



# Gooch & Housego

## Hyperspectral Imaging Technology Comparison Chart

Parameter/ Technology	Gooch & Housego AOTF	Filter Wheel	Liquid Crystal Tunable Filter	Sagnac Interferometer	Tomographic	Push-broom Grating
<b>Technique</b>	Solid-state non-linear crystal	Mechanical	Solid-state non-linear crystal	Interferometer and mechanical scanning	Grating or rotating prism dispersion and computation	Dispersion and mechanical scanning
<b>Spectral Resolution</b>	Dynamically variable	Fixed and defined by filters selected a priori	Fixed and defined by design a priori	High	Limited	High
<b>Spatial Resolution</b>	Good	Good	Good	Good	Limited	Dependant on speed and selected ROI
<b>Data Capture</b>	Variable sequential band- pass with random access	Sequential band- pass	Fixed sequential band-pass with random access	Full spectrum interferometer scan	Snapshot of all information	Full spectrum, spatial scan only
<b>Transmission</b>	30 – 35% (un-polarized source)	> 80% at peak	10 – 20% (un-polarized source)	~ 60%?	~ 60%	~ 60%
<b>Switching Speed</b>	100 $\mu$ s	~ 50 ms	100 – 1500 ms			10 ms - minutes
<b>Computation Requirements</b>	-	-	-	Intensive	Intensive	Intensive

Contact: [sales@goochandhousego.com](mailto:sales@goochandhousego.com)

[www.goochandhousego.com](http://www.goochandhousego.com)

*As part of our policy of continuous product improvement, we reserve the right to change specifications at any time*

