1. An electroluminescent IR LED is a product which requires care in use. IR LEDs are fabricated from narrow band heterostructures with energy gap from 0.25 to 0.4 eV. That's why the bias used to initiate current flow is low compared to the well known visible or NIR LEDs. Typical forward bias is V~0.1- 1 V only for mid-IR LEDs!

2. Be sure not to exceed I*max which is given in each LED specification and do not use test instrument that contain sources/batteries with voltage greater that V_{cw} max given in specification. For LED current restriction and further LED current measurement we recommend to use resistor (1-5 Ohms) connected in serial to LED. This is important to note that un-grounded devices (e.g. computers) can give V=1-5 V that is enough to destroy the LED!

3. It is highly desirable that the user has I-V meter for small currents (10-100 $x10^{-6}$ A). We guarantee the existence of the LED output as long as V-I characteristic shows saturation in the reverse bias (10-100 $x10^{-6}$ A).

4. We recommend activating pulse generator prior connecting LED to generator. On switching off the procedure is reversed: disconnect LED, switch off pulse generator. Long wires connecting LED with pulse generator may be the reason for LED failure because of unexpected voltage surges when switching on and off the LED supply.

5. Please test all elements and circuits before applying voltage to LED. Remember that ground (T0-18 or another holder) should be biased positively (if not specially designed). Usually the negative electrode is made shorter than the positive one.

6. The expected signal is not very big and it is important to test and eliminate noise in the detector circuits.

7. In some cases it is possible to increase pulse duration. Imax in such cases can be estimated using the following equation: Imax=I* max /20*SQRT(f*t), where f-is the frequency (Hz), t-is the pulse duration (s), I* max-is the maximum current (A) for t=5 us and f=500 Hz. The equation gives an order of magnitude and may be used for t< 0.1 ms only. Pulses with t > 0.15 ms should be considered as adequate to CW operation and Imax and Vmax should be taken close to CW operation parameters. Please, note that long pulses can increase heat dissipation and the chip temperature. This effect decreases LED emission power and can be traced due to the LED resistance decrease during each pulse. CW power often decreases with time due to heatsink temperature increase.

8. Microimmersion LEDs are made with chalcogenide glass that have low melting temperature (50-70^{o}C). That’s why, please, avoid any heater source close to the LED. Even sunlight concentrated onto the lens can melt glass the lens. That’s why we recommend vertical position for the LEDs at the initial stage of the research work. We are working now to increase the glass melting temperature or/and to strengthen its position and shape.

9. Be patient in adjusting the optical system. It is only experience that allows fast work.