BALANCED FILTER

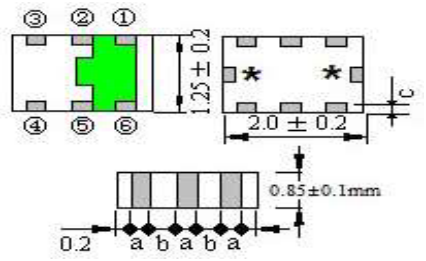
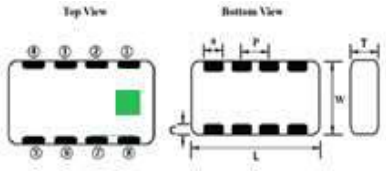
Multilayer Chip Type

Small Size • Low Loss • High Reliability

Simplify Circuit Design & Tuning

BALANCED FILTER

■ Product Structure

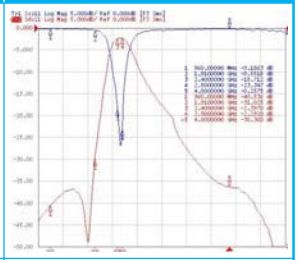
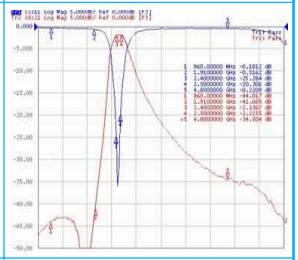
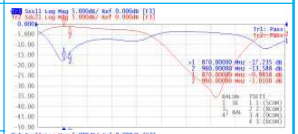
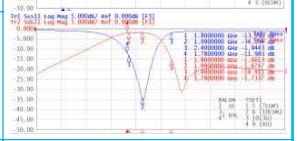
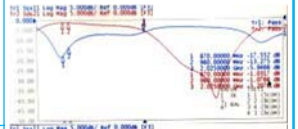
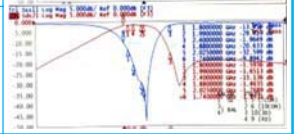
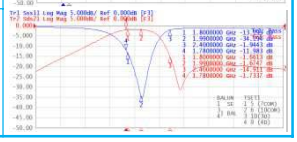
Structure A	Structure B
	

■ Pin Description & Dimension

Shinhom P/N	Structure	Size (mm)			Pin No. & Description							
		L	W	T	1	2	3	4	5	6	7	8
MBF21M2450H133-M13	A	2.0±0.2	1.25±0.2	1.0±0.1	Unbalance	GND/DC	NC	Balance	GND	Balance		
MBF21M2450P69-M26	A	2.0±0.2	1.25±0.2	0.85±0.1	Unbalance	NC/DC	NC	Balance	GND	Balance		
MBF21M2450P69-M28	A	2.0±0.2	1.25±0.2	0.85±0.1	Unbalance	NC/DC	NC	Balance	GND	Balance		
MDBF21L914H1897M-DB01	B	2.0±0.15	1.25±0.15	0.90±0.1	Unbalance (GSM850 /900)	GND	GND	Unbalance (GSM1800 /1900)	Balance (GSM1800 /1900)	Balance (GSM1800 /1900)	Balance (GSM850 /900)	Balance (GSM850 /900)
MDBF21L914H1897M-DB02H	B	2.0±0.15	1.25±0.15	0.90±0.1								
MDBF21L914H1897M-DB03	B	2.0±0.15	1.25±0.15	0.90±0.1								

BALANCED FILTER

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)		VSWR (in BW)	Attenuation (dB/Min.)	Phase Diff. (Deg.)	Electrical Characteristics
			Unbalance	Balance				
MBF21M2450H133-M13	2400~2500	3.0 (@25℃) 3.2 (@-40~+85℃)	50	Matched to MT6612	≤2.0	30dB (880~960MHz) 30dB (1710~1990MHz) 25dB (4800~5000MHz)	180±10	
MBF21M2450P69-M26	2400~2500	2.6 (@25℃) 2.8 (@-40~+85℃)	50	Matched to CSR6888	≤2.0	30dB (880~960MHz) 30dB (1710~1990MHz) 30dB (4800~5000MHz)	180±10	
MBF21M2450P69-M28	2400~2500	2.5 (@25℃) 2.8 (@-40~+85℃)	50	50	≤2.0	35dB (880~960MHz) 35dB (1545~1605MHz) 35dB (1710~1910MHz) 45dB (4800~5000MHz)	180±10	
MDBF21L914H1897M-DB01	869~960	1.4 (@25℃) 1.6 (@-40~+85℃)	50	200	Unbalance ≤1.4 Balance ≤1.44	13dB (435~480MHz) 16dB (1738~1920MHz) 28dB (2607~2880MHz) 22dB (2880~6000MHz)	180±15	
	1805~1990	1.6 (@25℃) 1.9 (@-40~+85℃)	50	200	Unbalance ≤1.52 Balance ≤1.52	16dB (902.5~995MHz) 20dB (2400~2500MHz) 15dB (3610~3980MHz) 20dB (5415~5970MHz)	180±15	
MDBF21L914H1897M-DB02H	869~960	1.2 (@25℃) 1.4 (@-40~+85℃)	50	200	Unbalance ≤1.4 Balance ≤1.44	13dB (435~480MHz) 10dB (1738~1920MHz) 20dB (2607~2880MHz)	180±15	
	1805~2025	1.75 (@25℃) 2.1 (@-40~+85℃)	50	200	Unbalance ≤1.52 Balance ≤1.52	13dB (2400~2500MHz) 20dB (3610~3980MHz) 20dB (5415~5970MHz)	180±15	
MDBF21L914H1897M-DB03	869~960	1.8 (@25℃) 2.1 (@-40~+85℃)	50	200	Unbalance ≤1.4 Balance ≤1.44	13dB (435~480MHz) 14dB (1738~1920MHz) 24dB (2607~2880MHz)	180±15	
	1805~1990	2.1 (@25℃) 2.4 (@-40~+85℃)	50	200	Unbalance ≤1.52 Balance ≤1.52	17dB (902.5~995MHz) 15dB (3610~3980MHz) 20dB (5415~5970MHz)	180±15	

BAND PASS FILTER

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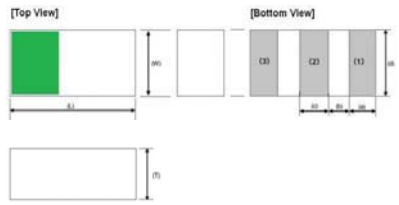
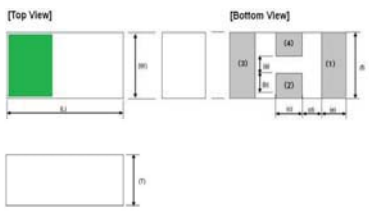
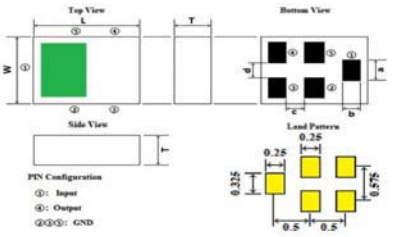
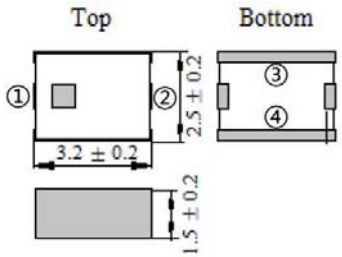
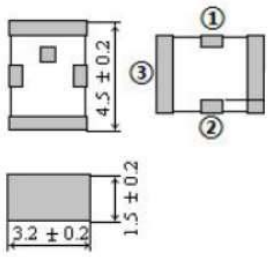
■ Product Structure

Structure A	Structure B	Structure C
		

Structure D	Structure E
	

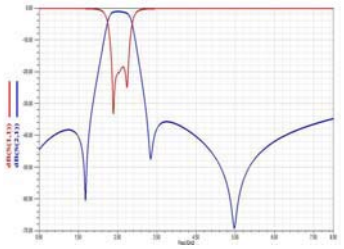
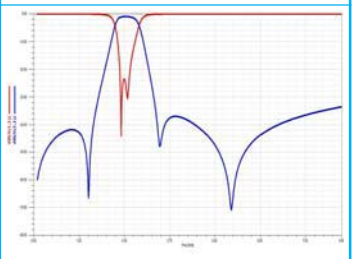
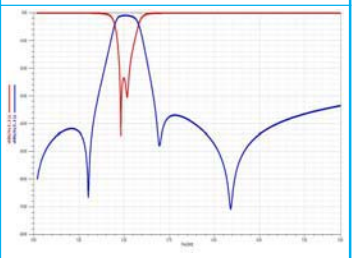
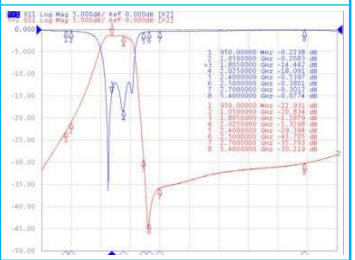
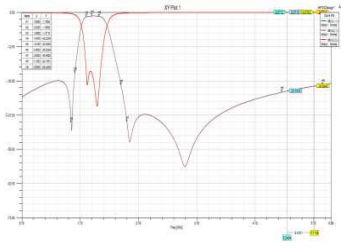
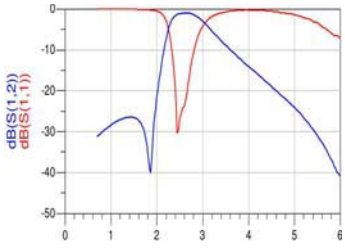
BAND PASS FILTER

■ Pin Description & Dimension

Shinhom P/N	Structure	Size (mm)			Pin No. & Description					
		L	W	T	1	2	3	4	5	6
MBPF11M2450P69-N116	C	1.1±0.10	0.9±0.10	0.6±0.10	In	GND	GND	Out	GND	
MBPF14M2450P69-N115	C	1.4±0.15	1.1±0.15	0.6±0.10	In	GND	GND	Out	GND	
MBPF14M2450P69-N115L	C	1.4±0.15	1.1±0.15	0.6±0.10	In	GND	GND	Out	GND	
MBPF18M1915-N39	A	1.6±0.10	0.8±0.10	0.6±0.10	In/Out	GND	In/Out			
MBPF18M1915-N39B	B	1.6±0.10	0.8±0.10	0.6±0.10	In/Out	GND	In/Out	GND		
MBPF18M2450-M11	B	1.6±0.05	0.8±0.05	0.6±0.05	In/Out	GND	In/Out	GND		
MBPF18M2450-N86	B	1.6±0.05	0.8±0.05	0.55±0.05	In/Out	GND	In/Out	GND		
MBPF18M2450P69-N107	A	1.6±0.15	0.8±0.10	0.6±0.05	In/Out	GND	In/Out			
MBPF18M5425P69-N106	A	1.6±0.10	0.8±0.10	0.6±0.10	In/Out	GND	In/Out			
MBPF18M5500P69-N109	A	1.6±0.10	0.8±0.10	0.6±0.10	In/Out	GND	In/Out			
MBPF18M5537-N10	A	1.6±0.10	0.8±0.10	0.7 Max.	In/Out	GND	In/Out			
MBPF21B2450H46-N36	B	2.0±0.15	1.25±0.10	0.95±0.1	In/Out	GND	In/Out	GND		
MBPF21M2450-N81W	A	2.0±0.20	1.25±0.10	0.8±0.1	In/Out	GND	In/Out			
MBPF21M3550-N11	A	2.0±0.20	1.25±0.10	0.7 Max.	In/Out	GND	In/Out			
MBPF21M3600-N42	A	2.0±0.20	1.25±0.10	0.8±0.1	In/Out	GND	In/Out			
MBPF21M4700-N12	A	2.0±0.20	1.25±0.10	0.7 Max.	In/Out	GND	In/Out			
MBPF32M2593P69-N06	A	3.2±0.20	2.5±0.20	1.0 Max.	In/Out	GND	In/Out			
MBPF3225H1GP69-N190	D	3.2±0.20	2.5±0.20	1.5±0.2	In	Out	GND	GND		
MBPF43M1071P69-N94	E	4.5±0.20	3.2±0.20	1.5±0.2	In	Out	GND	GND		
MBPF43M1416P69-N95	E	4.5±0.20	3.2±0.20	1.5±0.2	In	Out	GND	GND		
MBPF43M1739P69-N96	D	4.5±0.20	3.2±0.20	1.5±0.2	In	Out	GND	GND		
MBPF43M2051P69-N97	E	4.5±0.20	3.2±0.20	1.5±0.2	In	Out	GND	GND		

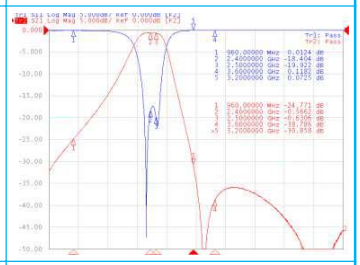
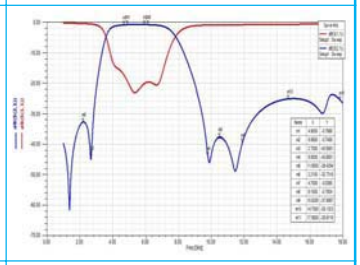
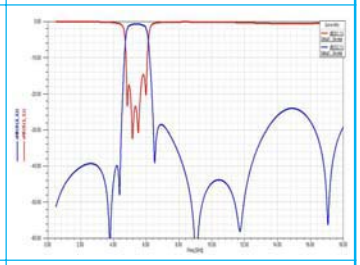
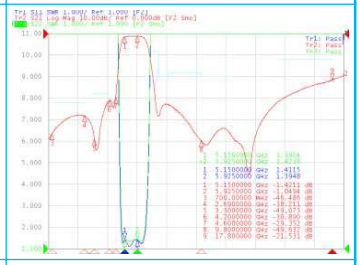
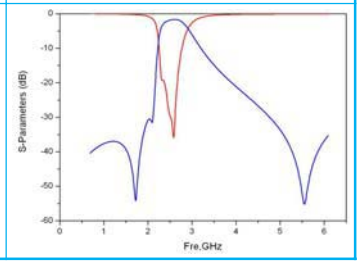
BAND PASS FILTER

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Power Cap. (W/Max.)	Attenuation (dB/Min.)	Electrical Characteristics
MBPF11M2450P69-N116	2400~2500	1.8	50	≤2.0	2	35dB (824 ~ 960MHz) 38dB (1545 ~ 1605MHz) 20dB (1710 ~ 1990MHz) 8dB (2110 ~ 2170MHz) 35dB (3600MHz) 35dB (4800 ~ 5000MHz) 35dB (7200 ~ 7500MHz)	
MBPF14M2450P69-N115	2400~2500	1.8	50	≤2.0	2	40dB (824 ~ 960MHz) 40dB (1545 ~ 1605MHz) 20dB (1710 ~ 1990MHz) 8dB (2110 ~ 2170MHz) 35dB (3600MHz) 35dB (4800 ~ 5000MHz) 35dB (7200 ~ 7500MHz)	
MBPF14M2450P69-N115L	2400~2500	1.1	50	≤2.0	2	20dB (50 ~ 960MHz) 10dB (1710 ~ 1990MHz) 9dB (3600MHz) 35dB (4800 ~ 7200MHz)	
MBPF18M1915-N39	1805~2025	1.6	50	≤2.0	2	30dB (700 ~ 950MHz) 15dB (950 ~ 1050MHz) 25dB (2400 ~ 2500MHz) 35dB (2700 ~ 5400MHz) 35dB (5500 ~ 6200MHz) 35dB (9350 ~ 10150MHz) 20dB (10500 ~ 12750MHz)	
MBPF18M1915-N39B	1805~2025	2	50	≤2.0	2	20dB (1545 ~ 1610MHz) 25dB (2400 ~ 2500MHz) 25dB (5150 ~ 5850MHz)	
MBPF18M2450-M11	2400~2500	2.4 (@25℃) 2.7 (@-40~+85℃)	50	≤2.1	0.5	25dB (880 ~ 960MHz) 28dB (1710 ~ 1910MHz) 20dB (4800 ~ 5000MHz) 25dB (7200 ~ 7500MHz)	

BAND PASS FILTER

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Power Cap. (W/Max.)	Attenuation (dB/Min.)	Electrical Characteristics
MBPF18M2450-N86	2400~2500	1.8 (@25℃) 2.1 (@-40~+85℃)	50	≤2.0	0.5	35dB (824 ~ 960MHz) 35dB (1710 ~ 1990MHz) 25dB (4800 ~ 5000MHz)	
MBPF18M2450P69-N107	2400~2500	0.95 (@25℃) 1.25 (@-40~+85℃)	50	≤2.0	0.5	20dB (500 ~ 960MHz) 23dB (3200MHz) 30dB (4800 ~ 5000MHz) 32dB (7200 ~ 7500MHz)	
MBPF18M5425P69-N106	4900~5950	0.85	50	≤2.0	2	28dB (30 ~ 2700MHz) 22dB (9800 ~ 11900MHz) 7dB (14700 ~ 17850MHz)	
MBPF18M5500P69-N109	4900~5950	1.3	50	≤2.0	0.5	38dB (30 ~ 2700MHz) 16dB (3453 ~ 3547MHz) 33dB (3667 ~ 3883MHz) 9dB (6900 ~ 7093MHz) 32dB (7333 ~ 7750MHz) 40dB (10600 ~ 11650MHz) 18dB (15540~17600MHz)	
MBPF18M5537-N10	5150~5925	1.5 (@25℃) 1.7 (@-40~+85℃)	50	≤2.0	0.63	35dB (700~2690MHz) 28dB (3300~4200MHz) 3.5dB (4400~4600MHz) 10dB (5950~6900MHz) 8dB (6900~7200MHz) 20dB (7200~7800MHz) 18dB (7800~9800MHz) 20dB (9800~11700MHz) 12dB (14700~17850MHz)	
MBPF21B2450H46-N36	2400~2500	2.5 (@-40~+85℃)	50	≤2.0	0.5	35dB (880~915MHz) 38dB (1710~1910MHz) 12dB (2110~2170MHz) 25dB (4800~5000MHz)	

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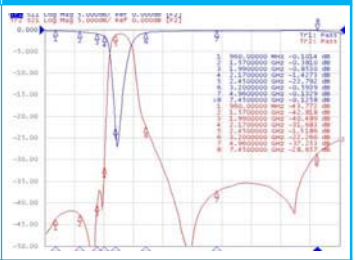
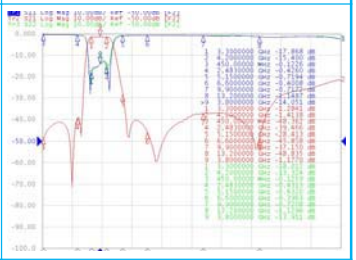
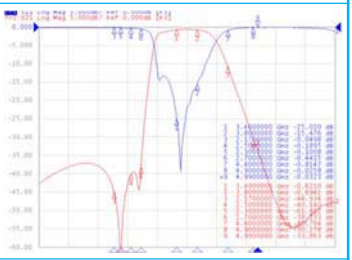
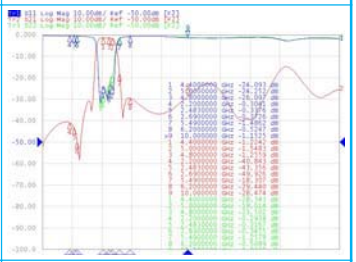
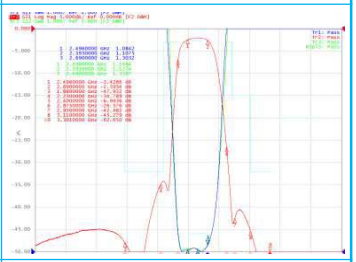
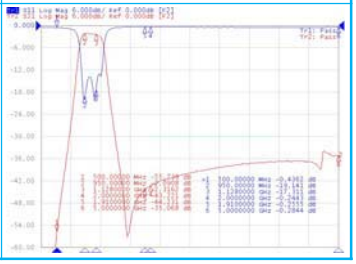
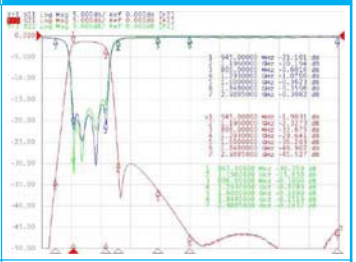
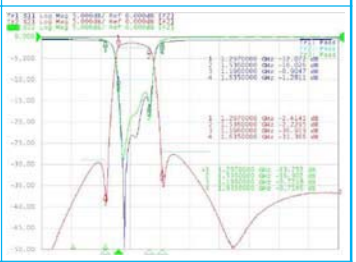
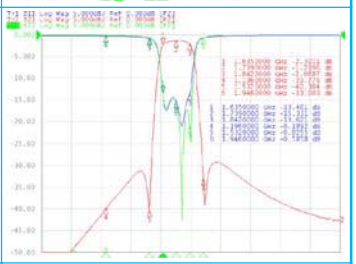
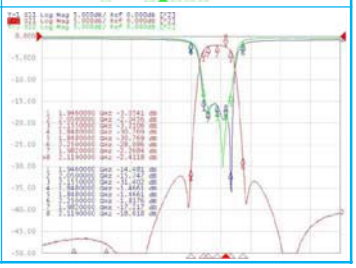
Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Power Cap. (W/Max.)	Attenuation (dB/Min.)	Electrical Characteristics
MBPF21M2450-N81W	2400~2500	1.8 (@25℃) 2.1 (@-40~+85℃)	50	≤2.0	2	40dB (824~960MHz) 40dB (1545~1605MHz) 35dB (1710~990MHz) 30dB (2170MHz) 18dB (3200MHz) 35dB (4800 ~ 4967MHz) 35dB (5150 ~ 6000MHz) 25dB (7200 ~ 7500MHz)	
MBPF21M3550-N11	3300~4200	2.0 (@25℃) 2.25 (@-40~+85℃)	50	≤2.1	1.585	36dB (450~2200MHz) 38dB (2300~2483MHz) 33dB (2496~2690MHz) 25dB (5150~5850MHz) 25dB (6600~8400MHz) 15dB (9900~12600MHz) 15dB (13200~16800MHz)	
MBPF21M3600-N42	3400~3800	0.85 (@25℃) 1.3 (@-40~+85℃)	50	≤2.0	2	35dB (DC~2170MHz) 35dB (2300~2700MHz) 10dB (4400~4900MHz) 30dB (4990MHz)	
MBPF21M4700-N12	4400~5000	2.0 (@25℃) 2.3 (@-40~+85℃)	50	≤2.0	1.585	37dB (450~2200MHz) 37dB (2300~2483MHz) 33dB (2496~2690MHz) 15dB (5490~5670MHz) 25dB (5670~5950MHz) 25dB (6200~8000MHz) 22dB (8800~10000MHz) 10dB (13200~15000MHz) 10dB (17600~20000MHz)	
MBPF32M2593P69-N06	2496~2690	3	50	≤2.0	0.5	20dB (800~1880MHz) 32dB (1880~2230MHz) 3dB (2230~2400MHz) 3dB (2875~2956MHz) 15dB (2956~3110MHz) 32dB (3110~3301MHz) 20dB (3400~3800MHz)	
MBPF3225H1GP69-N190	950~1128	3.0 (@25℃) 3.5 (@-55~+85℃)	50	≤2.0	2	35dB (DC~550MHz) 35dB (1700MHz) 30dB (2000~5000MHz)	

BAND PASS FILTER

■ Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Power Cap. (W/Max.)	Attenuation (dB/Min.)	Electrical Characteristics
MBPF43M1071P69-N94	945~1196	4.0 (@25℃) 4.5 (@-40~+85℃)	50	≤2.0	1	25dB (10~806MHz) 29dB (1293~1576MHz) 36dB (1600~1848MHz)	
MBPF43M1416P69-N95	1297~1536	4.0 (@25℃) 4.5 (@-40~+85℃)	50	≤2.0	1	29dB (950~1196MHz) 27dB (1635~1842MHz) 33dB (1946~2150MHz)	
MBPF43M1739P69-N96	1635~1842	4.0 (@25℃) 4.5 (@-40~+85℃)	50	≤2.0	1	36dB (950~1196MHz) 31dB (1299~1532MHz) 27dB (1946~2150MHz)	
MBPF43M2051P69-N97	1946~2155	4.0 (@25℃) 4.5 (@-40~+85℃)	50	≤2.0	1	36dB (1293~1576MHz) 31dB (1600~1848MHz) 22dB (2250~3000MHz)	

HIGH PASS FILTER

Multilayer Chip Type

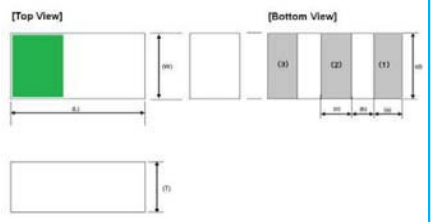
Small Size • Low Loss • High Reliability

Simplify Circuit Design & Tuning

HIGH PASS FILTER

Product Structure

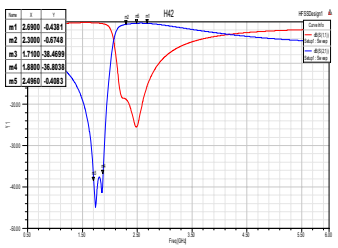
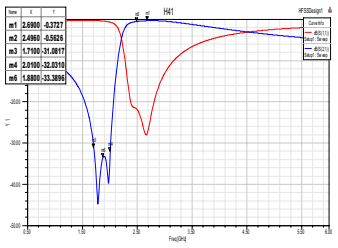
Structure A



Pin Description & Dimension

Shinhom P/N	Structure	Size (mm)			Pin No. & Description					
		L	W	T	1	2	3	4	5	6
MHPF18M2500P69-H42	A	1.6±0.1	0.8±0.1	0.6±0.1	In/Out	GND	In/Out			
MHPF18M2590P69-H41	A	1.6±0.1	0.8±0.1	0.6±0.1	In/Out	GND	In/Out			

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Attenuation (dB/Min.)	Electrical Characteristics
MHPF18M2500P69-H42	f1: 2300~2400	1.5	50	≤2.0	35dB (1710~1880MHz)	
	f2: 2496~2690	1				
MHPF18M2590P69-H41	2496~2690	0.6	50	≤2.0	30dB (1710~2010MHz)	

LOW PASS FILTER

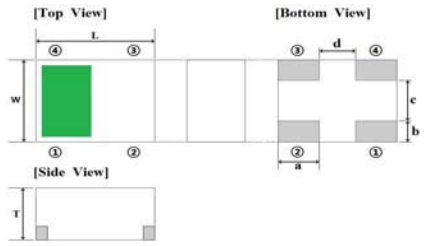
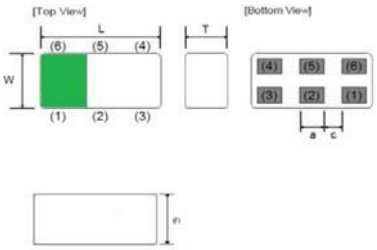
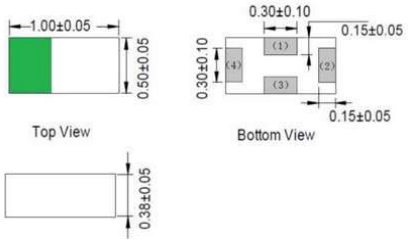
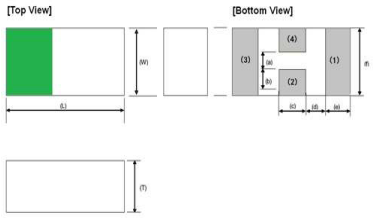
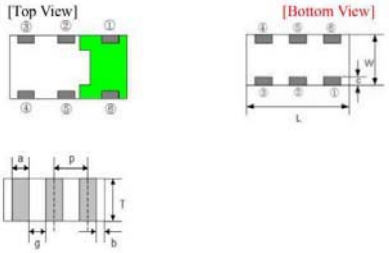
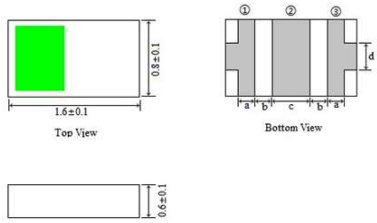
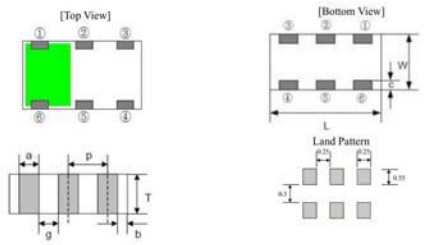
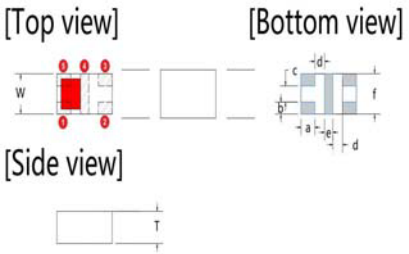
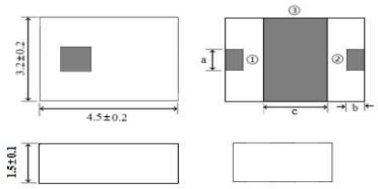
Multilayer Chip Type

Small Size • Low Loss • High Reliability

Simplify Circuit Design & Tuning

LOW PASS FILTER

■ Product Structure

Structure A	Structure B	Structure C
		
Structure D	**Structure E**	**Structure F**
		
Structure G	**Structure H**	**Structure I**
		

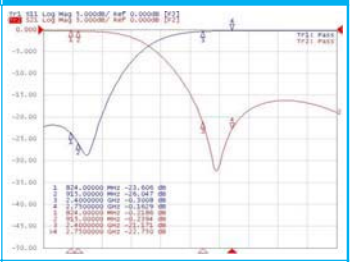
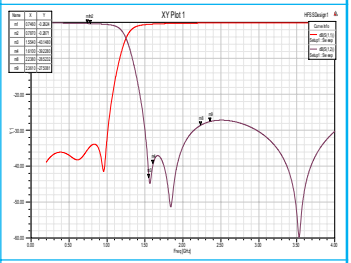
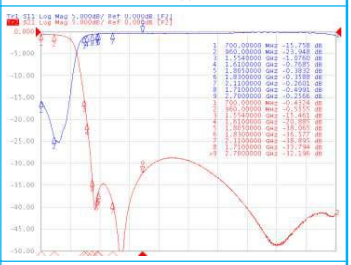
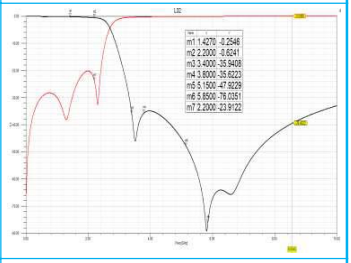
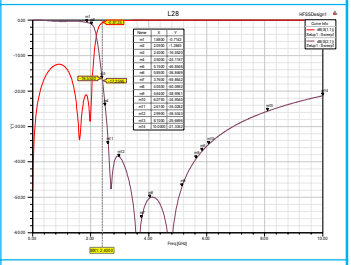
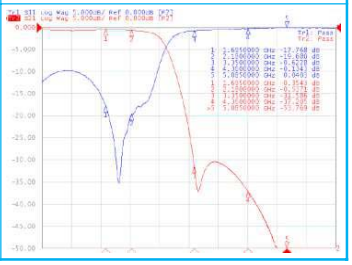
LOW PASS FILTER

■ Pin Description & Dimension

Shinhom P/N	Structure	Size (mm)			Pin No. & Description					
		L	W	T	1	2	3	4	5	6
MLPF0605M0915P69-L10	A	0.65±0.04	0.5±0.04	0.3±0.05	In/Out	In/Out	GND	GND		
MLPF15M0766P69-L30	B	1.0±0.05	0.5±0.05	0.5±0.05	NC	GND	NC	Out	GND	In
MLPF15M0829P69-L29	B	1.0±0.05	0.5±0.05	0.5±0.05	NC	GND	NC	Out	GND	In
MLPF15M1810P69-L32	B	1.0±0.05	0.5±0.05	0.5±0.05	NC	GND	NC	Out	GND	In
MLPF15M1880P69-L28	B	1.0±0.05	0.5±0.05	0.5±0.05	NC	GND	NC	Out	GND	In
MLPF15M1880P69-L28N	B	1.0±0.05	0.5±0.05	0.5±0.05	NC	GND	NC	Out	GND	In
MLPF15M2450P69-L33	C	1.0±0.05	0.5±0.05	0.38±0.05	GND	In/Out	GND	In/Out		
MLPF15M2550P69-L31	B	1.0±0.05	0.5±0.05	0.5±0.05	NC	GND	NC	Out	GND	In
MLPF15M3750P69-L36	H	1.0±0.1	0.5±0.1	0.4 Max.	In	Out	GND	GND	GND	
MLPF15M4700P69-L37	H	1.0±0.1	0.5±0.1	0.4 Max.	In	Out	GND	GND	GND	
MLPF18M0829P69-L19	D	1.6±0.1	0.8±0.1	0.6±0.1	In/Out	GND	In/Out	GND		
MLPF18M0829P69-L19N	D	1.6±0.1	0.8±0.1	0.6±0.1	In/Out	GND	In/Out	GND		
MLPF18M0829P69-L20	E	1.6±0.1	0.8±0.1	0.6±0.1	GND	NC	GND	In/Out	GND	In/Out
MLPF18M0830P69-L23	F	1.6±0.1	0.8±0.1	0.65 Max.	In/Out	GND	In/Out			
MLPF18M1435P69-L24	F	1.6±0.1	0.8±0.1	0.65 Max.	In/Out	GND	In/Out			
MLPF18M1695P69-L27	F	1.6±0.1	0.8±0.1	0.65 Max.	In/Out	GND	In/Out			
MLPF18M1700P69-L16	F	1.6±0.1	0.8±0.1	0.6±0.1	In/Out	GND	In/Out			
MLPF18M1700P69-L35	F	1.6±0.1	0.8±0.1	0.6±0.1	In/Out	GND	In/Out			
MLPF18M1850P69-L21	D	1.6±0.15	0.8±0.1	0.6±0.1	In/Out	GND	In/Out	GND		
MLPF18M1880P69-L18	D	1.6±0.1	0.8±0.1	0.6±0.1	In/Out	GND	In/Out	GND		
MLPF18M2450P69-L13	E	1.6±0.1	0.8±0.1	0.6±0.1	GND	In	GND	GND	Out	GND
MLPF18M2450P69-L22	G	1.6±0.1	0.8±0.1	0.7 Max.	In	GND	Out	NC	GND	NC
MLPF18M2500P69-L12	E	1.6±0.1	0.8±0.1	0.6±0.1	GND	In	GND	GND	Out	GND
MLPF21M0820P69-L08	F	2.0±0.2	1.25±0.1	0.8±0.05	In/Out	GND	In/Out			
MLPF43M1G20P69-L25	I	4.5±0.2	3.2±0.2	1.5±0.1	In/Out	GND	In/Out			
MLPF43M1G20P69-L26	I	4.5±0.2	3.2±0.2	1.5±0.1	In/Out	GND	In/Out			

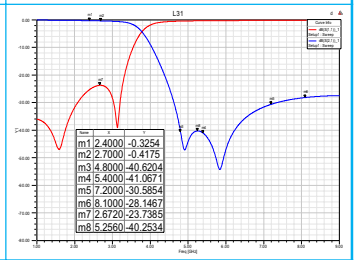
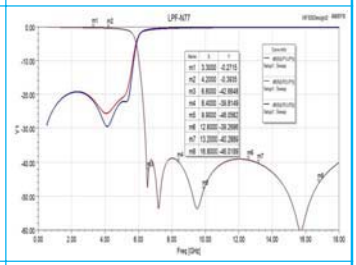
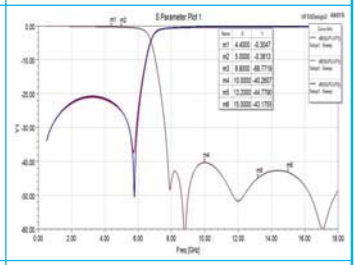
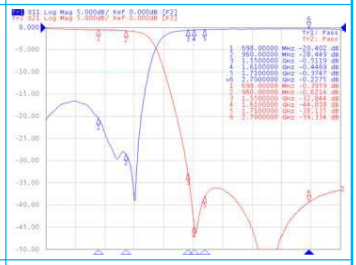
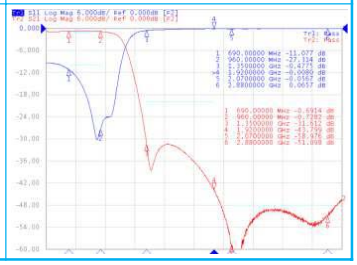
LOW PASS FILTER

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Attenuation (dB/Min.)	Power Cap. (W/Max.)	Electrical Characteristics
MLPF0605M0915P69-L10	824~915	0.5	50	≤1.5	20dB (2400~2750MHz)	2	
MLPF15M0766P69-L30	746~787	0.7	50	≤2.0	30dB (1554~1610MHz) 25dB (2238~2361MHz)	2	
MLPF15M0829P69-L29	698~960	0.65	50	≤2.0	13dB (1554~1610MHz) 30dB (1805~1830MHz) 30dB (2110~2170MHz) 30dB (1710~2700MHz)	2	
MLPF15M1810P69-L32	1427~2200	0.3	50	≤2.0	35dB (3400~3800MHz) 35dB (5150~5180MHz)	2	
MLPF15M1880P69-L28	1880~2025	1.4 (@25℃) 1.6 (@-40~85℃)	50	≤2.0	10dB (2400~2500MHz) 25dB (3760~4050MHz) 25dB (5150~5850MHz) 25dB (5640~6075MHz) 25dB (7520~8100MHz) 22dB (9400~10125MHz)	2	
MLPF15M1880P69-L28N	1695~2180	0.6 (@25℃) 0.8 (@-40~85℃)	50	≤2.0	20dB (3350~4360MHz) 45dB (5085~6540MHz)	2	

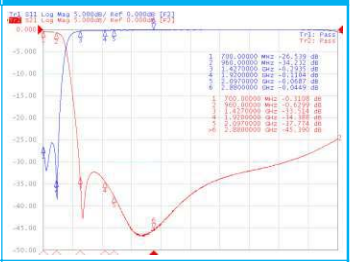
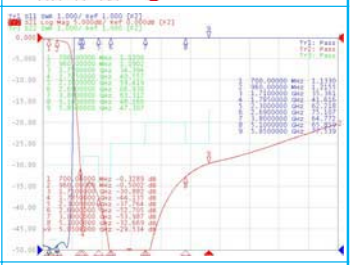
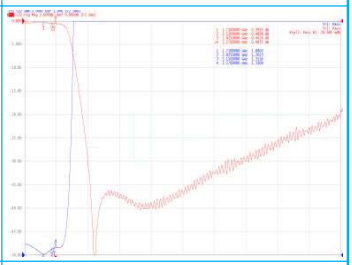
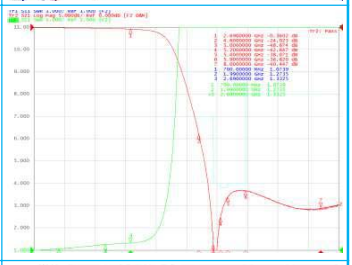
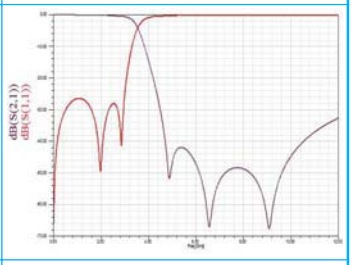
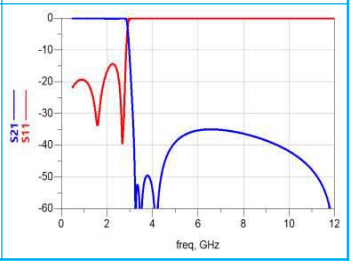
LOW PASS FILTER

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Attenuation (dB/Min.)	Power Cap. (W/Max.)	Electrical Characteristics
MLPF15M2450P69-L33	2400~2500	0.55 (@25℃) 0.65 (@-40~85℃)	50	≤2.0	30dB (4800~5000MHz) 35dB (7200~7500MHz)	2	
MLPF15M2550P69-L31	2400~2700	0.5	50	≤2.0	30dB (4800~5400MHz) 25dB (7200~8100MHz)	1.5	
MLPF15M3750P69-L36	3300~4200	0.5	50	≤1.6	35dB (6600~8400MHz) 35dB (9900~12600MHz) 35dB (13200~16800MHz)	1.0	
MLPF15M4700P69-L37	4400~5000	0.5	50	≤1.6	35dB (8800~10000MHz) 35dB (13200~15000MHz)	1.0	
MLPF18M0829P69-L19	698~960	0.7	50	≤2.0	30dB (1554~1610MHz) 35dB (1805~1830MHz) 35dB (2110~2170MHz) 30dB (1710~2700MHz)	2	
MLPF18M0829P69-L19N	698~960	0.9 (@25℃) 1.1 (@-40~85℃)	50	≤2.0	20dB (1350~1920MHz) 48dB (2070~2880MHz)	2	

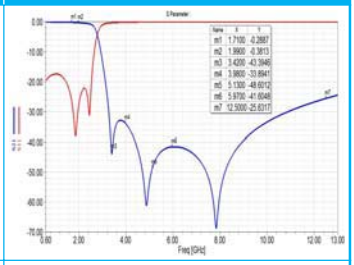
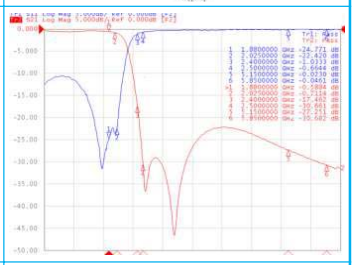
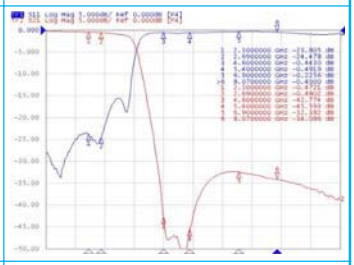
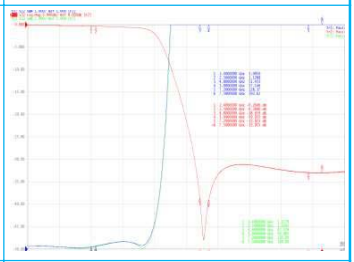
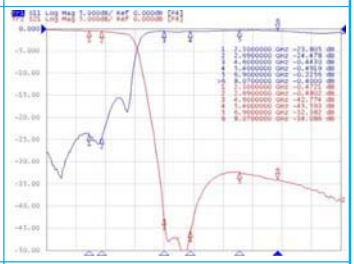
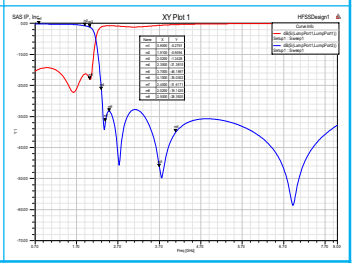
LOW PASS FILTER

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Attenuation (dB/Min.)	Power Cap. (W/Max.)	Electrical Characteristics
MLPF18M0829P69-L20	699~787 787~960	0.6 0.7	50	≤2.0	30dB (1427~1920MHz) 30dB (2097~2880MHz)	3	
MLPF18M0830P69-L23	700~960	0.7	50	≤1.8	30dB (1710~1785MHz) 28dB (1785~2300MHz) 34dB (2300~2690MHz) 25dB (2690~3800MHz) 20dB (3800~5100MHz) 25dB (5100~5850MHz) 17dB (5850~5925MHz)	2	
MLPF18M1435P69-L24	700~2170	0.55	50	≤1.8	25dB (3400~3600MHz) 35dB (3600~3800MHz) 30dB (3800~5100MHz) 30dB (5100~5900MHz) 15dB (5900~8000MHz)	3	
MLPF18M1695P69-L27	700~2690	0.5	50	≤1.8	20dB (4600~5000MHz) 35dB (5000~5200MHz) 36dB (5200~5400MHz) 35dB (5400~5900MHz) 15dB (5900~8000MHz)	3	
MLPF18M1700P69-L16	673~2690	0.5	50	≤2.0	35dB (4950~6000MHz) 35dB (6000~7500MHz) 25dB (7500~8100MHz) 35dB (7500~8100MHz) 35dB (8100~10500MHz) 27dB (10500~12000MHz)	2	
MLPF18M1700P69-L35	600~2700	0.65 (@25℃) 0.8 (@-40~85℃)	50	≤2.0	40dB (3420~3570MHz) 25dB (5150~5960MHz)	4	

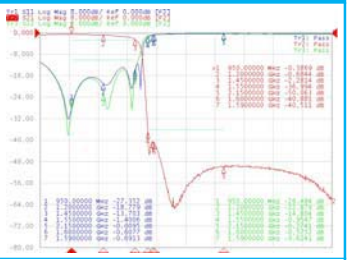
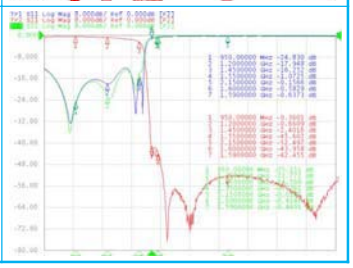
LOW PASS FILTER

Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Attenuation (dB/Min.)	Power Cap. (W/Max.)	Electrical Characteristics
MLPF18M1850P69-L21	1710~1990	0.5 (@25℃) 0.6 (@-40~85℃)	50	≤2.0	30dB (3420~3980MHz) 28dB (5130~5970MHz) 25dB (5970~12500MHz)	2	
MLPF18M1880P69-L18	1880~2025	0.8 (@25℃) 1.0 (@-40~85℃)	50	≤2.0	15dB (2400~2500MHz) 20dB (5150~5850MHz) 20dB (3760~4050MHz) 15dB (5640~6075MHz) 20dB (7520~8100MHz)	2	
MLPF18M2450P69-L13	2400~2500	0.5	50	≤2.0	35dB (4800~5000MHz) 27dB (7200~7500MHz)	2	
MLPF18M2450P69-L22	2400~2500	0.5	50	≤1.5	35dB (4800~5000MHz) 30dB (7200~7500MHz)	3	
MLPF18M2500P69-L12	2300~2700	0.5	50	≤2.0	27dB (4600~5400MHz) 25dB (6900~8100MHz)	2	
MLPF21M0820P69-L08	800~1000 1700~1910 2010~2025	0.5 0.8 1.5	50	≤2.0	20dB (2300~6100MHz) 30dB (3700~4100MHz) 10dB (6100~8000MHz)	2	

LOW PASS FILTER

■ Electrical Characteristics

Shinhom P/N	Freq. Range (MHz)	I. L. (dB/Max.)	Impedance (Ω)	VSWR (in BW)	Attenuation (dB/Min.)	Power Cap. (W/Max.)	Electrical Characteristics
MLPF43M1G20P69-L25	950~1450	3.5 (@25℃) 4.0 (@-40~85℃)	50	≤2.0	30dB (1550~2150MHz)	1.0	
MLPF43M1G20P69-L26	950~1450	3.5 (@25℃) 4.0 (@-40~85℃)	50	≤2.0	42dB (1550~2150MHz)	1.0	

Feature

Compact Size
Miniaturized SMD packaged in low profile and lightweight.

Low Loss
Low insertion loss, high attenuation.

High Soldering Heat Resistance
High quality termination allows both flow and re-flow soldering methods to be applied.

High Performance
Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Available in tape and reel packaging for automatic mounting

Product Identification

□□□□ –□□□□ –□□□□□ –□□ – □□
① ② ③ ④ ⑤

① Product Code
② Dimension Code
③ Series Type (center frequency and material type)
④ Design Code
⑤ Pattern Code

Application

PHS, WLAN, Bluetooth, Home RF, WiMAX, etc.

Figure and Dimension

Figure A

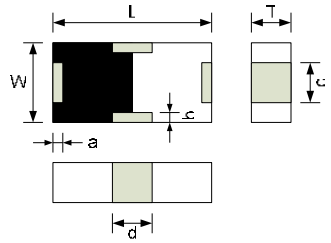


Figure B

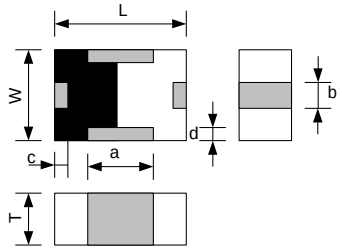


Figure C

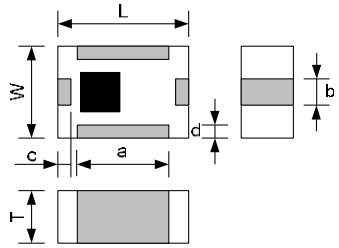


Figure D

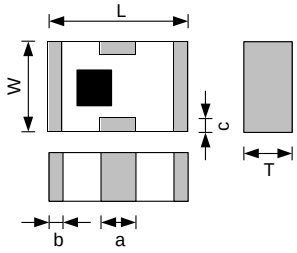


Figure E

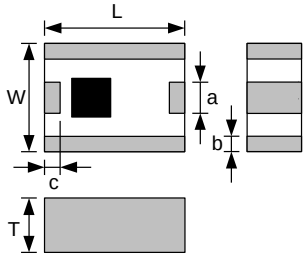


Figure F (bottom view)

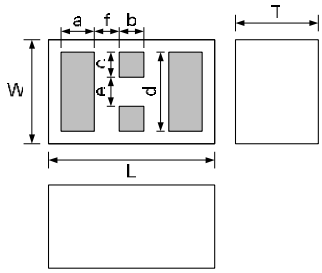
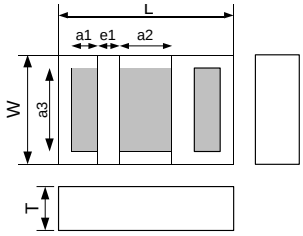


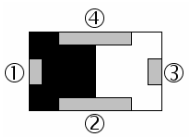
Figure G (bottom view)



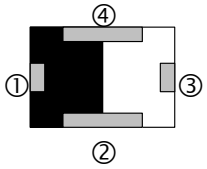
Unit: mm

Figure	L	W	T	a/a1	b/a2	c/a3	d	e/e1
A	1.0±0.05	0.5±0.05	0.40±0.05	0.10±0.05	0.10±0.05	0.30±0.10	0.30±0.10	0.30±0.10
B	1.60±0.10	0.80±0.10	0.60±0.10	0.70±0.15	0.30+0.10 -0.15	0.15±0.10	0.15±0.10	0.15±0.10
C	2.00±0.15	1.25±0.10	0.90±0.10	1.60+0.10 -0.15	0.30+0.10 -0.15	0.30+0.10 -0.20	0.30±0.20	0.30±0.20
D	2.00±0.15	1.25±0.10	0.90±0.10 0.55±0.10	0.40±0.20	0.30±0.20	0.30+0.10 -0.20	-	-
	1.60±0.10	0.80±0.10	0.60±0.10	0.50±0.10	0.30±0.10	0.15 min.	-	-
E	2.50±0.20	2.00±0.20	1.20±0.15 1.10±0.15 1.30 max.	0.50±0.20	0.30±0.15	0.30±0.15	-	-
F	2.00±0.15	1.25±0.10	0.95±0.10	0.40	0.30	0.30	0.95	0.35
	2.50±0.20	2.00±0.2	0.90±0.1	1.7±0.2	0.6±0.15	0.5±0.15	0.6±0.15	0.6±0.15
G	2.00±0.15	1.25±0.10	0.45±0.05 0.85±0.05	0.275±0.10	0.60±0.10	0.95±0.10	0.20±0.15	0.25±0.05

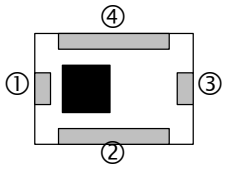
Termination Configuration



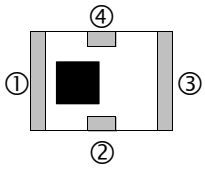
①IN ②GND
③ OUT ④ GND



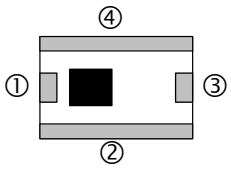
①IN ②GND
③OUT ④GND



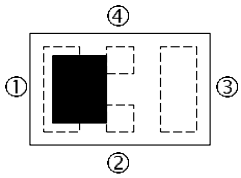
①IN ②GND
③OUT ④GND



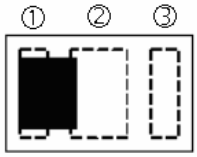
①GND ②IN
③GND ④OUT



①IN ②GND
③OUT ④GND



①IN ②GND
③OUT ④GND



①GND ②IN ③GND
④GND ⑤OUT ⑥ GND

Electrical Specification

Part No.	Pass Band (MHz)	Insertion Loss	VSWR	Attenuation	Figure
MBPF-2520-1G9H6-A3	1893~1920	1.6dB max.	2.0 max.	35dB min. at 1420MHz 25dB min. at 3786~3840MHz 25dB min. at 5676~5760MHz	E
MBPF-2012-2G0H6-A1	1880~2025	1.8 dB max.	2.0 max.	25 dB min. at 2300 ~ 2400 MHz 20 dB min. at 2570 ~ 2620 MHz	C
MBPF-2520-2G3H6-A2	2300~2390	1.6dB max.	2.0 max	30 dB min. at 880 ~ 915 MHz 30 dB min. at 1710 ~ 1785 MHz 24 dB min. at 1850 ~ 1910 MHz 19 dB min. at 1920 ~ 1980 MHz 24 dB min. at 4600 ~ 4780 MHz 22 dB min. at 6900 ~ 7170 MHz	E
MBPF-1005-2G4H6-A2	2400~2500	2.0 dB max.	2.0 max.	25dB min. at 1500~1710 MHz 30dB min. at 4800~5000 MHz	A
MBPF-1608-2G4H6-B1	2400~2500	2.5dB max.	2.0 max.	25dB min. at 860~ 960MHz 20dB min. at 1710~1910MHz 25dB min. at 4800~5000MHz 20dB min. at 7200~7500MHz	B
MBPF-1608-2G4H6-A2	2400~2500	3.0dB max.	2.0 max.	32dB min. at 880~ 915MHz 30dB min. at 915~1250MHz 25dB min. at 1710~1900MHz 15dB min. at 1900~2000MHz 25dB min. at 4800~5000MHz	D
MBPF-1608-2G4H6-B11	2400~2500	1.8 dB max.	2.0 max.	20 dB min. at 3200 MHz 25 dB min. at 4800~5000 MHz	B
MBPF-1608-2G4H6-A15	2400~2500	2.5 dB max.	2.1 max.	29dB min. at 880~960MHz 28dB min. at 1710~1990MHz 4.0dB min. at 2170MHz 28dB min. at 4800~5000MHz 20dB min. at 7200~7500 MHz	B

Part No.	Pass Band (MHz)	Insertion Loss	VSWR	Attenuation	Figure
MBPF-1608-2G4S1-A1	2400~2500	3.0dB max.	2.0 max.	25dB min. at 695~ 800 MHz 20dB min. at 1710~1910 MHz 35dB min. at 3200 MHz 20dB min. at 4800~5000 MHz	B
MBPF-2012-2G4H6-A1	2400~2500	1.8dB max.	2.0 max.	20dB min. at 1200~1300MHz 7dB min. at 2000MHz 5dB min. at 3000MHz 30dB min. at 3600~3800MHz 35dB min. at 4800~5000MHz	C
MBPF-2012-2G4H6-A2	2400~2500	1.8dB max.	2.0 max.	30dB min. at 860~ 960MHz 25dB min. at 1710~1910MHz 25dB min. at 4800~5000MHz 25dB min. at 7200~7500MHz	D
MBPF-2012-2G4H6-A3	2400~2500	1.8dB max.	2.0 max.	30dB min. at 860~ 960MHz 25dB min. at 1710~1910MHz 25dB min. at 4800~5000MHz 25dB min. at 7200~7500MHz	C
MBPF-2012-2G4H6-A4	2400~2500	2.5dB max.	2.0 max.	35dB min. at 860~ 960MHz 30dB min. at 1710~1990MHz 13dB min. at 2110~2170MHz 30dB min. at 4800~5000MHz 25dB min. at 7200~7500MHz	D
MBPF-2012-2G4H6-B5	2400~2500	2.5dB max.	2.0 max.	35dB min. at 824 ~ 960 MHz 38dB min. at 1710 ~ 1910 MHz 25dB min. at 4800 ~ 5000 MHz 20dB min. at 7200 ~ 7500 MHz	D
MBPF-2012-2G4H6-A6	2400~2500	2.0dB max.	2.0 max.	35dB min. at 824~ 960MHz 25dB min. at 1710~1910MHz 25dB min. at 4800~5000MHz 15dB min. at 7200~7500MHz	D
MBPF-2012-2G4H6-A8	2400~2500	1.0dB max.	2.0 max.	28dB min. at 824 ~ 960 MHz 28dB min. at 1570 ~ 1580 MHz 23dB min. at 1710 ~ 1910 MHz 17dB min. at 1920 ~ 1990 MHz 25dB min. at 4800 ~ 5000 MHz 25dB min. at 7200 ~ 7500 MHz	F
MBPF-2012-2G4H6-B9	2400~2500	2.6dB max.	2.0 max.	40dB min. at 880 ~ 960 MHz 38dB min. at 1710~1990 MHz 16dB min. at 2100~2170 MHz 30dB min. at 4800~5000 MHz 25dB min. at 7200~7500 MHz	C
MBPF-2012-2G4H6-C10	2400~2500	2.5 dB max.	2.0 max.	30 dB min. at 880~ 915 MHz 30 dB min. at 1545~1605 MHz 35 dB min. at 1710~1785 MHz 40 dB min. at 1850~1910 MHz 32 dB min. at 1920~1980 MHz 16 dB min. at 2110~2170 MHz 35 dB min. at 4800~4967 MHz 26 dB min. at 5150~6000 MHz 23 dB min. at 7200~7450.5 MHz	G
MBPF-2012-2G4H6-A13	2400~2500	1.8 dB max.	2.0 max.	30 dB min. at 3200 MHz 25 dB min. at 4800~5000 MHz	C

Part No.	Pass Band (MHz)	Insertion Loss	VSWR	Attenuation	Figure
MBPF-2012-2G4H6-D14	2400~2500	1.8 dB max.	2.0 max.	30 dB min. at 824~ 915 MHz 30 dB min. at 1545~1605 MHz 35 dB min. at 1710~1990 MHz 20 dB min. at 2170 MHz 30 dB min. at 4800~5000 MHz	G
MBPF-2012-2G4H6-B14	2400~2500	1.8 dB max.	2.0 max.	30 dB min. at 824 ~ 915 MHz 30 dB min. at 1545 ~ 1605 MHz 35 dB min. at 1710 ~ 1990 MHz 30 dB min. at 2170 MHz 30 dB min. at 4800 ~ 4967 MHz 25 dB min. at 5150 ~ 6000 MHz	G
MBPF-2012-2G4H6-A16	2400~2500	1.2 dB max.	2.0 max.	15 dB min. at 1600 MHz 25 dB min. at 3200 MHz	C
MBPF-2012-2G4H6-A18	2400~2500	1.2 dB max.	2.0 max.	15 dB min. at 1600 MHz 20 dB min. at 3200 MHz 40 dB min. at 4800 ~ 5000 MHz	C
MBPF-2012-2G4H6-A19	2400~2500	1.2 dB max.	2.0 max.	30 dB min. at 800 MHz 20 dB min. at 3200 MHz 25 dB min. at 4800 ~ 5000 MHz 25 dB min. at 7200 ~ 7500 MHz	C
MBPF-2012-2G4S1-A1	2400~2500	2.5dB max.	2.0 max.	35dB min. at 880~ 915MHz 15dB min. at 1710~1910MHz 35dB min. at 3200MHz 22dB min. at 4800~5000MHz 22dB min. at 7200~7500MHz	C
MBPF-2520-2G4H6-G1	2400~2500	2.0dB max.	2.0 max.	45dB min. at 746 ~ 960 MHz 45dB min. at 1570~1785 MHz 40dB min. at 1805~1990 MHz 25dB min. at 2110~2170 MHz 5dB min. at 2750~3000 MHz 15dB min. at 3000~4800 MHz 30dB min. at 4800~5000 MHz 30dB min. at 5150~5850 MHz 20dB min. at 7200~7500 MHz	E
MBPF-2520-2G4H6-A2	2400~2500	1.4dB max.	2.0 max.	30dB min. at 880 ~ 915 MHz 28dB min. at 1710 ~ 1910 MHz 20dB min. at 4800 ~ 5000 MHz	E
MBPF-2520-2G4H6-B2	2400~2500	1.5dB max.	2.0 max.	30dB min. at 860 ~ 960MHz 25dB min. at 1710 ~1910MHz 25dB min. at 4800 ~5000MHz	E
MBPF-2520-2G4H6-A3	2400~2500	2.5dB max.	2.0 max.	40dB min. at 880 ~ 915 MHz 25dB min. at 1710 ~ 1990 MHz 20dB min. at 2100 MHz 35dB min. at 3200 MHz 25dB min. at 4800 ~ 5000 MHz 25dB min. at 7200~7500 MHz z	E
MBPF-2520-2G4S1-A1	2400~2500	2.5dB max.	2.0 max.	35dB min. at 880 ~ 915 MHz 15dB min. at 1710 ~ 1910 MHz 35dB min. at 3200 MHz 22dB min. at 4800 ~ 5000 MHz 22dB min. at 7200 ~ 7500 MHz	E

Part No.	Pass Band (MHz)	Insertion Loss	VSWR	Attenuation	Figure
MBPF-2012-2G5H6-B1	2300~2700	2.0dB max.	2.0 max.	13dB min. at 100 ~ 1800 MHz 20dB min. at 3400 ~7500 MHz	C
MBPF-1608-2G6H6-A1	2500~2700	2.0dB max.	2.0 max.	30dB min. at 806 ~ 915 MHz 25dB min. at 1710 ~ 1910 MHz 8.5dB min. at 3300 ~ 3900 MHz 20dB min. at 4900 ~ 5900 MHz	B
MBPF-2520-2G6H6-A1	2490~2690	2.5dB max.	2.0 max	40dB min. at 880 ~ 915 MHz 35dB min. at 1710 ~ 1990 MHz 30dB min. at 2110 ~2170 MHz 20dB min. at 3880 MHz 25dB min. at 4800 ~ 5380 MHz 25dB min. at 7200 ~ 8070 MHz	E
MBPF-1608-3G5H6-A1	3300~3700	1.8dB max.	2.0 max.	25.5dB min. at 806 ~ 849 MHz 21.5dB min. at 1850 ~ 1910 MHz 24.5dB min. at 2400 ~ 2500 MHz 8.5dB min. at 4900 ~ 5900 MHz	B
MBPF-2012-3G6H6-A1	3300~3900	1.8dB max.	2.0 max.	15dB min. at 100 ~ 2600 MHz 20dB min. at 6000~ 9000MHz	C
MBPF-1005-5G5H6-A2	5150~5850	1.5 dB max.	10 dB min.	20dB min. at 2400~ 2500 MHz 20dB min. at 10300~11700 MHz	A
MBPF-1608-5G5S1-B1	4900~5850	1.7 dB max	2.0 max	19.5dB min. at 1570 ~ 1580 MHz 43.5dB min. at 1710 ~ 1910 MHz 30.5dB min. at 1920 ~ 1990 MHz 21.5dB min. at 2110 ~ 2170 MHz 25dB min. at 9800 ~ 11700 MHz	B
MBPF-1608-5G5S1-A2	5150-5850	1.2dB max.	2.0 max.	30dB min at 2400 ~ 2500 MHz 20dB min. at 10300 ~ 11700MHz	B
MBPF-2012-5G5H6-D1	4900~5850	2.2dB max.	2.0 max.	30 dB min. at 340~1195 MHz 15 dB min. at 2140~3580 MHz 25 dB min. at 6855~7150 MHz 20 dB min. at 8570~8930 MHz	C
MBPF-2012-5G5H6-B3	5150~5850	2.0dB max.	2.0 max.	30dB min. at 2400 ~ 3800 MHz 18dB min. at 10300 ~ 11700 MHz	C
MBPF-2012-5G5H6-C5	5150~5850	3.5dB max.	2.5 max.	35dB min. at 4000 MHz 35dB min. at 4200 MHz 35dB min. at 4600 MHz	C
MBPF-2012-5G7H6-A1	5600~5900	2.0dB max.	2.5 max.	30dB min. at 4900 MHz	C