

Features

- Converts between linear and circular polarisation
- Custom designs tailored to the application
- Good axial ratio over half waveguide band
- Models from 4 GHz to 112 GHz

Applications

- Suitable for conversion between linear and circular polarisation for transmission and reception via a horn antenna.

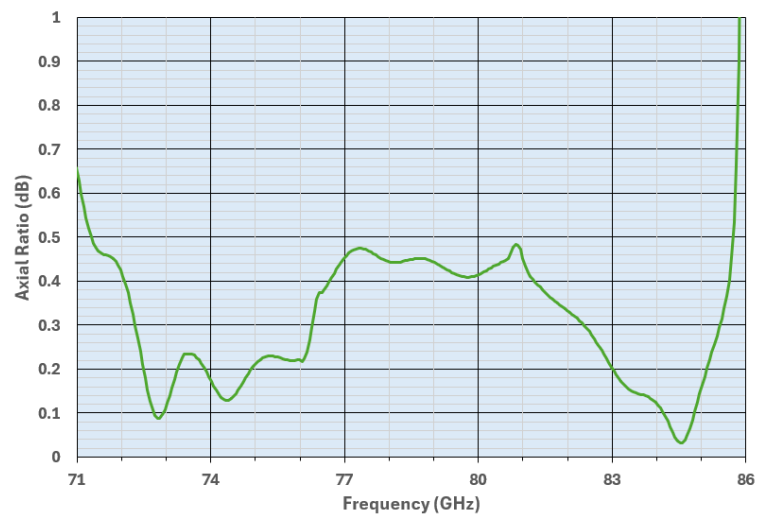


Model 26782 - Special

The Septum Polariser uses an internal stepped septum to convert between linear and circular polarisation. The instrument has two rectangular ports on one side of the septum and either a square or circular common port on the other side. For linear-to-circular conversion, driving one rectangular input produces right-hand polarisation and driving the other produces left-hand polarisation, at the common port. Operated in the other direction, for circular-to-linear conversion, the output will appear at one of the rectangular ports depending on the sense of the circular polarisation received at the common port.

Specifications

Each polariser is optimised for the frequency band of interest. Designs are typically suitable for use up to half-band, with performance dependents on bandwidth. Typical axial ratio better than 1 dB (cross-polarisation better than 25 dB). Microwave parameters for examples of some of the models available are given in the table below.



Typical Axial Ratio (dB), Model 26782-9246



Model	Waveguide			Frequency (GHz)	Axial Ratio (dB)	Return Loss (dB)	Mean Power (W)
	WG	R	WR				
09A782-19883	9A	26	340	2.4 – 2.5	0.7	20	1000
16782-18791	16	100	90	9 – 10.5	0.7	23	200
17782-18822	17	120	75	12 – 14	0.7	23	180
20782-20321	20	140	42	17.7 – 21.2	0.65	20	50
21782-20320	21	260	34	27.5 – 31	0.65	20	50
26782-9246	26	740	12	71–86	0.7	15	10
27782-19447	27	900	10	86.5 – 101.5	0.7	17	7

Examples of models available

Related Products

Series 648: Dielectric Polariser
 Series 650, 652: Switchable Dielectric Polarisers
 Series 651: Corrugated Polariser

Relevant Supporting Products

243, 810, 820, 880: Horn Antennas

Custom Design

Examples are for popular sizes but custom designs are possible for specific applications. Please contact the Sales Team for more information sales@flann.com

Ordering Information

Model	Series	-	Flange
WG10 – WG32	782		See flann.com

Environmental Specification

Ambient operating temperature: -30 to +70 °C