 Hold Time : 12 hours minimum with liquid N₂
 (-LN4 Series : 8hrs min. , IS-010-E-LN9 : 24hrs min.)

MCT Cryogenic Receivers

Type	Part Number	Active Area	Operating Wavelength	Responsivity V/W @ pK	Detectivity (cm-Hz ^{1/2} /W)	Bandwidth (Hz)
HgCdTe	MCT10-0025-E-LN	0.25mm sq	2-12 μ m	10 ⁷	>5x10 ¹⁰	5-50K STD
	MCT10-005-E-LN	0.5mm sq	2-12 μ m	10 ⁶	>5x10 ¹⁰	5-50K STD
	MCT10-010-E-LN	1mm sq	2-12 μ m	10 ⁶	>5x10 ¹⁰	5-50K STD
	MCT10-020-E-LN	2mm sq	2-12 μ m	10 ⁵	>5x10 ¹⁰	5-50K STD
	MCT14-0025-E-LN	0.25mm sq	2-15 μ m	10 ⁷	>4x10 ¹⁰	5-50K STD
	MCT14-005-E-LN	0.5mm sq	2-15 μ m	10 ⁶	>4x10 ¹⁰	5-50K STD
	MCT14-010-E-LN	1mm sq	2-15 μ m	10 ⁶	>4x10 ¹⁰	5-50K STD
	MCT14-020-E-LN	2mm sq	2-15 μ m	10 ⁵	>4x10 ¹⁰	5-50K STD
	MCT20-005-E-LN	0.5mm sq	2-20 μ m	10 ⁵	>1x10 ¹⁰	5-50K STD
	MCT20-010-E-LN	1mm sq	2-20 μ m	10 ⁵	>0.5x10 ¹⁰	5-50K STD

Note : Power Requirement : ± 9 to 15VDC, 60mA
 Package : LN Dewar

LN-6 2-Color Photodetector Receivers

Part Number	Material	Active Area	Wavelength Range	Responsivity V/W @ pK	Noise (V/Hz ^{1/2} /W)	Detectivity (cm-Hz ^{1/2} /W)
IS/MCT(12)-010-E/LN6	InSb (top)	1mm dia.	2000-5500nm	2.5x10 ⁵ /10 ⁴	2.5x10 ⁻⁷ /10 ⁻⁸	1x10 ¹¹
	HgCdTe (bottom)	1mm sq	5500-14000nm	3x10 ⁵ /10 ⁴	1x10 ⁻⁶ /10 ⁻⁷	3x10 ¹⁰
IS/MCT(12)-020-E/LN6	InSb (top)	2mm dia.	2000-5500nm	10 ⁵ /10 ⁴	1.8x10 ⁻⁷ /1.810 ⁻⁸	1x10 ¹¹
	HgCdTe (bottom)	2mm sq	5500-14000nm	10 ⁵ /10 ⁴	0.7x10 ⁻⁶ /0.7x10 ⁻⁷	3x10 ¹⁰

Note : Bandwidth : InSb (DC-50KHz)
 HgCdTe (5-50KHz)
 Dewar LN₂ Hold Time : 12hours
 Power Requirements : ± 9 VDC to ± 15 VDC, 40mA