

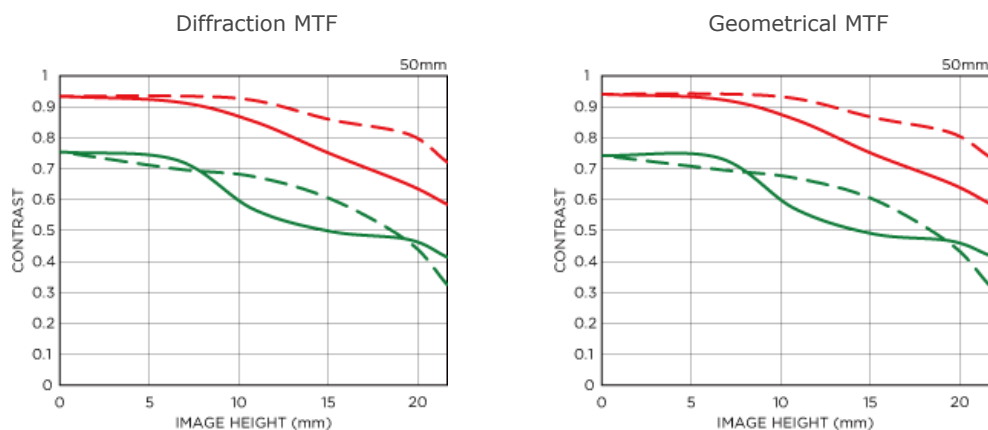


How to read MTF chart

There are two types of MTF chart. One considers the diffraction quality of light, which is called "Diffraction MTF", and the other, "Geometrical MTF" does not.

The quality of light appears in the diffracted light, and becomes more distinct as the F value gets bigger, resulting in lower image quality. Also, diffracted light exists at every aperture, which is why SIGMA has been releasing Diffraction MTF data from the beginning since it is very close to the actual image data.

The advantage of using "Geometric MTF" data is that it is easy to measure and calculate since it does not consider the diffraction quality of light, yet it tends to show higher values in the graph than actual images.



Spatial frequency	S:Sagittal Line	M:Meridional Line
10lp/mm	—	⋯
30lp/mm	—	⋯

The MTF chart gives the result at the wide-open aperture

The readings at 10 lines per millimeter measure the lens's contrast ability (red lines), repeating fine parallel lines spaced at 30 lines per millimeter measure the lens's sharpness ability (green lines), when the aperture is wide open.

Fine repeating line sets are created parallel to a diagonal line running from corner to corner of the frame, are called Sagittal lines (S) and sets of repeating lines vertical to these lines are drawn, called Meridional (M) line sets.