

# V3 with BriXXHub

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Filter-Sets for V3-DeepSIM

# V3 - System Overview

## ■ Excitation Filter wheel (EX FW):

- 4 positions
- 25 mm diameter

## ■ Dichroic Wheel (DM FW):

- 3 positions (~150 ms switch time)
- 32 x 44 x 1(t) mm (*no cut corners like Ti2 DM*)

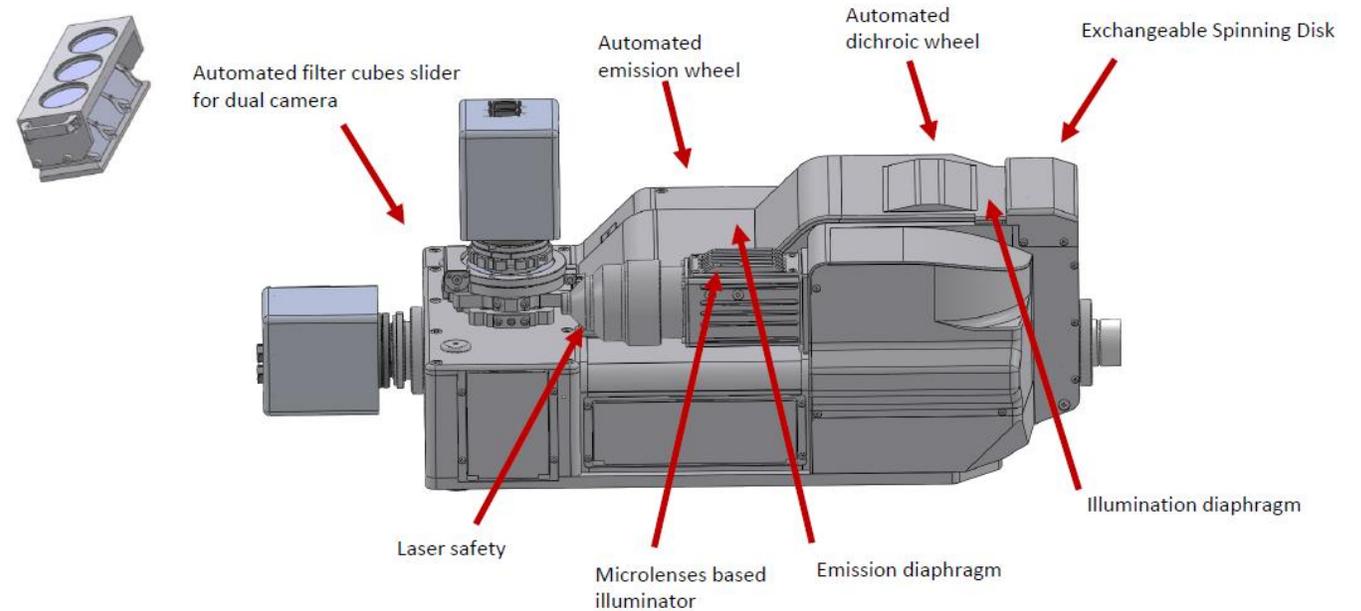
## ■ Emission Filter Wheel (EM FW):

- 8 positions ((~50 ms switch time)
- 25 mm diameter\*

## ■ Dual Cam Slider (optional):

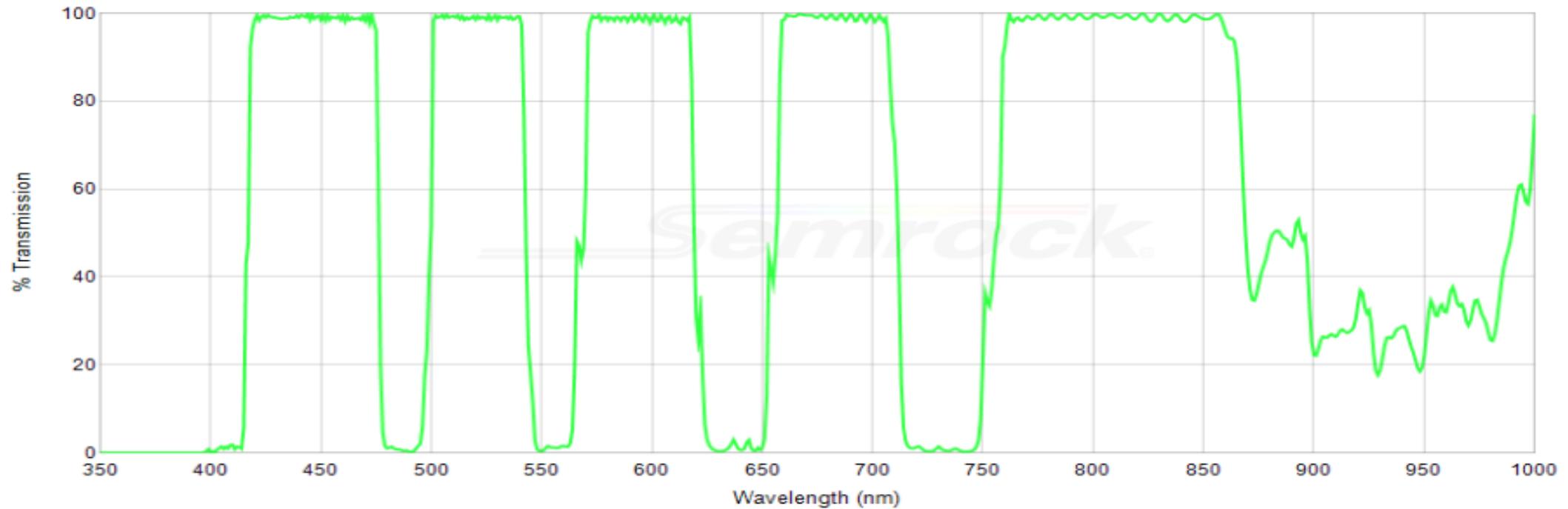
- 3 positions, each with  
1x DM 32 x 44 x 2(t) mm  
2x EM 32 mm diameter

\* These support 25mm FOV, EM FW is placed where the emission beam is narrower, in front of the camera the beam is wider and 32mm filters are required



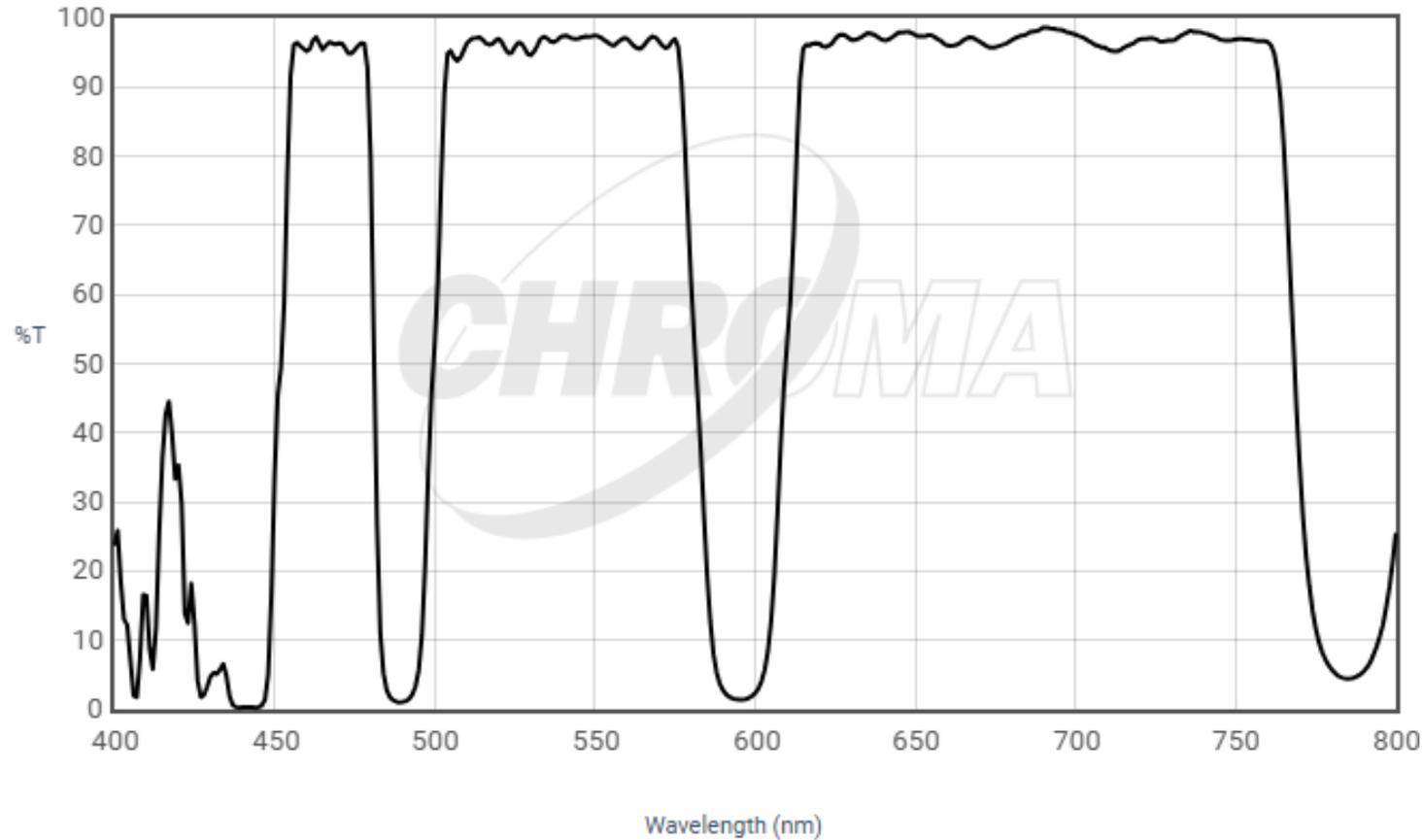
# Multiband Dichroics

- V3 BHU - penta Di 405/488/555/640/735
- V3 BHU - penta Em 405/488/555/640/735
- DS BHU - penta Di 405/488/555/640/735



# 445/488

- Chroma ZT440-445/488-491/594 rpc (594 not used in our configuration)
  - [ZT440-445/488-491/594 rpc - Chroma Technology Corp](#)



# Single emitters

- 470/20 ET Bandpass
- 520/40 ET Bandpass
- 445/58 ET Bandpass
- 595/44 ET Bandpass
- 706/95 ET Bandpass



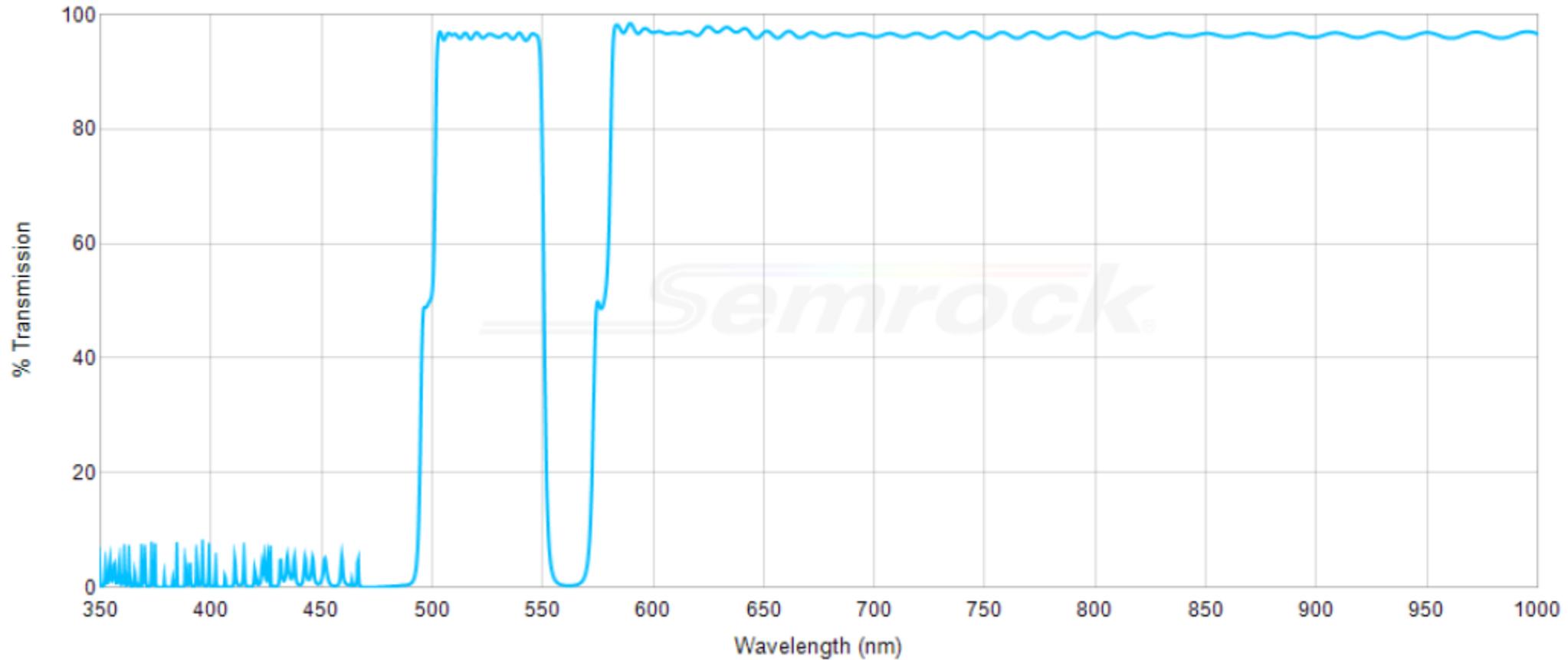
# Filter-sets for Dual Camera

# Filter-sets for Dual Camera

- Custom GFP/mCherry filter-set
- DAPI/Cy3 - GFP/Cy5 Dual Cam Set (MXR00546)

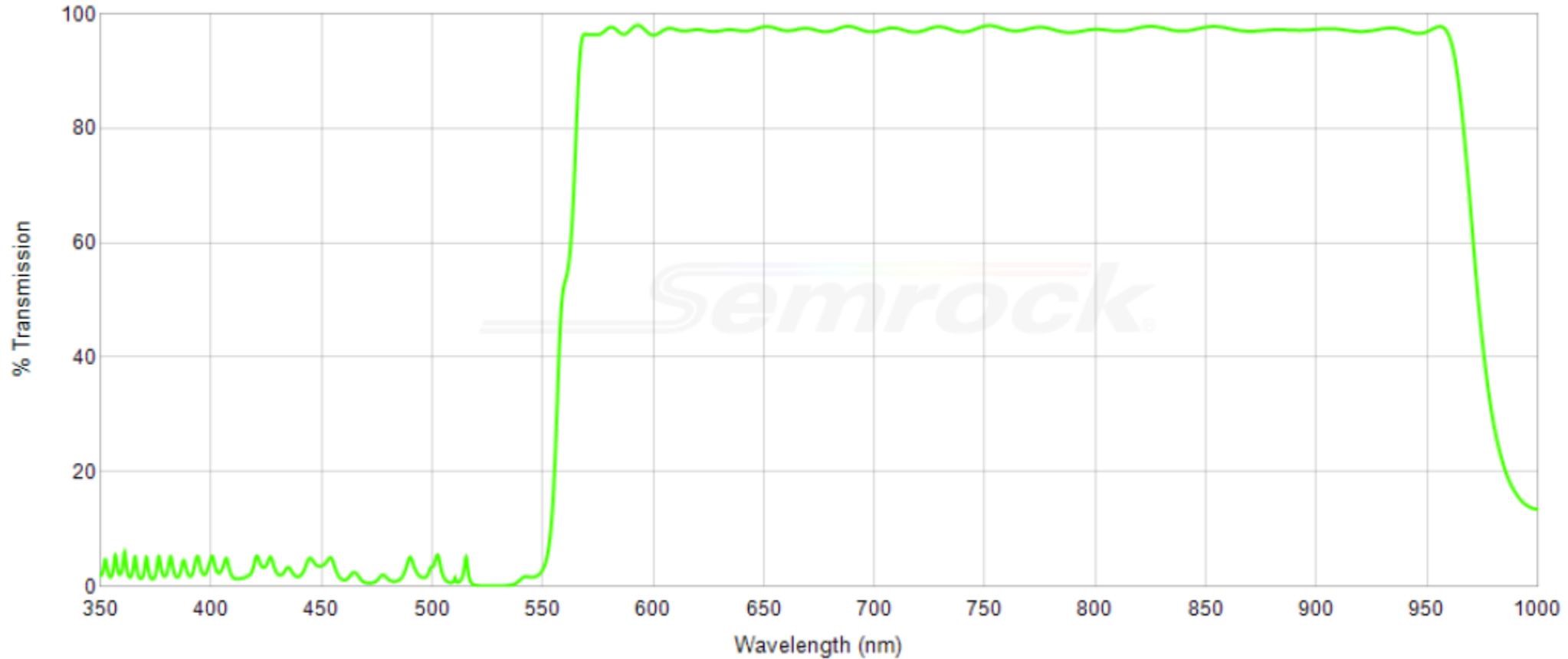
# 488/555 Dichroic DM1

- Di03-R488/561 - Custom dichroic → resizing to 32x44x1 needed

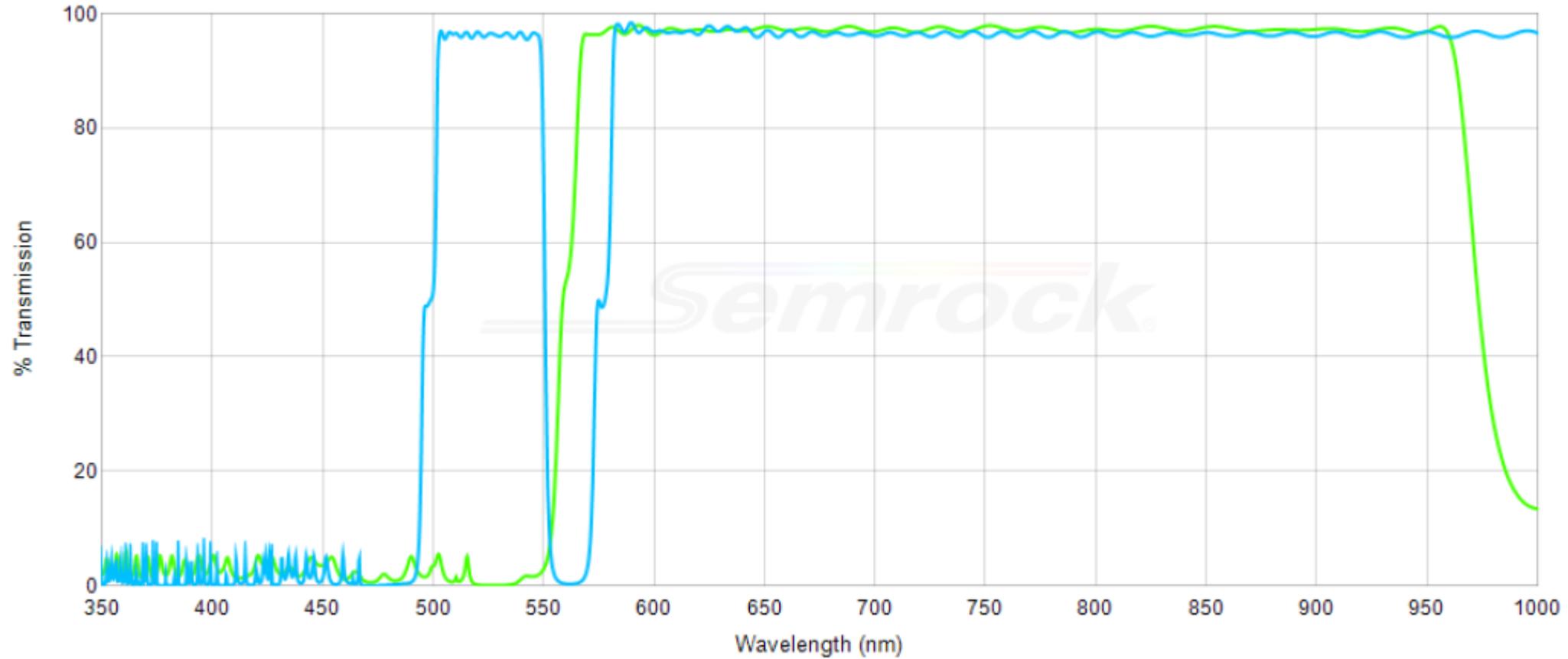


# Specifications of Dichroics – Second DM2 (Image splitting)

- FF560-FDi01 - Custom dichroic → resizing to 32x44x2 needed

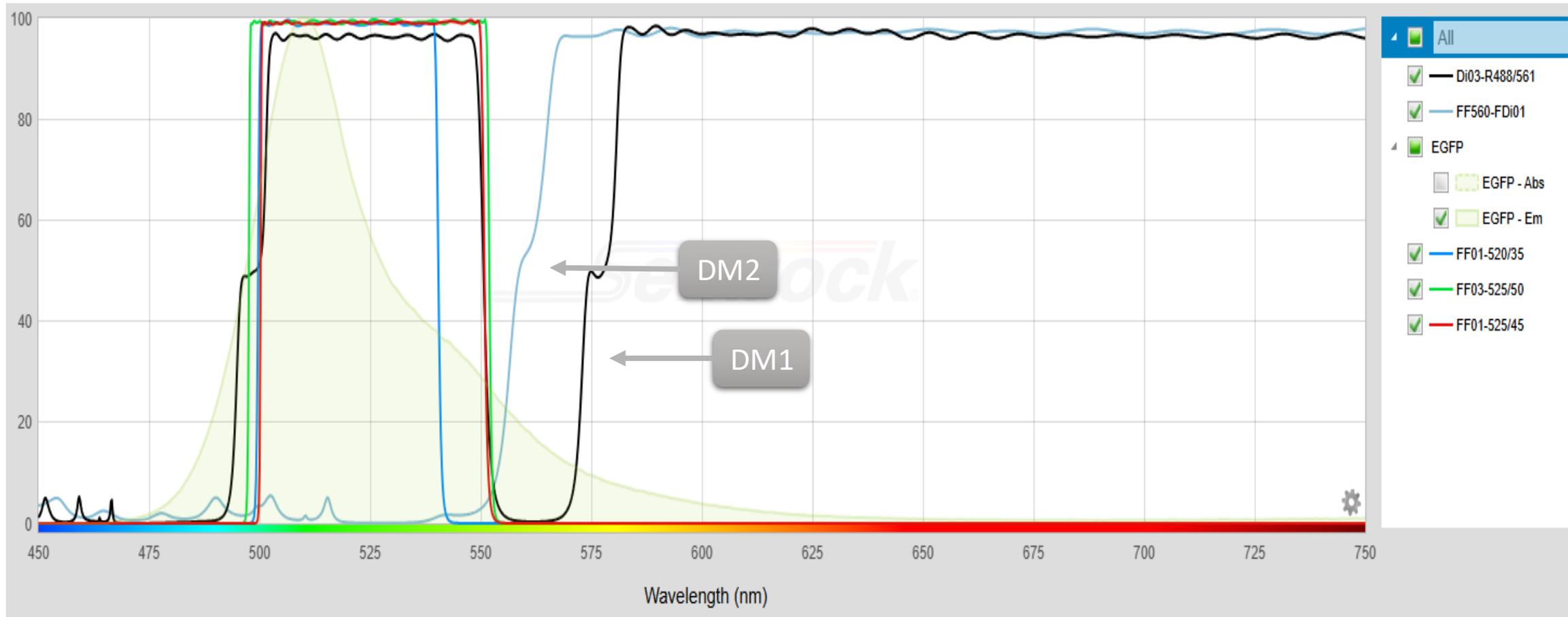


# Combination of both DM1 and DM2



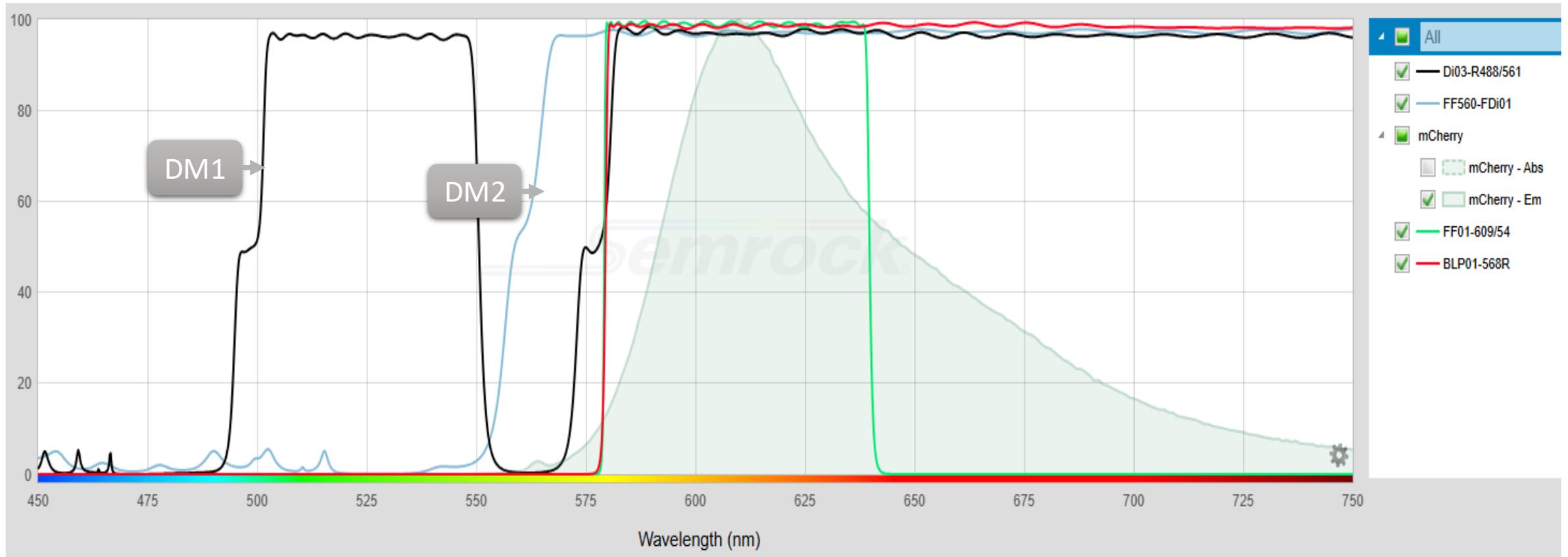
# GFP Emission Filter

■ 520/40 nm band-pass 32mm Filter



# mCherry Emission Filter

- Customer asked for 570 LP filter
- 570 nm long-pass Filter



# DAPI/Cy3 - GFP/Cy5 Dual Cam Set (MXR00546)

- 2 simultaneous channels imaging or 4-channels imaging in 2 passes

- Possible simultaneous pairs:

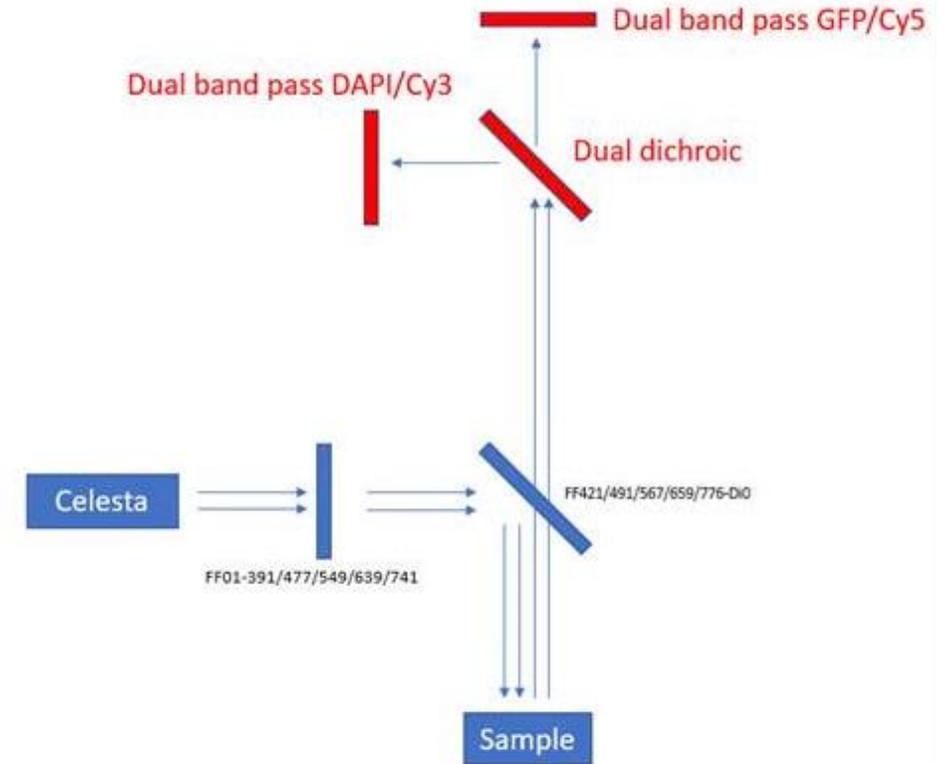
DAPI/GFP (and equivalent)

DAPI/Cy5

GFP/Cy3 (Cy3 or TRITC or mCherry)

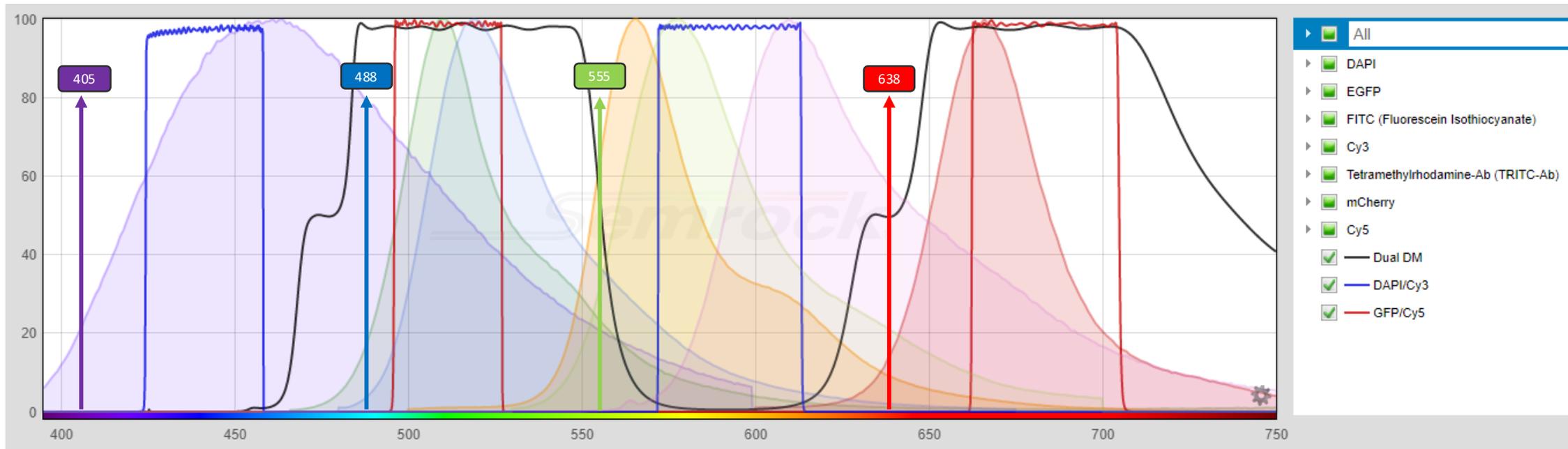
Cy3/Cy5

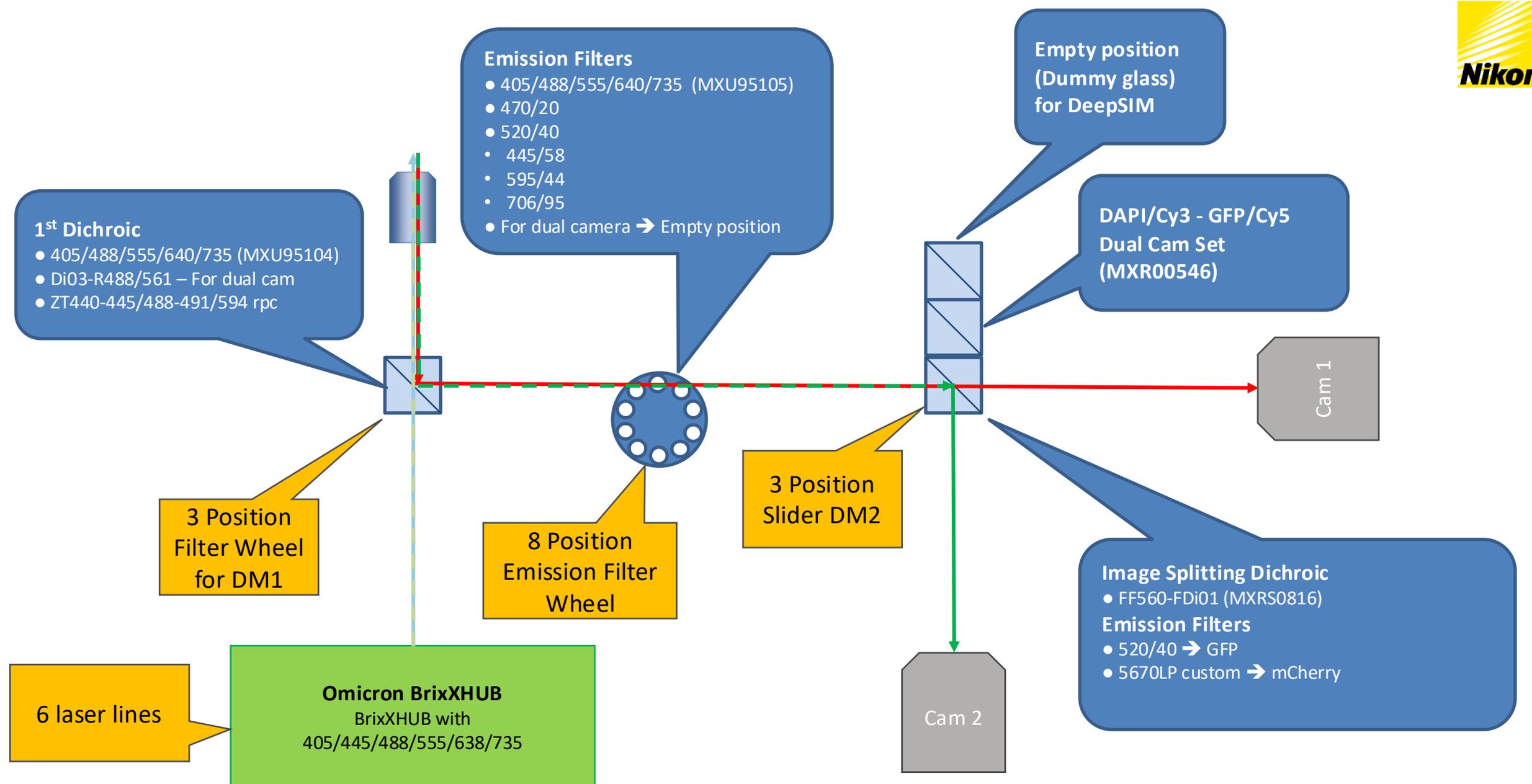
- *Note: 1. EM band matches Celesta Penta EM (MXR00543)  
2. EM FW is on an empty position in this config*



# Spectra of DAPI/Cy3 - GFP/Cy5 Dual Cam Set

- MXR00546 - DAPI/Cy3 - GFP/Cy5 Dual Cam Set
- DAPI/GFP/FITC/Cy3/TRITC/mCherry/Cy5 emission spectra visible as well





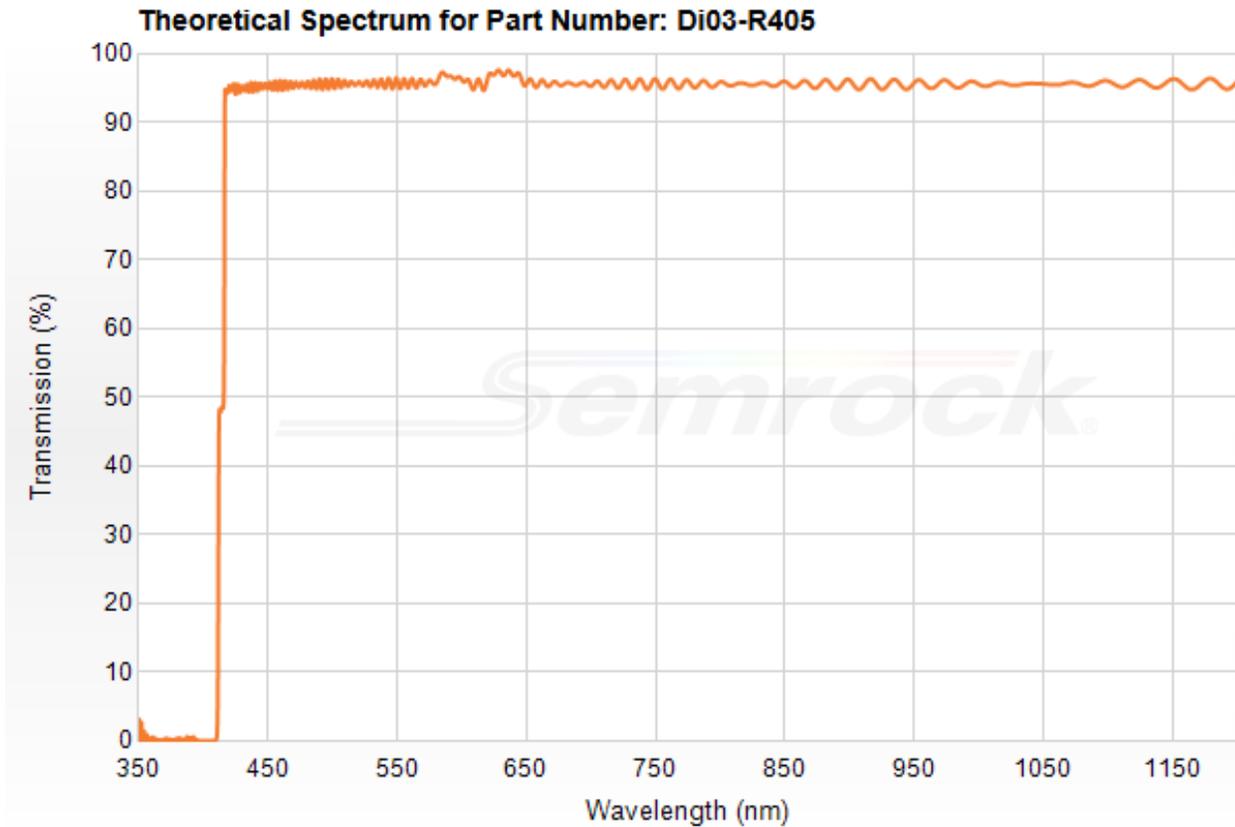
OMS

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Filter-Sets for FRAP

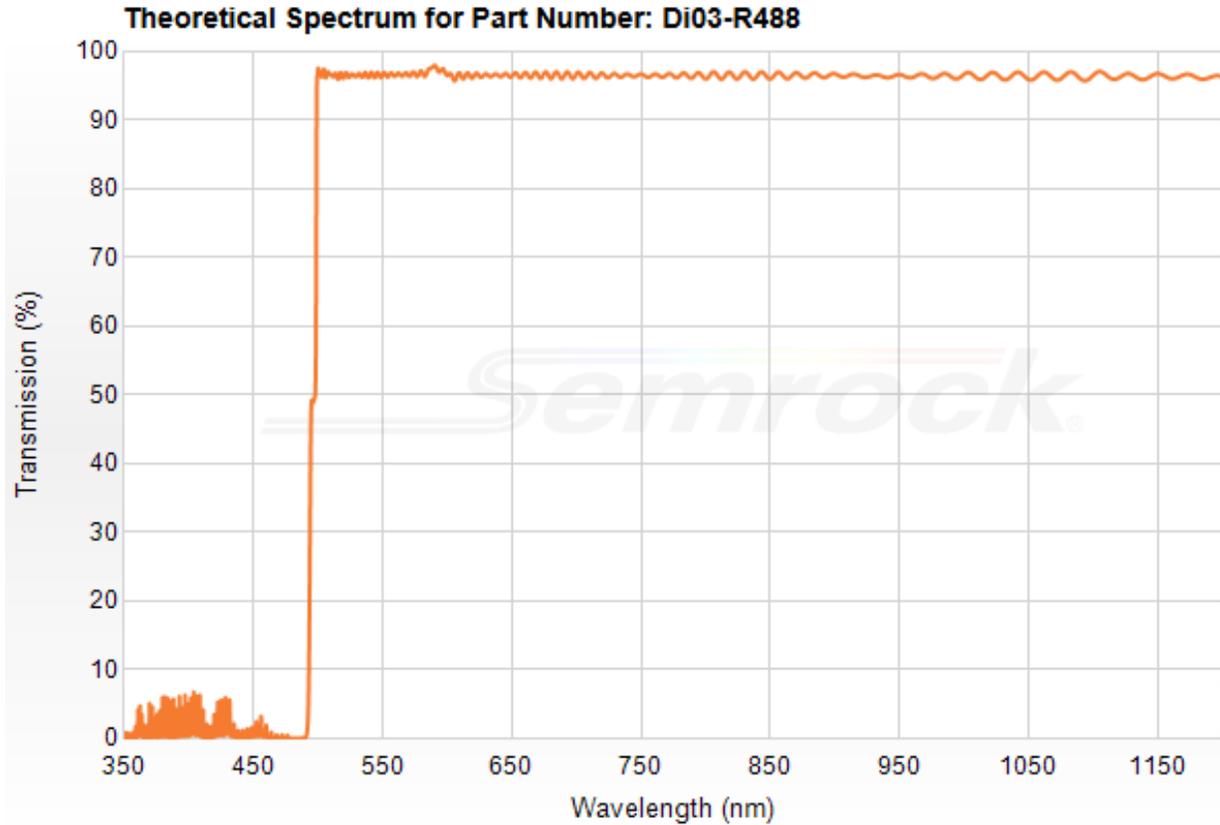
# MXRS0074405 nm Dichroic 25x36 t1

- 405 nm laser BrightLine® single-edge super-resolution/TIRF dichroic beamsplitter



# MXRS0080488 nm Dichroic 25x36 t1

- 488 nm laser BrightLine® single-edge super-resolution/TIRF dichroic beamsplitter



# MXK33271 Multi-band dichroic mirror XY



- @laser line: 40% Stim laser and 60% imaging laser reach the sample
- In between laser lines: 100% emission passes
- Beside the spectral spec, this DM is special because it is wedged
- Non-wedged DM can show interference when both stim/imaging lasers (of same wavelengths) are used at same time

