

# Filter Plate Filter Selection

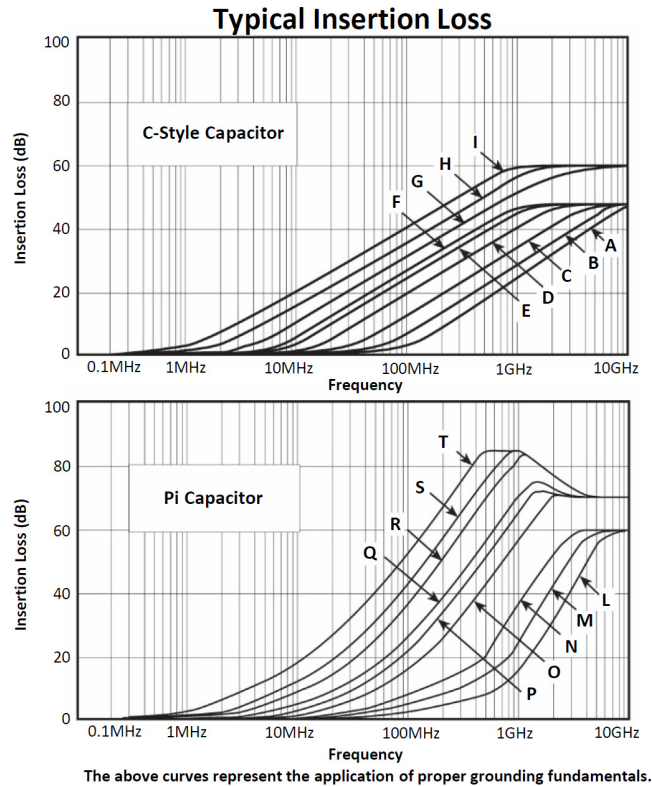
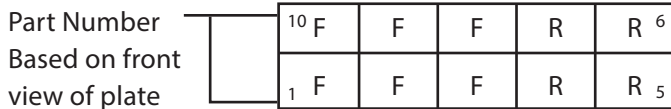
## EMI Filter Performance

The electrical characteristics table and insertion loss graphs indicate the performance of feedthrough capacitors and Pi type filters. Utilize this information to specify the EMI filtering components included in your filter plate.

## Custom Filtering

Spectrum Control filter plates are engineered to accommodate selective line filtering. Several different types of filters may be specified in a single, easy to install filter plate, allowing you to facilitate a wide range of filtering requirements.

For select line filtering, provide a sketch indicating the filters and positions required. The example below represents a 10-pin, 2-row plate with six 1000 pF feedthrough capacitors and four 1700 pF Pi type filters.



Filter Designation	Filter** Circuits	Capacitance		3 dB Max Cut-off Frequency (MHz)	Working Voltage DC -55°C to +125°C	Minimum Insertion Loss - Decibels (dB) 50 ohm system per MIL-STD-220 (no load)							
		Value	Tolerance			5 MHZ	10 MHZ	20 MHZ	50 MHZ	100 MHZ	200 MHZ	500 MHZ	1 GHZ
A	C	68pF	+/-25%	73.9	100V	-	-	-	-	-	3	10	16
B	C	100pF	+/-25%	50.3	100V	-	-	-	-	1	6	13	19
C	C	135pF	+100/-0%	23.3	100V	-	-	-	1	5	10	16	20
D	C	470pF	+/-25%	10.7	100V	-	-	2	7	13	18	25	27
E	C	820pF	+/-25%	6.2	100V	-	1	5	12	18	23	30	33
F	C	1000pF	+/-25%	5.1	100V	-	2	7	14	20	25	32	35
G	C	1500pF	+/-25%	3.4	100V	1	4	10	16	22	29	36	37
H	C	2500pF	+100/-0%	1.26	100V	5	11	17	23	29	35	38	40
I	C	4000pF	+100/-0%	0.8	100V	9	15	21	27	34	38	42	46
J	Insulated	10pF	Max.	635	100V	-	-	-	-	-	-	-	-
K	Grounded					-	-	-	-	-	-	-	-
L	Pi	68	+/-25%	65.3	100V	-	-	-	-	1	3	8	19
M	Pi	100	+/-25%	45.1	100V	-	-	-	-	2	6	11	27
N	Pi	135	+100/-0%	22.0	100V	-	-	-	1	6	10	20	34
O	Pi	470	+/-25%	10.6	100V	-	-	-	8	14	21	36	43
P	Pi	820	+/-25%	6.2	100V	-	-	4	13	22	31	45	52
Q	Pi	1000	+/-25%	5.1	100V	-	2	6	14	22	33	51	59
R	Pi	1700	+100/-0%	1.9	100V	1	6	12	23	35	48	64	69
S	Pi	2500	+100/-0%	1.3	50V	4	9	15	28	41	54	70	70
T	Pi	5000	+100/-0%	0.65	100V	9	15	23	41	53	66	70	70

\* 3dB cut-off frequency calculated at the maximum capacitance.

\*\* For high-density centers (2mm) only C style filters are available, to maximum of 4000pF.