

**Optical IR Bandpass Filter 860nm**



**General Description**

General purpose optical IR bandpass filter at centre wavelength of 860nm. It is deposited on thin glass carrier.

The filter is designed as a single peak window filter for the wavelength range of 300 - 1050nm. It is well adapted for applications with high power LED of 850nm (e.g. OSRAM SFH 4258).

**Features**

- Optimized for high power LED 850nm
- Single peak window filter bandpass 860nm
- Specified wave range 300 – 1050nm
- Thin glass substrate
- Standard size
- Customer size on request
- Packaged in tape-on-reel for easy automatic assembly

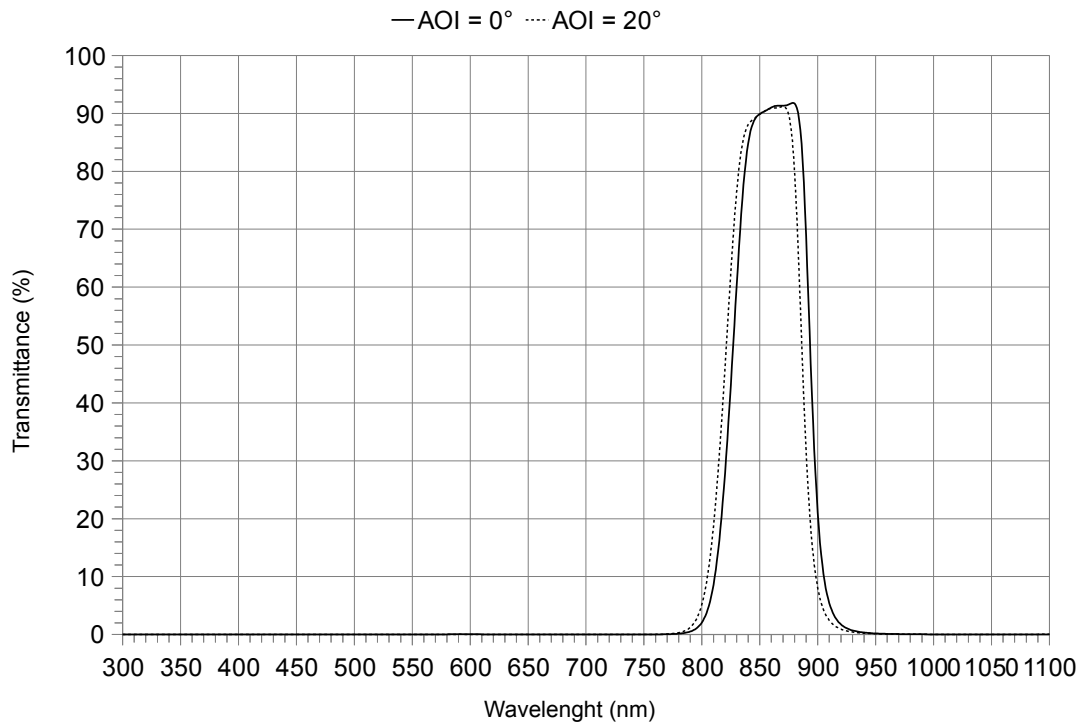
**Safety Class**

- not available

**Applications**

- IR sensor
- Light barrier
- IR camera


**Optical Data**



*Figure 1: Transmittance spectrum*

**Optical Data** (cont.)

Symbol	Parameter	Conditions/Comments	Parameter	Values			Units
				Min.	Typ.	Max.	
AOI	Angle of incident	Random polarized		0			deg
CWL <sub>(45%)</sub>	Centre wavelength	@ 45% transmittance		860 ±6			nm
FWHM <sub>(45%)</sub>	Full width at half maximum	@ 45% transmittance		65 ±10			nm
T <sub>avg</sub>	Transmittance	@ 300 nm - 800 nm		≤ 0.1			%
T <sub>avg</sub>	Transmittance	@ 845 nm - 875 nm		> 80			%
T <sub>abs</sub>	Transmittance	@ 860 ±6 nm		> 80			%
T <sub>avg</sub>	Transmittance	@ 950nm - 1050nm		≤ 0.1			%
AOI	Angle of incident	Random polarized		0 - 20			deg
SS	Spectral shift			< 15			nm

**Mechanical Data** (all measures in mm, )

Symbol	Parameter	Conditions/Comments	Parameter	Values			Units
				Min.	Typ.	Max.	
	Glass			D263T ECO or equiv.			
	Length			6.0 ±0.10			mm
	Width			2.8 ±0.10			mm
	Thickness			0.55 ±0.05			mm
	Operating ambient temperature			-40		+85	deg C
	Relative humidity	not condensing		+5		+95	%

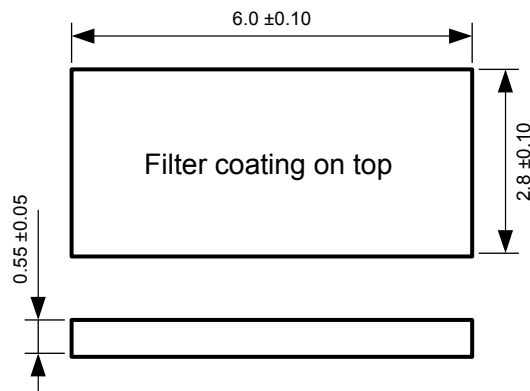
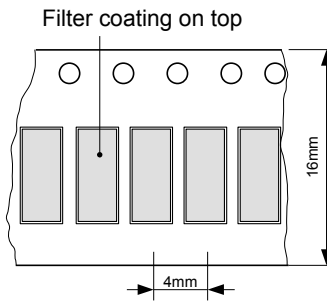


Figure 2: Mechanical dimensions

**Packaging Information** (all measures in mm, )

**Tape & Reel Information**

The devices are mounted on embossed tape for automatic placement systems. The tape is wound on 178 mm (7 inch) reels and individually packaged for shipment. General tape-and-reel specification data are available in a separate data sheet and indicate the tape sizes for various package types. Further tape-and-reel specifications can be found in the Electronic Industries Association (EIA) standard 481-1, 481-2, 481-3.



*Figure 3: Tape Dimensions. Parts are placed with filter coating top side*

Reel type	Tape size	Pieces / Reel	Packaging method
7 inch	16 mm	1'000 pcs	- Aluminium bag with vapor barrier - protective N <sub>2</sub> -atmosphere

ESPROS Photonics AG does not guarantee that there are no empty cavities. Thus, the pick-and-place machine should check the presence of a chip during picking.

**Ordering Information**

Type	Size	RoHS compliance	Packaging Method
epc-bp-860-6.0x2.8	6.0 x 2.8 mm	Yes	Reel

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