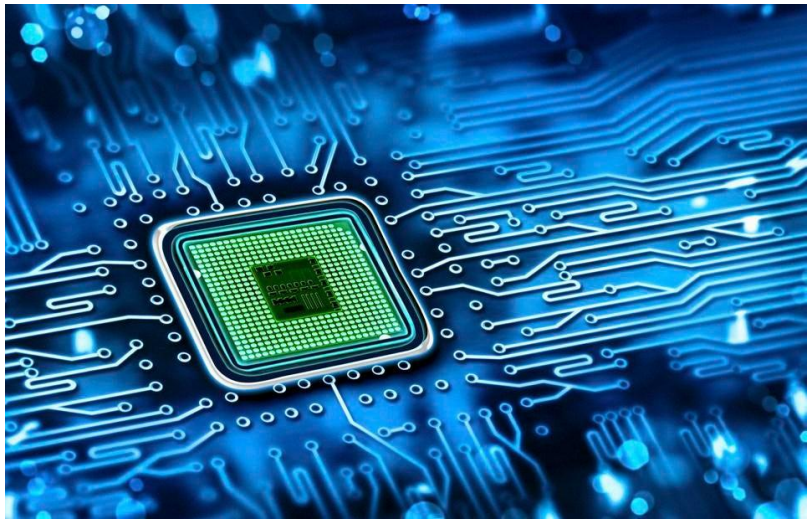
S-PARAMETER REPRESENTATION OF WAVEGUIDE TWISTS



WAVEGUIDE TWISTS

A gradual twist in the waveguide is used to turn the polarisation of the waveguide and hence the waveform. In order to prevent undue distortion on the waveform a 90° twist should be undertaken over a distance greater than two wavelengths of the frequency in use.

A waveguide twist is used **to change the plane of polarization**.

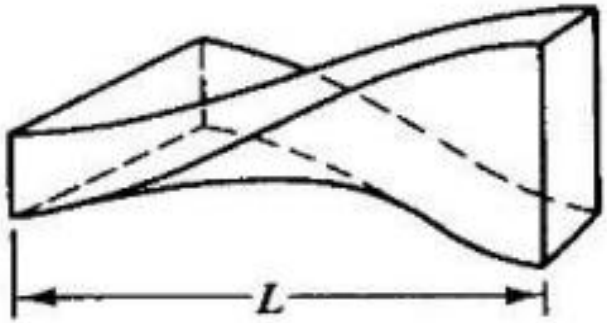
Twists are **made from a section of the standard waveguide, which has been precisely twisted, maintaining the internal dimension of the waveguide**. These are used to rotate the plane of polarization of waveguide transmission line.

WAVEGUIDE TWISTS

In order to prevent undue distortion on the waveform a 90° twist should be undertaken over a distance greater than two wavelengths of the frequency in use. If a complete inversion is required, e.g. for phasing requirements, the overall inversion or 180° twist should be undertaken over a four wavelength distance.

Waveguide bends and waveguide twists are very useful items to have when building a waveguide system.

WAVEGUIDE TWISTS



Using waveguide E bends and waveguide H bends and their srap bend counterparts allows the waveguide to be turned through the required angle to meet the mechanical constraints of the overall waveguide system. Waveguide twists are also useful in many applications to ensure the polarisation is correct.

Thank you