# QuantaMAX<sup>TM</sup> Filter Sets

HIGHEST THROUGHPUT ■ EPRO COATINGS ■ LONGEST FILTER LIFE ■ ZERO PIXEL SHIFT (ZPS™)

**QUANTAMAX SETS** 

Omega Optical's newest microscopy filter sets are manufactured using state-of-the-art Energetic Process Refractory Oxide coating technology for maximizing photon capture and highest throughput. The highly stable, hard-surface coatings are protected from mechanical abrasion in a multi-substrate, coating-safe assembly, resulting in longest filter life. These high throughput sets provide excellent results in all fluorescence microscopy applications including confocal, multi-photon, and live cell experiments. They are especially effective where photons are scarce and exposure times are critical.

# HIGHEST THROUGHPUT—Signal-to-Noise

These filter set designs consider not just peak filter transmission and fluorophore probability curves, but also optimized band placement in relation to light sources, and blocking in relation to detector sensitivity. In addition, multiple coatings are used to enhance the steep slopes and deep blocking of excitation and emissions filters, ensuring extremely low crosstalk and extremely high signal-to-noise.

# **EPRO COATINGS—Stable**

State-of-the-art Energetic Process Refractory Oxide coatings produce coatings which are spectrally stable, mechanically robust, and insensitive to moisture. The coatings in these sets are dense and hygrophobic, resulting in stability and longest filter life in the harshest environments.

# COATING-SAFE ASSEMBLY—Rugged

These sets utilize a multi-substrate design to protect critical coatings from the dangers of handling and mechanical abrasion in routine lab usage. While coatings are hard enough to be exposed, they can still be accidentally damaged, resulting in filter failure. The coating-safe assembly prevents coating damage.

### ZERO PIXEL SHIFT (ZPS™)—Resolution

Zero pixel shift is standard in these high performance sets. The multi-substrate construction provides protection from mechanical abrasion while maintaining the high wavefront integrity required in imaging applications.

# **COLOR SPACE—Bright**

High throughput is dependent on more than just fluorophore absorption and emission spectra, as all photons are not equal. These filter sets utilize "color space" designs to capture maximum "color energy". Band placement is also optimized for specific light sources and detectors.

# **FEATURES**

- Highest Throughput
- Steepest Slopes
- Deepest Blocking
- Hard Surface Coatings
- Coating-Safe Assembly
- Longest Filter Lifetime
- Photon Maximizing
- Light Source Optimized
- Zero Pixel Shift (ZPS<sup>TM</sup>)

# **SPECIFICATIONS**

SET#	FLUOROPHORES	LIGHT Sources	SET PRICE	COMPONENTS			PRICE
				TYPE	PART #	DESCRIPTION	
XF500	BFP, Alexa 350, DAPI,	Hg, Xe,	Call	Exciter	XXX	355-405BF	-
	Hoescsht 33342 & 33258	Ar Laser		Dichroic	XXX	410LP	-
				Emitter	XXX	420-480BF	-
XF501	EGFP, Alexa 488, CY 2,	Xe,	Call	Exciter	XXX	450-490BF	-
	FITC	Ar 457/488		Dichroic	XXX	500LP	-
				Emitter	XXX	510-560BF	-
XF502	DsRed 2, Alexa 546 & 555,	Xe, Hg,	Call	Exciter	XXX	510-550BF	-
	CY 3, Rhodamine 2, TRITC	HeNe 543,		Dichroic	XXX	560LP	-
		Green LED		Emitter	XXX	570-600BF	-
XF503	Hc Red, Alexa 568 & 594,	Hg HeNe 543,	Call	Exciter	XXX	530-570BF	-
	Mito-Tracker Red	Ar 568		Dichroic	XXX	580LP	-
				Emitter	XXX	600-650BF	-
XF504	Alexa 647, CY 5	Xe HeNe 612/633,	Call	Exciter	XXX	620-650BF	-
		Red Diode 635,		Dichroic	XXX	660LP	-
		Krypton 647		Emitter	XXX	670-750BF	-



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