



Wavelengths from 1050nm to 1650nm are now offered in the Metaphase Line Light and Collimated Line Light. Short-wave infrared technology provides the necessary contrast to illuminate test objects that visible and ultraviolet light cannot provide.

The SWIR Line Light is the latest design in the Metaphase family of LED lights for line scan. Its narrow, structured beam delivers high intensity and concentrated light for the narrow field of view of a traditional line scan camera. The high intensity and uniformity allows the SWIR Line Light to be used as front light to inspect for material defects, angled to obtain an off-axis effect to highlight surface defects, or it may be placed beneath the object for a backlight effect to inspect for holes, voids, or contaminants.



# Available Wavelengths



### **Broadband IR**

is available for the SWIR Line Light. The SWIR Line Light can be configured with any combination of these six available wavelengths.

Utilizing a full rod focal lens, the SWIR Line Light provides a tight structured beam of light for up to 12 inches (30.48 cm). The optimal working distance is 5 inches (12.7 cm). High uniformity (±10%) makes the SWIR Line Light ideal for front and back lighting line scan applications.

WAVELENGTH (nanometers)				
White 6000K, Nominal				
1050nm				
1200nm				
1300nm				
1450nm				
1550nm				
1650nm				

CD	FCI	П	CAT	NIC
ЭГ			CAI	143

Power Source: 24VDC ±5%

Cable (Standard): 10 ft. (3 m) with flying leads Housing: Black Anodized Aluminum

Ambient Temperature: -20°C to 40°C





	SWIR Line Lights						
					Ca	ble(s)	
MODEL*	Overall Length Inches / cm	Lens Length Inches / cm	Weight Ibs/Kg	Qty	Lgth	Description	Max. Current @24VDC
UX-LL209	7.0 / 17.8	6.25 / 15.9	3.2 / 1.45			18 AWG,	2.0A max.
UX-LL309	12.0 / 30.5	11.25 / 28.6	5.4 / 2.45			4 Conductor and	2.5A max.
UX-LL409	17.0 / 43.2	16.25 / 41.3	7.7 / 3.49			24 AWG,	3.0A max.
UX-LL509	22.0 / 55.9	21.25 / 54.0	10.0 / 4.54			8 Conductor	3.5A max.
UX-LL609	27.0 / 68.6	26.25 / 66.7	12.2 / 5.53	2	10ft		4.0A max.
UX-LL709	32.0 / 81.3	31.25 / 79.4	14.5 / 6.58		1011	16 AWG,	4.5A max.
UX-LL809	37.0 / 94.0	36.25 / 92.1	16.7 / 7.57			4 Conductor and	5.0A max.
UX-LL909	42.0 / 106.7	41.25 / 104.8	18.9 / 8.57			24 AWG,	5.5A max.
UX-LL1009	47.0 / 119.4	46.25 / 117.5	21.2 / 9.62			8 Conductor	6.0A max.
UX-LL1109	52.0 / 132.1	51.25 / 130.2	23.5 / 10.6				6.5A max.
		SWIR Coll	imated Line	Lig	hts		
				Cable(s)			
MODEL*	Overall Length Inches / cm	Lens Length Inches / cm	Weight Ibs/Kg	Qty	Lgth	Description	Max. Current @24VDC
UX-CLL209	7.0 / 17.8	5.0 / 12.7	3.2 / 1.45			18 AWG,	2.0A max.
UX-CLL309	12.0 / 30.5	10.0 / 25.4	5.4 / 2.45			4 Conductor and	2.5A max.
UX-CLL409	17.0 / 43.2	15.0 / 38.1	7.7 / 3.49			24 AWG,	3.0A max.
UX-CLL509	22.0 / 55.9	20.0 / 50.8	10.0 / 4.54			8 Conductor	3.5A max.
UX-CLL609	27.0 / 68.6	25.0 / 63.5	12.2 / 5.53	2	10ft		4.0A max.
UX-CLL709	32.0 / 81.3	30.0 / 76.2	14.5 / 6.58		1010	16 AWG,	4.5A max.
UX-CLL809	37.0 / 94.0	35.0 / 88.9	16.7 / 7.57			4 Conductor and	5.0A max.
UX-CLL909	42.0 / 106.7	40.0 / 101.6	18.9 / 8.57			24 AWG,	5.5A max.
UX-CLL1009	47.0 / 119.4	45.0 / 114.3	21.2 / 9.62			8 Conductor	6.0A max.
UX-CLL1109	52.0 / 132.1	50.0 / 127.0	23.5 / 10.6				6.5A max.

<sup>\*</sup>Custom sizes and configuration are available



Cable#1 Wiring (4 conductor)				
Wire Color	Function			
RED	+24VDC			
WHITE	+24VDC			
BLACK	GROUND (24V RTN)			
GREEN	Signal Ground			

Cable#2 Wiring (8 conductor)					
Wire Color	Function				
BROWN	IR1050, 0-10V Intensity Control				
ORANGE	IR1200, 0-10V Intensity Control				
BLUE	IR1300, 0-10V Intensity Control				
GREEN	IR1450, 0-10V Intensity Control				
BROWN-white	IR1550, 0-10V Intensity Control				
ORANGE-white	IR1650, 0-10V Intensity Control				
BLUE-white	No Connection				
GREEN-white	No Connection				

Note: The 0-10VDC Intensity Control input can accept voltages from 0-24VDC where the light will operate at full intensity in the 10-24VDC range. The light is proportionally dimmer for any Intensity Control voltage less than 10VDC and the light is OFF at approximately 0V or not connected (floating).

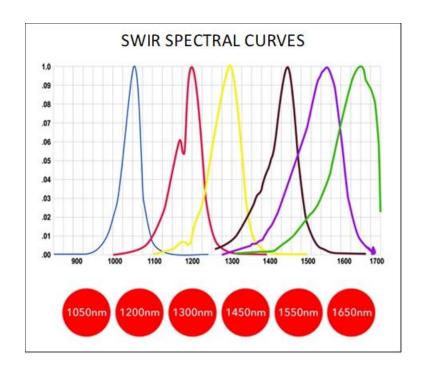




MODEL NUMBER KEY							
MODEL	LENGTH	ı	WAVELENGTH	1	OPTION 1	-	OPTION 2
UXLL	XXXX	1	xxxx	1	XXX	-	xxxx
UX-LL	<b>209</b> (5")		<b>W</b> (White 6000K)		<b>24</b> (+24VDC, standard)		FTRG (300kHz Fast Driver)
UX-CLL	<b>309</b> (10")		IR05 (1050nm)				
	<b>409</b> (15")		IR <b>20</b> (1200nm)				
	<b>509</b> (20")		IR <b>30</b> (1300nm)				
	<b>609</b> (25")		IR <b>45</b> (1450nm)				
	<b>709</b> (30")		IR <b>55</b> (1550nm)				
	<b>809</b> (35")		IR <b>65</b> (1650nm)				
	<b>909</b> (40")				<b>U</b> (ULC-2 interface)		
	<b>1009</b> (45")				<b>KEY</b> (Keyence Controller)		
	<b>1109</b> (50")				ILD (In Line Dimmer)		
			Choose all that apply		ILS (In Line Strobe)		XXX (Customizable per order)

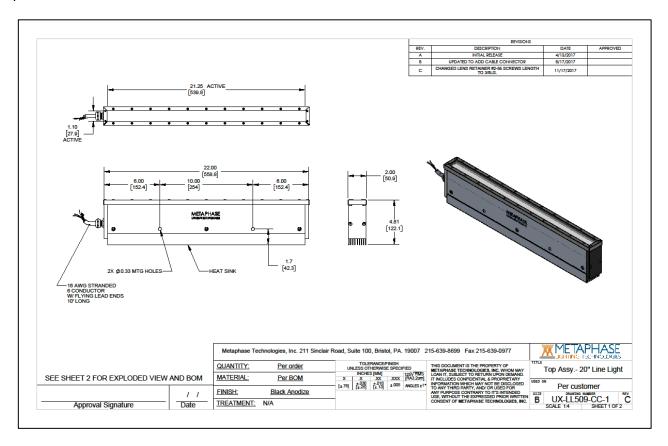
Lens Allocation: Quartz Convergence Lens (UX-LL) / Quartz Collimated Lens (UX-CLL)

Contact Metaphase Technologies or your local representative for options such as custom diffusers, lenses, polarizers, IP-rated enclosures for harsh environments, higher intensity, custom wavelengths, higher uniformity, etc. Not all options are available for all lights.





Sample Model Number: UX-LL509-IR05-20-30-45-55-24



#### **COMPLIANCE**





#### **CONTACT US**

Contact Metaphase Technologies at **215-639-8699** or your local representative for additional details, options and customizations.