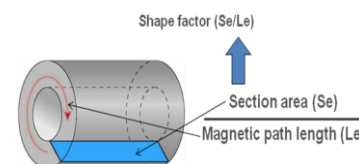


FERRITE CORES AND TILES

Rev 11-073112

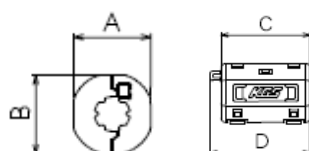
1. Shape factor (Se/Le): larger the shape factor, the higher the impedance. For the case of 1 pass through the core, a snug fit, and longer core is recommended as space permits.
2. Adjust the ferrite core positioning to target for antinode placement.
3. Performance can be increased by looping the cable around the core between to 3~5 times.



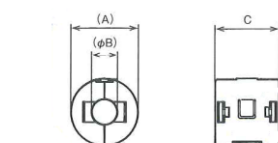
ROUND CABLE CORES



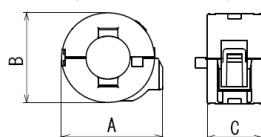
RFC GRFC GTFC Series



GRFC Series



GTFC Series



GTFC Series

RFCK2-20 (w/mounting tab)



G Ferrite Core - no nickel and competitively priced **NEW!**

PART NO.	A	B	C	D	APPLICABLE CABLES DIA.	IMPEDANCE $\Omega/100\text{MHz}$
GRFC-3	13.7	13.5	N/A	18	3.0 ~ 4.0 mm	35
GRFC-4	13.7	13.5	N/A	27.5	3.5 ~ 4.5 mm	75
GRFC-5	18.1	18.4	31.5	35.5	4.5 ~ 5.5 mm	100
GRFC-6	18.1	18.4	31.5	35.5	5.5 ~ 6.5 mm	100
GRFC-7	14.25	15.8	20	24	6.0 ~ 7.0 mm	45
GRFC-8	20.1	20.4	31.5	35.5	7.5 ~ 8.5 mm	75
GRFC-9	22.6	N/A	34	35.5	8.5 ~ 9.5 mm	75
GRFC-10	26.3	26.4	32.4	37.2	9.5 ~ 10.5 mm	105
GRFC-13	29.1	29.4	31.5	36.3	12.5 ~ 13.5 mm	105

RFC-H13	31.7	N/A	41	N/A	12.5 ~ 13.5 mm	170
RFC-20	40	N/A	47	N/A	20 mm max	180
RFCK-20 (RFC-20 with mount tab)	40	N/A	47	N/A	20 mm max	180

USB-4	13.9	N/A	32	N/A	3.5 ~ 5.5 mm	95
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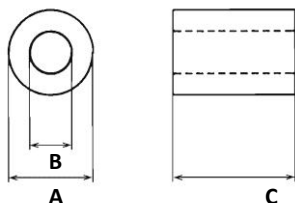
GTFC-16-8-13	22.3	20.1	18.9	N/A	7.2 mm max	≥ 45
GTFC-16-8-16	22.3	20.1	21.9	N/A	7.2 mm max	≥ 55
GTFC-20-10-10	27.1	24.9	16	N/A	8.5 mm max	≥ 40
GTFC-23-11-14	30.5	28.3	20.2	N/A	10.5 mm max	≥ 55
GTFC-25-15-12	31.1	28.9	17.8	N/A	13.0 mm max	≥ 40
GTFC-28-16-13	35.1	32.9	18.8	N/A	14.7 mm max	≥ 50
GTFC-28-16-20	35.1	32.9	25.8	N/A	14.7 mm max	≥ 70
GTFC-41-27-16	48.2	44.5	19.6	N/A	26.0 mm max	≥ 50

GTFC-16-8-13	32.5	20.4	18.9	N/A	7.2 mm max	≥ 45
GTFC-16-8-16	32.5	20.4	21.9	N/A	7.2 mm max	≥ 55
GTFC-20-10-10	37.1	24.9	16	N/A	8.5 mm max	≥ 40
GTFC-23-11-14	40.5	28.3	20.2	N/A	10.5 mm max	≥ 55
GTFC-25-15-12	41.2	28.9	17.8	N/A	13.0 mm max	≥ 40
GTFC-28-16-13	45.3	32.9	18.8	N/A	14.7 mm max	≥ 50
GTFC-28-16-20	45.3	32.9	25.8	N/A	14.7 mm max	≥ 70
GTFC-41-27-16	51.8	44.5	19.6	N/A	26.0 mm max	≥ 50

G Ferrite Core - no nickel and competitively priced

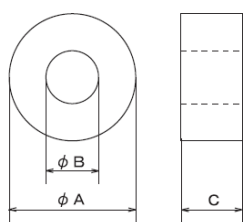
NEW!

GRI Ring Core Series

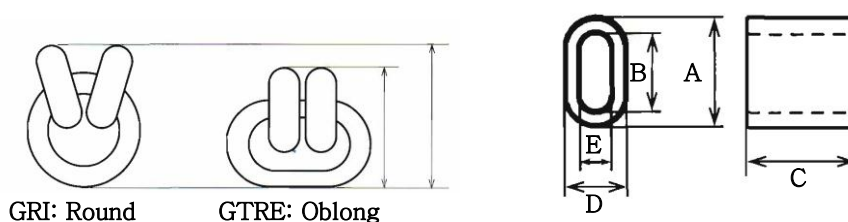


PART NO.	A	B	C	APPLICABLE CABLE DIA.	IMPEDANCE $\Omega/100\text{MHz}$
GRI-3-4-1	3	1	4	N/A	25
GRI-3.5-3.5-1.2	3.5	1.2	3.5	N/A	25
GRI-3.5-7-1.2	3.5	1.2	7	N/A	40
GRI-4-5-1.5	4	1.5	5	N/A	30
GRI-11-18-5	11	5	18.5	N/A	85
GRI-11-20-5	11	5	20	N/A	90
GRI-11-25-5	11	5	25	N/A	105
GRI-12-16-8.5	12	8.5	16	N/A	35
GRI-12.3-20-7	12.3	7	20	N/A	70
GRI-14-28-6	14.3	6.3	28.6	N/A	130
GRI-16-20-7	16	7	20	N/A	95
GRI-16-28-7	16	7	28	N/A	130
GRI-16-28-8	16	8	28	N/A	115
GRI-16-28-9	16	9	28	N/A	95
GRI-17.5-28.5-10.7	17.5	10.7	28.5	N/A	85
GRI-18-28-10	18	9.5	28	N/A	100
GRI-26-28-13	26	13	28	N/A	120

ROUND CABLE CORES



PART NO.	A	B	C	APPLICABLE CABLE DIA.	IMPEDANCE $\Omega/100\text{MHz}$
GTR-7-3-4	7.0	3.5	4.0	N/A	20
GTR-9-5-8	9.0	5.0	8.0	N/A	30
GTR-10-5-5	10.0	5.0	5.0	N/A	25
GTR-11-5-9	11.0	5.0	9.0	N/A	45
GTR-12.5-8-12	12.6	8.1	12.0	N/A	35
GTR-13-7-6	13.0	7.0	6.3	N/A	25
GTR-13-7-12.7	13.0	7.1	12.7	N/A	45
GTR-14.5-10-8	14.5	10.2	8.0	N/A	20
GTR-16-8-13	16.5	8.2	13.0	N/A	55
GTR-16-8-16	16.5	8.2	16.0	N/A	65
GTR-16-10-7	16.0	10.0	7.0	N/A	25
GTR-16-10-10	16.0	10.0	10.0	N/A	30
GTR-18-10-6	18.0	10.0	6.0	N/A	25
GTR-20-10-5	20.5	10.2	5.0	N/A	25
GTR-20-10-10	20.5	10.2	10	N/A	45
GTR-21-13-6	21.2	12.7	6.0	N/A	25
GTR-22-14-10	22.0	14.0	10.0	N/A	30
GTR-23-11-14	23.6	11.4	14.0	N/A	60
GTR-25-15-8	25.0	15.0	8.0	N/A	30
GTR-25-15-12	25.0	15.0	12.0	N/A	40
GTR-28-16-13	28.0	16.0	13.0	N/A	45
GTR-28-16-20	28.0	16.0	20.0	N/A	70
GTR-31-19-8	31.0	19.0	8.0	N/A	30
GTR-40-27-15	40.6	27.4	15.0	N/A	45



GRI: Round

GTRE: Oblong

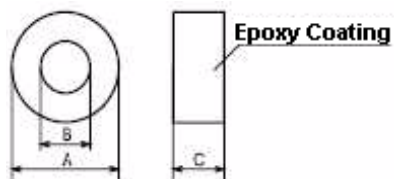
PART NO.	A	B	C	D	E	IMPEDANCE $\Omega/100\text{MHz}$
GTRE-14-12.5-8	14.0	10.0	12.5	8.0	4.0	30
GTRE-14-14-8	14.0	10.0	14.0	8.0	4.0	35

Where height is a problem, use GTRE core.

Low Frequency Core

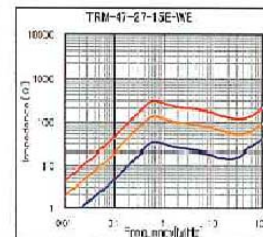
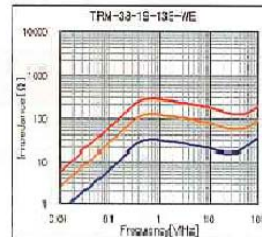
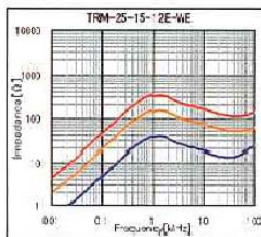
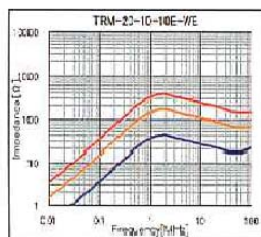
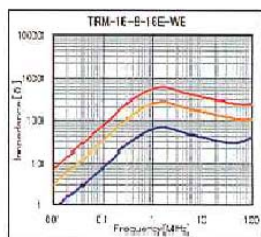
TRM – cores for low frequency range

- High impedance noise filters for low frequency.
- Looping the cable around, increases effectiveness by 10^2



PART NO.	A	B	C	IMPEDANCE $\Omega/100\text{MHz}$
TRM-16-8-16E-WE	17.0	7.1	16.9	See Graph
TRM-20-10-10E-WE	21.0	9.1	10.9	See Graph
TRM-25-15-12E-WE	26.0	14.1	12.9	See Graph
TRM-38-19-13E-WE	39.2	17.9	14.0	See Graph
TRM-47-27-15E-WE	46.5	25.7	16.3	See Graph

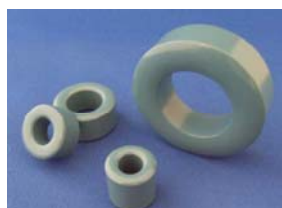
1 Turn 2 Turns 3 Turns



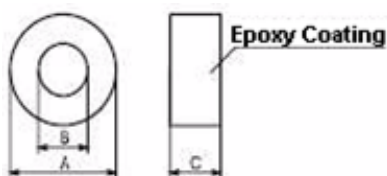
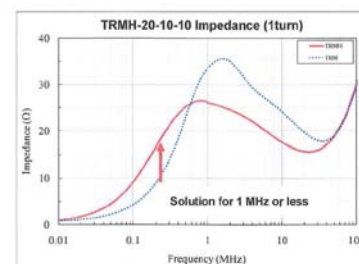
*The specifications and properties above are not guaranteed performance, and are subject to change without notice due to product improvement and specification change.

TRMH – Low frequency, high μ ferrite cores **NEW!**

- High impedance at less than 1MHz.
- Increased impedance can be obtained by several turns.
- Suitable for conducted emissions for the KHz ranges.

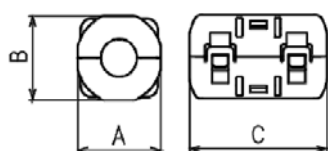


PART NO.	A	B	C	IMPEDANCE $\Omega/100\text{MHz}$
TRMH-16-8-16E	16.8	7.3	16.7	See graph
TRMH-20-10-10E	20.9	9.3	10.8	See graph
TRMH-25-15-12E	25.8	14.2	12.7	See graph
TRMH-31-20-15E	32.0	19.1	15.8	See graph
TRMH-38-19-13E	39.0	18.1	13.8	See graph
TRMH-47-27-15E	48.2	26.1	15.8	See graph

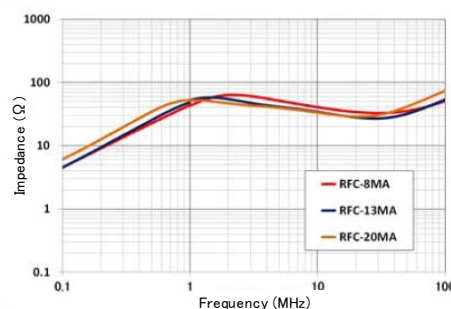
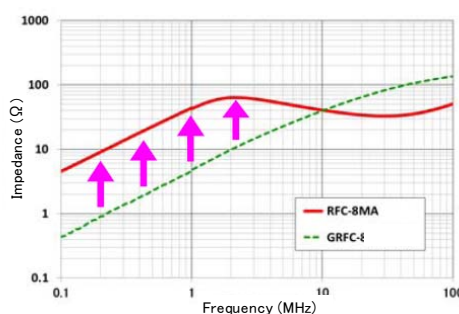


RFC-MA – Low frequency, high μ ferrite cores

- Aimed to suppress low frequency noise generated by engine control units (ECU), inverters, and motors.
- Split type with plastic casing
- Operating Temperature: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$
- Casing has a designated area for placing a plastic cable tie
- UL-94V-2 rated

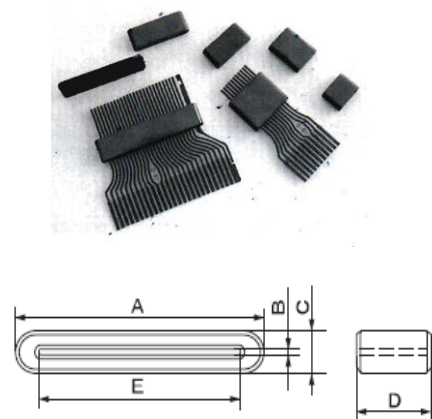


Part Number	A	B	C	Applicable Cable Diameter
RFC-8MA	20.6	19.8	34	8.5 (MAX)
RFC-13MA	29.6	28.4	34	12.5-13.5
RFC-20MA	40	40	47	20 (MAX)



FLAT CABLE CORES

(1-piece type)



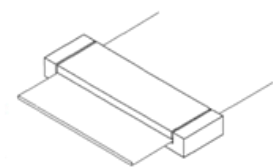
G Ferrite Core - no nickel and competitively priced

NEW!

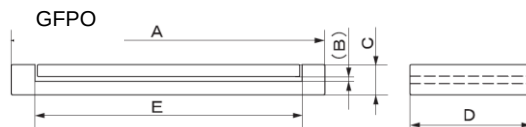
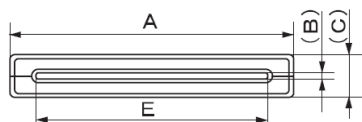
PART NO.	A	B	C	D	E	IMPEDANCE $\Omega/100\text{MHz}$
GFPC-11-8-2	11.0	0.7	2.3	8.0	9.0	25
GFPC-16-5-3	16.0	0.5	3.0	5.0	11.5	20
GFPC-16-12	16.0	0.5	5.0	12.0	11.5	45
GFPC-16-20	16.0	0.8	5.0	20.0	11.5	60
GFPC-22-8-2	21.5	0.7	2.3	8.0	18.0	25
GFPC-24-12-3	23.3	0.9	3.0	12.0	20.0	30
GFPC-25-10-3	25.0	0.8	3.0	10.0	21.5	25
GFPC-25-12	24.5	0.5	5.0	12.0	20.0	35
GFPC-25-15-3	25.5	0.8	3.0	15.0	21.5	35
GFPC-25-20	24.5	0.5	5.0	20.0	20.0	50
GFPC-31-12	31.0	0.5	5.0	12.0	27.0	40
GFPC-31-12-3	31.0	1.0	3.0	12.0	27.0	30
GFPC-46-12	46.0	0.5	5.0	12.0	41.5	40
GFPC-56-12	56.2	0.5	5.0	12.0	52.4	35
GSSC-33.5-10	33.5	1.4	6.5	10.0	28.4	30
GSSC-33.5-12	33.5	1.4	6.5	12.0	28.4	35
GSSC-33.5-20	33.5	1.3	6.5	20.0	27.8	50
GSSC-33.5-10-2	33.5	2.2	7.4	10.0	27.0	30
GSSC-40-12	40.0	1.3	6.5	12.0	35.0	35
GSSC-45-8	45.0	1.3	6.5	8.0	40.0	30
GSSC-45-12	45.0	1.3	6.5	12.0	40.0	35
GSSC-50-12	50.0	1.4	6.5	12.0	44.9	35
GSSC-58-12	57.6	1.3	6.5	12.0	52.0	35

FLAT CABLE CORES

(2-piece type)



■ GFPH, GSSH



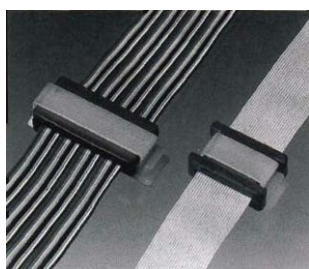
PART NO.	A	B	C	D	E	IMPEDANCE $\Omega/100\text{MHz}$
GFPH-10-6-5	10.0	0.9	2.5	8.0	6.0	25
GFPO-23-8-3	23.0	0.5	2.8	8.0	19.0	30
GFPO-25-12-3	25.0	0.5	2.8	12.0	21.0	35
GFPO-31-12-3	31.0	0.5	2.8	12.0	27.0	35
GSSH-33.5-12	33.5	1.2	6.6	12.0	27.0	35
GSSH-33.5-20	33.5	1.2	6.6	20.0	27.0	50
GSSH-40-12	40.0	1.2	6.6	12.0	34.8	35
GSSH-45-12	45.5	1.2	6.6	12.0	40.0	35

GSSH and GFPH series are a set of two of the same U-shaped pieces, while FPO series has a combination of one U-shaped piece and one flat piece.

EFC series are **snap-on mount** and come with plastic holders.

FLAT CABLE CORES

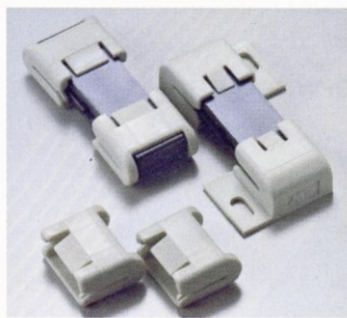
(Large 2-piece type)



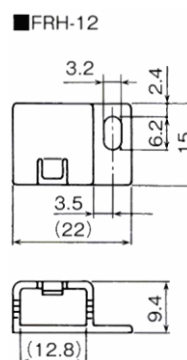
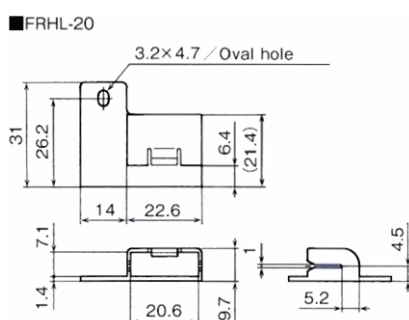
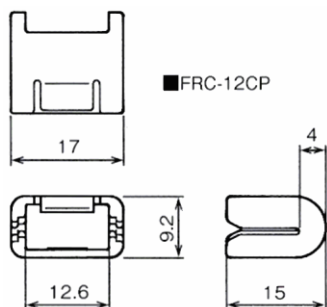
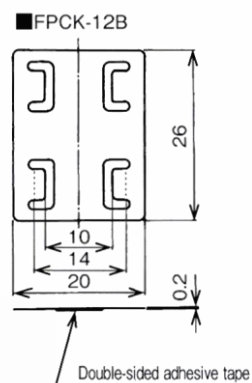
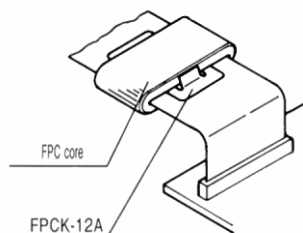
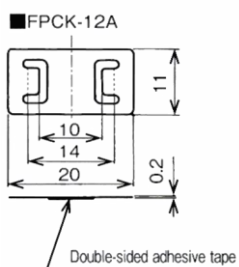
PART NO.	A	B	C	D	E	IMPEDANCE $\Omega/100\text{MHz}$
EFC-25-S	44.0	33.0 +0.6 -0	28.5	2.0 +1.2 -1.0	13.0	116+
EFC-40-S	63.0	52.0 +1.1 -0	28.5	2.0 +1.2 -1.0	13.0	135+
EFC-50-S	76.5	64.5 +1.3 -0	28.5	2.0 +1.2 -1.0	13.0	137+
BCN-26	45.0	34.0 +1.0 -0	30	2.0 +1.2 -1.0	13.0	125+
BCN-40	63.0	52.0 +1.1 -0	30	2.0 +1.2 -1.0	13.0	137+
BCN-50	76.5	64.5 +1.3 -0	30	2.0 +1.2 -1.0	13.0	135+

BCN series are **adhesive mount** and come with plastic holders.

Plastic STOPPER, HOLDER, CLIP



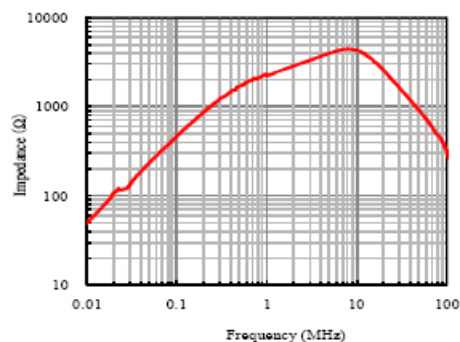
Part No.	Material	Color	UL Rating
FPCK-12A	PVC	Clear	UL94V-0
FPCK-12B	PVC	Clear	UL94V-0
FRC-12CP	Nylon 66	Light Gray	UL94V-0
FRHL-20	Nylon 66	Natural	UL94V-2
FRH-12	Nylon 66	Light Gray	UL94V-0



AMORPHOUS CORES

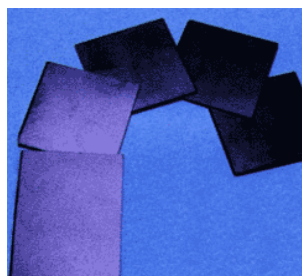


PART NO.	A	B	C	IMPEDANCE Ω/100MHz
AF01-40	110.0	34.0	66.0	See graph
AF02-84-34	180.0	34.0	83.0	See graph

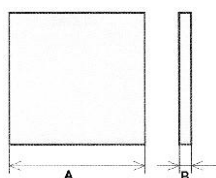


- Higher magnetic permeability and saturated magnetic density than a ferrite core.
- Suppresses noise from 150KHz to 30MHz generated by a switching regulator or an inverter.

FERRITE TILES

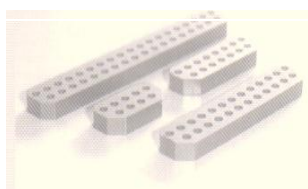
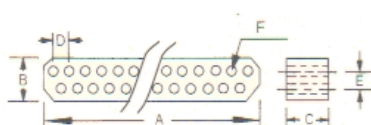


SD Tiles – sintered ferrite tiles for CPU's high density, high perform



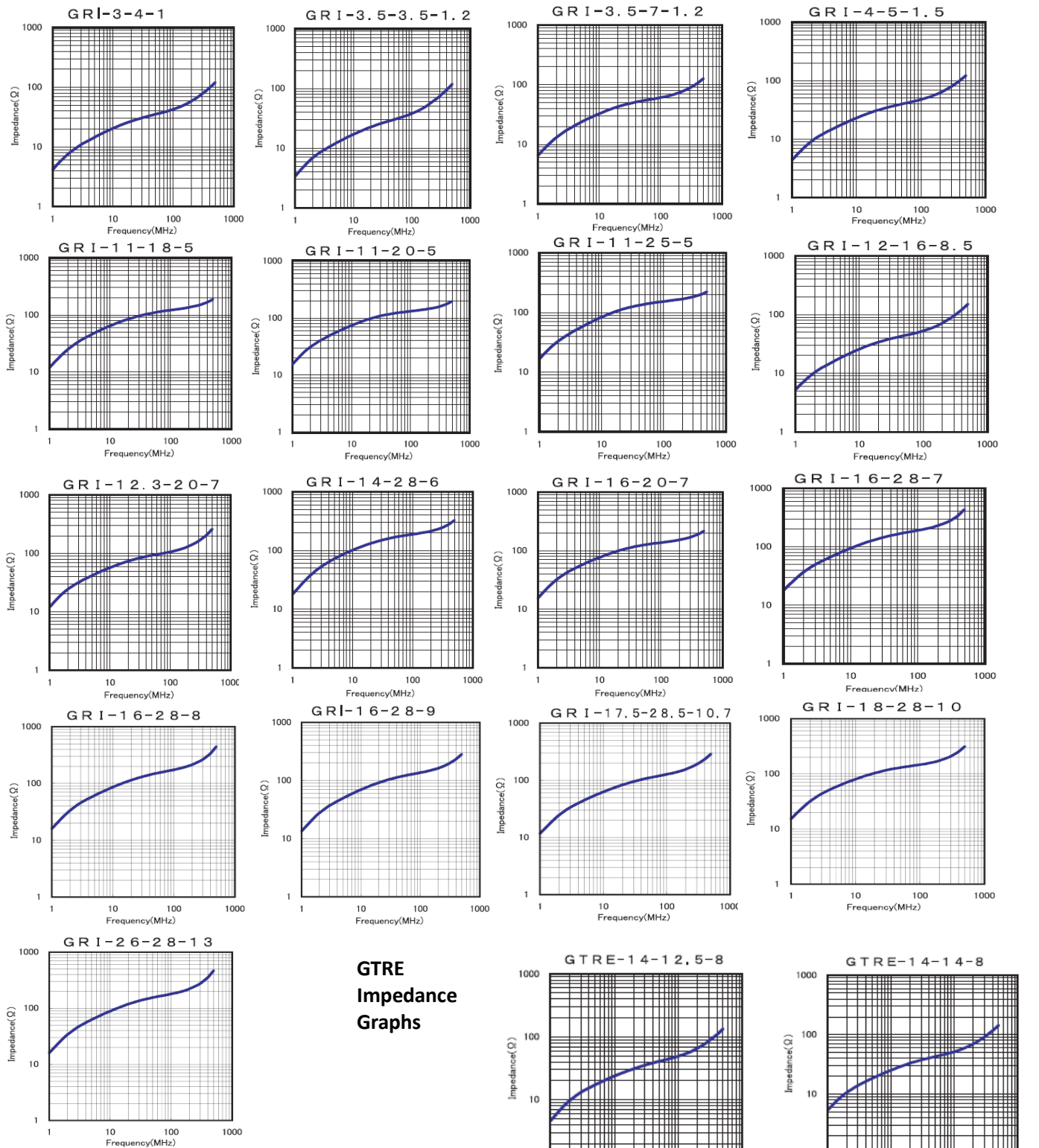
PART NO.	A	B	W/Mk	IMPEDANCE Ω/100MHz
SD-28-28-0.8	28	0.8	1 ~ 5	600 ~ 2000
SD-28-28-0.8T	28	0.8	1 ~ 5	600 ~ 2000
SD-28-28-1.5	28	1.5	1 ~ 5	600 ~ 2000
SD-28-28-1.5T	28	1.5	1 ~ 5	600 ~ 2000

MULTI HOLE TILES

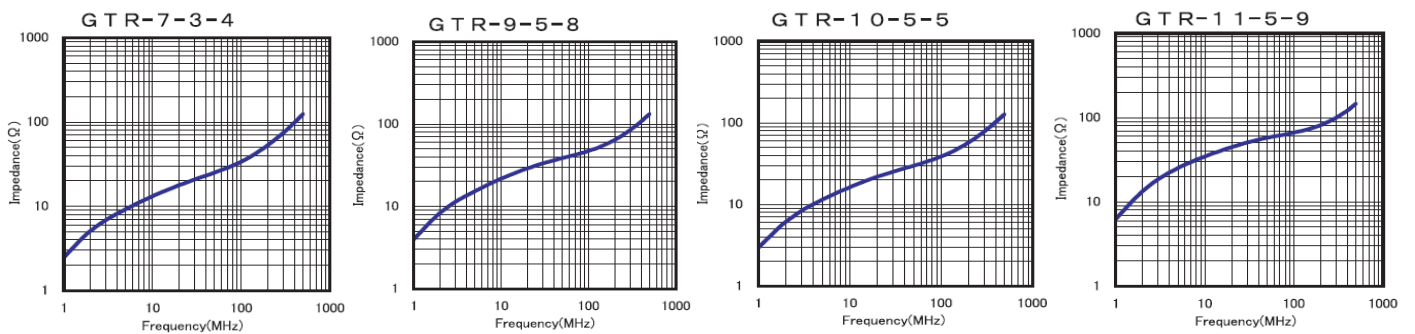


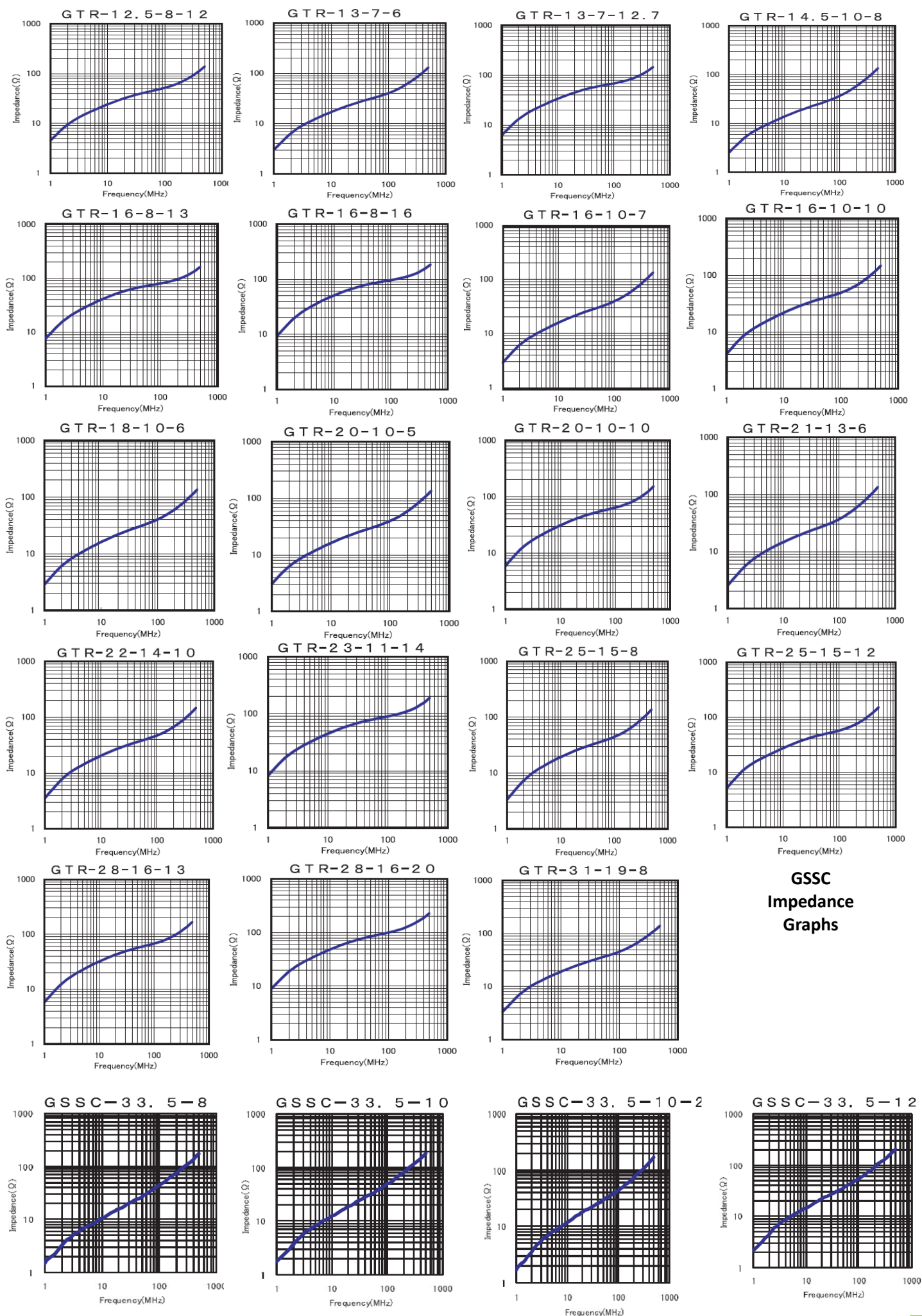
PART NO.	A	B	C	D	E	F	# of HOLE S	IMPEDANCE Ω/100MHz
FH9-14.5X7.6X2.8	14.5	7.6	2.8	2.74	2.84	1.57	9	64
FH15-22.65x7.6x1.6	22.65	7.6	1.6	2.77	2.84	1.57	15	64
FH15-22.65x7.6x2.8	22.65	7.6	2.8	2.77	2.84	1.57	15	65
FH37-53.08x7.7x2.8	53.08	7.7	2.8	2.77	2.84	1.5	37	65

GRI Impedance Graphs

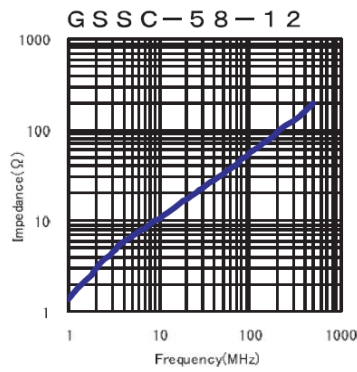
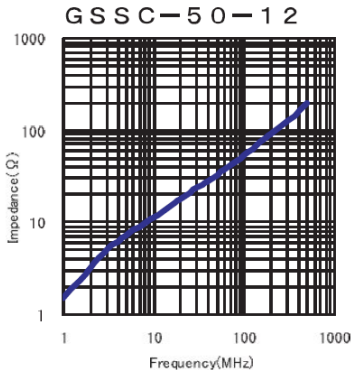
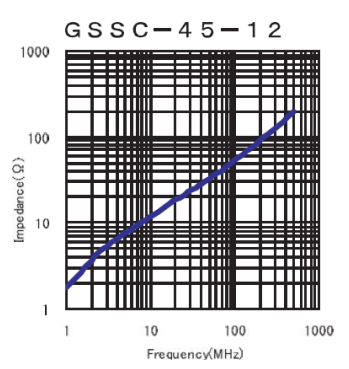
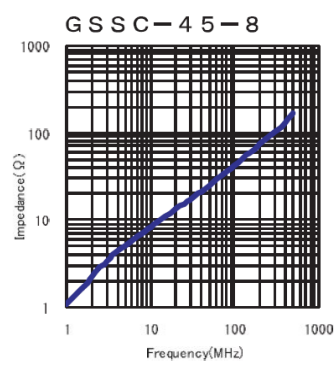
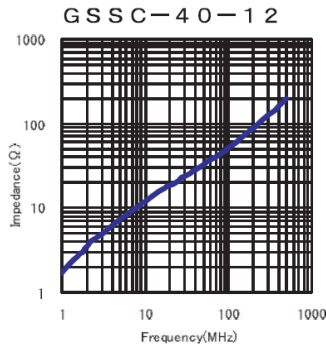
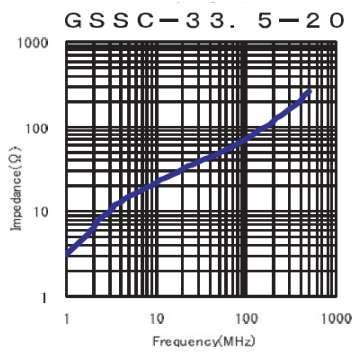


GTR Impedance Graphs

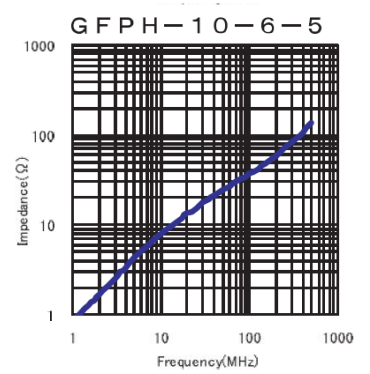




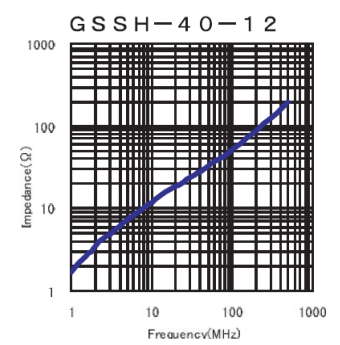
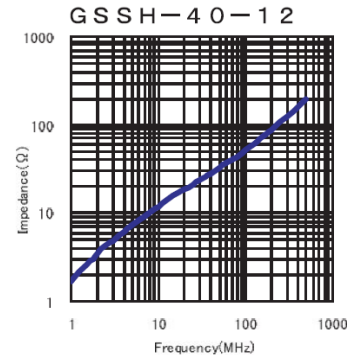
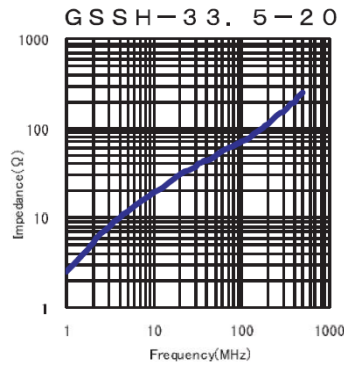
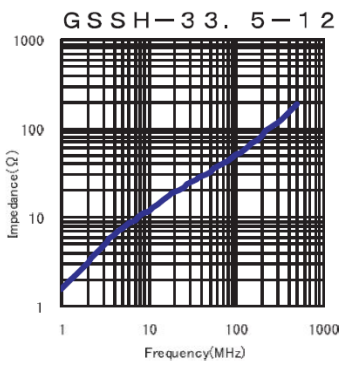
**GSSC
Impedance
Graphs**



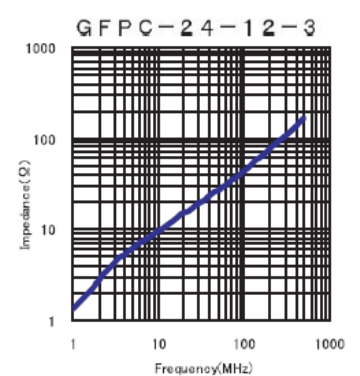
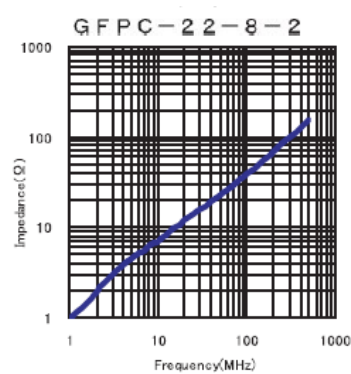
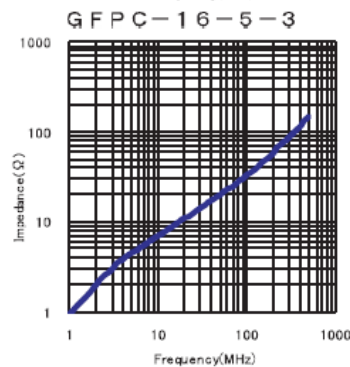
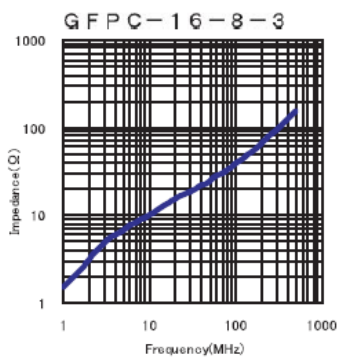
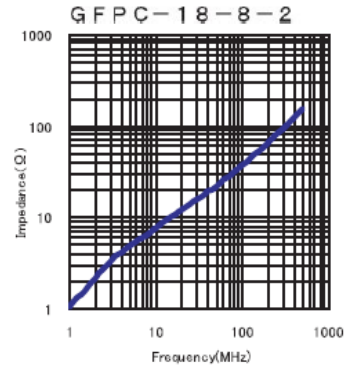
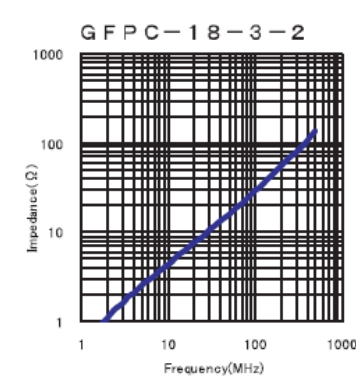
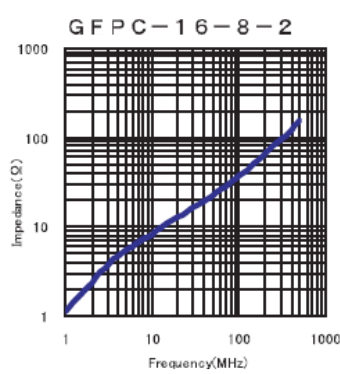
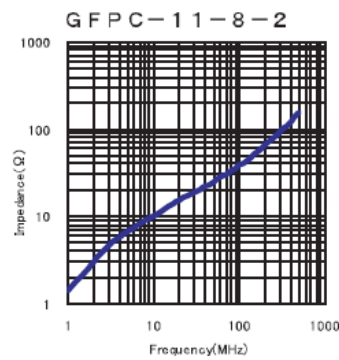
GFPH Impedance Graph

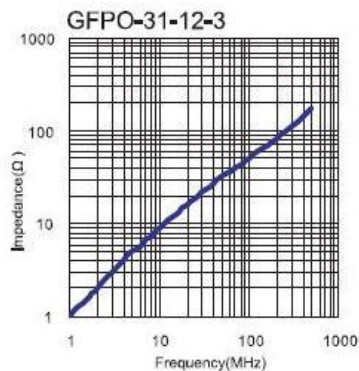
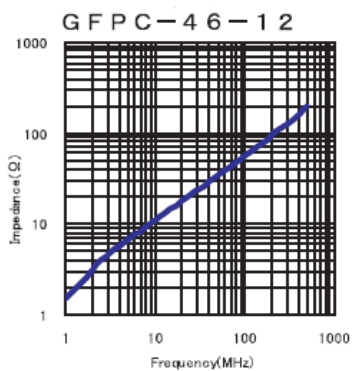
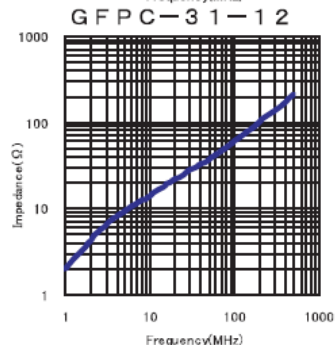
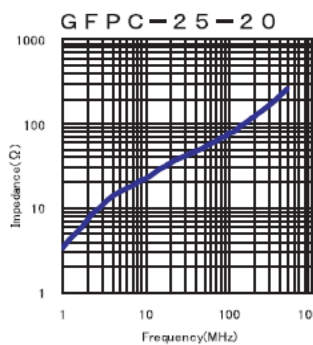
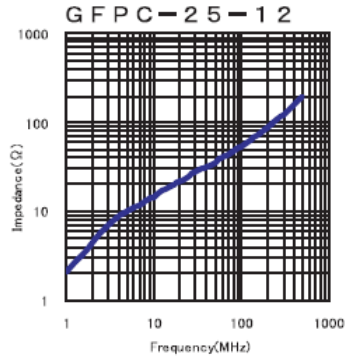
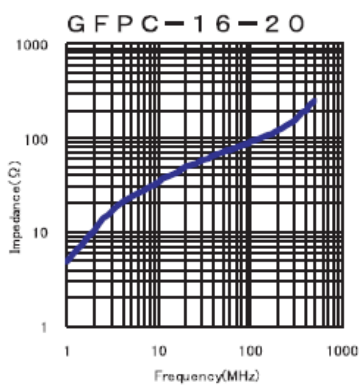
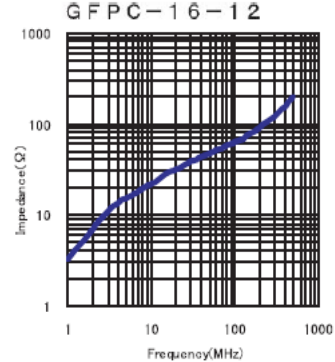
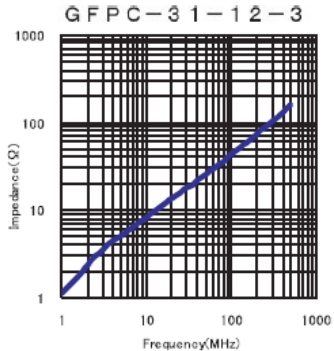
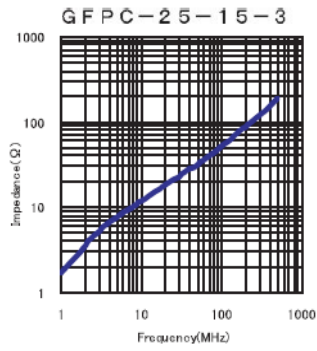
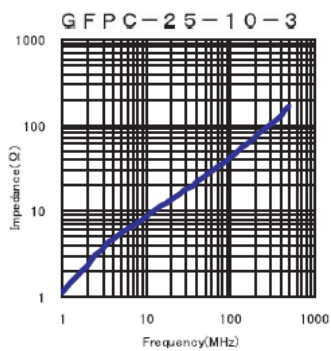


GSSH Impedance Graphs

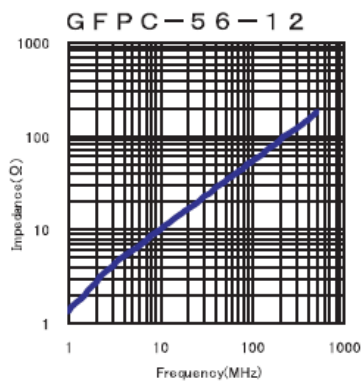
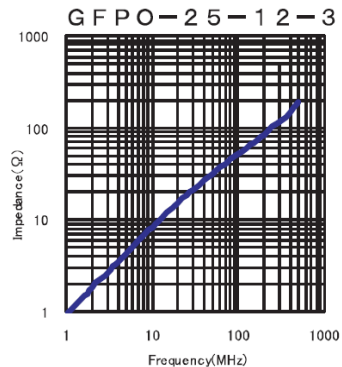
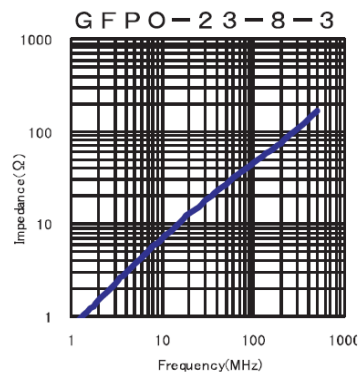


GFPC Impedance Graphs

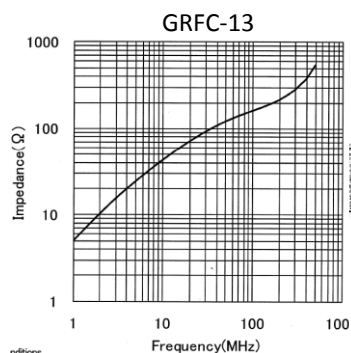
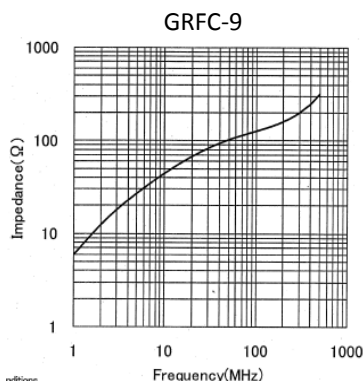
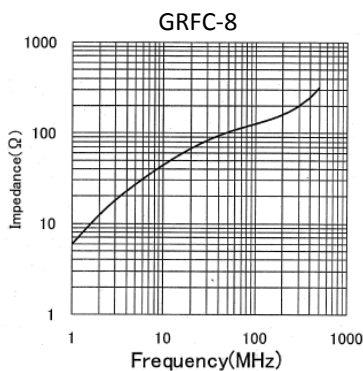
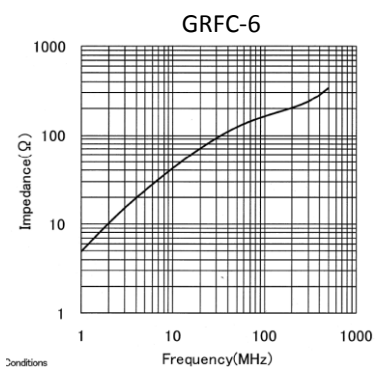
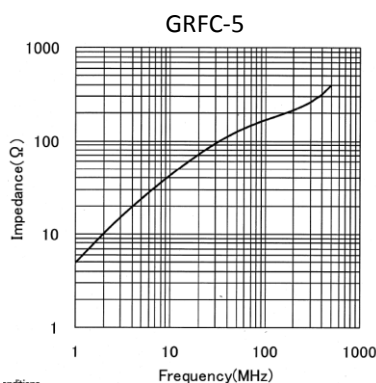




GFPO Impedance Graphs



GRFC Impedance Graphs



AF Impedance Graphs

