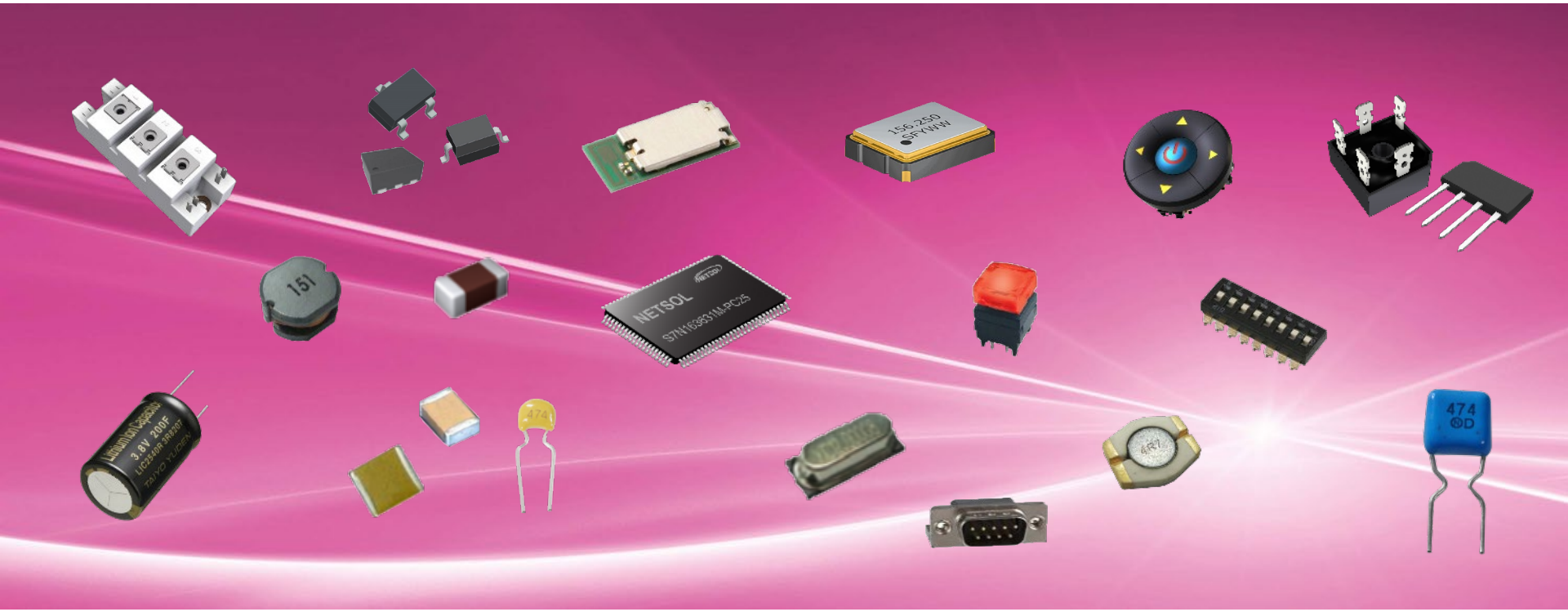
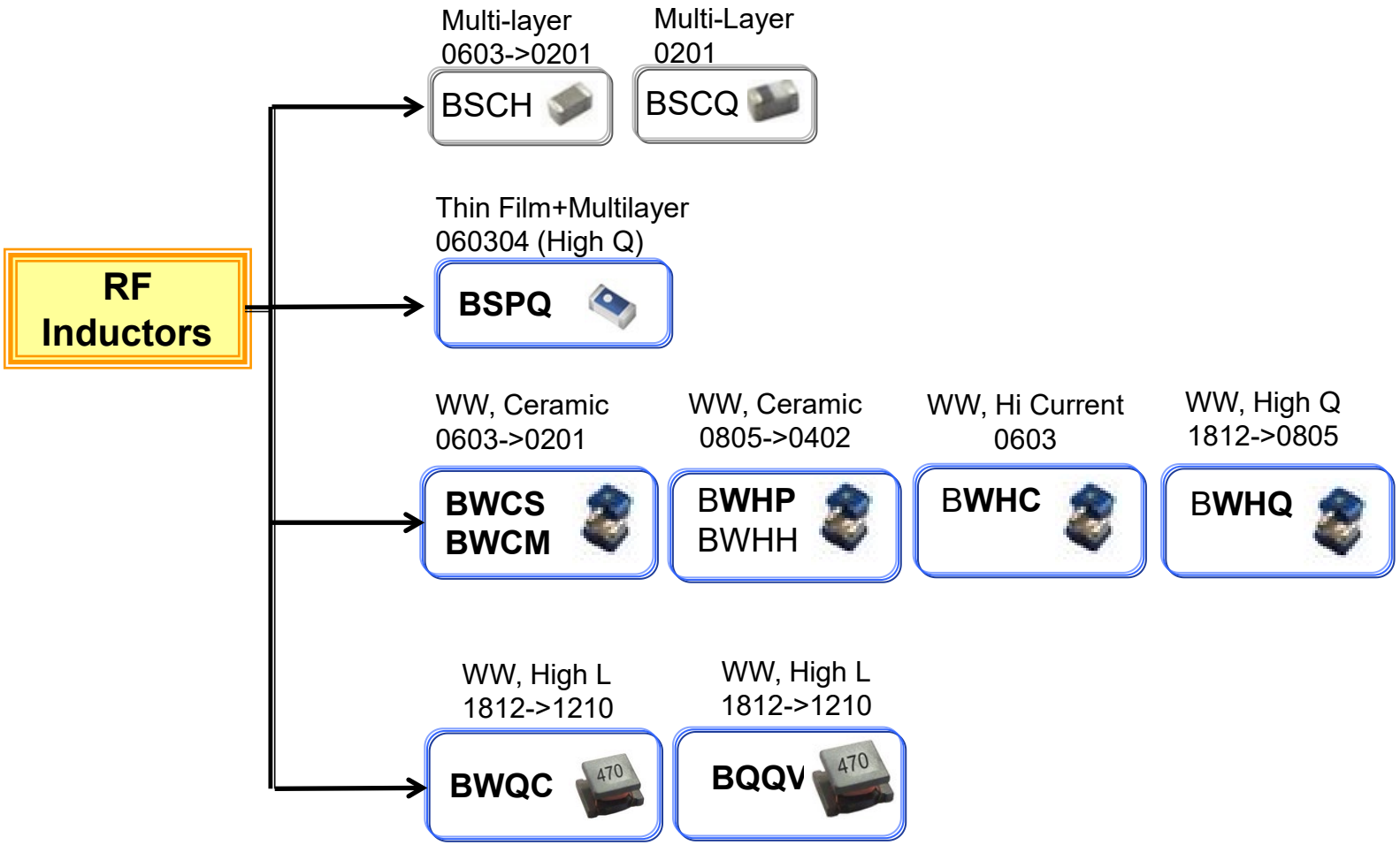
RF Inductor



Chilisin

15.10.2020

RF Inductors



BWCS Series – Ceramic RF Inductors

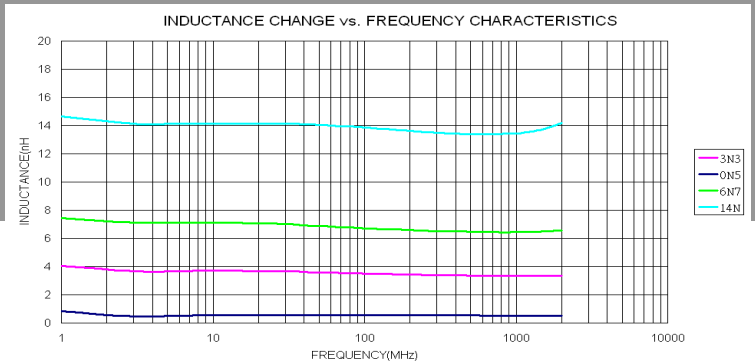
Features:

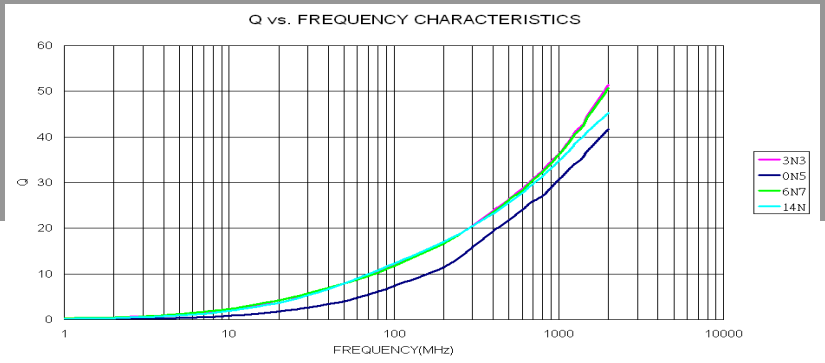
- Wire Wound + Ceramic structure
- High SRF and High Q at high frequency
- Ceramic body ensures high thermal stability
- Miniature Size, as small as 0603/0201
- Operating temperature -40C to 125C

Applications:

- Cellular Phone
- RF Module
- Base station, Repeater
- Wireless LAN
- Remote control

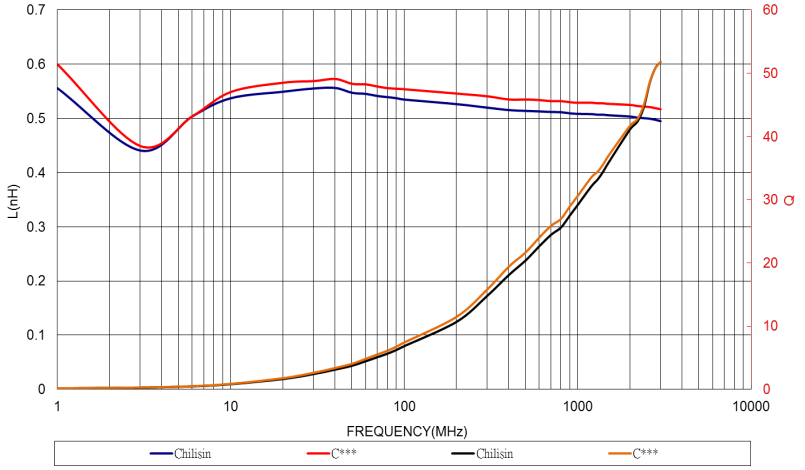
Part Number	Inductance (nH)		Tolerance (±%)	Q min	SRF (GHz) Typ.	Rdc (Ω) Max.	Irms (mA)Max.
BWCS000604040N5K00	0.5	@250MHz	K	4	23.5	0.020	1250
BWCS000604043N3K00	3.3	@250MHz	J / K	14	12.8	0.080	630
BWCS000604046N7K00	6.7	@250MHz	J / K	18	6.8	0.150	460
BWCS0006040414NK00	14.0	@250MHz	J / K	16	5.1	0.440	270



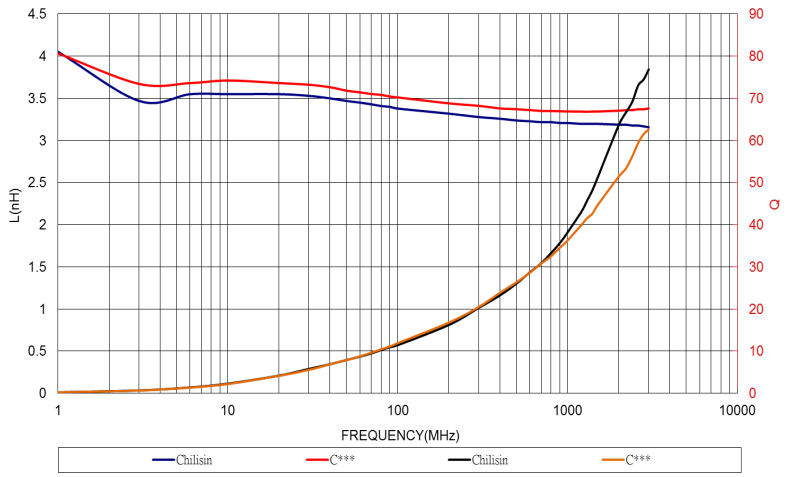


Performances Comparison

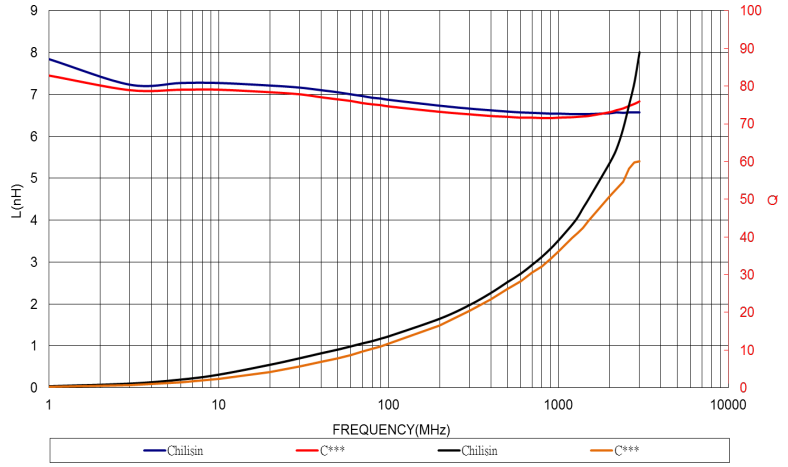
BWCS000604040N5K00 vs. 0201**-0N5*K



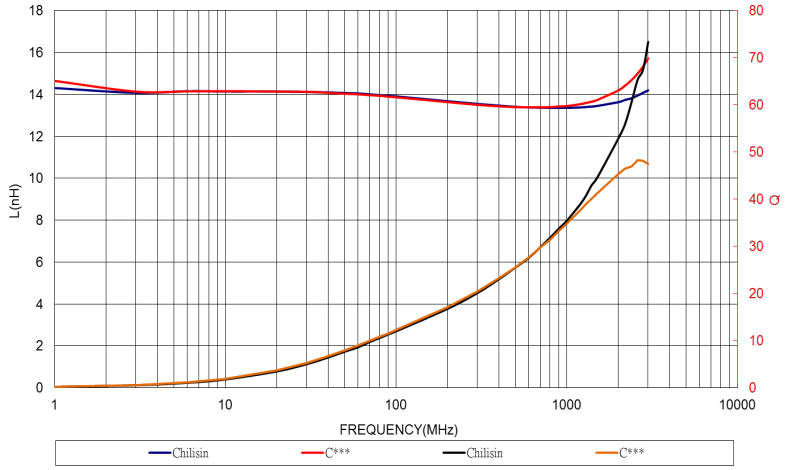
BWCS000604043N3K00 vs. 0201**-3N3*K



BWCS000604046N7K00 vs. 0201**-6N7*K



BWCS0006040414NK00 vs. 0201**-14N*K



BWLS Series – Ferrite RF Inductors

Features:
- Wire Wound + Open Ferrite structure
- **High Inductance in miniature size**
- As small as 0603/0201 size
- High SFR, Low RDC
- Superior Q factor than other Ferrite chip inductors
- Operating Temperature -25C to 105C

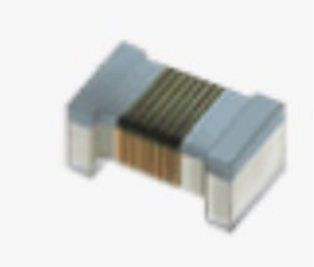
Applications:
- Band stop, LPF
- Cellular Phone
- Settop Box, cable modem
- CATV tuner,
- Wireless LAN

0.60x0.45x0.45mm
(LxWxH)

Electrical Characteristics

Part Number	Inductance (nH)		Tolerance (±%)	Q Min	SRF (GHz) Typ.	Rdc (Ω) Max.	Irms (mA)Max.
BWLS00060404R10J00	100	@100MHz	J / K	7	0.360	0.410	430
BWLS00060404R56J00	560	@25MHz	J / K	10	1.570	1.800	150

BWHM_100605



1.0x0.6x0.5mm

Sample 2019Q3

Available 2019Q4

Features:

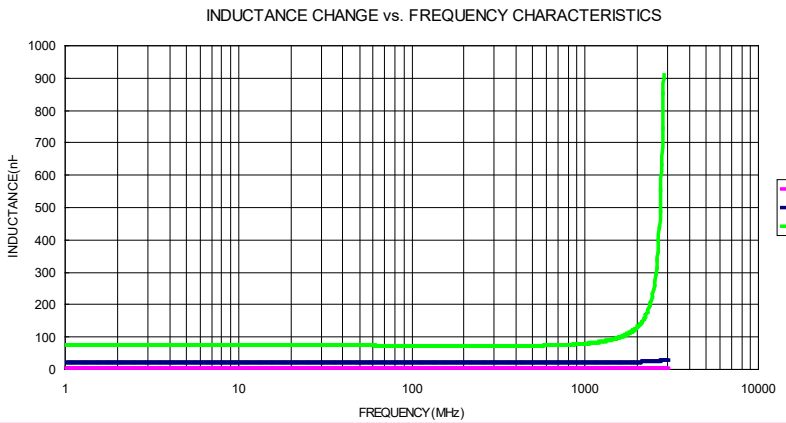
- Wire Wound + ceramic structure
- High Q factor
- High SRF

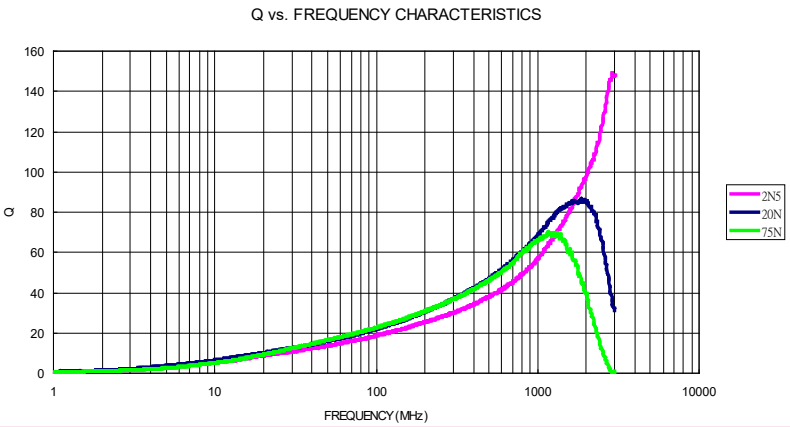
Application:

- Cellular Phone
- RF Module
- Filter

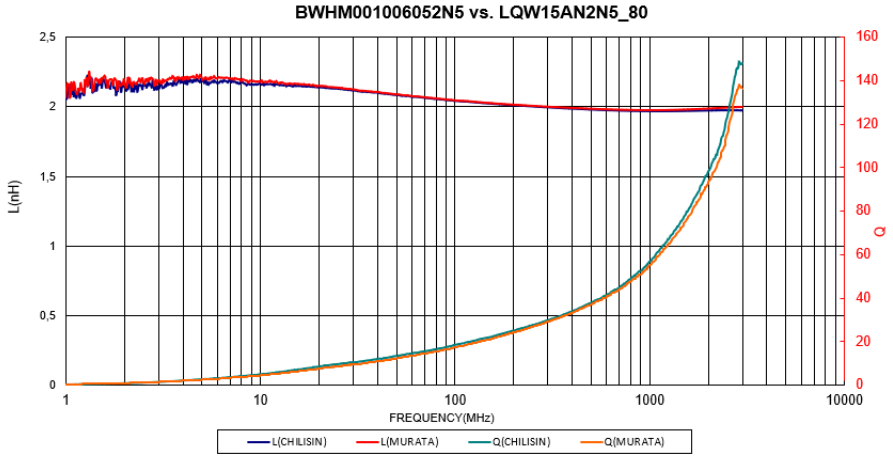
Electrical Characteristics

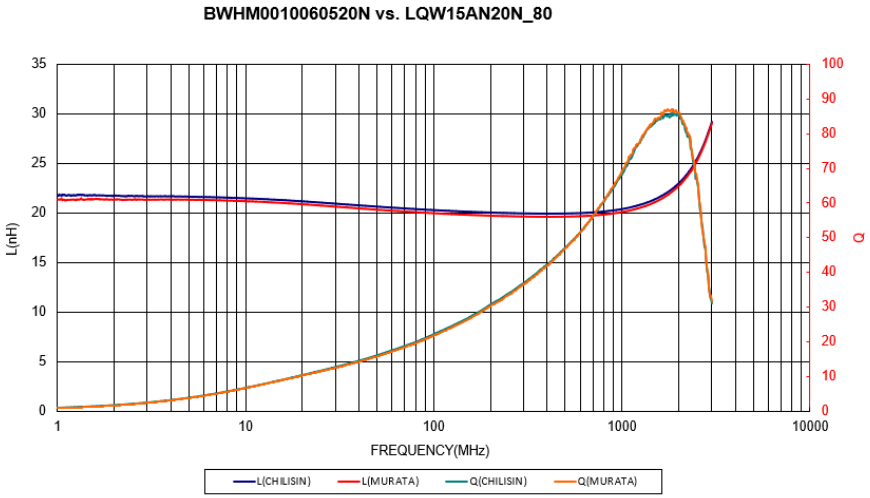
Part Number	Inductance (nH)		Tolerance (±%)	Q Min.		SRF (GHz) Min.	Rdc (Ω) Max.	Irms (mA)Typ.
BWHM001006052N5GH8	2.5	@100MHz	B,C,D,G	30	@250MHz	15.5	0.030	2100
BWHM0010060520NGH8	20	@100MHz	G / J	30	@250MHz	4.5	0.186	800
BWHM0010060575NGH8	75	@100MHz	G / J	25	@200MHz	2.4	1.224	320

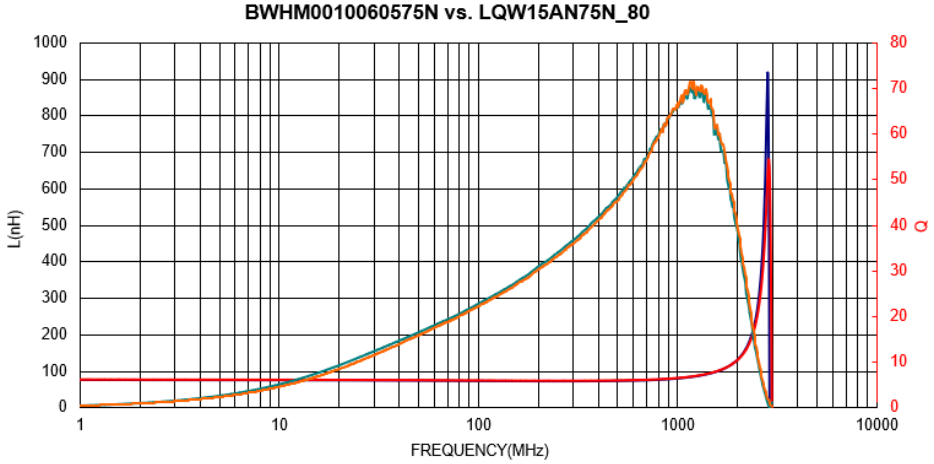




Performance Comparisons







BSPQ Series - High Q RF Inductors

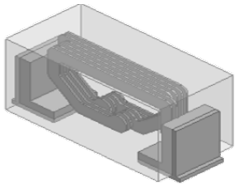
New

Features:

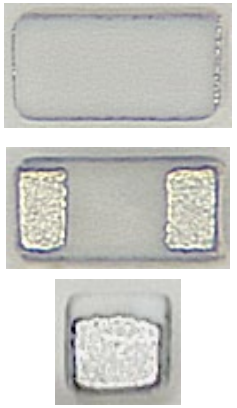
- Thin Film + Multi-layer Technology
- Optimized coil structure and L-Shape terminations
- Higher Q >20 @ 500MHz
- Lower RDC
- Miniature size at 0.6*0.3*0.3mm

Applications:

- Resonator
- RF Filter
- RF Matching Network



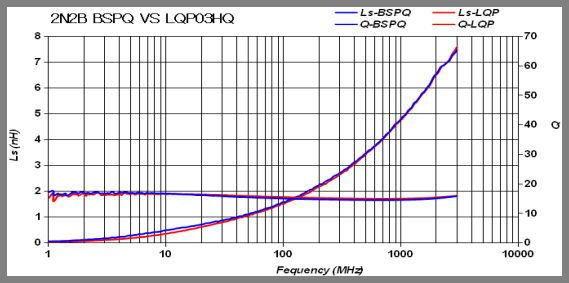
0.6x0.3x0.3mm



High Q RF Inductor

	Q @ 500MHz		SRF [MHz]		RDC [ohm]		Rated current [mA]	
L	LQP03HQ	**BSPQ060304**	LQP03HQ	**BSPQ060304**	LQP03HQ	**BSPQ060304**	LQP03HQ	**BSPQ060304**
[nH]	Min	**Min**	Min	**Min**	Max	**Max**	Max	**Max**
2.2	20	**20**	9000	**9000**	0.12	**0.12**	600	**600**
3.3	20	**20**	7000	**7000**	0.17	**0.17**	500	**500**
5.1	20	**20**	5500	**5500**	0.25	**0.25**	400	**400**

BSPQ000603042N2B00



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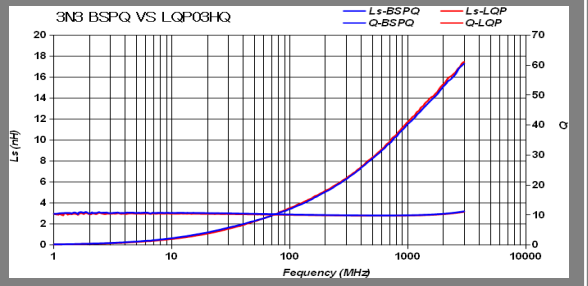

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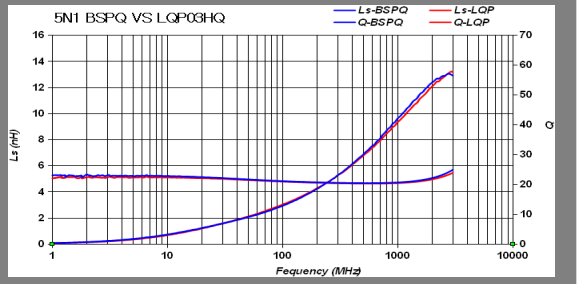
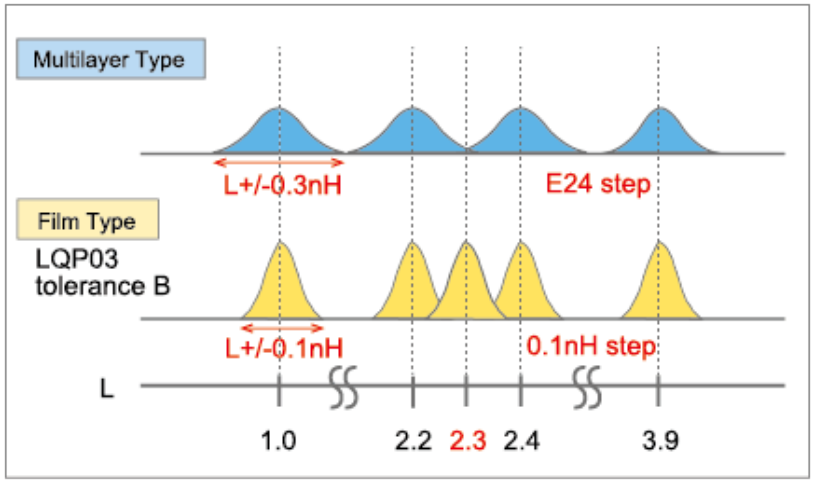
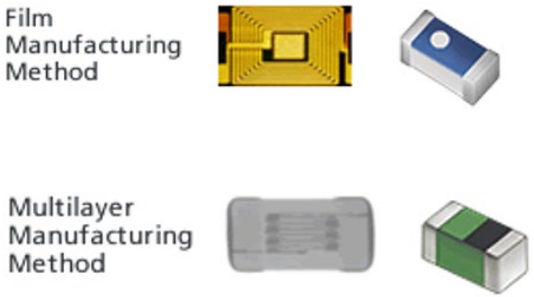


Benefits of Thin Film RF Inductors

- **Benefits**
  - High Q
  - High SRF
  - Tight inductance Tolerances
  - Small sizes





RF Inductor Cross References

Size (Inch)	Chilisin	Coilcraft	Murata	Vishay
1008	BWCS00292821	1008CS		IMC-1008-01
	BWHQ00302821	1008HQ		
0805	BWCS00231715	0805CS		IMC-0805-01
	BWHQ00231816	0805HQ		
	BWCT00231711	0805HT		
0603	BWCS00161008	0603CS		
	BWHC00181210	0603HC		
	BWHP00161008	0603HP		
	BWCM00161008		LQW18AN_00	
	BWPM00161108		LQW18AN_10	
0402	BWCS00120707	0402CS		
	BWHP00110706	0402HP		
	BWCM00110605		LQW15AN_00	
	BWHM00100605		LQW15AN_80	
0302	BWCM00080404		LQW04AN_00	
0201	BWCS00060404	0201DS		
	BWHQ00070505			
0201	BSPQ00060304		LQP03HQ	
0201	BSCQ/BSCH00060303		LQP03TN	

Your contact person for RF Inductor

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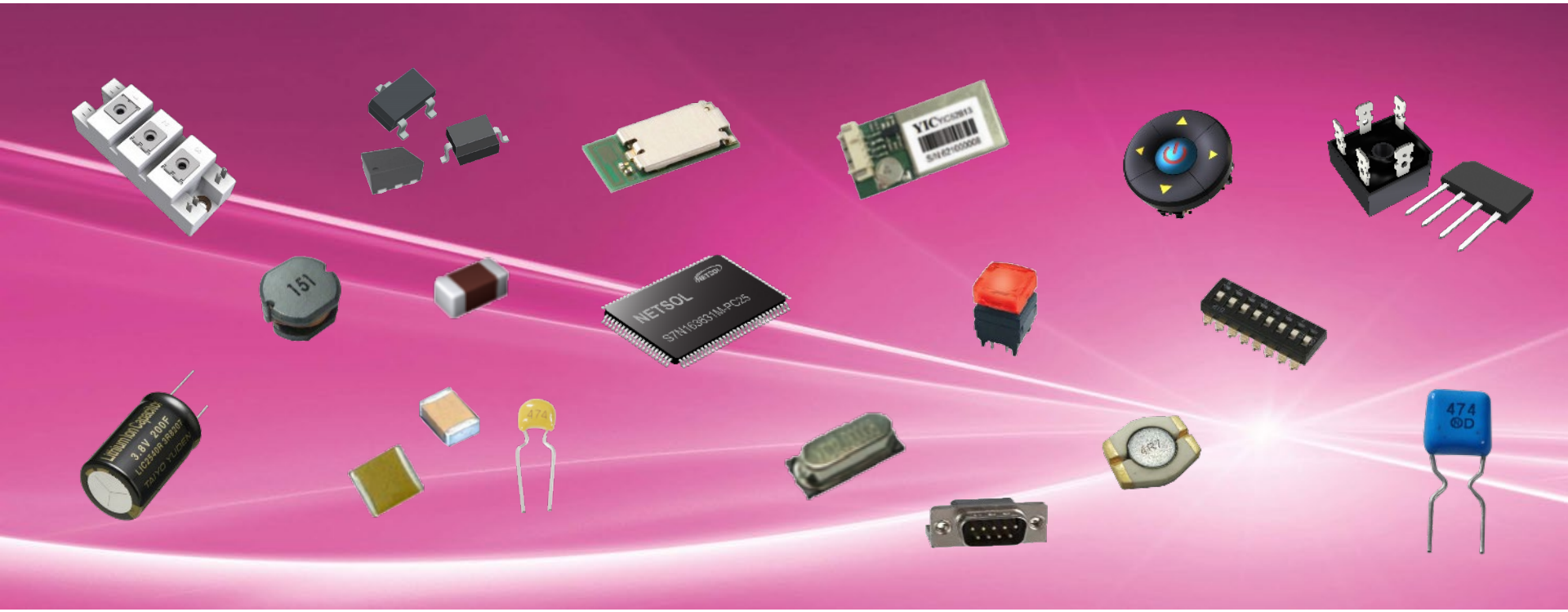
Thank You !



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