



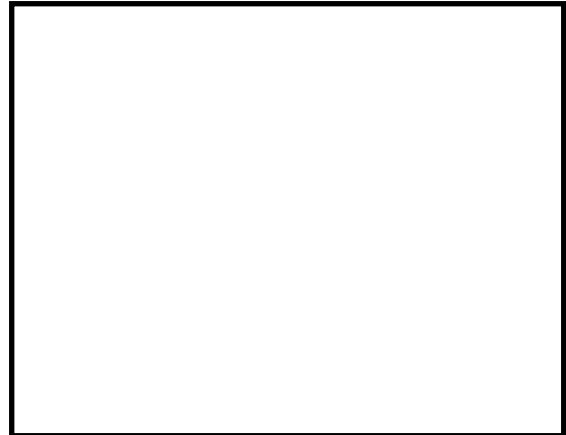
Polarization Switches

FEATURES:

- ❖ Low VSWR
- ❖ Low Insertion Loss
- ❖ Faraday Rotation Devices
- ❖ Low Cross-Polarized Components

APPLICATIONS:

- ❖ Testbench
- ❖ Polarization Changes
- ❖ Polarization Alignment



CZS Series

DESCRIPTION:

Cernex's CZS series polarization switch is a TE₁₁ mode device with both the input and output in circular waveguide. It is equipped with a standard pin-aligned circular flange similar to most of Cernex's standard series antenna components. Typical units are continuously adjustable over $\pm 90^\circ$ of rotation. Please note that the rotation in Faraday rotators is frequency sensitive. The instantaneous bandwidth of these devices is limited to approximately 1% of the center frequency for a fixed drive current value.

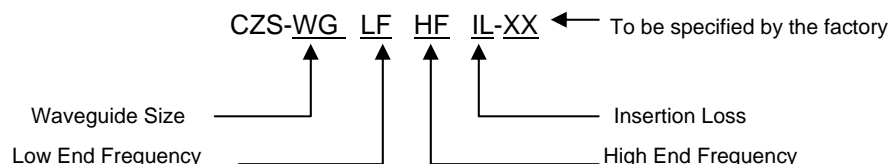
SPECIFICATIONS:

Waveguide Band	Ka	Q	U	V	E	W	F
Waveguide Size	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-8
Frequency Range (GHz)	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110	90 to 140
Insertion Loss (dB) ¹	0.5	0.5	0.6	0.6	0.7	0.7	1.0
Cross Polarization (dB)	20	20	20	20	20	20	20
VSWR Max. ²	1.25	1.25	1.25	1.25	1.30	1.30	1.30
Average Power (Watts)	12.0	8.0	3.0	3.0	2.0	1.5	1.0
Peak Power (kW)	4.0	2.5	1.0	1.0	0.7	0.5	0.3
Bandwidth (GHz) ¹	2	2	2	3	3	3	3
Coil Resistance (Ohms)	12	12	12	5	5	5	3
Coil Inductance (mH)	4	4	4	2	2	2	1.5
Switching Speed (μ sec)	5-10	5-10	5-10	2-5	2-5	2-5	2-5
Current Drive (mA)	0-250						

Notes: 1. Insertion Loss and cross-polarization figures are shown for instantaneous bandwidths of approximately 1%. Drive current must be adjusted over the full RF bandwidth. 2. VSWR was measured using two Cernex's transitions.

HOW TO ORDER:

Specify Model Number



Example: To order a WR22 polarization switch with a frequency range of 33-35 GHz, specify CZS22333505-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE