

FEATURES

- High Performance Scientific Camera
 - Sony ILX511B Sensor
 - 2048 x1 active pixels
 - 14 μm x 200 μm pixel size
- Low Power
 - USB powered
 - No external power supply needed
 - Air cooled
- Compatibility with MityCCD
 - Compatible with MityCCD software interface
- Interface Options
 - USB 2.0
- External Trigger Capability
 - External trigger via SMA cable

APPLICATIONS

- Embedded Instrumentation
- Raman Spectroscopy
- Low Light Imaging Applications
- Portable Scientific Instrumentation



Figure 1: MityCCD-I5100

TECHNICAL SPECIFICATIONS

A summary of the imaging performance of the MityCCD-I5100 camera is included below.

PERFORMANCE

	Min	Typical	Max	Units
Active Pixels	-	2048 x 1	-	H x V
Pixel Size	-	14 x 200	-	W x H ; μm
Imaging Area	-	29 x 0.2	-	W x H ; mm
ADC resolution	-	14	-	bits
Well Capacity		10.8		ke^-
Dynamic Range	-	30 ¹	-	dB
Dark Signal		3257		e^-/sec
Read Noise @ 750 KHz		tbd		e^-
Saturation Exposure		.004		Lux-sec
Dark Voltage Average		20		ADC counts
Readout Rate		750		kHz
Full Frame Rate	-	250	-	Frames / s
Power Utilization		300		mWatts

Table 1: MityCCD-I5100 Performance

Notes:

- 1 – Dynamic Range is calculated using $20\log(\text{Max ADC} / \text{Dark Signal})$. Dark Signal assumed to be 500 counts
 2 – Signal integration time of 10 ms

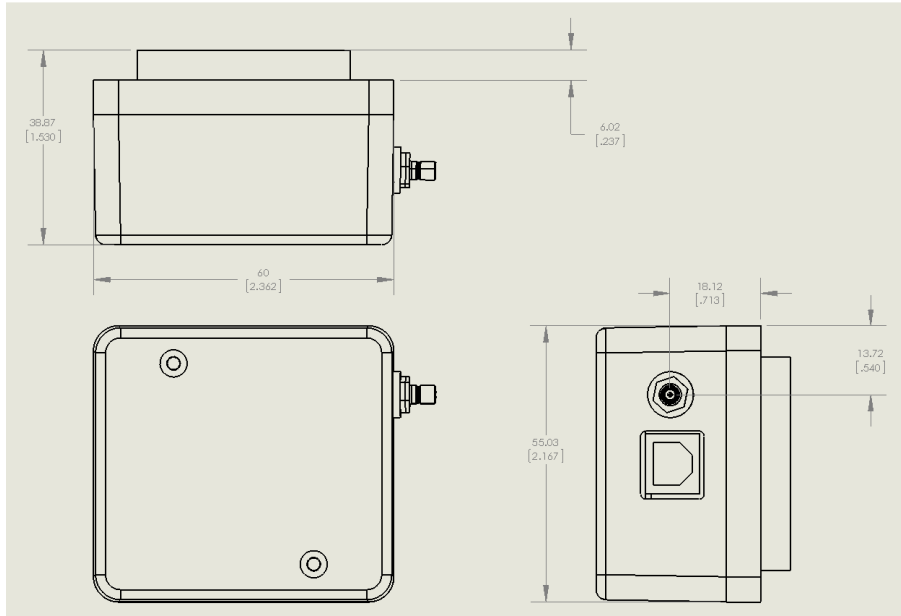


Figure 2 - Type F Housing

OPERATING AND STORAGE CONDITIONS

Ambient Temperature Range	0 °C to 30 °C
Humidity	< 80%, Non-Condensing
Storage Temperature Range	-20 °C to 55 °C

Table 2: MityCCD-I5100 Operating and Storage Conditions

ORDERING INFORMATION

