

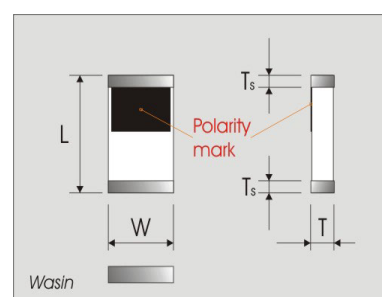
HIGH FREQUENCY INDUCTORS & RF DEVICES

How to Order

WL	160808	G	4N7	S	N	T	3
Product Code	Dimension code	Material	Inductance	Tolerance	Specification	Packing Code	Rated Current
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 Q : High Q	T=Reeled B=Bulk	03=250mA or 300mA 02=150mA or 200mA

Dimensions

Chip Size	WL160808 Series	WL1005 Series
L	1.60 ± 0.15 mm	1.00 ± 0.10
W	0.80 ± 0.15 mm	0.50 ± 0.10
T	0.80 ± 0.15 mm	0.50 ± 0.10
Ts	0.40 ± 0.20 mm	0.25 ± 0.10



High Frequency Inductors 1608 (0603)

Part Number	Inductance (nH)	Tolerance	Q. (min.)	Measuring Frequency (MHz)	Typical Q @ Frequency (MHz)					Self Resonant Frequency		DC Resistance		Rated Current (mA)
					100	300	500	800	1000	Min(MHz)	Typ.(MHz)	Max (Ω)	Typ.(Ω)	
WL160808G1N0SNT03	1.0	± 0.3nH	12	100	16	35	51	70	82	11000	> 13000	0.05	0.02	300
WL160808G1N2SNT03	1.2	± 0.3nH	12	100	16	34	50	68	79	10000	> 13000	0.05	0.02	300
WL160808G1N5SNT03	1.5	± 0.3nH	12	100	16	29	41	55	69	8000	> 13000	0.10	0.03	300
WL160808G1N8SNT03	1.8	± 0.3nH	12	100	17	33	46	60	69	7000	12000	0.10	0.03	300
WL160808G2N2SNT03	2.2	± 0.3nH	12	100	16	30	41	55	64	6000	10000	0.10	0.03	300
WL160808G2N7SNT03	2.7	± 0.3nH	12	100	16	30	42	56	65	5800	10000	0.15	0.06	300
WL160808G3N3□NT03	3.3	± 0.3nH or 10%	12	100	15	27	37	50	57	5600	8600	0.15	0.06	300
WL160808G3N9□NT03	3.9	± 0.3nH or 10%	12	100	15	27	36	47	54	5500	7800	0.15	0.06	300
WL160808G4N7□NT03	4.7	± 0.3nH or 10%	12	100	16	28	38	49	55	4100	6400	0.15	0.08	300
WL160808G5N6□NT03	5.6	±5% or ±10%	12	100	14	29	39	51	59	4000	5900	0.15	0.08	300
WL160808G6N8□NT03	6.8	±5% or ±10%	12	100	15	26	35	46	53	3800	5500	0.20	0.12	300
WL160808G8N2□NT03	8.2	±5% or ±10%	12	100	14	26	35	46	51	3500	5300	0.20	0.12	300
WL160808G10N□NT03	10	±5% or ±10%	12	100	15	23	31	39	42	3200	4600	0.30	0.16	300
WL160808G12N□NT03	12	±5% or ±10%	12	100	16	26	36	45	50	2500	3900	0.40	0.20	300
WL160808G15N□NT03	15	±5% or ±10%	12	100	15	26	34	41	43	2300	3200	0.40	0.20	300
WL160808G18N□NT03	18	±5% or ±10%	12	100	16	26	34	42	44	2000	2800	0.40	0.20	300
WL160808G22N□NT03	22	±5% or ±10%	12	100	16	27	34	40	41	1500	2700	0.40	0.20	300
WL160808G27N□NT03	27	±5% or ±10%	12	100	15	27	35	40	40	1400	2200	0.50	0.27	300
WL160808G33N□NT03	33	±5% or ±10%	12	100	15	24	31	34	33	1200	1700	0.50	0.31	300

High Frequency Inductors

High Frequency Inductors 1608 (0603)

Part Number	Inductance (nH)	Tolerance	Q. (min.)	Measuring Frequency (MHz)	Typical Q @ Frequency (MHz)					Self Resonant Frequency		DC Resistance		Rated Current (mA)
					100	300	500	800	1000	Min(MHz).	Typ.(MHz)	Max (Ω).	Typ.(Ω)	
WL160808G39N□NT03	39	±5% or ±10%	12	100	13	22	27	26	21	1100	1500	0.60	0.38	300
WL160808G47N□NT03	47	±5% or ±10%	12	100	14	23	28	26	19	900	1450	0.60	0.38	300
WL160808G56N□NT03	56	±5% or ±10%	12	100	15	24	28	23	14	800	1300	0.60	0.40	300

High Frequency Inductors 1608 (0603) – High Q

Part Number	Inductance (nH)	Tolerance	Q. (min.)	Measuring Frequency (MHz)	Typical Q @ Frequency (MHz)					Self Resonant Frequency		RC Resistance		Rated Current (mA)
					100	300	500	800	1000	Min (MHz).	Typ (MHz)	Max (Ω)	Typ..(Ω)	
WL1608G10NJQT03	10	± 5%	12	100	15	27	35	44	48	3000	4500	0.30	0.15	300

High Frequency Inductors 1005 (0402)

Part Number	Inductance (nH)	Tolerance	Q. (min.)	Measuring Frequency (MHz)	Typical Q @ Frequency (MHz)					Self Resonant Frequency		DC Resistance		Rated Current (mA)
					100	300	800	1000	1800	Min (MHz).	Typ. (MHz)	Max (Ω).	Typ(Ω)	
WL100505G1N0SNT03	1.0	± 0.3nH	8	100	10	20	34	40	59	10000	>13000	0.10	0.04	300
WL100505G1N2SNT03	1.2	± 0.3nH	8	100	10	19	32	37	55	10000	>13000	0.10	0.04	300
WL100505G1N5SNT03	1.5	± 0.3nH	8	100	11	20	34	40	60	9000	>13000	0.10	0.06	300
WL100505G1N8SNT03	1.8	± 0.3nH	8	100	11	22	38	44	66	7500	10000	0.11	0.07	300
WL100505G2N2SNT03	2.2	± 0.3nH	8	100	11	20	36	41	61	6800	9000	0.11	0.08	300
WL100505G2N7SNT03	2.7	± 0.3nH	8	100	11	21	37	42	64	6200	8000	0.12	0.09	300
WL100505G3N3□NT03	3.3	± 0.3nH or 10%	8	100	11	19	33	38	54	6000	7000	0.13	0.10	300
WL100505G3N9□NT03	3.9	± 0.3nH or 10%	8	100	11	20	34	39	55	5800	6500	0.15	0.11	300
WL100505G4N7□NT03	4.7	± 0.3nH or 10%	8	100	10	17	31	37	46	4200	6000	0.20	0.13	300
WL100505G5N6□NT03	5.6	±5% or ±10%	8	100	12	21	37	42	54	4000	5000	0.25	0.15	300
WL100505G6N8□NT03	6.8	±5% or ±10%	8	100	10	17	29	33	42	4000	4500	0.30	0.16	250
WL100505G8N2□NT03	8.2	±5% or ±10%	8	100	12	20	35	37	48	3600	4000	0.35	0.18	250
WL100505G10N□NT03	10	±5% or ±10%	8	100	12	22	37	41	54	3100	3500	0.40	0.24	250
WL100505G12N□NT03	12	±5% or ±10%	8	100	12	21	35	39	46	2600	3000	0.45	0.26	250
WL100505G15N□NT03	15	±5% or ±10%	8	100	11	20	32	35	36	2400	2800	0.50	0.29	250
WL100505G18N□NT02	18	±5% or ±10%	8	100	11	18	29	32	31	2100	2600	0.60	0.33	200
WL100505G22N□NT02	22	±5% or ±10%	8	100	10	17	25	25	12	1900	2300	0.70	0.37	200
WL100505G27N□NT02	27	±5% or ±10%	8	100	10	16	23	24	12	1700	2000	0.80	0.43	200
WL100505G33N□NT02	33	±5% or ±10%	8	100	10	14	24	24	10	1200	1800	0.90	0.43	200
WL100505G39N□NT02	39	±5% or ±10%	8	100	10	16	21	20	-	1000	1600	1.00	0.45	150
WL100505G47N□NT02	47	±5% or ±10%	8	100	10	16	19	17	-	900	1400	1.10	0.56	150
WL100505G56N□NT02	56	±5% or ±10%	8	100	10	16	19	17	-	800	1200	1.20	0.63	150

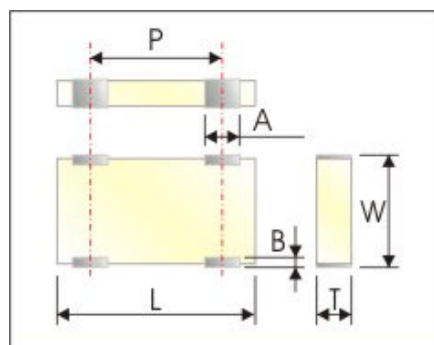
High Frequency Devices - Common Mode Filter 3216 (H Type)

How to Order

RF	CMF	321609	0	M	0	T
Walsin	Product Code	Dimension code	Unit of dimension	Application	Specification	Packing
RF Device	CMF:Common Mode Filter	321609= Length= 32, Width= 16 Thickness= 095	0 : 0.1 mm 1 : 1.0 mm	M: USB 2.0 / IEEE1394	Code from 0 ~ 9 dependent on different electrical specification	T: 7" Reeled G: 10" Reeled B: Bulk X: SFC product

Dimensions (H Type)

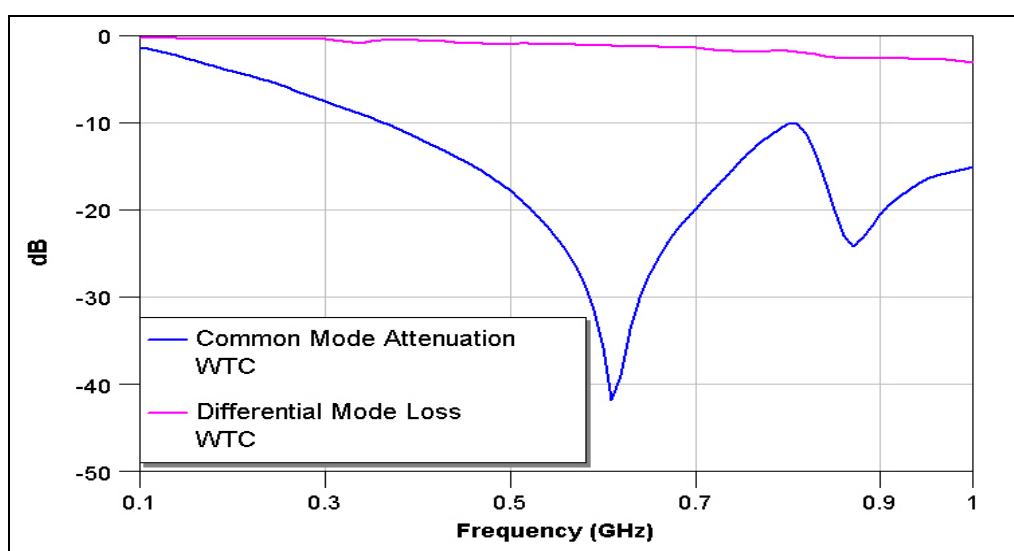
Symbol	Dimension
L	3.20 ± 0.20 mm
W	1.60 ± 0.20 mm
T	0.95 ± 0.20 mm
P	2.10 ± 0.20 mm
a	0.70 ± 0.20 mm
b	0.30 ± 0.20 mm



RFCMF3216090M0x Series

Item	Specification
Common Mode Attenuation	Min. 10 dB @ 400MHz ~ 480MHz
Differential Mode Insertion Loss	Max. 1dB @ 400MHz ~ 480MHz
DC Resistance	Max. 1.5 Ω
Rated Current	200 mA
Operating Temperature	- 40 °C ~ +85 °C

Typical Electrical Characteristics:

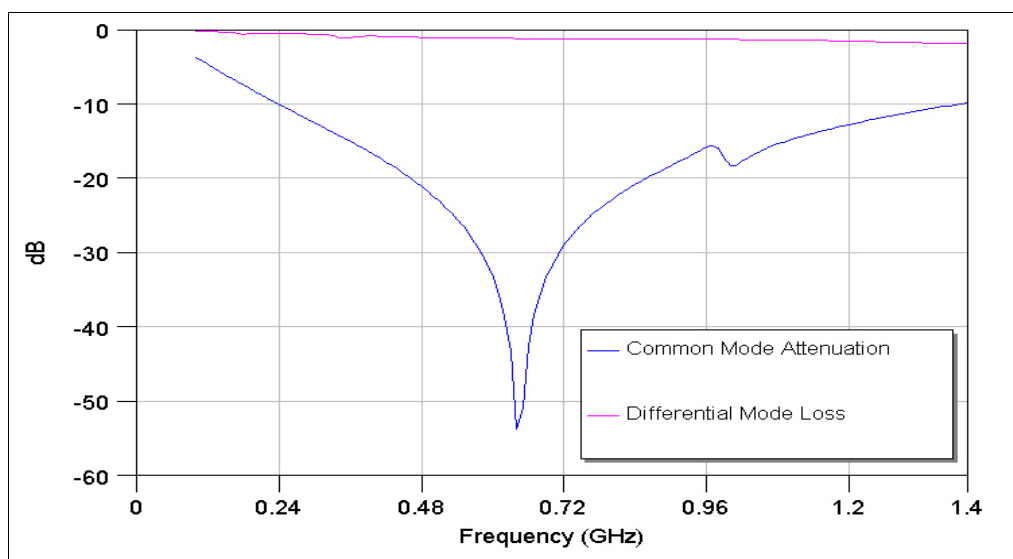


High Frequency Devices - Common Mode Filter 3216 (H Type)

■ RFCMF3216090M1x Series

Item	Specification
Common Mode Attenuation	Min. 10 dB @ 250MHz ~ 1.2GHz
Differential Mode Insertion Loss	Max. 1.5 dB @ 100MHz ~ 1.2GHz
DC Resistance	Max. 1.5 Ω
Rated Current	200 mA
Operating Temperature	- 40 °C ~ +85 °C

■ Typical Electrical Characteristics:



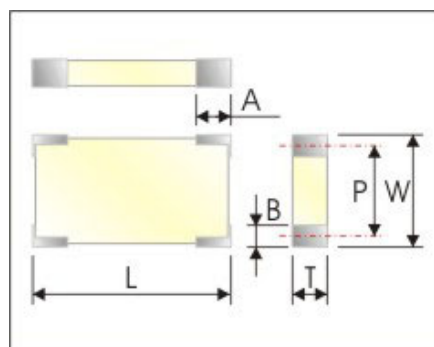
High Frequency Devices - Common Mode Filter 1632 (V Type)

How to Order

RF	CMF	163209	0	M	0	T
Walsin	Product Code	Dimension code	Unit of dimension	Application	Specification	Packing
RF Device	CMF:Common Mode Filter	163209 = Length =16 Width= 32 Thickness= 095	0 : 0.1 mm 1 : 1.0 mm	M: USB 2.0 / IEEE1394	Code from 0 ~ 9 dependent on different electrical specification	T: 7"Reeled G: 10"Reeled B: Bulk X: SFC product

Dimensions (V Type)

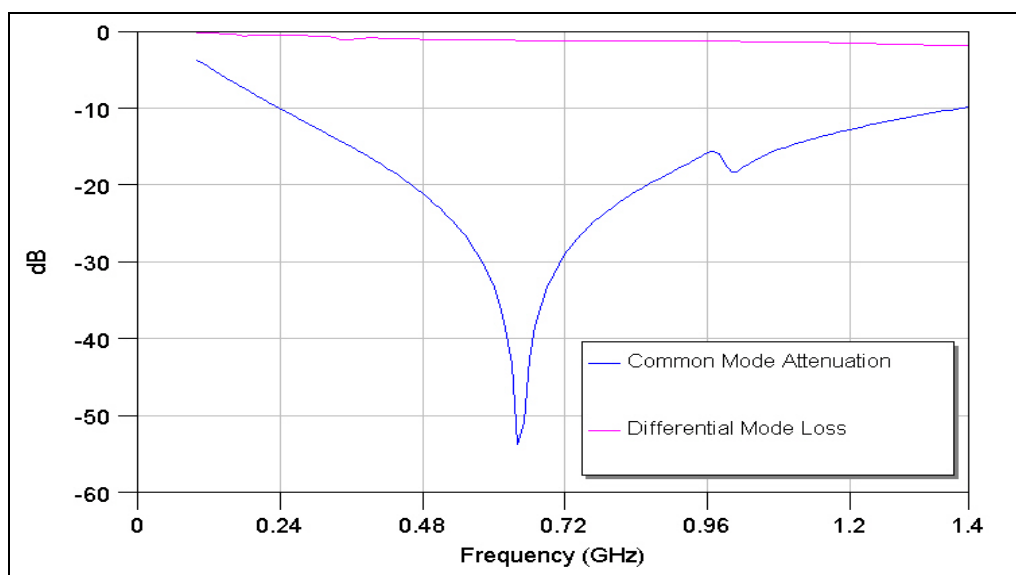
Symbol	Dimension
L	3.20 ± 0.20 mm
W	1.60 ± 0.20 mm
T	0.95 ± 0.20 mm
P	1.1 ± 0.20 mm
a	0.6 ± 0.20 mm
b	0.5 ± 0.20 mm



RFCMF1632090M1x Series

Item	Specification
Common Mode Attenuation	Min. 8 dB @ 240MHz ~ 1.2GHz
Differential Mode Insertion Loss	Max. 2 dB @ 100MHz ~ 1.2GHz
DC Resistance	Max. 1.5 Ω
Rated Current	200 mA
Operating Temperature	- 40 °C ~ +85 °C

Typical Electrical Characteristics:



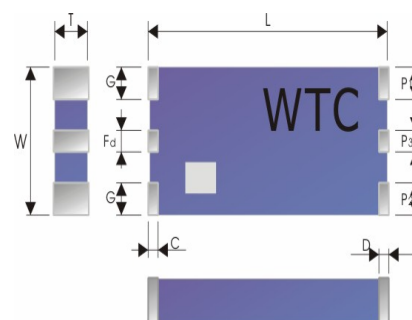
High Frequency Devices - Chip Antenna 7635

How to Order

RF	ANT	763511	0	A	1	T
Walsin	Product code	Dimension code	Unit of dimension	Application	Specification	Packing
RF device	ANT : Antenna	763511 = Length = 76 Width = 35 Thickness = 11	0: 0.1 mm 1: 1.0 mm	A: 2.4GHz ISM Band B: GSM 900/1800 Dual Band C: GSM 900 D: GSM 1800 E: GPS F: W-CDMA G: PHS	Code from 0 ~ 9 dependent on different electrical specification	T: 7" Reeled G: 10" Reeled B: Bulk X: SFC product

Dimensions and Terminal configuration (unit : mm)

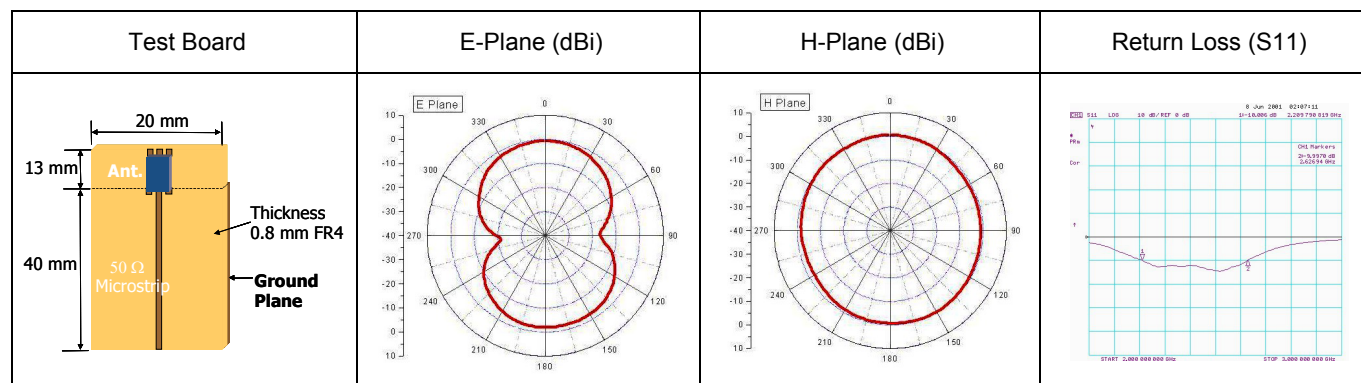
Dimension	Port definition	Dimension	Port definition
L	7.60 ± 0.30	C	0.50 ± 0.20
W	3.50 ± 0.20	D	0.50 ± 0.20
T	1.10 ± 0.10	P ₁	0.80 ± 0.20 Solder termination
Fd	0.50 ± 0.20 Feed termination	P ₂	0.80 ± 0.20 Solder termination
G	0.80 ± 0.20 Ground termination	P ₃	0.50 ± 0.10 Solder termination



RFANT7635110A1x Series

Item	Specification
Central frequency	2.450 GHz
Bandwidth	380 MHz (Typical value)
Gain	0 ~ 2 dBi
VSWR	2 max.
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Impedance	50Ω
Rated Power (max.)	5 Watts
Maximum Input Power	10 Watts for 5 minutes

Typical Electrical Characteristics:



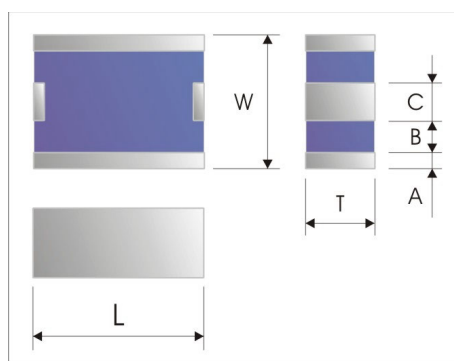
High Frequency Devices - Band Pass Filter 3225

How to Order

RF	BPF	322515	0	A	0	T
Walsin	Product Code	Dimension code	Unit of dimension	Application	Specification	Packing
RF device	BPF : Band Pass Filter	322515 = Length = 32 Width = 25 Thickness = 15	0: 0.1 mm 1: 1.0 mm	A: 2.4GHz ISM Band B: B:GSM 900/1800 Dual Band C: GSM 900 D: GSM 1800 E: GPS F: W-CDMA G: PHS	Code from 0 ~ 9 dependent on different electrical specification	T: 7" Reeled G: 10" Reeled B: Bulk X: SFC product

Dimensions

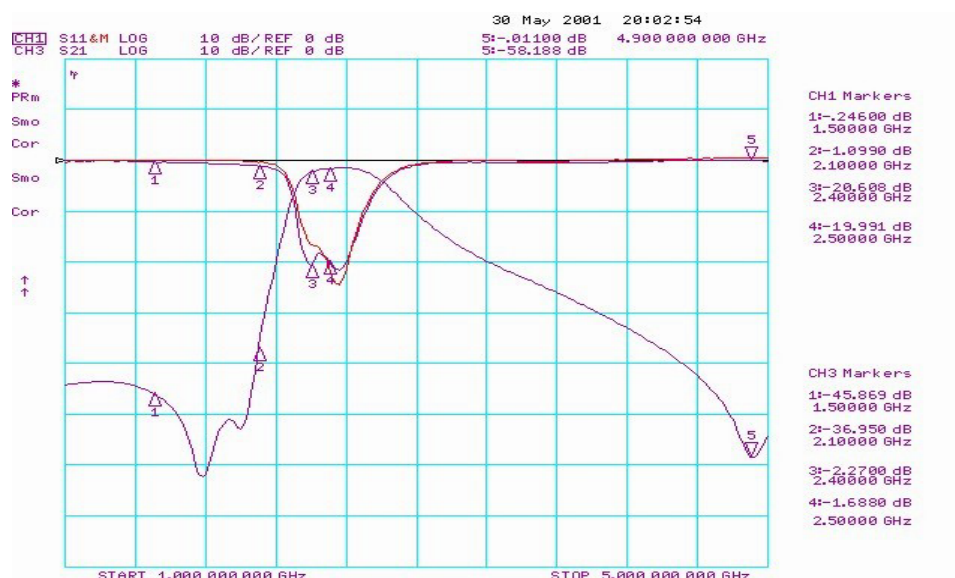
Symbol	Dimension
L	3.20 ± 0.20 mm
W	2.50 ± 0.20 mm
T	1.50 ± 0.10 mm
A	0.40 ± 0.20 mm
B	0.70 ± 0.20 mm
C	0.60 ± 0.20 mm



RFBPF3225150A0x Series

Item	Specification
Frequency range (MHz)	2450 ± 50 MHz
Insertion Loss	2.5 dB (max)
VSWR	1.7
Ripple	0.6 dB
Attenuation (min.)	40 dB @ 1500 MHz ~ 1550 MHz 45 dB @ 1800 MHz ~ 1900 MHz 30 dB @ 2100 MHz 15 dB @ 2200 MHz 30 dB @ 4800 ~ 5000 MHz

Type Electrical Characteristics:



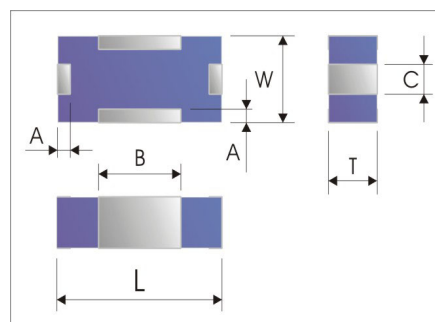
High Frequency Devices - Low Pass Filter 3216

How to Order

RF	LPF	321609	0	A	0	T
Walsin	Product Code	Dimension code	Unit of dimension	Application	Specification	Packing
RF device	LPF : Low Pass Filter	321609 = Length= 32 Width= 16 Thickness= 09	0 : 0.1 mm 1 : 1.0 mm	A : 2.4GHz ISM Band B : GSM 900/1800 Dual Band C : GSM 900 D : GSM 1800 E : GPS F : W-CDMA G : PHS	Code from 0 ~ 9 dependent on different electrical specification	T: 7" Reeled G: 13" Reeled B: Bulk X: SFC product

Dimensions

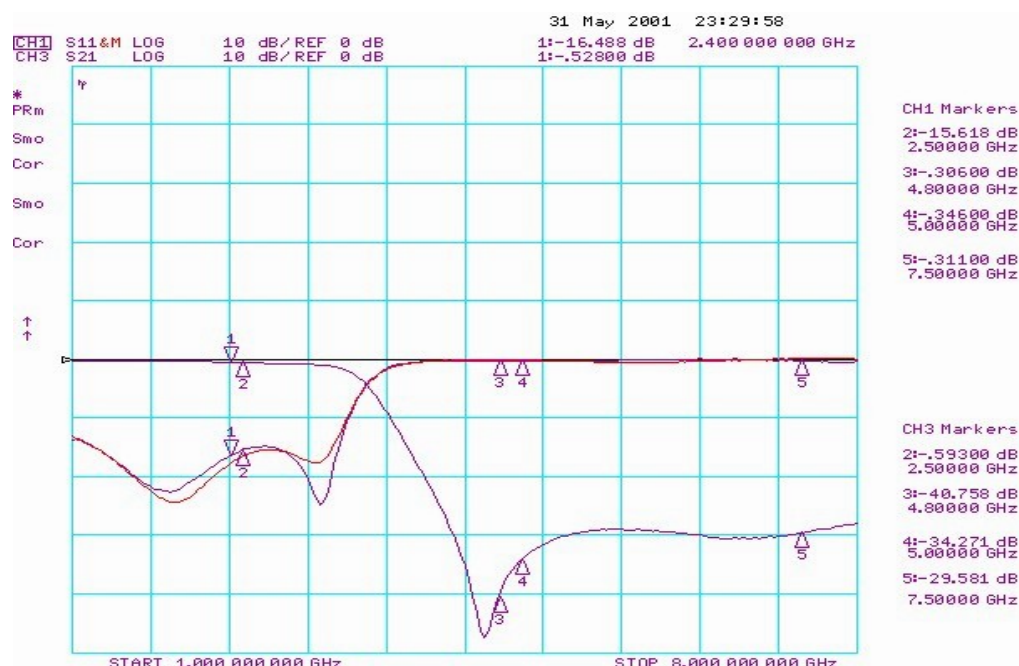
Symbol	Dimension
L	3.20 ± 0.10 mm
W	1.60 ± 0.10 mm
T	0.95 ± 0.10 mm
A	0.25 ± 0.10 mm
B	1.50 ± 0.10 mm
C	0.55 ± 0.10 mm
D	0.2 ± 0.15mm



RFLPF3216090A1x Series

Item	Specification
Frequency range (MHz)	2450 ± 50 MHz
Insertion Loss (dB)	0.6 (max)
VSWR	1.5
Attenuation (dB min.)	30 @ 2 x (f0 ± BW/2) 25 @ 3 x (f0 ± BW/2)

Typical Electrical Characteristics:



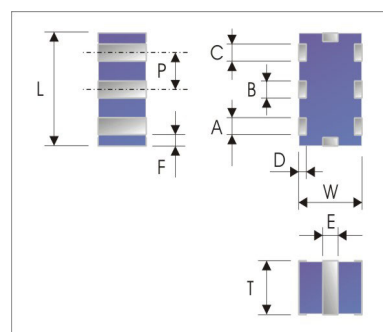
High Frequency Devices - Low Pass Filter 2012

How to Order

RF	LPF	201211	0	A	0	T
Walsin	Product Code	Dimension code	Unit of dimension	Application	Specification	Packing
RF device	LPF : Low Pass Filter	201211 = Length= 20 Width =12 Thickness= 11	0 : 0.1 mm 1 : 1.0 mm	A: 2.4GHZ ISM Band B: GSM 900/1800 Dual Band C: GSM 900 D: GSM 1800 E: GPS F: W-CDMA G: PHS	Code from 0 ~ 9 dependent on different electrical specification	T: 7" Reeled G: 13" Reeled B: Bulk X: SFC product

Dimensions

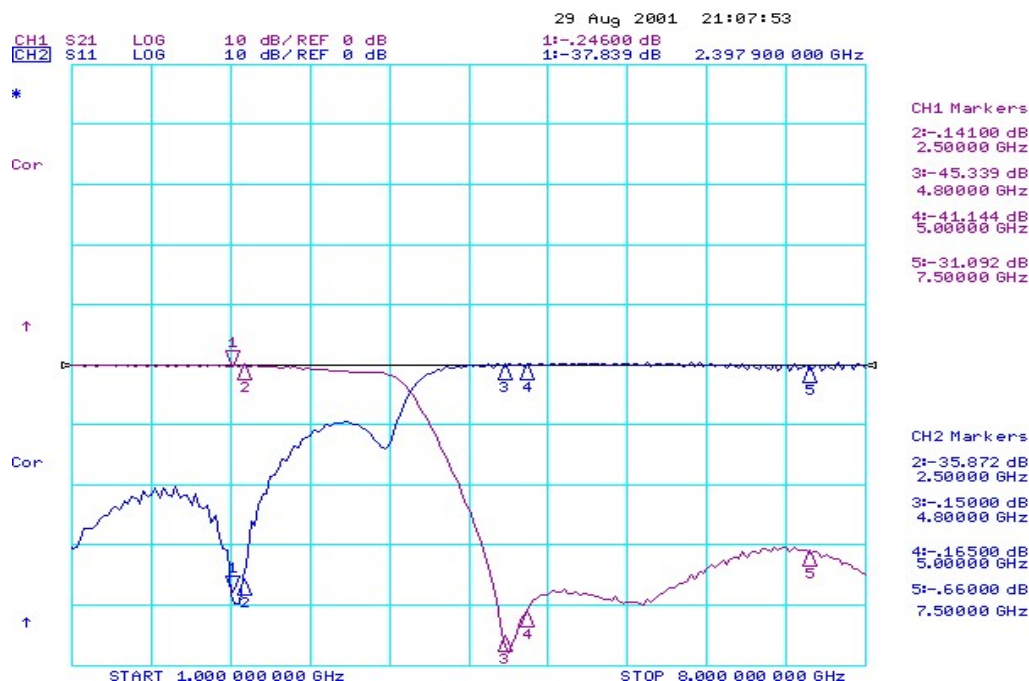
Symbol	Dimension	Symbol	Dimension
L	2.00 ± 0.15 mm	C	0.30 ± 0.10 mm
W	1.25 ± 0.10 mm	D	0.30 + 0.10 / -0.20 mm
T	1.05 ± 0.10 mm	E	0.30 ± 0.10 mm
A	0.30 ± 0.10 mm	F	0.20 ± 0.10 mm
B	0.30 ± 0.10 mm	P	0.65 ± 0.10 mm



RFLPF2012110A0x Series

Item	Specification
Frequency range (MHz)	2450 ± 50 MHz
Insertion Loss (dB)	0.7 (max)
VSWR	1.5
Attenuation (dB min.)	35 @2×(f ₀ ±BW/2) 30 @3×(f ₀ ±BW/2)

Typical Electrical Characteristics:



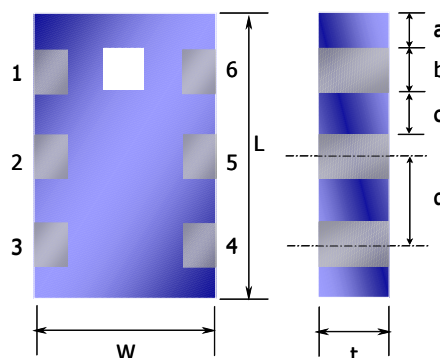
High Frequency Devices - Balun 2012

How to Order

RF	BLN	201209	0	A	x	T
Walsin	Product Code	Dimension code	Unit of dimension	Application	Specification	Packing
RF device	BLN : BALUN	201209 = Length= 20 Width= 12 Thickness =09	0: 0.1 mm 1: 1.0 mm	A: 2.4GHZ ISM Band B: GSM 900/1800 Dual Band C: GSM 900 D: GSM 1800 E: GPS F: W-CDMA G: PHS	Code X from 0 ~ 9 dependent on different Balanced port impedance specification X = 0: 50 / 50 X = 1: 50 / 100 X = 2: 50 / 200	T : 7" Reeled G : 13" Reeled B : Bulk X : SFC product

Dimensions and Terminal Configuration

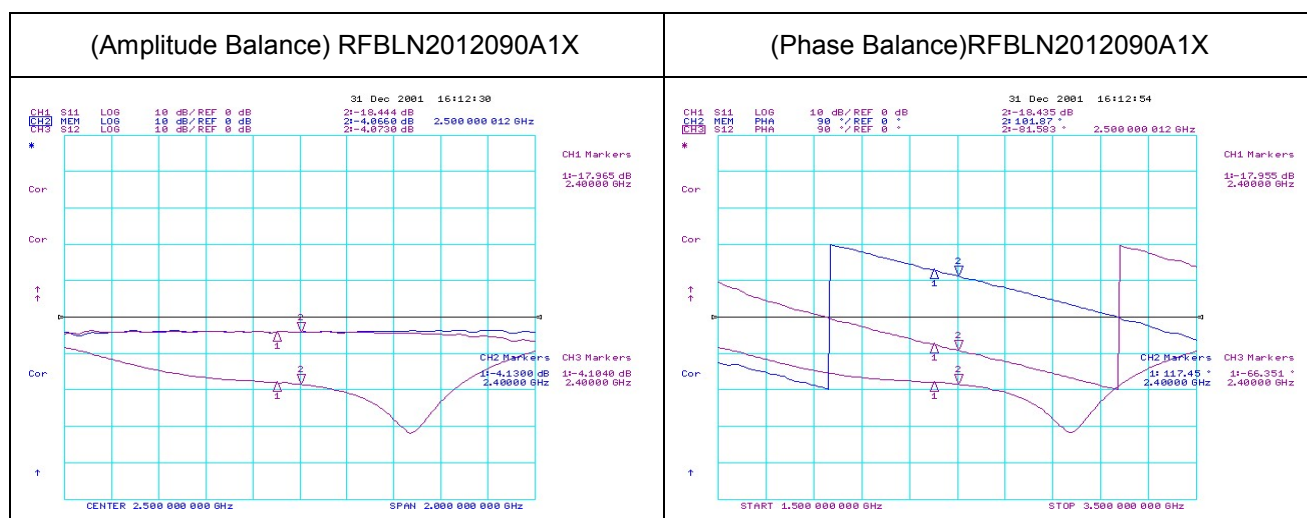
Symbol	Dimension	Terminals	Connection
L	2.00 ± 0.15 mm	1	Unbalanced port
W	1.25 ± 0.15 mm	2	Ground or DC feed
T	0.95 ± 0.10 mm	3	Balanced port
A	0.20 ± 0.20 mm	4	Balanced port
B	0.30 ± 0.20 mm	5	Ground
C	0.35 ± 0.20 mm	6	Non Connection
D	0.65 ± 0.20 mm	-	-



RFBLN2012090Axx Series

Part Number.	Frequency (MHz)	Impedance (Ω)		Return Loss (dB) Min.	Inband Amplitude imbalance (dB) Max.	Inband Phase imbalance (degree)	Insertion Loss (dB)
		Unbalanced	Balanced				
RFBLN2012090A0x	2450 ± 50	50	50	10	2.0	180 ± 10	1.2
RFBLN2012090A1x	2450 ± 50	50	100	10	2.0	180 ± 10	1.0
RFBLN2012090A2x	2450 ± 50	50	200	10	2.0	180 ± 10	1.0

Typical Electrical Characteristics:



Remark: Microstrip line loss -0.6 dB should be taken into account on balance output -4.1 dB