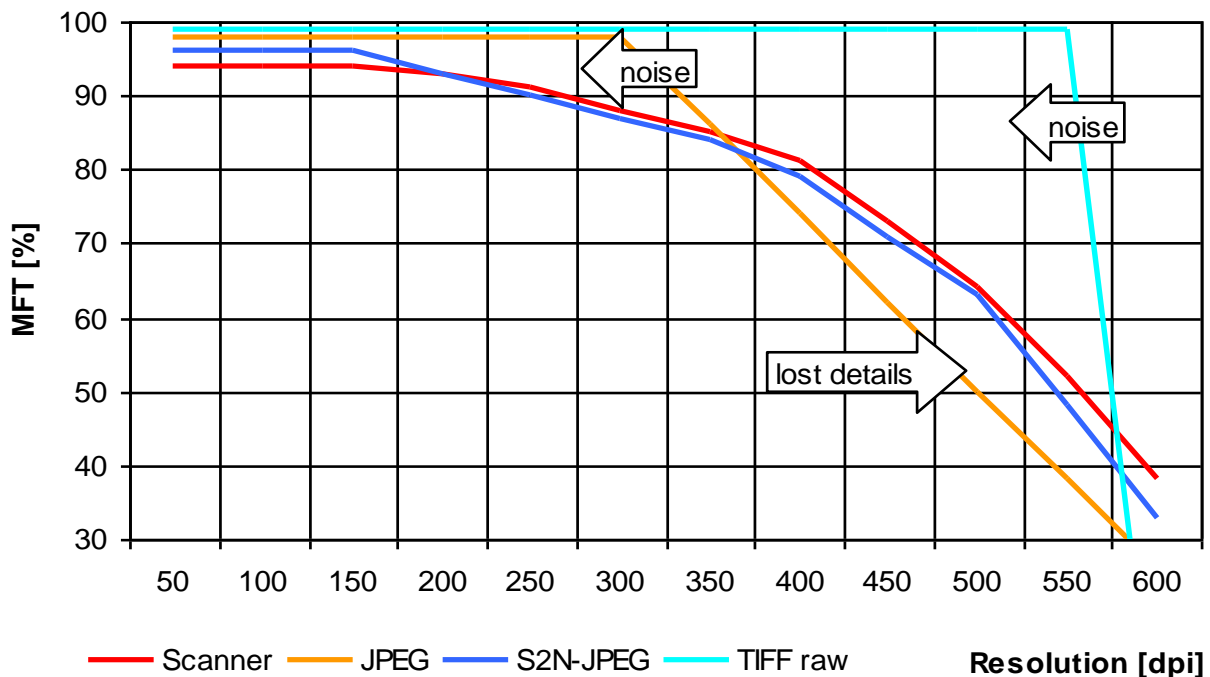


## Compression and Losses

A wide spread myth is the statement that JPEG compression is always bad and details get lost; although unfortunately, this is true with most scanners that do the compression in the host PC. Image Access scanners compress to JPEG *inside* the scanner, utilizing a customized set of parameters to ensure the best possible compromise between noise suppression and JPEG artifacts. The result is a decently compressed file (1:10 – 1:25) with no visible JPEG artifacts - nearly as high quality as a TIFF raw file but with significantly reduced noise. The experienced reader will understand the following diagram after considering the following statements:

- Every optical system has a resolution limit (MTF).
- Compressing areas above the MTF adds noise, no content.
- Discarding areas below the MTF reduces high frequency details.
- A customized JPEG parameter set preserves more details.
- Our scanners all have a highly optimized JPEG compression engine developed by Image Access and tailored towards the camera properties.



All Image Access scanners have the compressions engines build into the scanners taking advantage of the detailed knowledge of the camera behaviour. Besides producing better quality output without sacrificing data size, this approach is also a lot faster and allows a higher scan speed.