

## „INELTEK LIGHTS UP THE WORLD“

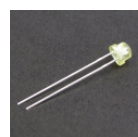
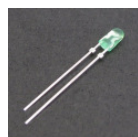
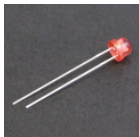
**Ineltek expanded the linecard regarding high quality LED components from the Chinese manufacturer Ledman Optoelectronics Co. Ltd. With immediate effect we are able to deliver LEDs, LED Spotlights, LED Bulbs, LED Tubes, LED Displays and LED Modules to our customers.**

The lighting technology is affected by an extreme change. The take-up of LED components is unstoppable. Step by step LEDs will replace fluorescent lamps and halogen bulbs in the market. Up until now the LED is already in progress to supplant the traditional bulb in of the market and in a huge number of special applications. The advantages compared to the traditional bulbs are: LEDs need less energy at the same luminance level, generate less heat, achieve shorter cycle time and can realize a lower boundary layer temperature, assuming the LED has a high life time.

Ledman's high quality LEDs provide a symmetrical allocation of the R/G/B luminous intensity. Thus you will get optimal visual effects to any viewing angle. Furthermore the LEDs have a high ESD-protection (HBM> 4000V) and a low loss of luminosity < 10%. They are also insensitive against fluctuations related to a change of temperature and humidity. Ledman offers a wide range of LEDs with an operating temperature of -40°C until +95°C and a life time of 100000 hours.

### Key Features LEDs (THT-Version)

Dimension: 5mm(round); 5mm(oval); 4mm(oval)	Display-,Lighting-,Traffic Light-,Automobile LEDs
Lense Color: water transparent, colored diffused	Emission Color: white, red, yellow, blue, green, celadon
Forward voltage: 2.0V; 3.0V; 3.2V	Color Ranks (white): 3200k, 6500k
Dominant Wavelength: 470nm, 505nm, 525nm, 590nm, 624nm	50%power Angle: 10deg, 15deg, 30deg, 90deg, 100deg, 120deg, 180deg
Reverse Current: 10µA	Luminous intensity: 100mcd bis zu 22000mcd



Furthermore you can directly use the SMD LEDs from Ledman for Outdoor-Applications. Following dimensions are available: 3.0mm\*2.0mm, 3.5mm\*2.8mm and 5.0mm\*5.0mm. The components are waterproof, Anti-UV laminated, long-term availability and to exhibit low intensity losses.

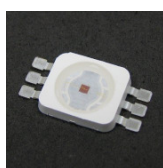
In addition we can offer high power LEDs, especially suitable for the automotive sector.

### Key Features LEDs(SMD-Version)

Dimension: 3.0*2.0mm, 3.5*2.8mm, 5.0*5.0mm	Display LEDs, Lighting LEDs, Backlight LEDs
Lense Color: white, yellow, water transparent	Emission Color: white, red, amber, blue, green, full color
Forward voltage: 2.0V, 3.2V, 3.4V	Color Ranks(white): 3200k, 6500k
Reverse Current: 10µA	50%power Angle: 120deg
Luminous intensity: von 230mcd bis zu 5800mcd	Dominant Wavelength:470, 505, 525, 590, 624nm

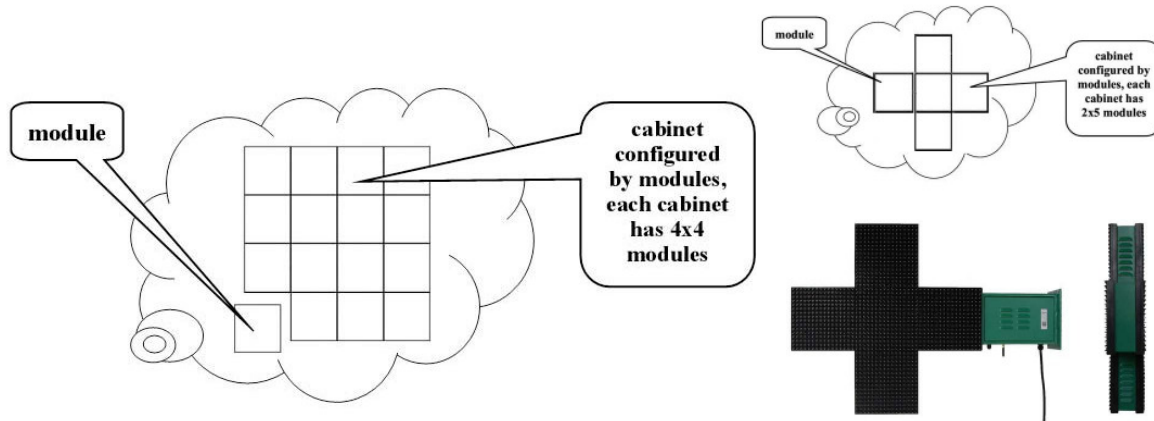
### Key Features LEDs(High-Power-Version)

Dimension: Lambertian, TOP	Lighting LEDs, Backlight LEDs, Automobile LEDs
Lense Color: water transparent, yellow	Emission Color: white, blue, green, yellow, red
Forward voltage: 2.2V, 2.4V, 3.2V, 3.4V, 3.6V, 3.8V	Dominant Wavelength: 100deg, 110deg, 120deg, 135deg, 150deg, 160deg
Luminous flux: from 20lm until 160lm	Reverse Current: 10µA



The offered Ledman LED-Displays can be equipped with ovals and SMD LEDs. One LED-Display will be composed of several LED-Modules.

The operating temperature is -30°C until +60°C. The manufacturer allowed a guarantee of 5 years, the life time of those LED-Displays will be 1000 hours regarding to 50% brightness.



**Key Features LED-Display**

Pixel pitch: from 4,4mm until 125mm	Pixel density: from 64 dots/sqm until 51653 dots/sqm
Resolution (single Module): 8x1, 8x8, 16x1, 48x1, 16x8, 16x16, 16x32, 32x16, 32x32 dots	Pixel config.: SMD 3in1, 1R1G1B(oval LED), 2R1G1B(oval LED), 2R2G2B(oval LED), 3R3G2B(oval LED), 4R4G2B(oval LED), 4R4G4B (oval LED), 6R6G6B(oval LED), 8R6G6B(oval LED), 2R or 2Y(oval LED), 4R or 4Y or 4G(oval LED), 1PG(oval LED)
Environment: indoor, outdoor or indoor/outdoor	Brightness: 1000 cd/sqm until 7500 cd/sqm
Viewing angle, horizontal: 90 deg. until 140 deg.	Viewing angle, vertical: 45 deg. until 140 deg.
Resolution(LED Display): 16x16, 32x32, 40x40, 64x96,64x48, 96x128, 128x96, 128x128	Diagonal(LED Display): from 796.4mm until 2000mm

Another highlight are the LED Tubes, they will need 60% less energy and have an eightfold longer life time as traditional fluorescent tubes. Furthermore there will be another important ecologically friendly aspect, the LED Tubes have a low CO2-Emission and will work without quicksilver. LED tubes do not generate RF interference or emit UV light and they are also free from flickering and buzzing. In addition we will offer other optoelectronic parts like LED Bulbs and LED Spotlights.

**Key Features LED-Tubes, -Bulbs, -Spotlights**

Product	Input volt.	Operating temp.	Life time (hours)	LED (pcs.)	Power consum. (W)	Weight (g)	Housing	Length (mm)	Bore (mm)
Tubes	AC 86-277 90-264 VAC	-20°C +45°C	35000	144-360	8-22	210-750	Plastic Alu.	588-1497	26-30
Bulbs	AC 86-265V	-20°C +50°C	25000	3-5	3-5	100-120	Alu. + PC/glass	-	-
Spotlights	AC 86 - 265V AC/DC12V	-20°C +50°C	25000	3-12	3,5-12	50-580	Alu.	-	-



Further information you will find at our homepage: [www.ineltek.com](http://www.ineltek.com)  
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