



Standard Bandpass Filters

About Bandpass Filters



The use of bandpass filters is one of the simplest and most economical way to transmit a well-defined band of light and to reject all other unwanted radiation. Their design is essentially a thin film Fabry-Perot interferometer formed by vacuum deposition, and consists of two reflecting stacks separated by an even-order spacer layer.

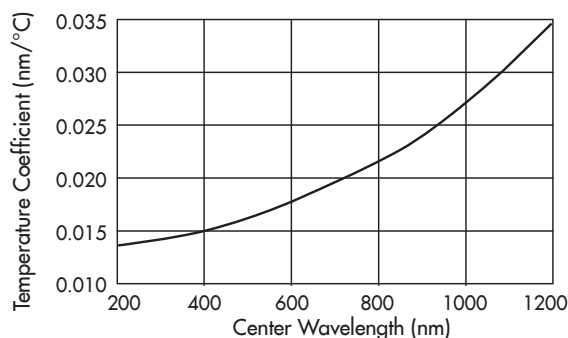
Because the Fabry-Perot filter is essentially Lorentzian in shape, the cut-on and cut-off slopes are shallow and the rate of attenuation in the out-of-band blocking range is slow. To improve the slopes and increase the attenuation in the blocking band, we introduce more cavities into the construction of our standard dielectric bandpass filters.

Minimizing Wavelength Shift
Ambient temperature and optical path geometry are important factors to consider in selecting or specifying bandpass filters.

Ambient Temperature

The center wavelength of a bandpass filter shifts linearly with changes in ambient temperature—up with a positive change and down with a negative change. The temperature coefficient chart below gives a good approximation of the shift in wavelength for a given temperature change.

Temperature Wavelength Shift Coefficient



To counter these effects, Andover has developed temperature controllers that help to maintain ambient temperature of passband filters. (

Angle of Incidence

The central wavelength of the all-dielectric Fabry-Perot filter shifts lower with an increase in the incident angle. The amount of shift depends upon the incident angle and the filter's effective index (N*). This feature can be very useful in tuning a filter to the desired central wavelength. Use the formula below to determine the wavelength shift of a filter in collimated light with incident angles up to 15°.

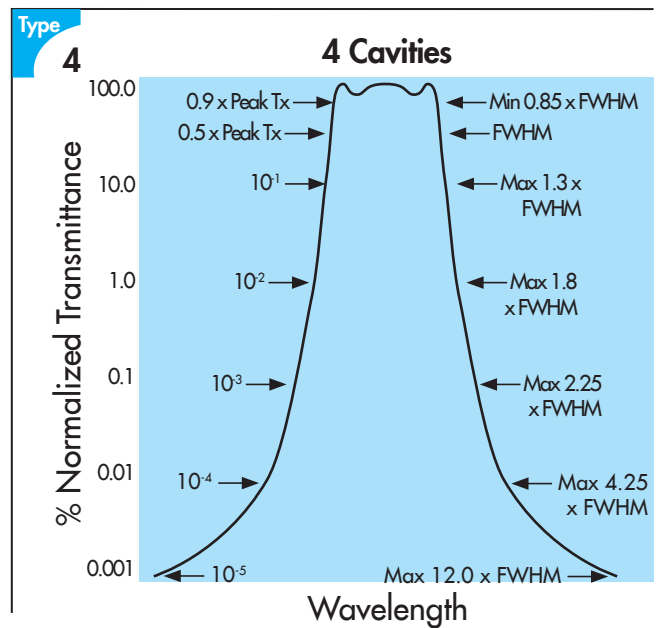
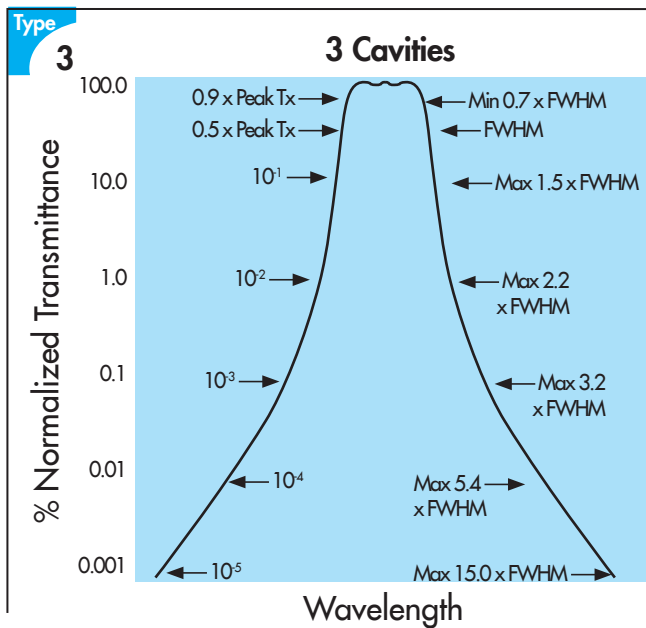
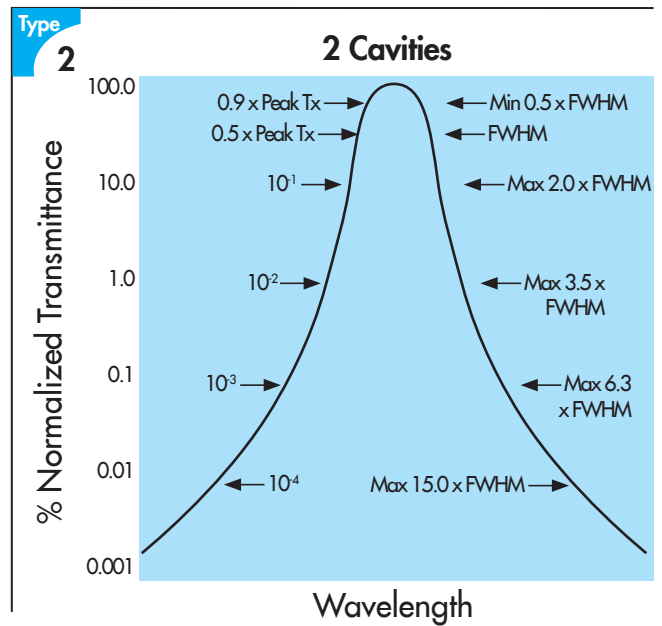
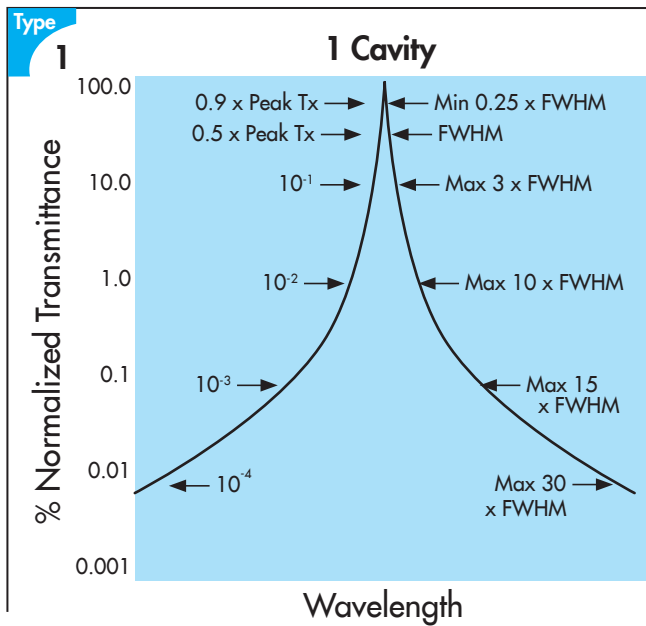
$$\lambda_{\theta} = \lambda_0 \left[1 - \left(\frac{N_e}{N^*} \right)^2 \sin^2 \theta \right]^{1/2}$$

- Where:
- λ_{θ} = Wavelength at angle of incidence
 - λ_0 = Wavelength at normal incidence
 - N_e = Refractive index of external medium
 - N^* = Effective refractive index of the filter
 - θ = Angle of incidence

When using a filter with non-collimated light, the wavelength shift will appear somewhat less than that of collimated light at the same angle. In a cone of light, only the central ray is normal to the surface while all others are increasingly off-angle. To approximate this shift, use this same formula and divide the results by two. (This approach works in systems where the full cone angle is up to 20°.)

Standard Bandpass Filters

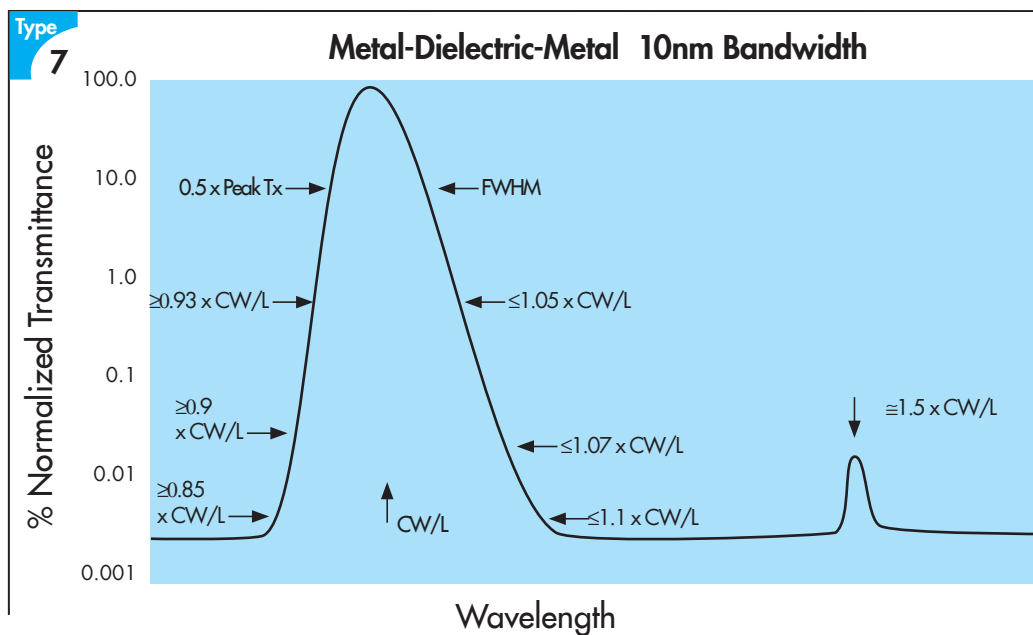
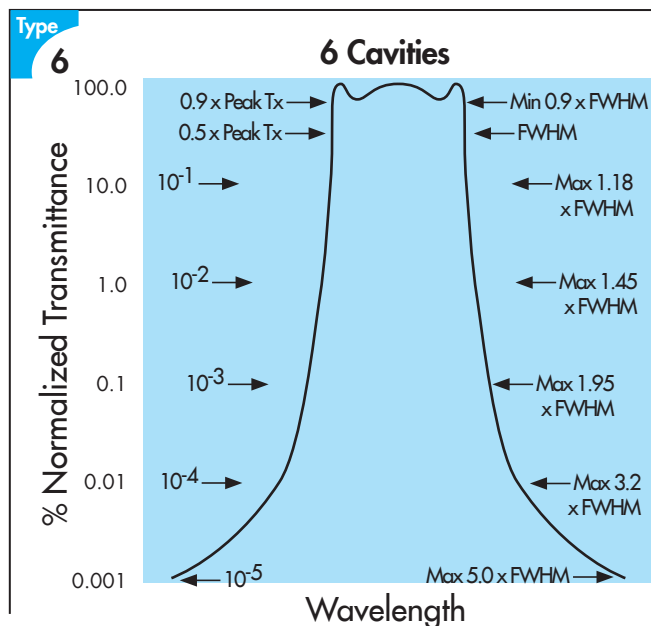
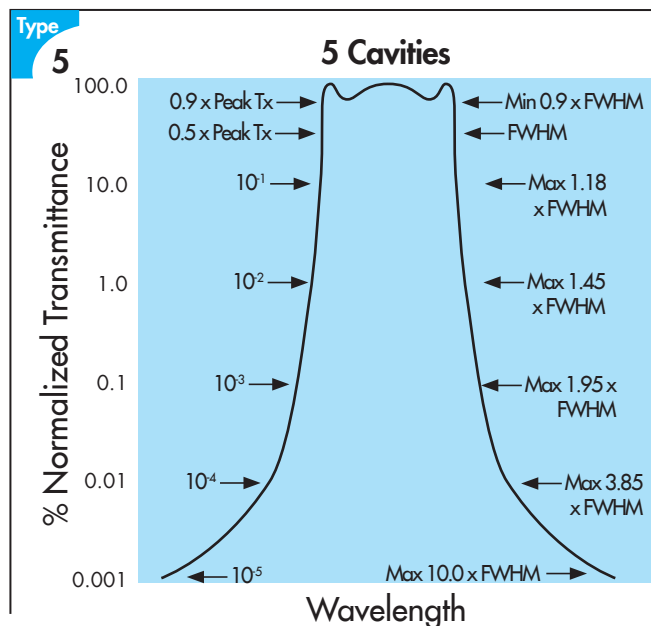
Spectral Profiles for Andover's 10 Basic Filter Types



Normalized Transmittance of Peak (%)	Full Bandwidth Multiplier (FWHM)			
	1 Cavity	2 Cavities	3 Cavities	4 Cavities
90.0	0.3 – 0.35	0.5 – 0.6	0.7 – 0.8	0.85 – 0.90
10.0	2.5 – 3.0	1.6 – 2.0	1.2 – 1.5	1.1 – 1.3
1.0	8.0 – 10.0	2.8 – 3.5	1.9 – 2.2	1.5 – 1.8
0.1	15.0 – 20.0	5.5 – 6.3	2.9 – 3.2	2.0 – 2.25
0.01	undefined	10.0 – 15.0	4.9 – 5.4	3.5 – 4.25
0.001	undefined	undefined	10.0 – 15.0	9.0 – 12.0

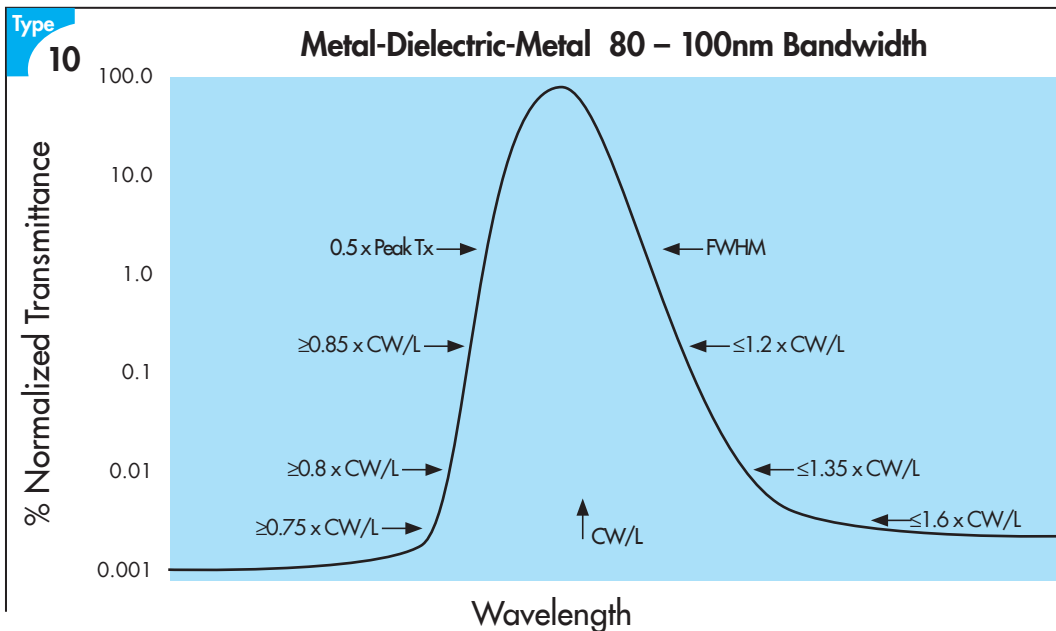
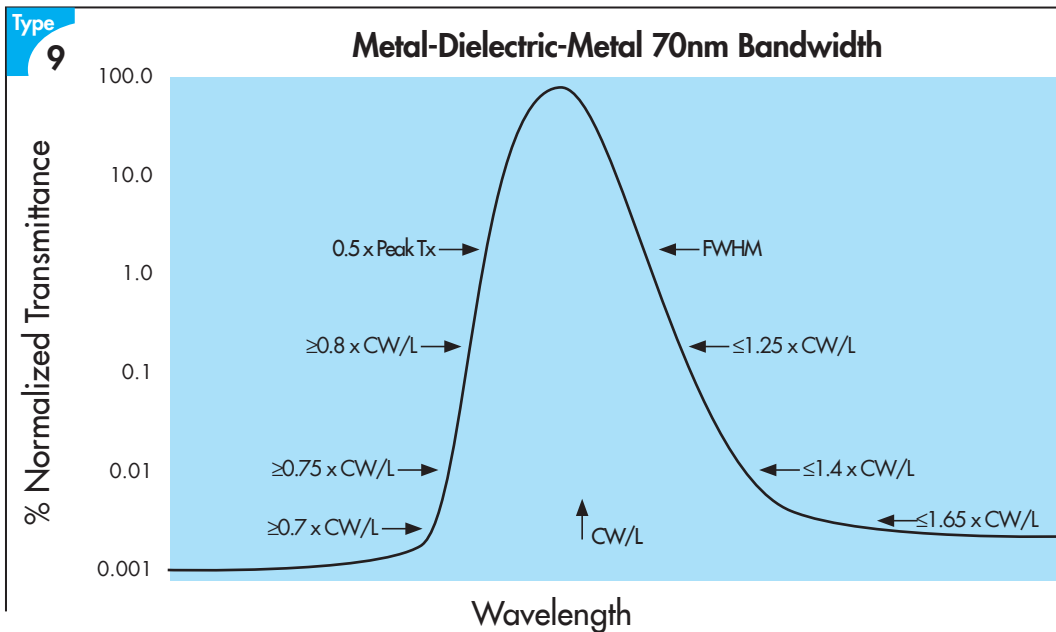
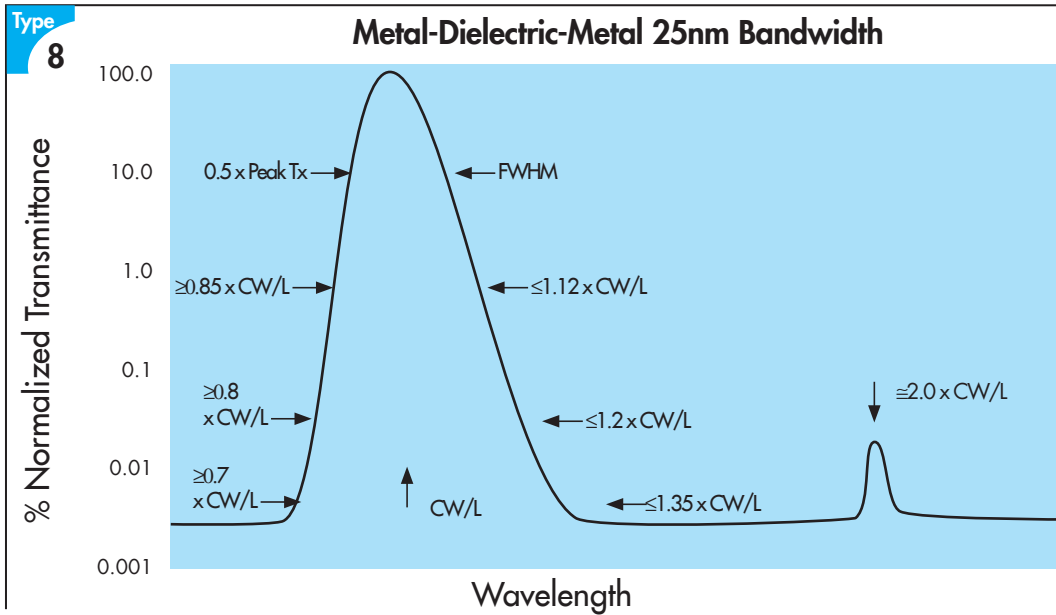
Standard Bandpass Filters

Spectral Profiles for Andover's 10 Basic Filter Types



Normalized Transmittance of Peak (%)	Full Bandwidth Multiplier (FWHM)	
	5 Cavity	6 Cavities
90.0	0.85 – 0.90	0.85–0.90
10.0	1.1 – 1.25	1.1–1.25
1.0	1.5 – 1.65	1.5–1.65
0.1	2.0 – 2.25	2.0–2.25
0.01	3.1 – 3.85	2.9–3.2
0.001	8.0 – 10.0	4.0–5.0

Standard Bandpass Filters



Standard Bandpass Filters

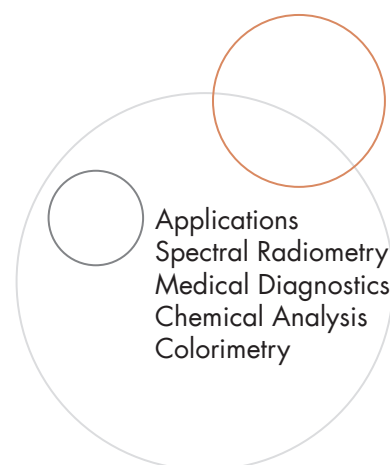


Andover offers one of the most extensive selections of bandpass filters in the industry, including many of the primary laser, mercury, biomedical, and analytical spectral lines.

We use a proprietary method to stabilize our products to prevent drift of peak wavelength with age, and hermetically seal each filter for maximum protection against humidity. Each filter is mounted in a black anodized aluminum ring, adding further protection against chipping, scratching, and moisture penetration.

- Wavelengths from the ultraviolet through the infrared
- Stabilized to prevent drift of peak wavelength over time
- Hermetically sealed and protected by an anodized aluminum ring

General Specifications		
Diameter Tolerance	+0/-0.25mm	
Usable Aperture	Size	Aperture
	12.5mm Ø	9.0mm Ø
	25.0mm Ø	21.0mm Ø
	50.0mm Ø	45.0mm Ø
Surface Quality	80–50 (Per MIL-PRF-13830B)	
Optical Quality	Commercial instrumentation grade	
Out-of-Band Blocking	1 x 10 ⁻⁴ from X-ray to FIR	
Specification Temperature	+23°C	
Max. Survival Temperature Range	CW/L 214–380nm	-50°C to +50°C
	CW/L 380.1–2400nm	-50°C to +70°C
Humidity Resistance	Per MIL-C-48497A	
Mechanical	Mounted in an anodized aluminum ring	



CW/L (nm)	FWHM (nm)	Filter Type/ Cavities	Min. T (%)	N*	Max. Thickness (mm)	Size, Shape & Part Number		
						12.5mm Ø ○	25mm Ø ○	50mm Ø ○
214.0 +3/-0	10 ±2	MDM/7	12	-	4.0	214FS10-12.5	214FS10-25	214FS10-50
214.0 ±3	22 ±4	MDM/8	20	-	4.0	214FS22-12.5	214FS22-25	214FS22-50
220.0 +3-0	10 ±2	MDM/7	12	-	4.0	220FS10-12.5	220FS10-25	220FS10-50
228.0 +3-0	10 ±2	MDM/7	15	-	4.0	228FS10-12.5	228FS10-25	228FS10-50
228.0 ±3	25 ±5	MDM/8	20	-	4.0	228FS25-12.5	228FS25-25	228FS25-50
232.0 +3/-0	10 ±2	MDM/7	15	-	4.0	232FS10-12.5	232FS10-25	232FS10-50
239.0 +3-0	10 ±2	MDM/7	15	-	4.0	239FS10-12.5	239FS10-25	239FS10-50

MDM= Metal-Dielectric-Metal

Standard Bandpass Filters

CW/L (nm)	FWHM (nm)	Filter Type/ Cavities	Min. T (%)	N*	Max. Thickness (mm)	Size, Shape & Part Number		
						12.5mm Ø ○	25mm Ø ○	50mm Ø ○
239.0 ±3	25 ±5	MDM/8	20	-	4.0	239FS25-12.5	239FS25-25	239FS25-50
248.0 +3	10 ±2	MDM/7	12	-	4.0	248FS10-12.5	248FS10-25	248FS10-50
253.7 +3-0	10 ±2	MDM/7	12	-	4.0	254FS10-12.5	254FS10-25	254FS10-50
253.7 ±3	25 ±5	MDM/8	18	-	4.0	254FS25-12.5	254FS25-25	254FS25-50
253.7 +10-0	40 ±8	MDM/8	20	-	4.0	254FS40-12.5	254FS40-25	254FS40-50
260.0 +3/-0	10 ±2	MDM/7	12	-	4.0	260FS10-12.5	260FS10-25	260FS10-50
265.0 +3/-0	10 ±2	MDM/7	12	-	4.0	265FS10-12.5	265FS10-25	265FS10-50
265.0 ±3	25 ±5	MDM/8	20	-	4.0	265FS25-12.5	265FS25-25	265FS25-50
270.0 +3/-0	10 ±2	MDM/7	12	-	4.0	270FS10-12.5	270FS10-25	270FS10-50
280.0 +3/-0	10 ±2	MDM/7	12	-	4.0	280FS10-12.5	280FS10-25	280FS10-50
280.0 ±3	25 ±5	MDM/8	20	-	4.0	280FS25-12.5	280FS25-25	280FS25-50
289.0 +3-0	10 ±2	MDM/7	15	-	4.0	289FS10-12.5	289FS10-25	289FS10-50
296.7 +3/-0	10 ±2	MDM/7	15	-	4.0	297FS10-12.5	297FS10-25	297FS10-50
300.0 +3/-0	10 ±2	MDM/7	15	-	4.0	300FS10-12.5	300FS10-25	300FS10-50
300.0 ±3	25 ±5	MDM/8	20	-	4.0	300FS25-12.5	300FS25-25	300FS25-50
300.0 +10/-0	40 ±8	MDM/8	20	-	4.0	300FS40-12.5	300FS40-25	300FS40-50
307.1 +3/-0	10 ±2	MDM/7	15	-	4.0	307FS10-12.5	307FS10-25	307FS10-50
307.1 ±3	25 ±5	MDM/8	20	-	4.0	307FS25-12.5	307FS25-25	307FS25-50
310.0 +3-0	10 ±2	MDM/7	15	-	4.0	310FS10-12.5	310FS10-25	310FS10-50
313.0 +3/-0	10 ±2	MDM/7	15	-	4.0	313FS10-12.5	313FS10-25	313FS10-50
313.0 ±3	25 ±5	MDM/8	20	-	4.0	313FS25-12.5	313FS25-25	313FS25-50
320.0 +3/-0	10 ±2	3/3	25	1.45	8.0	320FS10-12.5	320FS10-25	320FS10-50
326.1 +0.5/-0	3 ±0.5	2/2	15	1.45	8.0	326FS03-12.5	326FS03-25	326FS03-50
326.1 +2/-0	10 ±2	3/3	25	1.45	8.0	326FS10-12.5	326FS10-25	326FS10-50
326.1 ±3	25 ±5	3/3	25	1.45	8.0	326FS25-12.5	326FS25-25	326FS25-50
330.0 +3/-0	10 ±2	3/3	25	1.45	8.0	330FS10-12.5	330FS10-25	330FS10-50
334.0 +2/-0	10 ±2	3/3	25	1.45	8.0	334FS10-12.5	334FS10-25	334FS10-50
337.1 +0.5/-0	3 ±0.5	2/2	20	1.45	7.0	337FS03-12.5	337FS03-25	337FS03-50
337.1 +2/-0	10 ±2	3/3	25	1.45	7.0	337FS10-12.5	337FS10-25	337FS10-50
340.0 +2/-0	8 ±2	3/3	35	1.45	7.0	340FS08-12.5	340FS08-25	340FS08-50
340.0 +3/-0	10 ±2	3/3	25	1.45	7.0	340FS10-12.5	340FS10-25	340FS10-50
340.0 ±3	25 ±5	3/3	25	1.45	7.0	340FS25-12.5	340FS25-25	340FS25-50
350.0 +3/-0	10 ±2	3/3	25	1.45	7.0	350FS10-12.5	350FS10-25	350FS10-50
350.0 ±3	25 ±5	3/3	25	1.45	7.0	350FS25-12.5	350FS25-25	350FS25-50
350.0 +10/-0	40 ±8	3/3	25	1.45	7.0	350FS40-12.5	350FS40-25	350FS40-50
355.0 +2/-0	10 ±2	3/3	25	1.45	7.0	355FS10-12.5	355FS10-25	355FS10-50
360.0 +3/-0	10 ±2	3/3	25	1.45	7.0	360FS10-12.5	360FS10-25	360FS10-50

MDM= Metal-Dielectric-Metal



Standard Bandpass Filters

CW/L (nm)	FWHM (nm)	Filter Type/ Cavities	Min. T (%)	N*	Max. Thickness (mm)	Size, Shape & Part Number		
						12.5mm Ø ○	25mm Ø ○	50mm Ø ○
365.0 +1/-0	5 ±1	2/2	20	1.45	7.0	365FS05-12.5	365FS05-25	365FS05-50
365.0 +2/-0	10 ±2	3/3	25	1.45	7.0	365FS10-12.5	365FS10-25	365FS10-50
365.0 ±3	25 ±5	3/3	25	1.45	7.0	365FS25-12.5	365FS25-25	365FS25-50
370.0 +3/-0	10 ±2	3/3	25	1.45	7.0	370FS10-12.5	370FS10-25	370FS10-50
380.0 +3/-0	10 ±2	3/3	25	1.45	7.0	380FS10-12.5	380FS10-25	380FS10-50
390.0 +3/-0	10 ±2	3/3	35	1.45	7.0	390FS10-12.5	390FS10-25	390FS10-50
400.0 +3/-0	10 ±2	3/3	45	1.45	7.0	400FS10-12.5	400FS10-25	400FS10-50
400.0 ±2	20 ±4	3/3	45	1.45	7.0	400FS20-12.5	400FS20-25	400FS20-50
400.0 +10/-0	40 ±8	3/3	45	1.45	7.0	400FS40-12.5	400FS40-25	400FS40-50
400.0 +25/-0	70 ±16	MDM/10	60	-	7.0	400FS70-12.5	400FS70-25	400FS70-50
404.7 +1/-0	5 ±1	2/2	35	1.45	7.0	405FS05-12.5	405FS05-25	405FS05-50
404.7 +2/-0	10 ±2	3/3	45	1.45	7.0	405FS10-12.5	405FS10-25	405FS10-50
410.0 +3/-0	10 ±2	3/3	45	1.45	7.0	410FS10-12.5	410FS10-25	410FS10-50
415.0 +2/-0	10 ±2	3/3	45	1.45	7.0	415FS10-12.5	415FS10-25	415FS10-50
420.0 +3/-0	10 ±2	3/3	45	1.45	7.0	420FS10-12.5	420FS10-25	420FS10-50
430.0 +3/-0	10 ±2	3/3	45	1.45	7.0	430FS10-12.5	430FS10-25	430FS10-50
435.8 +1/-0	5 ±1	2/2	45	1.45	7.0	436FS05-12.5	436FS05-25	436FS05-50
435.8 +2/-0	10 ±2	3/3	45	1.45	7.0	436FS10-12.5	436FS10-25	436FS10-50
440.0 +3/-0	10 ±2	3/3	45	1.45	7.0	440FS10-12.5	440FS10-25	440FS10-50
441.6 +0.2/-0	1 ±0.2	2/2	35	1.45	8.5	442FS02-12.5	442FS02-25	442FS02-50
441.6 +0.5/-0	3 ±0.5	2/2	40	1.45	8.5	442FS03-12.5	442FS03-25	442FS03-50
441.6 +2/-0	10 ±2	3/3	45	1.45	7.0	442FS10-12.5	442FS10-25	442FS10-50
450.0 +3/-0	10 ±2	3/3	45	1.45	7.0	450FS10-12.5	450FS10-25	450FS10-50
450.0 ±2	20 ±4	3/3	55	1.45	7.0	450FS20-12.5	450FS20-25	450FS20-50
450.0 +10/-0	40 ±8	3/3	55	1.45	7.0	450FS40-12.5	450FS40-25	450FS40-50
450.0 +25/-0	80 ±16	MDM/9	65	-	7.0	450FS80-12.5	450FS80-25	450FS80-50
455.5 +2/-0	10 ±2	3/3	50	1.45	7.0	456FS10-12.5	456FS10-25	456FS10-50
457.9 +0.2/-0	1 ±0.2	2/2	40	1.45	8.5	458FS02-12.5	458FS02-25	458FS02-50
457.9 +0.5/-0	3 ±0.5	2/2	45	1.45	8.5	458FS03-12.5	458FS03-25	458FS03-50
457.9 +2/-0	10 ±2	3/3	50	1.45	7.0	458FS10-12.5	458FS10-25	458FS10-50
460.0 +3/-0	10 ±2	3/3	50	1.45	7.0	460FS10-12.5	460FS10-25	460FS10-50
470.0 +3/-0	10 ±2	3/3	50	2.05	7.0	470FS10-12.5	470FS10-25	470FS10-50
480.0 +3/-0	10 ±2	3/3	50	2.05	7.0	480FS10-12.5	480FS10-25	480FS10-50
486.1 +2/-0	10 ±2	3/3	50	2.05	7.0	486FS10-12.5	486FS10-25	486FS10-50
488.0 +.2/-0	1 ±0.2	2/2	45	2.05	8.5	488FS02-12.5	488FS02-25	488FS02-50
488.0 +0.5/-0	3 ±0.5	2/2	50	2.05	8.5	488FS03-12.5	488FS03-25	488FS03-50
488.0 +2/-0	10 ±2	3/3	55	2.05	7.0	488FS10-12.5	488FS10-25	488FS10-50

MDM= Metal-Dielectric-Metal

Standard Bandpass Filters

CW/L (nm)	FWHM (nm)	Filter Type/ Cavities	Min. T (%)	N*	Max. Thickness (mm)	Size, Shape & Part Number		
						12.5mm Ø ○	25mm Ø ○	50mm Ø ○
490.0 +3/-0	10 ±2	3/3	55	2.05	7.0	490FS10-12.5	490FS10-25	490FS10-50
500.0 +3/-0	10 ±2	3/3	55	2.05	7.0	500FS10-12.5	500FS10-25	500FS10-50
500.0 ±2	20 ±4	3/3	55	2.05	7.0	500FS20-12.5	500FS20-25	500FS20-50
500.0 +10/-0	40 ±8	3/3	55	2.05	7.0	500FS40-12.5	500FS40-25	500FS40-50
500.0 +25/-0	80 ±16	MDM/9	70	-	7.0	500FS80-12.5	500FS80-25	500FS80-50
508.5 +2/-0	10 ±2	3/3	55	2.05	7.0	508FS10-12.5	508FS10-25	508FS10-50
510.0 +3/-0	10 ±2	3/3	55	2.05	7.0	510FS10-12.5	510FS10-25	510FS10-50
514.5 +0.2/-0	1 ±0.2	2/2	45	2.05	8.5	515FS02-12.5	515FS02-25	515FS02-50
514.5 +0.5/-0	3 ±0.5	2/2	50	2.05	8.5	515FS03-12.5	515FS03-25	515FS03-50
514.5 +2/-0	10 ±2	3/3	55	2.05	7.0	515FS10-12.5	515FS10-25	515FS10-50
520.0 +3/-0	10 ±2	3/3	55	2.05	7.0	520FS10-12.5	520FS10-25	520FS10-50
523.0 +2/-0	10 ±2	3/3	55	2.05	7.0	523FS10-12.5	523FS10-25	523FS10-50
530.0 +3/-0	10 ±2	3/3	55	2.05	7.0	530FS10-12.5	530FS10-25	530FS10-50
532.0 +0.2/-0	1 ±0.2	2/2	45	2.05	8.5	532FS02-12.5	532FS02-25	532FS02-50
532.0 +0.5/-0	3 ±0.5	2/2	50	2.05	8.5	532FS03-12.5	532FS03-25	532FS03-50
532.0 +2/-0	10 ±2	3/3	55	2.05	7.0	532FS10-12.5	532FS10-25	532FS10-50
535.0 +2/-0	10 ±2	3/3	55	2.05	7.0	535FS10-12.5	535FS10-25	535FS10-50
540.0 +3/-0	10 ±2	3/3	55	2.05	7.0	540FS10-12.5	540FS10-25	540FS10-50
543.5 +2/-0	10 ±2	3/3	55	2.05	7.0	544FS10-12.5	544FS10-25	544FS10-50
546.1 +1/-0	5 ±1	2/2	55	1.45	7.0	546FS05-12.5	546FS05-25	546FS05-50
546.1 +2/-0	10 ±2	3/3	55	2.05	7.0	546FS10-12.5	546FS10-25	546FS10-50
550.0 +3/-0	10 ±2	3/3	55	2.05	7.0	550FS10-12.5	550FS10-25	550FS10-50
550.0 ±2	20 ±4	3/3	55	1.45	7.0	550FS20-12.5	550FS20-25	550FS20-50
550.0 +10/-0	40 ±8	3/3	55	2.05	7.0	550FS40-12.5	550FS40-25	550FS40-50
550.0 +25/-0	80 ±16	MDM/9	70	-	7.0	550FS80-12.5	550FS80-25	550FS80-50
560.0 +3/-0	10 ±2	3/3	55	2.05	7.0	560FS10-12.5	560FS10-25	560FS10-50
570.0 +3/-0	10 ±2	3/3	55	2.05	7.0	570FS10-12.5	570FS10-25	570FS10-50
577.0 +1/-0	5 ±1	2/2	50	1.45	7.0	577FS05-12.5	577FS05-25	577FS05-50
577.0 +2/-0	10 ±2	3/3	55	2.05	7.0	577FS10-12.5	577FS10-25	577FS10-50
580.0 +3/-0	10 ±2	3/3	55	2.05	7.0	580FS10-12.5	580FS10-25	580FS10-50
589.3 +2/-0	10 ±2	3/3	55	2.05	7.0	589FS10-12.5	589FS10-25	589FS10-50
590.0 +3/-0	10 ±2	3/3	55	2.05	7.0	590FS10-12.5	590FS10-25	590FS10-50
600.0 +3/-0	10 ±2	3/3	55	2.05	7.0	600FS10-12.5	600FS10-25	600FS10-50
600.0 ±2	20 ±4	3/3	55	1.45	7.0	600FS20-12.5	600FS20-25	600FS20-50
600.0 +10/-0	40 ±8	3/3	55	2.05	7.0	600FS40-12.5	600FS40-25	600FS40-50
600.0 +25/-0	80 ±16	MDM/9	70	-	7.0	600FS80-12.5	600FS80-25	600FS80-50
610.0 +3/-0	10 ±2	3/3	55	2.05	7.0	610FS10-12.5	610FS10-25	610FS10-50

MDM= Metal-Dielectric-Metal



Standard Bandpass Filters

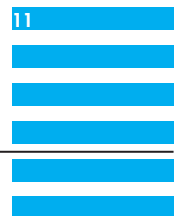
CW/L (nm)	FWHM (nm)	Filter Type/ Cavities	Min. T (%)	N*	Max. Thickness (mm)	Size, Shape & Part Number		
						12.5mm Ø ○	25mm Ø ○	50mm Ø ○
620.0 +3/-0	10 ±2	3/3	55	2.05	7.0	620FS10-12.5	620FS10-25	620FS10-50
630.0 +3/-0	10 ±2	3/3	55	2.05	7.0	630FS10-12.5	630FS10-25	630FS10-50
632.8 +0.2/-0	1 ±0.2	2/2	50	2.05	8.5	633FS02-12.5	633FS02-25	633FS02-50
632.8 +0.5/-0	3 ±0.5	2/2	50	2.05	8.5	633FS03-12.5	633FS03-25	633FS03-50
632.8 +2/-0	10 ±2	3/3	55	2.05	7.0	633FS10-12.5	633FS10-25	633FS10-50
636.2 +2/-0	10 ±2	3/3	60	2.05	7.0	636FS10-12.5	636FS10-25	636FS10-50
640.0 +3/-0	10 ±2	3/3	60	2.05	7.0	640FS10-12.5	640FS10-25	640FS10-50
647.1 +0.2/-0	1 ±0.2	2/2	50	2.05	8.5	647FS02-12.5	647FS02-25	647FS02-50
647.1 +0.5/-0	3 ±0.5	2/2	50	2.05	8.5	647FS03-12.5	647FS03-25	647FS03-50
647.1 +2/-0	10 ±2	3/3	60	2.05	7.0	647FS10-12.5	647FS10-25	647FS10-50
650.0 +3/-0	10 ±2	3/3	55	2.05	7.0	650FS10-12.5	650FS10-25	650FS10-50
650.0 ±2	20 ±4	3/3	55	2.05	7.0	650FS20-12.5	650FS20-25	650FS20-50
650.0 +10/-0	40 ±8	3/3	50	2.05	7.0	650FS40-12.5	650FS40-25	650FS40-50
650.0 +25/-0	80 ±16	MDM/9	70	-	7.0	650FS80-12.5	650FS80-25	650FS80-50
656.3 +0.2/-0	1 ±0.2	2/2	45	2.05	8.5	656FS02-12.5	656FS02-25	656FS02-50
656.3 +0.5/-0	3 ±0.5	2/2	50	2.05	8.5	656FS03-12.5	656FS03-25	656FS03-50
656.3 +2/-0	10 ±2	3/3	55	2.05	7.0	656FS10-12.5	656FS10-25	656FS10-50
660.0 +3/-0	10 ±2	3/3	55	2.05	7.0	660FS10-12.5	660FS10-25	660FS10-50
670.0 +3/-0	10 ±2	3/3	55	2.05	7.0	670FS10-12.5	670FS10-25	670FS10-50
670.8 +2/-0	10 ±2	3/3	55	2.05	7.0	671FS10-12.5	671FS10-25	671FS10-50
675.0 ±2	20 ±4	3/3	55	2.05	7.0	675FS20-12.5	675FS20-25	675FS20-50
680.0 +3/-0	10 ±2	3/3	55	2.05	7.0	680FS10-12.5	680FS10-25	680FS10-50
690.0 +3/-0	10 ±2	3/3	55	2.05	7.0	690FS10-12.5	690FS10-25	690FS10-50
694.3 +0.2/-0	1 ±0.2	2/2	45	2.05	8.5	694FS02-12.5	694FS02-25	694FS02-50
694.3 +0.5/-0	3 ±0.5	2/2	50	2.05	8.5	694FS03-12.5	694FS03-25	694FS03-50
694.3 +2/-0	10 ±2	3/3	55	2.05	7.0	694FS10-12.5	694FS10-25	694FS10-50
700.0 +3/-0	10 ±2	3/3	55	2.05	7.0	700FS10-12.5	700FS10-25	700FS10-50
700.0 ±2	20 ±4	3/3	55	2.05	7.0	700FS20-12.5	700FS20-25	700FS20-50
700.0 +10/-0	40 ±8	3/3	50	2.05	7.0	700FS40-12.5	700FS40-25	700FS40-50
700.0 +25/-0	80 ±16	MDM/9	65	-	7.0	700FS80-12.5	700FS80-25	700FS80-50
710.0 +3/-0	10 ±2	3/3	55	2.05	7.0	710FS10-12.5	710FS10-25	710FS10-50
720.0 +3/-0	10 ±2	3/3	55	2.05	7.0	720FS10-12.5	720FS10-25	720FS10-50
730.0 +3/-0	10 ±2	3/3	50	2.05	7.0	730FS10-12.5	730FS10-25	730FS10-50
750.0 +3/-0	10 ±2	3/3	50	2.05	7.0	750FS10-12.5	750FS10-25	750FS10-50
750.0 ±2	20 ±4	3/3	50	2.05	7.0	750FS20-12.5	750FS20-25	750FS20-50
750.0 +10/-0	40 ±8	3/3	40	2.05	7.0	750FS40-12.5	750FS40-25	750FS40-50
750.0 +25/-0	100 ±20	MDM/9	65	-	7.0	750FS00-12.5	750FS00-25	750FS00-50

MDM= Metal-Dielectric-Metal

Standard Bandpass Filters

CW/L (nm)	FWHM (nm)	Filter Type/ Cavities	Min. T (%)	N*	Max. Thickness (mm)	Size, Shape & Part Number		
						12.5mm Ø ○	25mm Ø ○	50mm Ø ○
760.0 +3/-0	10 ±2	3/3	50	2.05	7.0	760FS10-12.5	760FS10-25	760FS10-50
766.5 +2/-0	10 ±2	3/3	50	2.05	7.0	766FS10-12.5	766FS10-25	766FS10-50
770.0 +3/-0	10 ±2	3/3	50	2.05	7.0	770FS10-12.5	770FS10-25	770FS10-50
780.0 +3/-0	10 ±2	3/3	50	2.05	7.0	780FS10-12.5	780FS10-25	780FS10-50
780.0 ±2	20 ±4	3/3	50	2.05	7.0	780FS20-12.5	780FS20-25	780FS20-50
790.0 +3/-0	10 ±2	3/3	50	2.05	7.0	790FS10-12.5	790FS10-25	790FS10-50
794.7 +2/-0	10 ±2	3/3	50	2.05	7.0	795FS10-12.5	795FS10-25	795FS10-50
800.0 +3/-0	10 ±2	3/3	50	2.05	7.0	800FS10-12.5	800FS10-25	800FS10-50
800.0 ±2	20 ±4	3/3	50	2.05	7.0	800FS20-12.5	800FS20-25	800FS20-50
800.0 +10/-0	40 ±8	3/3	50	2.05	7.0	800FS40-12.5	800FS40-25	800FS40-50
800.0 +25/-0	100 ±20	MDM/9	65	-	7.0	800FS00-12.5	800FS00-25	800FS00-50
810.0 +3/-0	10 ±2	3/3	50	2.05	7.0	810FS10-12.5	810FS10-25	810FS10-50
810.0 ±2	20 ±4	3/3	50	2.05	7.0	810FS20-12.5	810FS20-25	810FS20-50
820.0 +3/-0	10 ±2	3/3	50	2.05	7.0	820FS10-12.5	820FS10-25	820FS10-50
830.0 +3/-0	10 ±2	3/3	50	2.05	7.0	830FS10-12.5	830FS10-25	830FS10-50
830.0 ±2	20 ±4	3/3	50	2.05	7.0	830FS20-12.5	830FS20-25	830FS20-50
840.0 +3/-0	10 ±2	3/3	50	2.05	7.0	840FS10-12.5	840FS10-25	840FS10-50
850.0 +3/-0	10 ±2	3/3	50	2.05	7.0	850FS10-12.5	850FS10-25	850FS10-50
850.0 ±2	20 ±4	3/3	50	2.05	7.0	850FS20-12.5	850FS20-25	850FS20-50
850.0 +10/-0	40 ±8	3/3	50	2.05	7.0	850FS40-12.5	850FS40-25	850FS40-50
850.0 +25/-0	100 ±20	MDM/9	65	-	7.0	850FS00-12.5	850FS00-25	850FS00-50
860.0 +3/-0	10 ±2	3/3	50	2.05	7.0	860FS10-12.5	860FS10-25	860FS10-50
870.0 +3/-0	10 ±2	3/3	50	2.05	7.0	870FS10-12.5	870FS10-25	870FS10-50
880.0 +3/-0	10 ±2	3/3	50	2.05	7.0	880FS10-12.5	880FS10-25	880FS10-50
890.0 +3/-0	10 ±2	3/3	50	2.05	7.0	890FS10-12.5	890FS10-25	890FS10-50
900.0 +3/-0	10 ±2	3/3	50	2.05	7.0	900FS10-12.5	900FS10-25	900FS10-50
900.0 ±2	20 ±4	3/3	50	2.05	7.0	900FS20-12.5	900FS20-25	900FS20-50
900.0 +10/-0	40 ±8	3/3	50	2.05	7.0	900FS40-12.5	900FS40-25	900FS40-50
900.0 +25/-0	100 ±20	MDM/9	60	-	7.0	900FS00-12.5	900FS00-25	900FS00-50
905.0 +0.2/-0	1 ±0.2	2/2	45	2.05	8.5	905FS02-12.5	905FS02-25	905FS02-50
905.0 +0.5/-0	3 ±0.5	2/2	45	2.05	8.5	905FS03-12.5	905FS03-25	905FS03-50
905.0 +2/-0	10 ±0.2	3/3	50	2.05	7.0	905FS10-12.5	905FS10-25	905FS10-50
910.0 +3/-0	10 ±2	3/3	50	2.05	7.0	910FS10-12.5	910FS10-25	910FS10-50
920.0 +3/-0	10 ±2	3/3	50	2.05	7.0	920FS10-12.5	920FS10-25	920FS10-50
930.0 +3/-0	10 ±2	3/3	50	2.05	7.0	930FS10-12.5	930FS10-25	930FS10-50
940.0 +3/-0	10 ±2	3/3	50	2.05	7.0	940FS10-12.5	940FS10-25	940FS10-50
950.0 +3/-0	10 ±2	3/3	50	2.05	7.0	950FS10-12.5	950FS10-25	950FS10-50

MDM= Metal-Dielectric-Metal



Standard Bandpass Filters

CW/L (nm)	FWHM (nm)	Filter Type/ Cavities	Min. T (%)	N*	Max. Thickness (mm)	Size, Shape & Part Number		
						12.5mm Ø ○	25mm Ø ○	50mm Ø ○
950.0 ±2	20 ±4	3/3	50	2.05	7.0	950FS20-12.5	950FS20-25	950FS20-50
950.0 +10/-0	40 ±8	3/3	50	1.45	7.0	950FS40-12.5	950FS40-25	950FS40-50
950.0 +25/-0	100 ±20	MDM/9	60	-	7.0	950FS00-12.5	950FS00-25	950FS00-50
960.0 +3/-0	10 ±2	3/3	50	2.05	7.0	960FS10-12.5	960FS10-25	960FS10-50
970.0 +3/-0	10 ±2	3/3	50	2.05	7.0	970FS10-12.5	970FS10-25	970FS10-50
980.0 +3/-0	10 ±2	3/3	50	2.05	7.0	980FS10-12.5	980FS10-25	980FS10-50
990.0 +3/-0	10 ±2	3/3	50	2.05	7.0	990FS10-12.5	990FS10-25	990FS10-50
1000.0 +3/-0	10 ±2	3/3	45	2.05	8.5	100FS10-12.5	100FS10-25	100FS10-50
1000.0 ±2	20 ±4	3/3	45	2.05	8.5	100FS20-12.5	100FS20-25	100FS20-50
1000.0 +10/-0	40 ±8	3/3	45	1.45	8.5	100FS40-12.5	100FS40-25	100FS40-50
1000.0 +25/-0	100 ±20	MDM/9	60	-	8.5	100FS00-12.5	100FS00-25	100FS00-50
1014.0 +2/-0	10 ±2	3/3	45	2.05	8.5	014FS10-12.5	014FS10-25	014FS10-50
1046.0 +2/-0	10 ±2	3/3	45	2.05	8.5	046FS10-12.5	046FS10-25	046FS10-50
1050.0 +3/-0	10 ±2	3/3	45	2.05	8.5	050FS10-12.5	050FS10-25	050FS10-50
1064.0 +0.2/-0	1 ±0.2	2/2	40	2.05	8.5	064FS02-12.5	064FS02-25	064FS02-50
1064.0 +0.5/-0	3 ±0.5	2/2	45	2.05	8.5	064FS03-12.5	064FS03-25	064FS03-50
1064.0 +2/-0	10 ±2	3/3	40	2.05	8.5	064FS10-12.5	064FS10-25	064FS10-50
1100.0 +3/-0	10 ±2	3/3	40	2.05	8.5	110FS10-12.5	110FS10-25	110FS10-50
1150.0 +3/-0	10 ±2	3/3	40	2.05	8.5	115FS10-12.5	115FS10-25	115FS10-50
1200.0 +3/-0	10 ±2	2/2	35	2.05	8.5	120FS10-12.5	120FS10-25	120FS10-50
1250.0 +3/-0	10 ±2	2/2	35	2.05	8.5	125FS10-12.5	125FS10-25	125FS10-50
1300.0 +3/-0	10 ±2	2/2	35	2.05	8.5	130FS10-12.5	130FS10-25	130FS10-50
1300.0 ±3	20 ±5	3/3	35	2.05	8.5	130FS20-12.5	130FS20-25	130FS20-50
1350.0 +3/-0	10 ±2	2/2	35	2.05	8.5	135FS10-12.5	135FS10-25	135FS10-50
1400.0 +3/-0	10 ±2	2/2	30	2.05	8.5	140FS10-12.5	140FS10-25	140FS10-50
1500.0 +3/-0	10 ±2	2/2	30	2.05	8.5	150FS10-12.5	150FS10-25	150FS10-50
1500.0 ±3	20 ±5	3/3	30	2.05	8.5	150FS20-12.5	150FS20-25	150FS20-50
1550.0 +3/-0	10 ±2	2/2	30	2.05	8.5	155FS10-12.5	155FS10-25	155FS10-50
1550.0 ±3	20 ±5	3/3	30	2.05	8.5	155FS20-12.5	155FS20-25	155FS20-50

MDM= Metal-Dielectric-Metal