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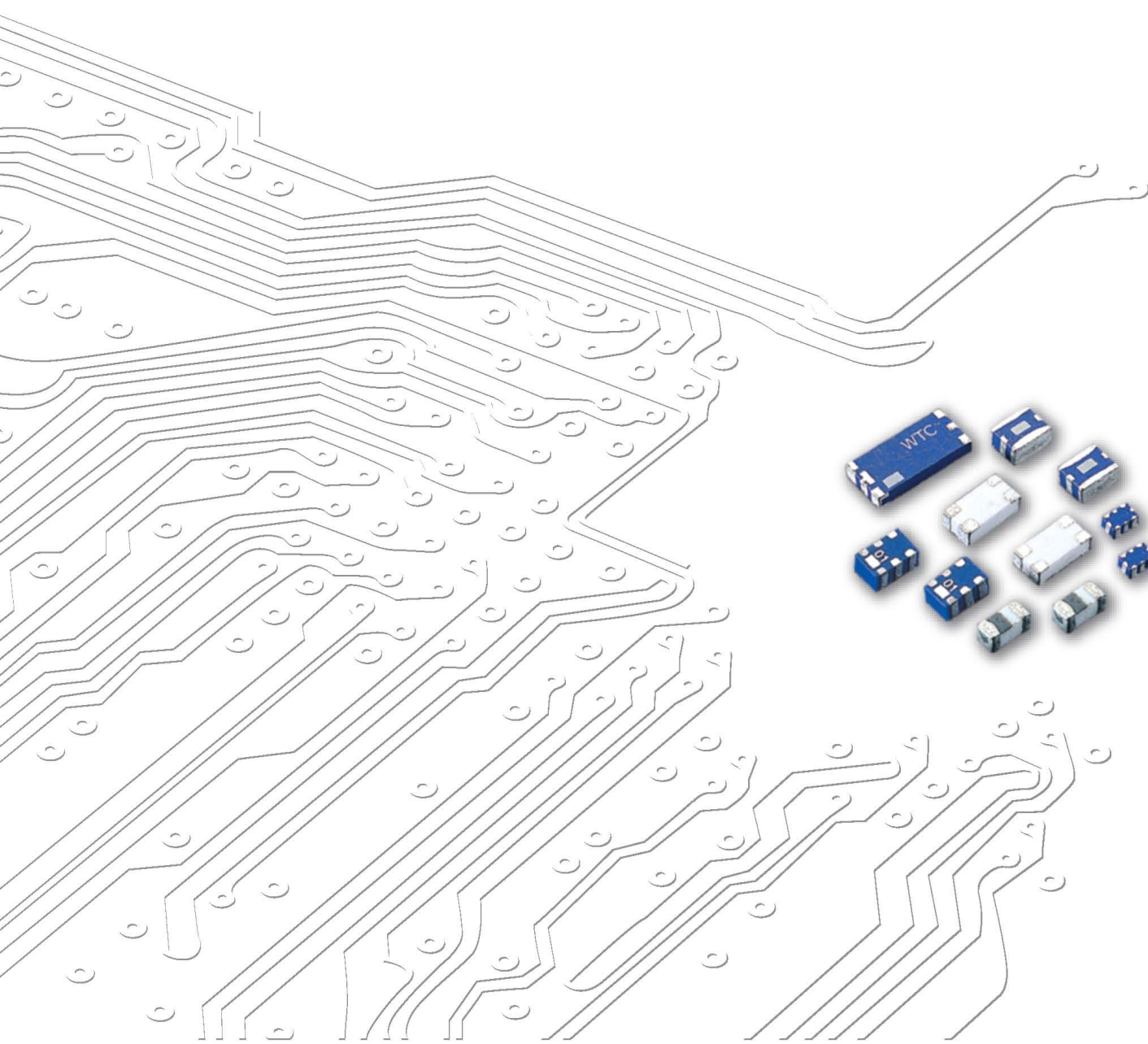
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# 2013 RF Devices and High Frequency Inductors

## Product catalog



## Product Portfolio



**Multilayer Ceramic Capacitors (MLCC)**



**Chip-Resistor**



**Disc Capacitors**



**RF Device and High Frequency Inductors**



**Varistors and SMD-Varistors**

## IEC-63 Nominal Resistance / Capacitance

<b>E1</b>	100																							
<b>E3</b>	100			220			470																	
<b>E6</b>	100	150	220	330	470	680																		
<b>E12</b>	100	120	150	180	220	270	330	390	470	560	680	820												
<b>E24</b>	100	110	120	130	150	160	180	200	220	240	270	300	330	360	390	430	470	510	560	620	680	750	820	910
<b>E96</b>	100	102	121	124	147	150	178	182	215	221	261	267	316	324	383	392	464	475	562	576	681	698	825	845
	105	107	127	130	154	158	187	191	226	232	274	280	332	340	402	412	487	499	590	604	715	732	866	887
	110	113	133	137	162	165	196	200	237	243	287	294	348	357	422	432	511	523	619	634	750	768	909	931
	115	118	140	143	169	174	205	210	249	255	301	309	365	374	442	453	536	549	649	665	787	806	953	976

E6:  $\sqrt[6]{10} \approx 1.46$  E12:  $\sqrt[12]{10} \approx 1.21$

E1 series resistance: 1Ω, 10Ω, 100Ω, 1000Ω, 10000Ω, 100000Ω

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\*The specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.

\*This catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specification before ordering.

## ■ CHIP ANTENNA

RF	ANT	321612	0	A	5	T
<b>Type code</b>	<b>Product code</b>	<b>Dimension code</b>	<b>Unit of dimension</b>	<b>Application</b>	<b>Specification</b>	<b>Packing</b>
RF/RG: device	ANT : Antenna FRA : Free Antenna ECA : SMD Antenna	Per 2 digits of Length, Width, Thickness 321612 = Length =32 Width = 16 Thickness = 12	0 : 0.1 mm 1 : 1.0 mm	A : 2.4GHZ ISM Band E : GPS 1.5GHz L : 2.4/5.2/5.8GHz Tri Band W : WiMAX	Code from 0~9 dependent on different electrical specification	T : 7" Reeled G:13" Reeled

## ■ HIGH FREQUENCY MULTILAYER BAND PASS FILTER

RF	BPF	322515	0	A	4	T
<b>Type code</b>	<b>Product code</b>	<b>Dimension code</b>	<b>Unit of dimension</b>	<b>Application</b>	<b>Specification</b>	<b>Packing</b>
RF device	BPF : Band Pass Filter	Per 2 digits of Length, Width, Thickness 322515 = Length =32 Width = 25 Thickness = 15	0 : 0.1 mm 1 : 1.0 mm	A : 2.4GHZ ISM Band W : WiMAX K : ISM 5.2/5.8 Dual Band	Code from 0~9 dependent on different electrical specification	T : 7" Reeled G:13" Reeled

## ■ HIGH FREQUENCY MULTILAYER BALANCED FILTER

RF	BPB	252009	0	A	7	T
<b>Type code</b>	<b>Product code</b>	<b>Dimension code</b>	<b>Unit of dimension</b>	<b>Application</b>	<b>Specification</b>	<b>Packing</b>
RF/RG: device	BPB : Balanced Type Band Pass Filter	Per 2 digits of Length, Width, Thickness 252009 = Length =25 Width = 20 Thickness = 09	0 : 0.1 mm 1 : 1.0 mm	A : 2.4GHZ ISM Band W : WiMAX	Code from 0~9 dependent on different electrical specification	T : 7" Reeled G:13" Reeled

## ■ HIGH FREQUENCY MULTILAYER LOW PASS FILTER

RF	LPF	201211	0	A	0	T
<b>Type code</b>	<b>Product code</b>	<b>Dimension code</b>	<b>Unit of dimension</b>	<b>Application</b>	<b>Specification</b>	<b>Packing</b>
RF device	LPF : Low Pass Filter	Per 2 digits of Length, Width, Thickness 201210 = Length =20 Width = 12 Thickness = 11	0 : 0.1 mm 1 : 1.0 mm	A : 2.4GHZ ISM Band K : ISM 5.2/5.8 Dual Band	Code from 0~9 dependent on different electrical specification	T : 7" Reeled G:13" Reeled

## ■ BALUN TRANSFORMERS

RF	BLN	201208	0	A	4	T
<u>Type code</u> RF/RG: device	<u>Product code</u> BLN : BALUN	<u>Dimension code</u> Per 2 digits of Length, Width, Thickness  201208 = Length =20 Width = 12 Thickness = 08	<u>Unit of dimension</u> 0 : 0.1 mm 1 : 1.0 mm	<u>Application</u> A : 2.4GHZ ISM Band K : ISM 5.2/5.8 Dual Band	<u>Specification</u> Code from 0~9 dependent on different electrical specification	<u>Packing</u> T : 7" Reeled G:13" Reeled

## ■ DIPLEXER

RF	DIP	201210	0	L	0	T
<u>Type code</u> RF device	<u>Product code</u> DIP : Diplexer	<u>Dimension code</u> Per 2 digits of Length, Width, Thickness  201210 = Length =20 Width = 12 Thickness = 10	<u>Unit of dimension</u> 0 : 0.1 mm 1 : 1.0 mm	<u>Application</u> L : 2.4/4.9/5.2/5.8GHz Multiband Application	<u>Specification</u> Code from 0~9 dependent on different electrical specification	<u>Packing</u> T : 7" Reeled G:13" Reeled

## ■ COMMON MODE FILTER

RF	CMF	1210	350	H	0	T
<u>Type code</u> RF/RG: device	<u>Product code</u> CMF : Common Mode Filter	<u>Dimension code</u> Per 2 digits of Length, Width. 1210 = Length =12 Width = 10	<u>Impedance</u> 350:35±25% 650:65±20%	<u>Application</u> H : High Speed Transmission Lines HDMI/SATA(mini) LVDS PCI-E/DVI Display Port X : USD 2.0/IEEE 1394 (mini) LVDS	<u>Specification</u> Code from 0~9 dependent on different electrical specification	<u>Packing</u> T : 7" Reeled

## ■ COUPLER

RF	CPL	18	10	B	2450	T
<u>Type code</u> RF device	<u>Product code</u> Coupler	<u>Dimension code</u> e.g. : 18 = Length 16, Width 08, 15= Length 10, Width 05,	<u>Coupling Factor</u> 10 dB	<u>Unit</u> dB	<u>Application</u> 2.4 GHZ ISM Band	<u>Packing</u> T : 7" Reeled

## ■ EMI FILTER ARRAY

RF	EMA	201209	0	R	1	T
<b>Type code</b>	<b>Product code</b>	<b>Dimension code</b>	<b>Unit of dimension</b>	<b>Application</b>	<b>Specification</b>	<b>Packing</b>
RF/RG: device	EMA : EMI Filter Array	Per 2 digits of Length, Width, Thickness  201209 = Length =20 Width = 12 Thickness = 09	0 : 0.1 mm 1 : 1.0 mm	R : 27MHz band	Code from 0~9 dependent on different electrical specification	T : 7" Reeled G:13" Reeled

## ■ HIGH FREQUENCY INDUCTORS

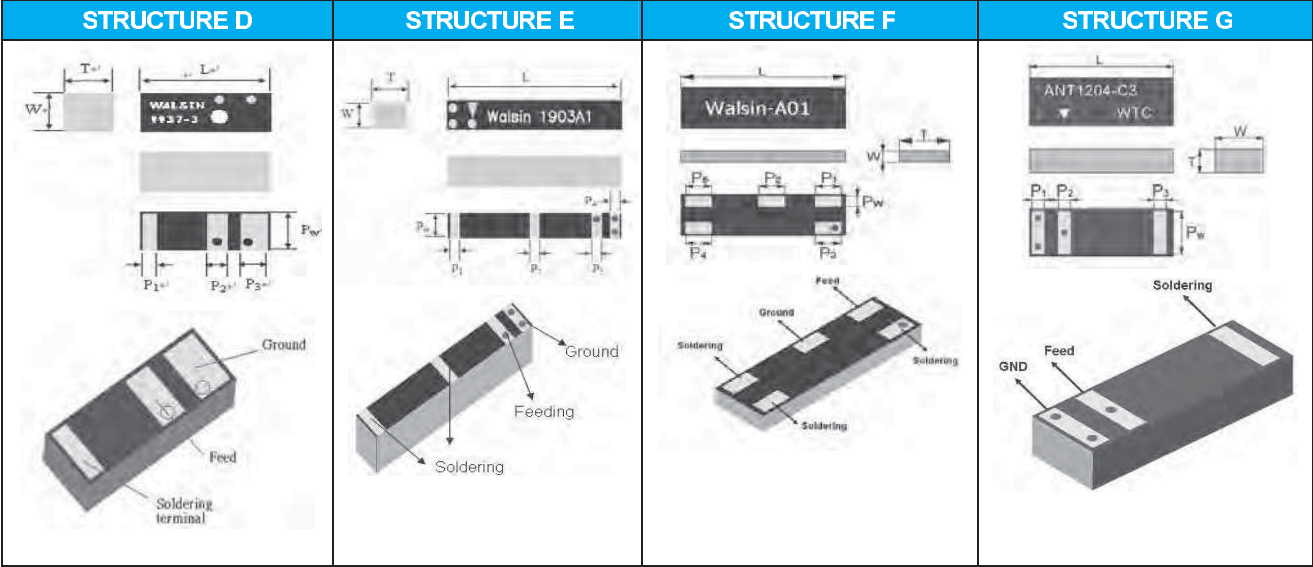
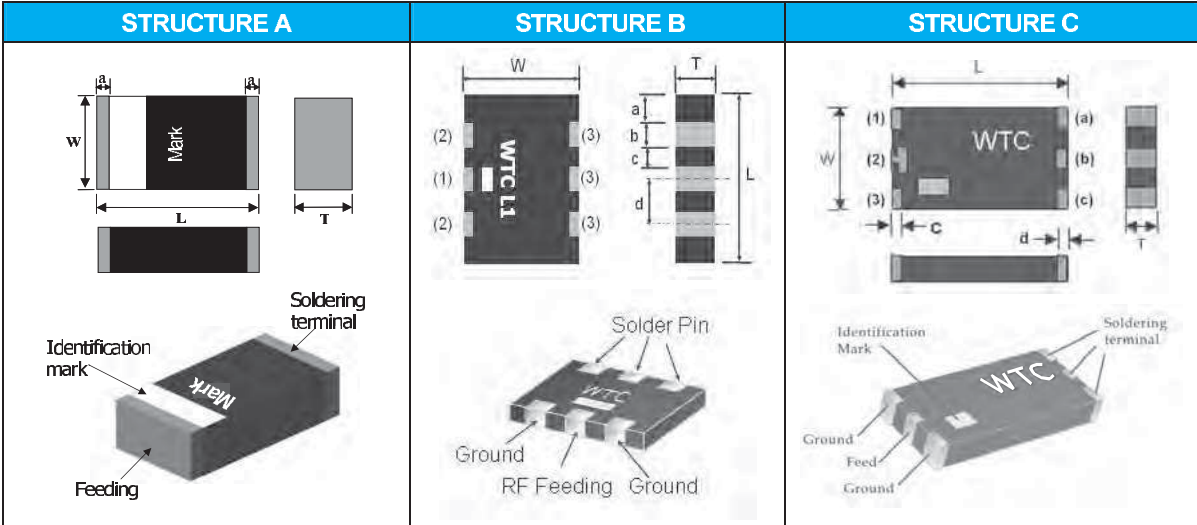
WL	160808	G	4N7	S	G	T	03
<b>Product Code</b>	<b>Dimension code</b>	<b>Material</b>	<b>Inductance</b>	<b>Tolerance</b>	<b>Specification</b>	<b>Packing Code</b>	<b>Rated Current</b>
WL:HF Inductor	160808= L :1.6mm W :0.8mm T :0.8mm 100505= L :1.0mm W :0.5mm T :0.5mm	A B C D E F G	For Ls < 10nH, 1N0=1.0nH 4N7 = 4.7nH 10N-10nH	S : ±0.3nH J : ±5% K : ±10% C :Customized	N :Normal A : ±0.2nH G :Green	T: Reeled B: Bulk	03=250mA or 300mA 02=150mA or 200mA

## ■ MULTILAYER CHIP VARISTOR (MLV)

VH	0402	M	050	C	G	T	330	-
<b>Type code</b>	<b>Chip Size</b>	<b>Style</b>	<b>Rated Voltage</b>	<b>Capacitance Tolerance</b>	<b>Termination</b>	<b>Packing</b>	<b>Cap. Code (pf)</b>	<b>Special Request</b>
V : Walsin ZnO Varistor H : High Speed and RF, and Special Capacitance Concern Z : General Purpose	0402,0603 0805,1206 Code is L X W (in inches) 0402 =0.4×.0.2 0603 =0.6×.0.3 0805 =0.8×.0.5 1206 =1.2×.0.6	M:Multilayer A: Array*	050: 5.5Vdc 090: 9.0Vdc 120: 12.0Vdc 140: 14.0Vdc 180: 18.0Vdc 300: 30.0Vdc	C: Capacitance control code for ESD protection varistor	G: Green Material	T: Reeled B: Bulk	This item is only for H Series. Two significant digits followed by number of Zeros 3R0=3pF when C < 10pF 330=33x10 <sup>0</sup> =33pF 101=10x10 <sup>1</sup> =100pF 102=10x10 <sup>2</sup> =1000pF	

\*Array: Please contact sales for availability

■ STRUCTURE AND PIN ASSOCIATED





## ■ STRUCTURE AND DIMENSION

Unit:mm

Structure\ Dimension	L	W	T	a	b	c	d	1	2	3
A	10 ± 0.20	3.2 ± 0.20	0.8 ± 0.10	0.8 ± 0.10						
	3.20 ± 0.20	1.60 ± 0.20	0.60 ± 0.10	0.25 ± 0.20	-	-	-	-	-	-
			1.20 ± 0.10	0.25 ± 0.15	-	-	-	-	-	-
	5.20 ± 0.20	2.00 ± 0.20	1.30 ± 0.20	0.40 ± 0.20	-	-	-	-	-	-
			1.15 ± 0.10	0.40 ± 0.25	-	-	-	-	-	-
	1.15 ± 0.15	0.40 ± 0.25	-	-	-	-	-	-	-	
	5.8 + 0.1 -0.3	3.0+0.1 -0.3	1.1+0.2 -0.1	0.4±0.25	-	-	-	-	-	-
8.00 ± 0.20	1.05 ± 0.20	0.80 ± 0.10	0.30 ± 0.20	-	-	-	-	-	-	
9.50± 0.20	2.10 ± 0.20	1.15 ± 0.10	0.50 ± 0.30	-	-	-	-	-	-	
B	5.9±0.3	5.1±0.3	1.1±0.1	0.45±0.2	1.0±0.2	1.0±0.2	2.0±0.2	1.0±0.2	1.0±0.2	1.0±0.2
C	7.6±0.3	3.5±0.2	1.1±0.1	0.8±0.2	0.8±0.2	0.8±0.2	0.5±0.2	0.5±0.2	0.8±0.2	0.50±0.2

Structure\ Dimension	L	W	T	P <sub>w</sub>	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>	P <sub>5</sub>
D	9.90±0.15	3.70±0.15	3.80±0.20	3.48±0.10	1.4±0.10	1.9±0.10	2.4±0.15	-	-
E	19.0±0.15	3.00±0.15	3.80±0.20	3.00±0.10	1.0±0.10	1.0±0.10	1.0±0.10	1.0±0.10	-
F	12.8±0.15	3.90±0.15	1.10±0.10	1.00±0.10	2.0±0.10	2.0±0.10	2.0±0.10	2.0±0.10	2.0±0.10
G	12.0±0.15	4.00±0.15	2.00±0.10	3.60±0.10	1.0±0.10	1.0±0.10	1.0±0.10	-	-

## ELECTRICAL SPECIFICATION

### 1.575GHz BAND WORKING FREQUENCY

Part Number	Frequency Range (GHz)	Azimuth Bandwidth ( MHz )	Gain (dBi)	VSWR (max.)	Impedance (Ω)	Polarization	Size (mm)	Structure
RFANT5830110E0T	1.575	Omni-directional	0 ~ 2	2.0	50	Linear	5.80x3.00x1.10	A
RFECA1003011E0T	1.575	Omni-directional	2 ~ 3	2.0	50	Linear	10.0x3.20x0.80	A
RFECA3216060E0T	1.575	Omni-directional	3	2.0	50	Linear	3.20x1.60x0.60	A

### Bluetooth/WiFi BAND WORKING FREQUENCY

Part Number	Frequency Range (GHz)	Azimuth Bandwidth ( MHz )	Gain (dBi)	VSWR (max.)	Impedance (Ω)	Polarization	Size (mm)	Structure
RFANT6050110L0T	2.4~2.5 4.9~5.9	Omni-directional	4	2.0	50	Linear	5.90x5.10x1.10	B
RFANT6050110L1T	2.4~2.5 4.9~5.9	Omni-directional	4	2.0	50	Linear	5.90x5.10x1.10	B
RFANT3216120A1T	2.4~2.5	Omni-directional	2	2.0	50	Linear	3.20x1.60x1.20	A
RFANT3216120A3T	2.4~2.5	Omni-directional	2	2.0	50	Linear	3.20x1.60x1.20	A
RFANT3216120A5T	2.4~2.5	Omni-directional	2	2.0	50	Linear	3.20x1.60x1.20	A
RFANT5220110A0T	2.4~2.5	Omni-directional	2	2.0	50	Linear	5.20x2.00x1.10	A
RFANT5220110A1T	2.4~2.5	Omni-directional	2	2.0	50	Linear	5.20x2.00x1.15	A
RFANT5220110A2T	2.4~2.5	Omni-directional	2	2.0	50	Linear	5.20x2.00x1.10	A
RFANT7635110A1T	2.4~2.5	Omni-directional	0 ~ 2	2.0	50	Linear	7.60x3.50x1.10	C
RFANT8010080A3T	2.4~2.5	Omni-directional	2	2.0	50	Linear	8.00x1.00x0.80	A
RFANT9520120A0T	2.4~2.5	Omni-directional	2	2.0	50	Linear	9.50x2.00x1.20	A
RFECA3216060A1T	2.4~2.5	Omni-directional	2	2.1	50	Linear	3.20x1.60x0.60	A
RFECA3216060K1T	4.9~5.85	Omni-directional	2.8	2.0	50	Linear	3.20x1.60x0.60	A
RGFRA1903041A1T	2.4~2.5	Omni-directional	2	2.0	50	Linear	19.0x3.00x3.80	E
RGFRA1903041A5T	2.4~2.5	Omni-directional	2	2.0	50	Linear	19.0x3.00x3.80	E
RGFRA9937380A3T	2.4~2.55	Omni-directional	2	2.0	50	Linear	9.90x3.70x3.80	D
RGFRA1304011A1T	2.4~2.5	Omni-directional	2	2.1	50	Linear	12.8x3.90x1.10	F
RGFRA1204021A1T	2.4~2.5	Omni-directional	2	2.0	50	Linear	12.0x4.00x2.00	G

### WiMAX BAND WORKING FREQUENCY

Part Number	Frequency Range (GHz)	Azimuth Bandwidth ( MHz )	Gain (dBi)	VSWR (max.)	Impedance (Ω)	Polarization	Size (mm)	Structure
RFANT32162G6W0T	2.5~2.69	Omni-directional	1	3.0	50	Linear	3.20x1.60x1.20	A
RFANT32163G5W0T	3.3~3.8	Omni-directional	2~3	2.0	50	Linear	3.20x1.60x1.20	A

For more information, please contact with local sales representative


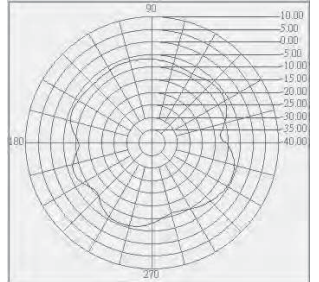
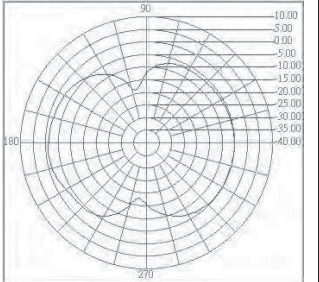
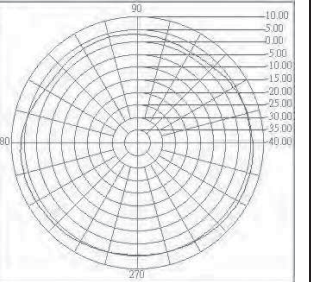
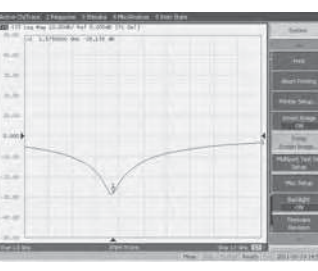
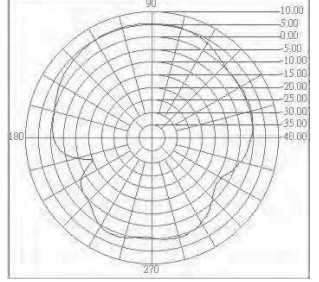
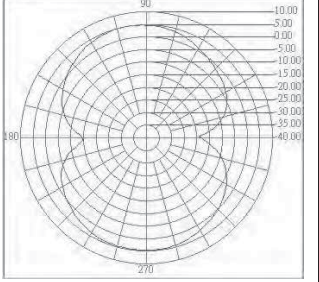
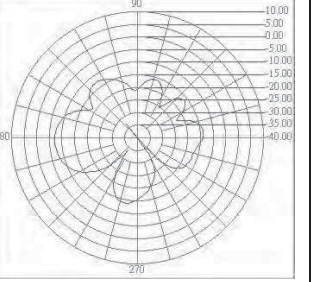
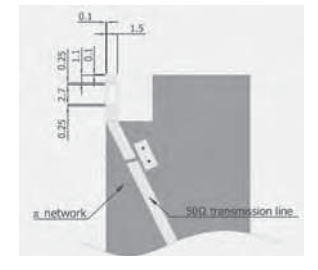
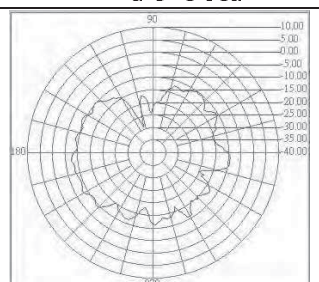
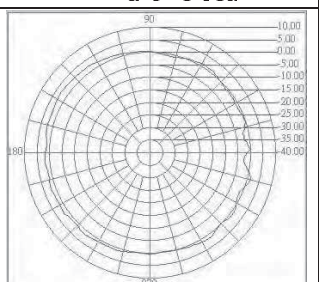
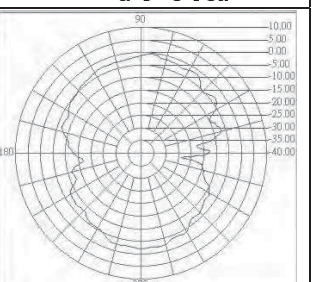
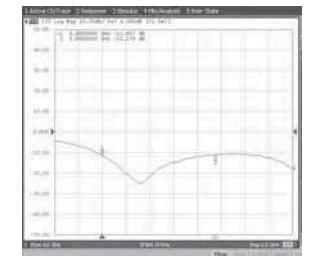
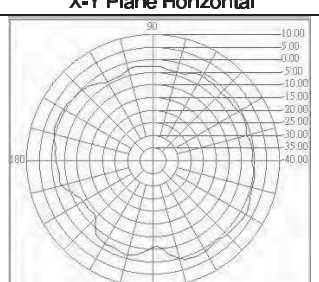
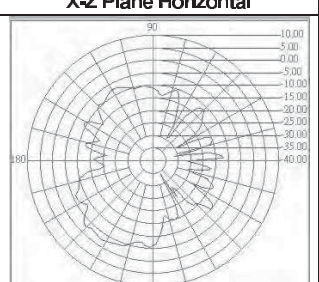
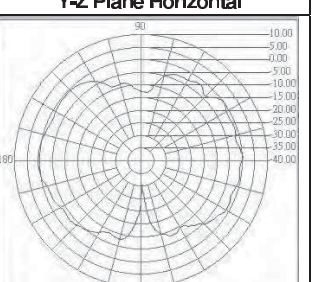
All specifications are subject to change without notice

## ■ TYPICAL ELECTRICAL CHARACTERISTICS

RFANT5220110A0T			
<b>Test Board</b> 	<b>X-Y Plane Vertical</b> <p>Peak Gain= -5.97dBi Average Gain=-3.12 dBi</p>	<b>X-Z Plane Vertical</b> <p>Peak Gain= -5.97dBi Average Gain=-3.24 dBi</p>	<b>Y-Z Plane Vertical</b> <p>Peak Gain= 1.69dBi Average Gain=-3.22 dBi</p>
<b>Return Loss (S11)</b> 	<b>X-Y Plane Horizontal</b> <p>Peak Gain= 2.59dBi Average Gain=-9.24 dBi</p>	<b>X-Z Plane Horizontal</b> <p>Peak Gain= 2.66dBi Average Gain=-8.61 dBi</p>	<b>Y-Z Plane Horizontal</b> <p>Peak Gain= -5.42dBi Average Gain=-8.98 dBi</p>
RGFAR1903041A1T			
<b>Test Board</b> 	<b>X-Y Plane Vertical</b> <p>Peak Gain= -7.42 dBi Average Gain= -10.48 dBi</p>	<b>X-Z Plane Vertical</b> <p>Peak Gain= 1.95 dBi Average Gain= -0.81 dBi</p>	<b>Y-Z Plane Vertical</b> <p>Peak Gain= -0.26dBi Average Gain=-5 dBi</p>
<b>Return Loss (S11)</b> 	<b>X-Y Plane Horizontal</b> <p>Peak Gain= 2.0 dBi Average Gain= -2.31 dBi</p>	<b>X-Z Plane Horizontal</b> <p>Peak Gain= -2.65 dBi Average Gain= -8.4dBi</p>	<b>Y-Z Plane Horizontal</b> <p>Peak Gain= 1.11dBi Average Gain = -4.37 dBi</p>

RFANT8010080A3T			
<p><b>Test Board</b></p>	<p><b>X-Y Plane Vertical</b></p> <p>Peak Gain= 0.76 dBi Average Gain= -5.81dBi</p>	<p><b>X-Z Plane Vertical</b></p> <p>Peak Gain= -3.76 dBi Average Gain= -8.72dBi</p>	<p><b>Y-Z Plane Vertical</b></p> <p>Peak Gain = 3.03 dBi Average Gain = 0.71 dBi</p>
<p><b>Return Loss (S11)</b></p>	<p><b>X-Y Plane Horizontal</b></p> <p>Peak Gain= 1.37 dBi Average Gain= -2.67 dBi</p>	<p><b>X-Z Plane Horizontal</b></p> <p>Peak Gain= -0.25 dBi Average Gain= -4.24 dBi</p>	<p><b>Y-Z Plane Horizontal</b></p> <p>Peak Gain= -1.37 dBi Average Gain= -8.6 dBi</p>
RGFAR9937380A3T			
<p><b>Test Board</b></p>	<p><b>X-Y Plane Vertical</b></p> <p>Peak Gain= -4.48 dBi Average Gain= -8.02 dBi</p>	<p><b>X-Z Plane Vertical</b></p> <p>Peak Gain= 2.49 dBi Average Gain= -2.47 dBi</p>	<p><b>Y-Z Plane Vertical</b></p> <p>Peak Gain= -4.05dBi Average Gain=-8.03 dBi</p>
<p><b>Return Loss (S11)</b></p>	<p><b>X-Y Plane Horizontal</b></p> <p>Peak Gain= 3.19 dBi Average Gain= -2.65 dBi</p>	<p><b>X-Z Plane Horizontal</b></p> <p>Peak Gain= 3.05 dBi Average Gain= -4.10dBi</p>	<p><b>Y-Z Plane Horizontal</b></p> <p>Peak Gain = 0.95dBi Average Gain = -4.26 dBi</p>

RFECA3216060A1T			
Test Board	X-Y Plane Vertical	X-Z Plane Vertical	Y-Z Plane Vertical
<p>unit:mm</p>	<p>Peak Gain = 3.37 dBi Average Gain = -0.65 dBi</p>	<p>Peak Gain= 0.83 dBi Average Gain= -1.35 dBi</p>	<p>Peak Gain= -9.59 dBi Average Gain= -15.40 dBi</p>
Return Loss (S11)	X-Y Plane Horizontal	X-Z Plane Horizontal	Y-Z Plane Horizontal
	<p>Peak Gain= -4.62 dBi Average Gain=-10.42 dBi</p>	<p>Peak Gain= 0.51 dBi Average Gain= -4.07 dBi</p>	<p>Peak Gain= 1.39 dBi Average Gain= -2.07 dBi</p>
RFECA1003011E0T			
Return Loss (S11)X-Y Plane	X-Y Plane	X-Z Plane	Y-Z Plane
	<p>Peak Gain = 3.12dBi Average Gain = -3.99 dBi</p>	<p>Peak Gain= 1.97dBi Average Gain= -1.44 dBi</p>	<p>Peak Gain = 3.32dBi Average Gain = 1.02 dBi</p>
RFANT6050110L0T			
2.4GHz E-Plane (dBi)	2.4GHz H-Plane (dBi)	5.8GHz E-Plane (dBi)	5.8GHz H-Plane (dBi)
<p>Peak Gain = +4.74dBi Average Gain = -1.46dBi</p>	<p>Peak Gain = +0.48dBi Average Gain = -4.59dBi</p>	<p>Peak Gain = +4.99dBi Average Gain = -1.31dBi</p>	<p>Peak Gain = +3.02dBi Average Gain = -0.85dBi</p>

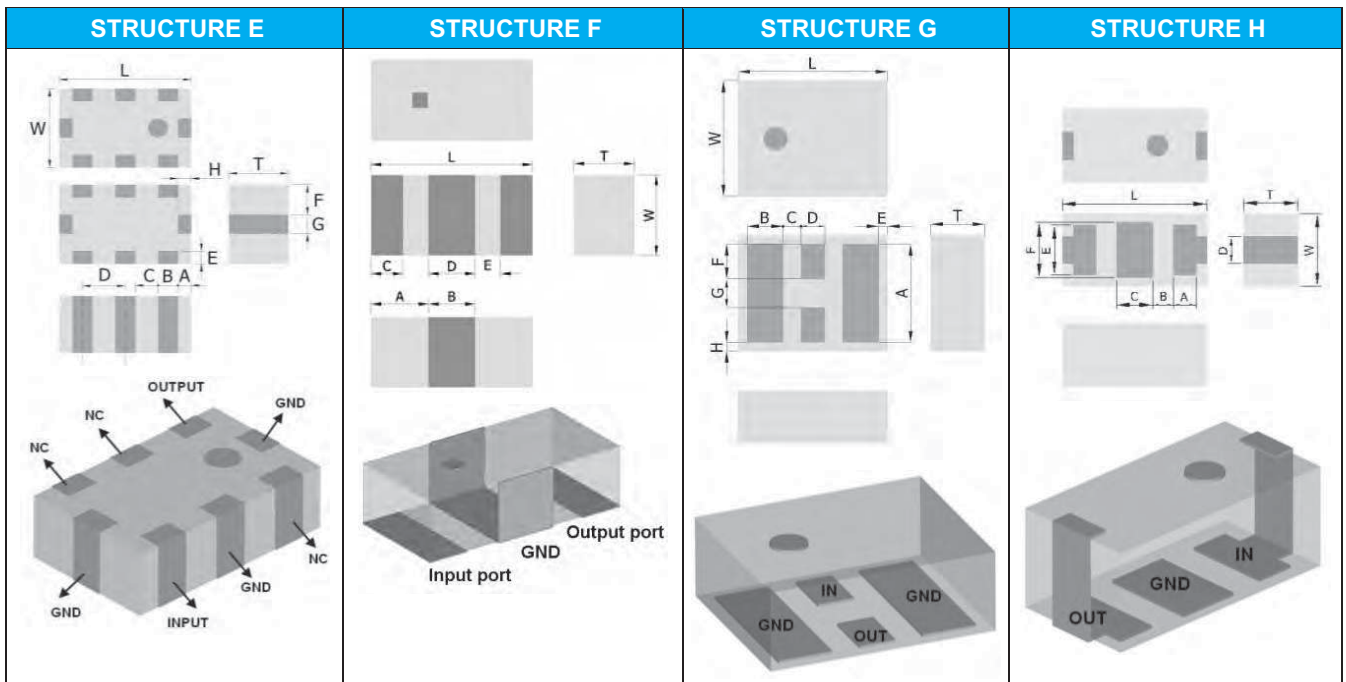
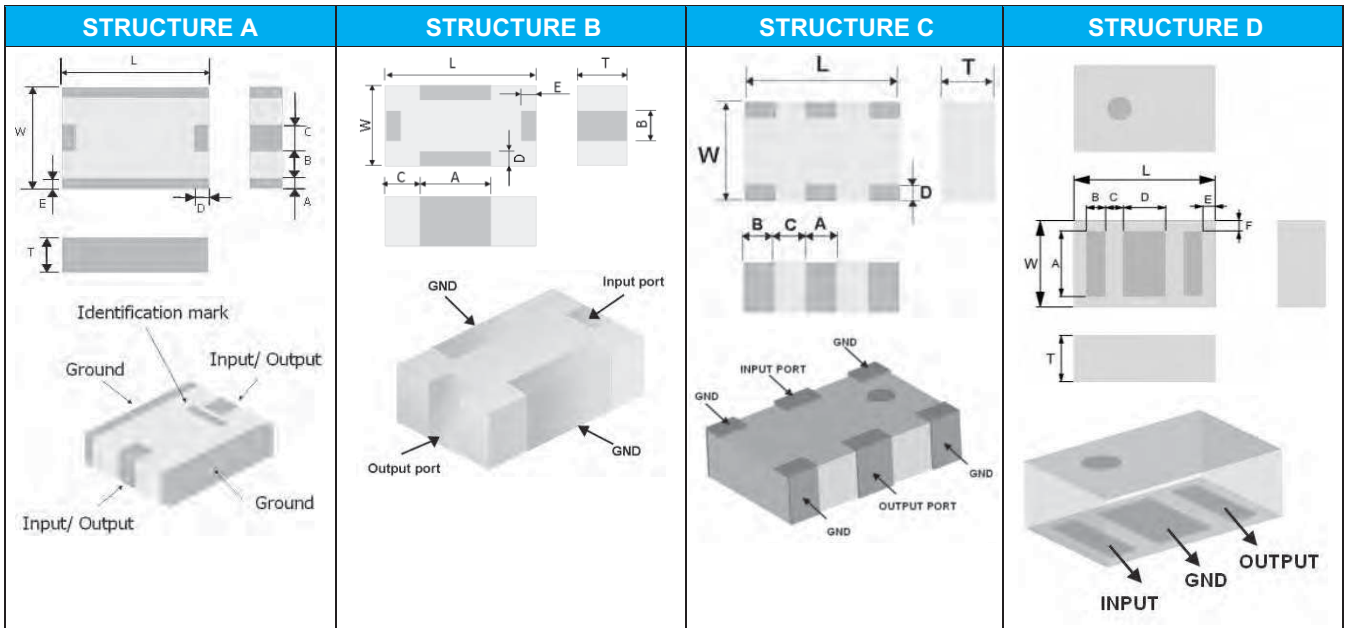
RFECA3216060E1T			
Land Pattern	X-Y Plane Vertical	X-Z Plane Vertical	Y-Z Plane Vertical
	 Peak Gain= -5.51 dBi Average Gain= -7.48 dBi	 Peak Gain= -0.85 dBi Average Gain= -5.22 dBi	 Peak Gain = 6.74 dBi Average Gain = 4.81 dBi
Return Loss (S11)	X-Y Plane Horizontal	X-Z Plane Horizontal	Y-Z Plane Horizontal
	 Peak Gain= 5.36 dBi Average Gain= 1.25 dBi	 Peak Gain= 4.85 dBi Average Gain= 1.21 dBi	 Peak Gain= -6.99 dBi Average Gain= -14.30 dBi
RFECA3216060K1T			
Land Pattern	X-Y Plane Vertical	X-Z Plane Vertical	Y-Z Plane Vertical
	 Peak Gain= -7.42 dBi Average Gain= -11.78 dBi	 Peak Gain= 2.86 dBi Average Gain= 0.86 dBi	 Peak Gain= -0.55dBi Average Gain=-4.9 dBi
Return Loss (S11)	X-Y Plane Horizontal	X-Z Plane Horizontal	Y-Z Plane Horizontal
	 Peak Gain= 2.3 dBi Average Gain= -1.1 dBi	 Peak Gain=-2.49 dBi Average Gain= -9.61dBi	 Peak Gain = 0.73dBi Average Gain = -2.86 dBi

■ For more information, please contact with local sales representative

■ All specifications are subject to change without notice

# HIGH FREQUENCY MULTILAYER BAND PASS FILTER

## ■ STRUCTURE AND PIN ASSOCIATED



# HIGH FREQUENCY MULTILAYER BAND PASS FILTER

## ■ STRUCTURE AND DIMENSION

Unit:mm

Structure Dimension	L	W	T	A	B	C	D	E	F	G	H
A	2.50±0.20	2.00±0.20	0.70±0.10	0.20±0.20	0.55±0.20	0.50±0.20	0.25±0.20	0.20±0.20	-	-	-
			0.80±0.10	0.20±0.20	0.55±0.20	0.50±0.20	0.20±0.20	0.20±0.20	-	-	-
			1.00±0.10	0.20±0.20	0.50±0.20	0.50±0.20	0.25±0.20	0.20±0.20	-	-	-
			1.05±0.10	0.25±0.20	0.50±0.20	0.50±0.20	0.25±0.20	0.25±0.20	-	-	-
			1.20±0.10	0.25±0.20	0.50±0.20	0.50±0.20	0.25±0.20	0.25±0.20	-	-	-
	3.20±0.20	2.50±0.10	1.50±0.10	0.40±0.20	0.60±0.20	0.70±0.20	0.20±0.15	0.40±0.20	-	-	-
B	1.00±0.10	0.50±0.10	0.40±0.10	0.30±0.10	0.30±0.10	0.35±0.10	0.15±0.10	0.15±0.10	-	-	-
	1.60±0.15	0.80±0.15	0.50±0.10	0.45±0.15	0.30±0.15	0.45±0.15	0.20±0.15	0.20±0.15	-	-	-
			0.60±0.10	0.70±0.15	0.30±0.15	0.45±0.15	0.20±0.10	0.20±0.10	-	-	-
			0.70±0.10	0.70±0.15	0.30±0.15	0.45±0.15	0.15±0.10	0.15±0.10	-	-	-
	2.00±0.15	1.20±0.15	0.50±0.10	1.10±0.15	0.30±0.15	0.45±0.15	0.25±0.15	0.25±0.15	-	-	-
			0.90±0.10	1.10±0.15	0.30±0.15	0.45±0.15	0.25±0.15	0.25±0.15	-	-	-
		1.25±0.15	0.60±0.10	0.70±0.15	0.30±0.15	0.45±0.15	0.20±0.15	0.20±0.15	-	-	-
			0.80±0.10	1.00±0.15	0.30±0.15	0.50±0.15	0.25±0.15	0.25±0.15	-	-	-
	0.90±0.10		1.00±0.15	0.30±0.15	0.50±0.15	0.25±0.15	0.25±0.15	-	-	-	
	0.95±0.10	1.00±0.15	0.25±0.10	-	0.25±0.15	0.25±0.15	-	-	-		
C	2.00±0.15	1.20±0.20	0.55±0.10	0.40±0.20	0.40±0.20	0.40±0.20	0.40±0.20	0.20±0.10	-	-	-
			0.60±0.10	0.40±0.20	0.40±0.20	0.40±0.20	0.20±0.10	-	-	-	
			0.80±0.10	0.40±0.20	0.40±0.20	0.40±0.20	0.40±0.20	0.20±0.10	-	-	-
D	2.00±0.15	1.25±0.10	0.45±0.10	0.95±0.10	0.275±0.20	0.25±0.10	0.60±0.10	0.175±0.10	0.15±0.10	-	-
			0.70 max	0.95±0.10	0.275±0.10	0.25±0.10	0.60±0.10	0.175±0.10	0.15±0.10	-	-
			0.80±0.10	0.95±0.10	0.275±0.10	0.25±0.10	0.60±0.10	0.175±0.10	0.15±0.10	-	-
E	2.00±0.15	1.20±0.15	0.60±0.10	0.20±0.15	0.30±0.15	0.35±0.15	0.65±0.15	0.20±0.15	0.475±0.15	0.30±0.15	0.25±0.15
F	1.60±0.15	0.80±0.15	0.60±0.10	0.55±0.15	0.50±0.15	0.35±0.15	0.50±0.15	0.20±0.15	-	-	-
G	2.50±0.20	2.00±0.20	0.90±0.10	1.70±0.20	0.60±0.20	0.30±0.20	0.40±0.20	0.15±0.10	0.60±0.10	0.50±0.10	0.15±0.10
H	1.60±0.15	0.80±0.10	0.60 max	0.25±0.10	0.23±0.05	0.40±0.10	0.30±0.10	0.55±0.10	0.60±0.10	-	-

## ■ ELECTRICAL SPECIFICATION

### ■ DVB BAND WORKING FREQUENCY

Part Number	Frequency Range(GHz)	Insertion Loss (dB)	Attenuation ( dB min. )	VSWR (max.)	Impedance (Ω)	Size(mm)	STRUCTURE
RFBPF2520080Y0T	0.465~0.862	1.2	30@90 MHz 10@245 MHz 30@2170 MHz	2.0	50	2.50x2.00x0.80	A

### ■ 1.8GHz BAND WORKING FREQUENCY

Part Number	Frequency Range(GHz)	Insertion Loss (dB)	Attenuation ( dB min. )	VSWR (max.)	Impedance (Ω)	Size(mm)	STRUCTURE
RFBPF2520070S0T	1.8/ 1.9	2.1	40( 400~850 MHz) 35( 850~1190 MHz) 8(1190~1590 MHz) 25(2410~3400 MHz) 40(3400~6000 MHz)	2.0	50	2.50x2.00x0.70	A



# HIGH FREQUENCY MULTILAYER BAND PASS FILTER

## ■ 2.4GHz BAND WORKING FREQUENCY

Part Number	Frequency Range(GHz)	Insertion Loss (dB)	Attenuation (dB min. )	VSWR (max.)	Impedance (Ω)	Size(mm)	STRUCTURE
RBBPF1005040A1T	2.4~2.5	2.5	25(824~960 MHz) 20(1710~1910 MHz) 20(4800~5000 MHz) 15(7200~7500 MHz)	2.0	50	1.00x0.50x0.40	B
RFBPF1608060AM1T59	2.4~2.5	3.0	38(900~1800 MHz) 25(1910~2170 MHz) 35(4800~4900 MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF1608060AA7M1U	2.4~2.5	0.95max.(25°C) 1.25max.(-40~+85°C)	20(500~960 MHz) 23(3200 MHz) 30(4800~5000 MHz) 32(7200~7500 MHz)	2.0	50	1.60x0.80x0.60	H
RFBPF1608060ABT	2.4~2.5	2.5max.(25°C) 2.8max.(-40~+85°C)	38(880~915 MHz) 40(1710~1850 MHz) 40(1850~1910 MHz) 35(1920~1990 MHz) 25(2170 MHz) 30(4800~5000 MHz) 20(7200~7500 MHz)	2.0	50	1.60x0.80x0.60	F
RFBPF1608060AET	2.4~2.5	1.7max.(25°C) 2.0max.(-40~+85°C)	25(880 MHz) 20(3200 MHz) 35(4800~5000 MHz) 25(7200~7500 MHz)	2.0	50	1.60x0.80x0.60	F
RFBPF1608060APT	2.4~2.5	2.2max.(25°C) 2.4max.(-40~+85°C)	25(880~960 MHz) 20(1710~1990 MHz) 30(4800~5000 MHz) 30(7200~7500 MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF1608050A0T	2.4~2.5	2.0max.(25°C) 2.2max.(-40~+85°C)	20(960 MHz) 20(1910 MHz) 15(1990 MHz) 18(4800 MHz) 25(7200 MHz)	2.0	50	1.60x0.80x0.50	B
RFBPF1608060A1T	2.4~2.5	2.8	25(695~800MHz) 20(1910MHz) 35(3200MHz) 20(4800~5000MHz) 20(7200~7500MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF1608060A7T	2.4~2.5	3.0	25(695~800MHz) 20(1910MHz) 35(3200MHz) 20(4800~5000MHz) 20(7200~7500MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF1608060A8T	2.4~2.5	1.7	30(880~915MHz) 30(1710~1785MHz) 25(1850~1910MHz) 25(4800~5000MHz) 15(7200~7500MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF1608070A0T	2.4~2.5	2.5	30(960 MHz) 25(1910 MHz) 20(1990 MHz) 30(4800 MHz) 25(7200 MHz)	2.0	50	1.60x0.80x0.70	B
RFBPF1608070A3T	2.4~2.5	1.8max.(25°C) 2.1max.(-40~+85°C)	27(800~900 MHz) 25(4800~5000 MHz) 30(7200~7500 MHz)	2.0	50	1.60x0.80x0.70	B
RFBPF1608070A5T	2.4~2.5	1.8max.(25°C) 2.2max.(-40~+85°C)	35(880~960MHz) 25(1710~1910MHz) 30(4800~5000MHz) 25(7200~7500MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF2012060AM2T62	2.4~2.5	1.8	25( 870~960 MHz) 25(1710~1910 MHz) 20(1910~1990 MHz) 15(4800~5000 MHz) 15(7200~7500 MHz)	2.0	50	2.00x1.20x0.60	E
RFBPF2012080AM0T62	2.4~2.5	1.8max.(25°C) 2.0max.(-40~+85°C)	30(860~ 960MHz) 30(1545~ 1605MHz) 35(1710~ 1990MHz) 30(2170MHz) 30(4800~ 5000MHz)	2.0	50	2.00x1.20x0.80	D
RFBPF2012060AAT	2.4~2.5	1.8	30(880~960MHz) 25(1710~1910MHz) 25(4800~5000MHz) 30(7200~7500MHz)	2.0	50	2.00x1.20x0.60	C

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Part Number	Frequency Range(GHz)	Insertion Loss (dB)	Attenuation (dB min. )	VSWR (max.)	Impedance (Ω)	Size(mm)	STRUCTURE
RFBPF2012040ABT	2.4~2.5	2.5	30(824~849 MHz) 30(880~915 MHz) 30(1545~1605 MHz) 30(1565~1585 MHz) 35(1710~1785 MHz) 40(1850~1910 MHz) 32(1920~1980 MHz) 7(3168~4752 MHz) 11(3300~3800 MHz) 35(4800~4967 MHz) 26(5150~6000 MHz) 23(7200~7450 MHz)	2.0	50	2.00x1.20x0.40	D
RFBPF2012050ACT	2.4~2.5	2.5	35(824~960 MHz) 38(1710~1910 MHz) 25(4880~5000 MHz) 20(7200~7500 MHz)	2.0	50	2.00x1.20x0.55	C
RFBPF2012080ADT	2.4~2.5	1.5max.(25°C) 1.7max.(-40~+85°C)	30(860~960MHz) 30(1545~1605MHz) 30(1710~1990MHz) 30(2170MHz) (typical) 30(4800~5000MHz)	2.0	50	2.00x1.25x0.80	D
RFBPF2012080AFT	2.4~2.5	1.8max.(25°C) 2.0max.(-40~+85°C)	30(824~915MHz) 30(1545~1605MHz) 35(1710~1990MHz) 30(2170MHz) 30(4800~4967MHz) 25(5150~6000MHz) 20(7200~7450.5MHz)	2.0	50	2.00x1.25x0.80	D
RFBPF2012040AHT	2.4~2.5	2.5	25(746~764 MHz) 30(824~849 MHz) 26(869~960 MHz) 28(1570~1580 MHz) 28(1710~1785 MHz) 30(1850~1910 MHz) 30(1930~1990 MHz) 30(2110~2170 MHz) 15(3300~3800 MHz) 35(4800~5000 MHz) 20(7200~7450.5 MHz)	2.0	50	2.00x1.25x0.45	D
RFBPF2012090AMT	2.4~2.5	2.6	40(880~960 MHz) 38(1710~1990 MHz) 16(2170 MHz) 30(4800~5000 MHz) 25(7200~7500 MHz)	2.0	50	2.00x1.20x0.90	B
RFBPF2012090AQT	2.4~2.5	1.2	20(1600 MHz) 25(3200 MHz) 20(4800~5000 MHz)	2.0	50	2.00x1.20x0.90	B
RFBPF2012090ART	2.4~2.5	1.0	20(1600 MHz) 25(3200 MHz)	2.0	50	2.00x1.20x0.90	B
RFBPF2012090A1T	2.4~2.5	1.7	30(900 MHz) 20(1850 MHz) 30(4800 MHz)	2.0	50	2.00x1.20x0.90	B
RFBPF2012090A2T	2.4~2.5	1.4	30(824~960MHz) 30(1710~1910 MHz) 20(1920~1990 MHz) 6(2110~2170MHz) 20(4800~5000 MHz)	2.0	50	2.00x1.20x0.90	B
RFBPF2012040A3T	2.4~2.5	2.0max.(25°C) 2.2max.(-40~+85°C)	25(746~764MHz) 30(824~849MHz) 26(869~960MHz) 28(1570~1580MHz) 28(1710~1785MHz) 30(1850~1910MHz) 30(1930~1990MHz) 25(2110~2170MHz) 15(3300~3800MHz) 35(4800~5000MHz) 20(7200~7450.5MHz)	2.0	50	2.00x1.25x0.45	D
RFBPF2012080A5T	2.4~2.5	3.0	40(880~960 MHz) 40(1710~1990 MHz) 20(2110~2170 MHz) 40(4800~5000 MHz) 30(7200~7500 MHz)	2.0	50	2.00x1.20x0.80	C

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Part Number	Frequency Range(GHz)	Insertion Loss (dB)	Attenuation (dB min. )	VSWR (max.)	Impedance ( $\Omega$ )	Size(mm)	STRUCTURE
RFBPF2012080A6T	2.4~2.5	3.5	30(880~960 MHz) 30(1710~1990 MHz) 20(2110~2170 MHz) 30(4800~5000 MHz) 30(7200~7500 MHz)	2.0	50	2.00x1.20x0.80	C
RFBPF2012080A7T	2.4~2.5	2.8 (typ.2.5)	40(DC~1600 MHz) 35(1710 MHz) 25(1900 MHz) 12(2100 MHz) 8(2170 MHz) 30(3100 MHz) 40(4800~5000 MHz) 20(7200~7500 MHz)	2.0	50	2.00x1.20x0.80	B
RFBPF2012060A9T	2.4~2.5	2.8	30(960 MHz) 30(1600 MHz) 20(1990 MHz) 35(3200 MHz) 40(4800 MHz) 25(7200 MHz)	2.0	50	2.00x1.20x0.60	B
RFBPF2520090ACT	2.4~2.5	2.1max.(25°C) 2.3max.(-40~+85°C)	43(806~960MHz) 43(1570~1580 MHz) 43(1710~1990 MHz) 20(2110~2170MHz) 30(4800~5000 MHz) 25(7200~7500MHz)	2.0	50	2.50x2.00x0.90	G
RFBPF2520070AMT	2.4~2.5	2.0max.(25°C) 2.2max.(-40~+85°C)	45(824~960 MHz) 45(1570~1580 MHz) 45(1710~1785 MHz) 40(1805~1850 MHz) 35(1850~1910 MHz) 35(1920~1990 MHz) 25(2110~2170 MHz) 5(2750~3000 MHz) 15(3000~4800 MHz) 30(4800~5000 MHz) 30(5150~5850 MHz) 20(7200~7500 MHz)	2.0	50	2.50x2.00x0.70	A
RFBPF2520080AUT	2.4~2.5	2.2	30(900 MHz) 30(1850 MHz) 33(2170 MHz) 35(4800 MHz) 25(7200 MHz)	2.0	50	2.50x2.00x0.80	A
RFBPF2520120A1T	2.4~2.5	1.7	30(900/1850 MHz) 20(2100 MHz) 40(4800 MHz) 25(7200 MHz)	2.0	50	2.50x2.00x1.20	A
RFBPF2520120A2T	2.4~2.5	2.1	30(900/1850 MHz) 30(4800 MHz)	2.0	50	2.50x2.00x1.20	A
RFBPF2520120A3T	2.4~2.5	$\leq 1.2(25^\circ\text{C})$	30(900/1850 MHz) 25(4800 MHz)	2.0	50	2.50x2.00x1.20	A
RFBPF2520120A4T	2.4~2.5	$\leq 1.7(25^\circ\text{C})$	30(900/1850 MHz) 25(4800 MHz)	2.0	50	2.50x2.00x1.20	A
RFBPF2520100A5T	2.4~2.5	2.0	40(900 MHz) 35(3200 MHz) 30(1990 MHz) 20(2100 MHz) 40(4800 MHz) 25(7200 MHz)	2.0	50	2.50x2.00x1.00	A
RFBPF2520100A6T	2.4~2.5	1.4	35(1900/4800 MHz)	2.0	50	2.50x2.00x1.00	A
RFBPF3225150A3T	2.4~2.5	2.5	40(1500 MHz) 30(2100 MHz) 30(4800 MHz)	1.7	-	3.20x2.50x1.50	A
RFBPF3225150A4T	2.4~2.5	2.0	30(900 MHz) 30(1850 MHz) 20(2100 MHz) 30(4800 MHz)	2.0	50	3.20x2.50x1.50	A
RFBPF3225150A5T	2.4~2.5	1.8	30(900 MHz) 30(1850MHz) 20(2100 MHz) 30(4800 MHz)	2.0	50	3.20x2.50x1.50	A

# HIGH FREQUENCY MULTILAYER BAND PASS FILTER

## ■ 5GHz BAND WORKING FREQUENCY

Part Number	Frequency Range(GHz)	Insertion Loss (dB)	Attenuation (dB min.)	VSWR (max.)	Impedance (Ω)	Size(mm)	STRUCTURE
RFBPF1608060K2T	4.9~5.84	1.5max.(25°C) 1.7max.(-40~+85°C)	33(100~2170 MHz) 29(2170~2500 MHz) 32(9800~12000 MHz)	2.0	50	1.60x0.80x0.70	B
RFBPF2012100KST	4.9~5.9	1.5(4.90GHz) 1.5(5.25GHz) 1.5(5.85GHz)	30(3450 MHz) 20(11000 MHz)	2.0	50	2.00x1.20x1.00	B
RFBPF2012100K1T	5.15~5.9	3.0 (typ.2.5)	35(4000MHz) 35(4500MHz) 40(4600MHz)	2.0	50	2.00x1.20x1.00	B
RFBPF2520090K1T	4.9~5.85	1.2	47(824 MHz) 47(1500 MHz) 47(1910 MHz) 15(9800 MHz)	2.0	50	2.50x2.00x0.90	A

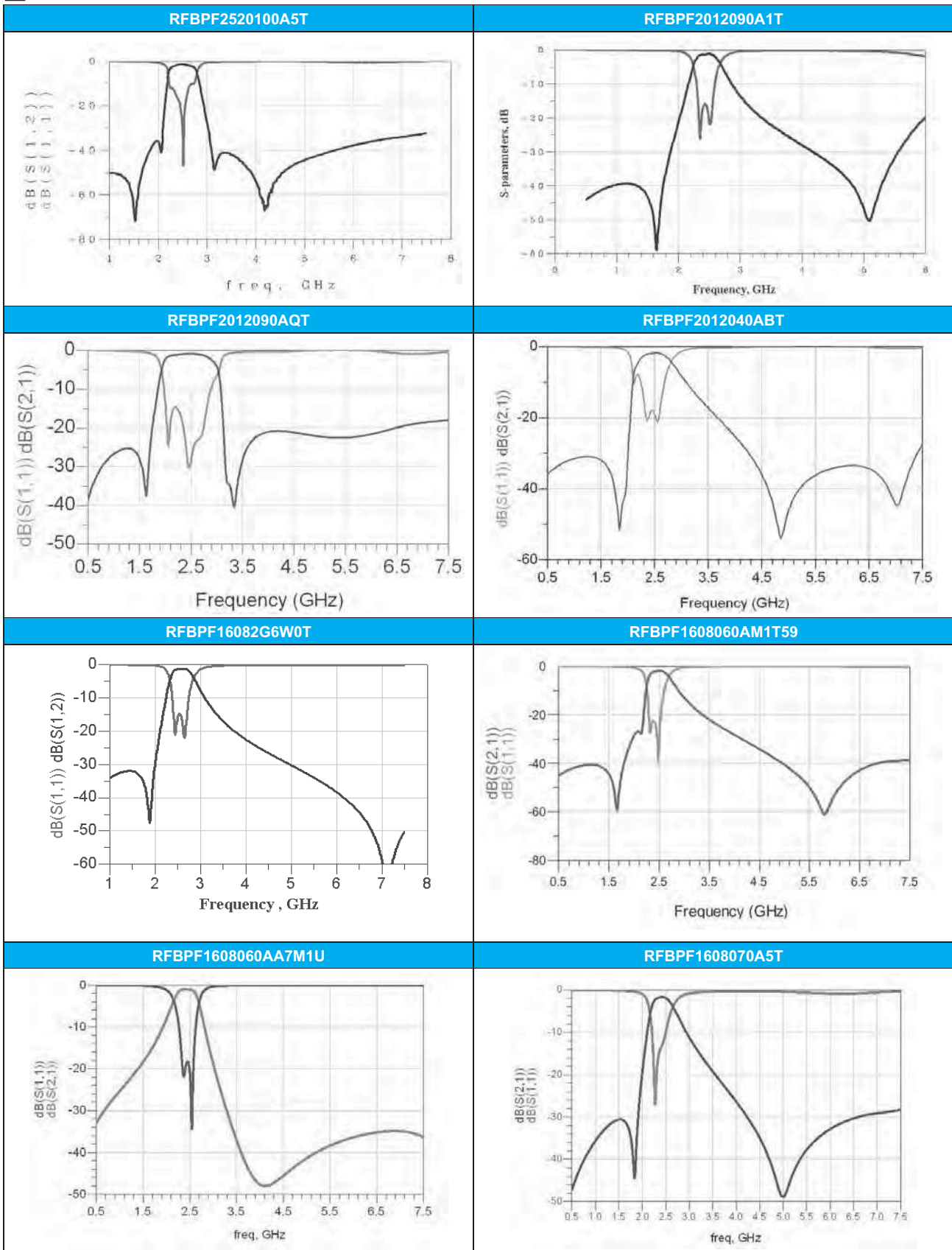
Part Number	Frequency Range(GHz)	Insertion Loss (dB)	Attenuation (dB min.)	VSWR (max.)	Impedance (Ω)	Size(mm)	STRUCTURE
RFBPF16082G3W0T	2.3~2.39	2.0	29(880~915 MHz) 29(1710~1785 MHz) 21(1850~1910 MHz) 15(1920~1980 MHz) 18(4600~4780 MHz) 23(6900~7170 MHz)	2.0	50	1.60x0.80x0.70	B
RFBPF16082G6W0T	2.5~2.7	2.2	30(880~960 MHz) 30(1710~1785 MHz) 30(1850~1910 MHz) 30(1920~1980 MHz) 13(3300~3900 MHz) 20(4900~5900 MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF16083G5W0T	3.3~3.7	1.8	30(806~915 MHz) 30(1710~1785 MHz) 30(1850~1910 MHz) 30(1920~1980 MHz) 31(2400~2500 MHz) 18(4900~5900 MHz)	2.0	50	1.60x0.80x0.60	B
RFBPF20122G5W0T	2.3~2.69	2.0	20(1600 MHz) 30(3490 MHz) 30(4000 MHz) 30(MHz) 30(8000 MHz)	2.0	50	2.00x1.20x0.50	B

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■ All specifications are subject to change without notice

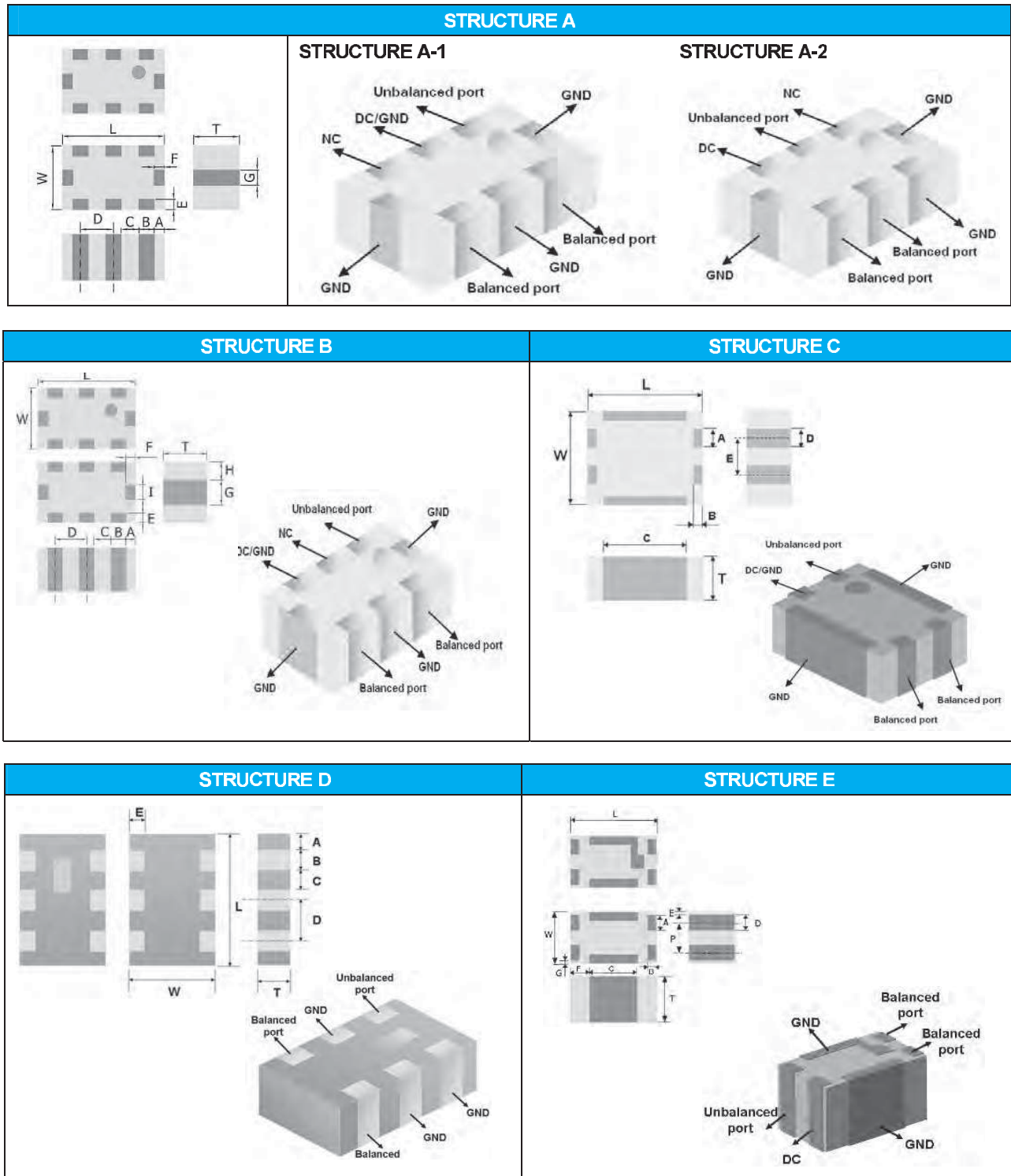
# HIGH FREQUENCY MULTILAYER BAND PASS FILTER

## TYPICAL ELECTRICAL CHARACTERISTICS



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## ■ STRUCTURE AND PIN ASSOCIATED



# HIGH FREQUENCY MULTILAYER BALANCED FILTER

## ■ STRUCTURE AND DIMENSION

Unit:mm

Structure\ Dimension	L	W	T	A	B	C	D	E	F	G	P	
A	1.60±0.15	0.80±0.15	0.60±0.10	0.175±0.15	0.25±0.15	0.25±0.15	0.50±0.15	0.20±0.15	0.20±0.15	0.30±0.15	-	
	2.00±0.15	1.25±0.15	1.20±0.10	0.40±0.10	0.175±0.10	0.35±0.15	0.30±0.15	0.65±0.10	0.20±0.10	0.20±0.15	0.50±0.10	-
			0.50±0.10	0.20±0.15	0.30±0.15	0.35±0.15	0.65±0.15	0.20±0.15	0.20±0.15	0.30±0.15	-	
			0.60±0.10	0.20±0.15	0.30±0.10	0.35±0.10	0.65±0.10	0.20±0.15	0.20±0.15	0.50±0.10	-	
			0.90±0.10	0.20±0.15	0.30±0.10	0.35±0.10	0.65±0.10	0.20±0.15	0.20±0.15	0.30±0.10	-	
			1.00±0.10	0.20±0.15	0.30±0.10	0.35±0.10	0.65±0.10	0.20±0.15	0.20±0.15	0.50±0.10	-	
					0.50±0.10	0.35±0.10	0.65±0.10	0.20±0.15	0.20±0.15	0.50±0.10	-	
	2.50±0.20	2.00±0.20	0.85±0.10	0.35±0.20	0.40±0.10	0.30±0.10	0.70±0.20	0.15 (Typical)	0.15 (Typical)	1.20±0.20	-	
B	2.00±0.15	1.25±0.10	1.00±0.10	0.20±0.15	0.30±0.15	0.35±0.15	0.65±0.15	0.20±0.15	0.20±0.15	0.50±0.15	-	
			0.90±0.10	0.20±0.15	0.30±0.15	0.35±0.15	0.65±0.15	0.20±0.15	0.20±0.15	0.55±0.15	-	
		1.25±0.15	0.90±0.10	0.175±0.15	0.35±0.15	0.30±0.15	0.65±0.15	0.20±0.15	0.20±0.15	0.55±0.15	-	
C	2.50±0.20	2.00±0.20	0.95±0.10	0.40±0.10	0.25±0.10	1.83±0.10	0.40±0.10	0.80±0.20	-	1.20±0.20	-	
	2.50±0.20	2.00±0.20	0.95±0.10	0.40±0.10	0.25±0.10	1.83±0.10	0.40±0.10	0.80±0.20	-	1.00±0.10	-	
	2.50±0.20	2.00±0.20	0.90±0.10	0.30±0.15	0.30±0.15	1.85±0.15	0.40±0.15	0.80±0.15	-	-	-	
D	1.60±0.10	0.80±0.10	0.60±0.10	0.175±0.10	0.25±0.10	0.25±0.10	0.50±0.10	0.15±0.10	-	-	-	
E	2.00±0.15	1.25±0.10	1.10±0.10	0.35±0.10	0.20±0.15	1.15±0.15	0.35±0.10	0.10±0.10	0.425±0.10	0.10±0.10	0.70±0.10	

## ■ ELECTRICAL SPECIFICATION

### ■ 2.4GHz BAND WORKING FREQUENCY

Part Number	Frequency Range (MHz)	Impedance(Ω)		Insertion Loss (dB)	Attenuation (dB min. )	VSWR (Max.)	Size (mm)	STRUCTURE
		Unbalance	Balance					
RBBPB1608060AAT	2.4~2.5	50	Conjugate matched to Atheros AR3011 Chipset	2.0	35(4800~5000 MHz) 25(7200~7500 MHz)	1.5	1.60x0.80x0.60	D
RFBPB1608060A1T	2.4~2.5	50	Conjugate with CSR BC series chipset solution	3.5	35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz)	2.0	1.60x0.80x0.60	A-1
RFBPB1608060A9T	2.4~2.5	50	Conjugate with CSR BC series chipset solution	3.5	35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz)	2.0	1.60x0.80x0.60	A-1
RFBPB1608060AM2T61	2.4~2.5	50	Conjugate with MTK bluetooth chipset series	3.5	35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz)	2.0	1.60x0.80x0.60	A-1
RFBPB1608060AM6T61	2.4~2.5	50	Conjugate with MT_6616 chipset	3.5	35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 28(4800~5000 MHz)	2.0	1.60x0.80x0.60	A-1

# HIGH FREQUENCY MULTILAYER BALANCED FILTER

Part Number	Frequency Range (MHz)	Impedance ( $\Omega$ )		Insertion Loss (dB)	Attenuation (dB min. )	VSWR (Max.)	Size (mm)	STRUCTURE
		Unbalance	Balance					
RBBPB2012050A9T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	2.5	35(880~960 MHz) 15(1710~1880 MHz) 15(1880~1910 MHz) 25(4800~5000 MHz)	2.0	2.00x1.25x0.50	A-1
RFBPB2012060A1T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	3.5	35(880~960MHz) 30(1710~1880MHz) 25(1880~1900MHz) 20(1900~1990MHz) 30(4800~5000MHz)	2.0	2.00x1.25x0.60	A-1
RFBPB2012060AM1T61	2.4~2.5	50	Conjugate with MTK MT_6611 MT_6612 Bluetooth chipset	3.5	35(880~960 MHz) 30(1710~1880 MHz) 25(1880~1900 MHz) 20(1900~1990 MHz) 30(4800~5000 MHz)	2.0	2.00x1.25x0.60	A-1
RFBPB2012090A1T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	3.5	35(880~960MHz) 30(1710~1880MHz) 20(1880~1990MHz) 30(4800~5000MHz)	2.1	2.00x1.25x0.90	A-1
RFBPB2012090A2T	2.4~2.5	50	Conjugate match to MTK MT6611 series Bluetooth chipset	2.8	35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz)	2.1	2.00x1.25x0.90	A-1
RFBPB2012090A3T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	3.5	35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz)	2.1	2.00x1.25x0.90	A-1
RFBPB2012090A7T	2.4~2.5	50	Conjugate with chipset STLC25xx Series	2.8	35(880~960 MHz) 25(1710~1880 MHz) 15(1880~1990 MHz) 25(4800~5000 MHz) 20(7200~7500 MHz)	2.0	2.00x1.25x0.90	A-1
RFBPB2012090A9T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	2.8	35(880~960MHz) 30(1575MHz) 25(1710~1880MHz) 30(4800~5000MHz)	2.1	2.00x1.25x0.90	A-1
RFBPB2012090AAT	2.4~2.5	50	Conjugate match to CSR BC03/ 04 series	3.5	35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz)	2.1	2.00x1.25x0.90	A-1
RFBPB2012090AHT	2.4~2.5	50	100	3.5	30(880~960MHz) 30(1710~1880MHz) 20(1880~1990MHz) 30(4800~5000MHz)	2.0	2.00x1.25x0.90	A-1
RFBPB2012090AM1T59	2.4~2.5	50	Conjunction to MT5931/ MT6628 Chipset	2.5 (typ.2.2)	35( 824~960 MHz) 32(1990 MHz) 18(2170 MHz) 40(4800~5000MHz) 25(7200~7500MHz)	2.0	2.00x1.25x0.95	A-1
RFBPB2012090AM1T61	2.4~2.5	50	Conjugate match to MTK MT6611 Bluetooth chipset	2.8	35(880~960MHz) 30(1710~1880MHz) 20(1880~1900MHz) 30(4800~5000MHz)	2.1	2.00x1.25x0.90	A-1



# HIGH FREQUENCY MULTILAYER BALANCED FILTER

Part Number	Frequency Range (MHz)	Impedance( $\Omega$ )		Insertion Loss (dB)	Attenuation ( dB min. )	VSWR (Max.)	Size (mm)	STRUCTURE
		Unbalance	Balance					
RFBPB2012100A6T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	3.5	35(880~960MHz) 30(1710~1880MHz) 20(1880~1900MHz) 40(4800~5000MHz)	2.0	2.00x1.25x1.00	A-1
RFBPB2012110A5T	2.4~2.5	50	50	2.8	30(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz)	2.0	2.00x1.25x1.10	A-1
RGBPB2520090A5T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	3.0	40(880~960MHz) 40(1710~1880MHz) 20(1880~1990MHz) 30(4800~5000MHz)	2.0	2.50x2.00x0.95	C
RGBPB2520090A6T	2.4~2.5	50	Conjugate match to BC series of Bluetooth chipset	3.5	40(880~960MHz) 40(1710~1880MHz) 20(1880~1990MHz) 30(4800~5000MHz)	2.0	2.50x2.00x0.95	C
RFBPB2520090A7T	2.4~2.5	50	Conjugate match to TI BRF6150	3.5	35(880~960MHz) 30(1710~1880MHz) 25(1880~1990MHz) 25(4800~5000MHz)	2.0	2.50x2.00x0.90	A-2

## ■ 5GHz BAND WORKING FREQUENCY

Part Number	Frequency Range (MHz)	Impedance ( $\Omega$ )		Insertion Loss (dB)	Attenuation ( dB min. )	VSWR (Max.)	Size(mm)	STRUCTURE
RFBPB2012090KET	4.9~5.875	50	100	2.0	30(3500 MHz)	2.0	2.00x1.25x0.90	A-1

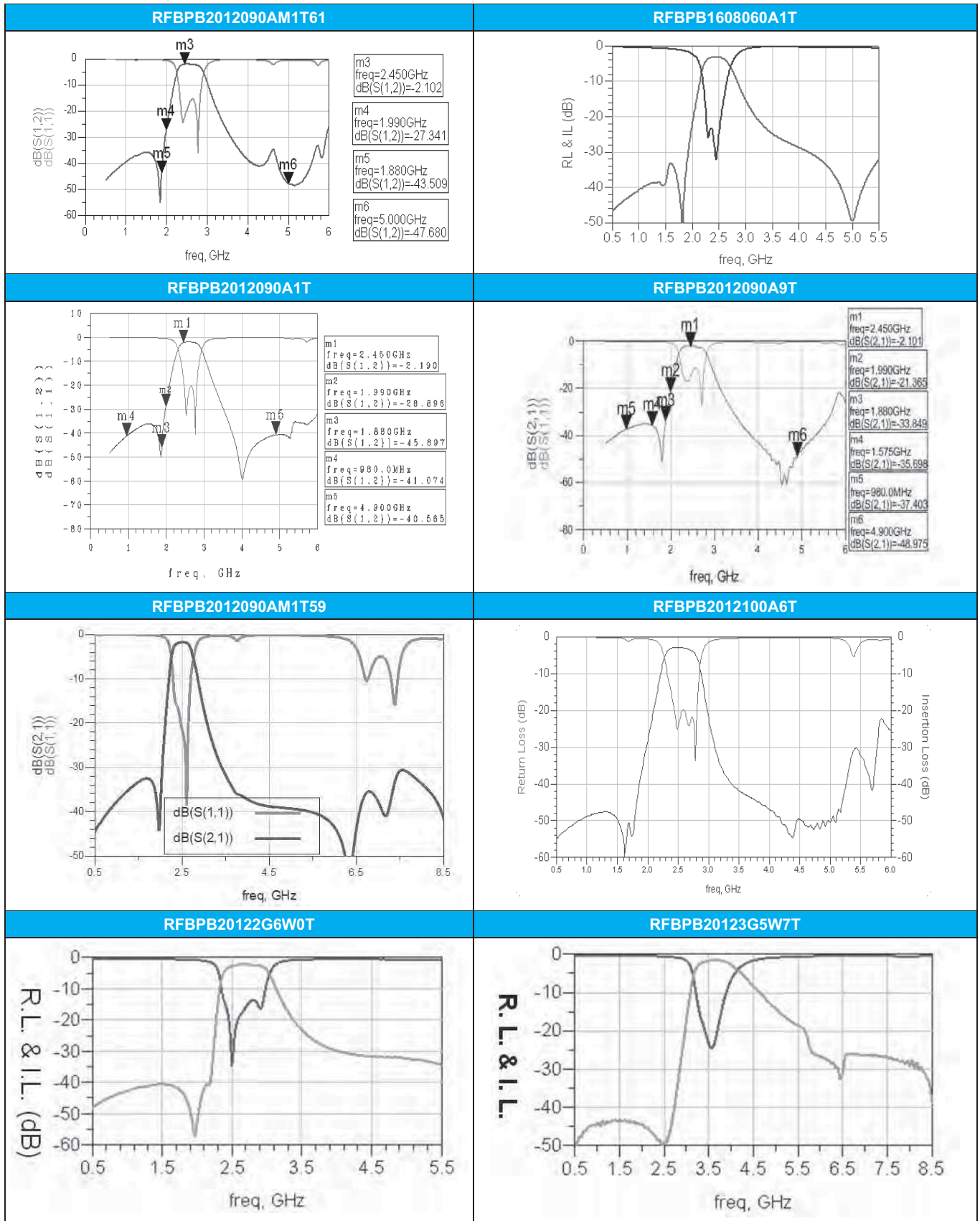
## ■ WiMAX BAND WORKING FREQUENCY

Part Number	Frequency Range (MHz)	Impedance( $\Omega$ )		Insertion Loss (dB)	Attenuation ( dB min. )	VSWR (Max.)	Size(mm)	STRUCTURE
RFBPB20122G6W0T	2.5~2.69	50	50	3.2	40(824~960 MHz) 40(1650~1990 MHz) 25(2110~2170 MHz) 10(3300~3600 MHz) 28(4150~4500 MHz)	2.0	2.00x1.25x0.90	B
RFBPB20123G5W7T	3.3~3.8	50	100	2.5	40(1710~1990 MHz) 40(2110~2170 MHz) 35(2400~2500 MHz) 10(4900~5850 MHz)	2.0	2.00x1.20x0.40	A-1
RFBPB25202G6W0T	2.5~2.7	50	100	3.3	47(824~960 MHz) 39(1710~1990 MHz) 29(2110~2170 MHz) 20(7500~8100 MHz)	2.1	2.50x2.00x0.90	C

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## TYPICAL ELECTRICAL CHARACTERISTICS



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