

General description

General purpose optical IR bandpass filter at centre wavelength of 955nm. It is deposited on thin glass carrier.

The filter is designed as a single peak window filter for the wavelength range of 300 - 1'100nm. It is well adapted for applications with high power LED of 940nm (e.g. OSRAM SFH 4725S).

Features

- Optimized for high power LED 940nm
- Single peak window filter bandpass 955nm
- Specified wave range 300 – 1'100nm
- Thin glass substrate
- Standard size
- Customer size on request
- Packaged in tape-on-reel for easy automatic assembly

Applications

- NIR sensor and camera
- TOF sensor and camera
- Light barrier

Optical data

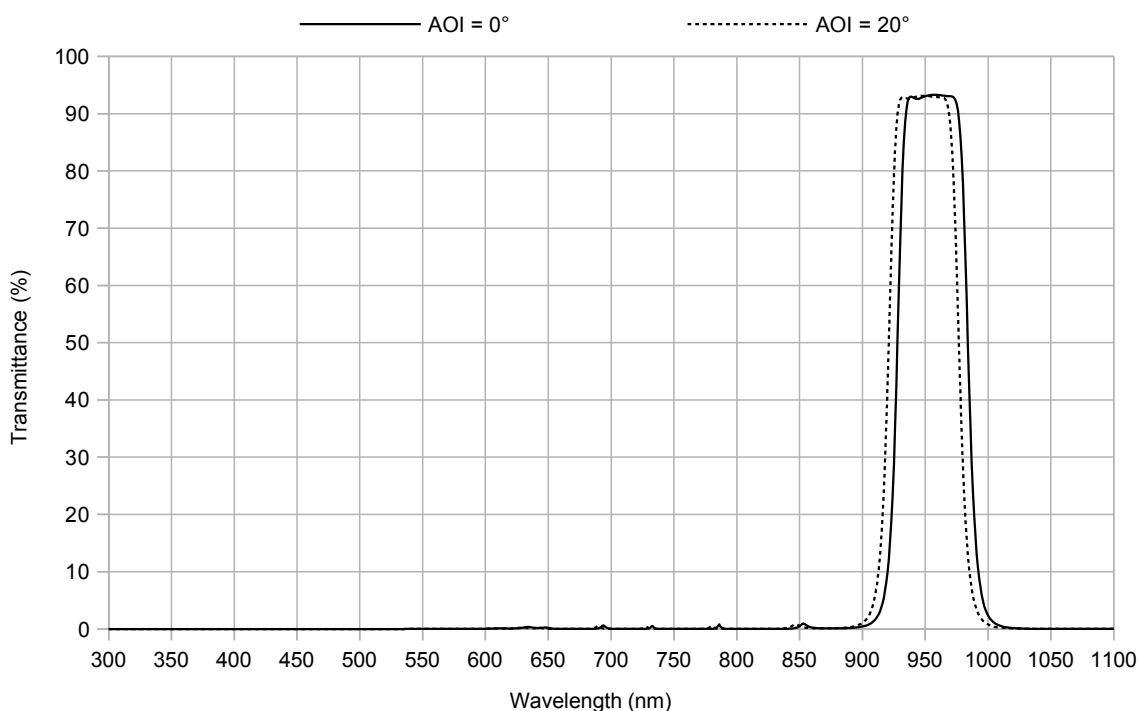


Figure 1: Transmittance spectrum

Optical data (cont.)

Symbol	Parameter	Conditions / comments	Min.	Typ.	Max.	Units
AOI	Angle of incident	Random polarized	0			deg
CWL _(50%)	Centre wavelength	@ 50% transmittance	955 ±8			nm
FWHM _(50%)	Full width at half maximum	@ 50% transmittance	55 ±8			nm
T _{avg}	Transmittance	@ 300 nm - 900 nm	≤ 0.2			%
T _{avg}	Transmittance	@ 945 nm - 965 nm	> 87			%
T _{abs}	Transmittance	@ 945 nm - 965 nm	> 80			%
T _{avg}	Transmittance	@ 1'010 nm – 1'100 nm	≤ 0.3			%
AOI	Angle of incident	Random polarized	0 - 30			deg
SS	Spectral shift		< 18			nm

Mechanical data (all measures in mm,)

Symbol	Parameter	Conditions / comments	Min.	Typ.	Max.	Units
	Glass		D263T ECO or equiv.			
	Length	according order information	L.L ±0.10			mm
	Width	according order information	W.W ±0.10			mm
	Thickness		0.30 ±0.05			mm
	Operating ambient temperature		-40		+85	deg C
	Relative humidity	not condensing	+5		+95	%

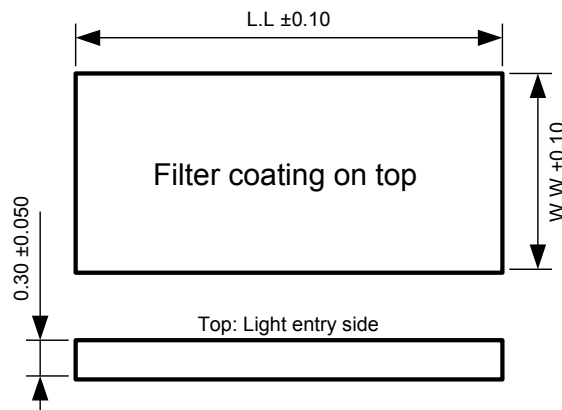


Figure 2: Mechanical dimensions (generic drawing)

Dimensions and ordering information

Part number	Type	Size	RoHS compliance	Packaging
P100 528	epc-bp955-2.0 x 2.0 x 0.3mm	1.9 x 1.9 x 0.30 mm	Yes	Reel
P100 529	epc-bp955-5.0 x 4.0 x 0.3mm	4.9 x 3.9 x 0.30 mm	Yes	Reel
P100 530	epc-bp955-8.0 x 8.0 x 0.3mm	7.9 x 7.9 x 0.30 mm	Yes	Reel

Note: Other dimensions, ordered in volumes, are available on request.

Packaging information (all dimensions in mm,)

Tape & reel information

The devices are packaged into embossed tapes for automatic placement systems. The tape is wound on 178mm (7 inch) reels and individually packaged for shipment. General tape-and-reel specification data are available in a separate datasheet and indicate the tape size 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.

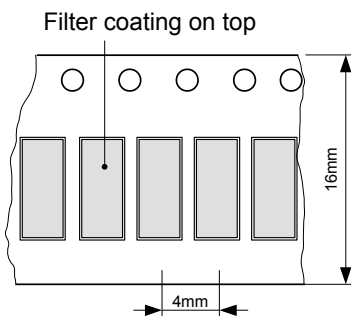


Figure 3: Tape dimensions (generic drawing).
Parts are placed with filter coating on top side

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

ESPROS does not guarantee that there are no empty cavities in the tape. The pick-and-place machine should check for the presence of a chip during picking.

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