PSA 佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

INDUCTOR PRODUCT

www.inpaq.com.tw ; www.inpaqgp.com

CONTENTS

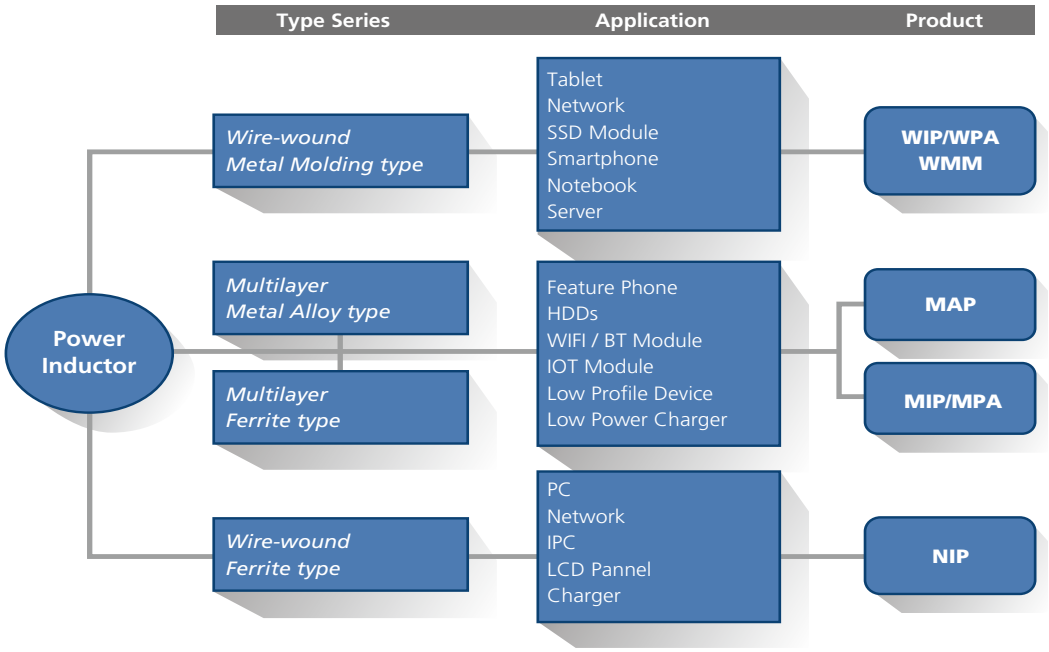
AEC-Q200 Compliance

INDUCTORS

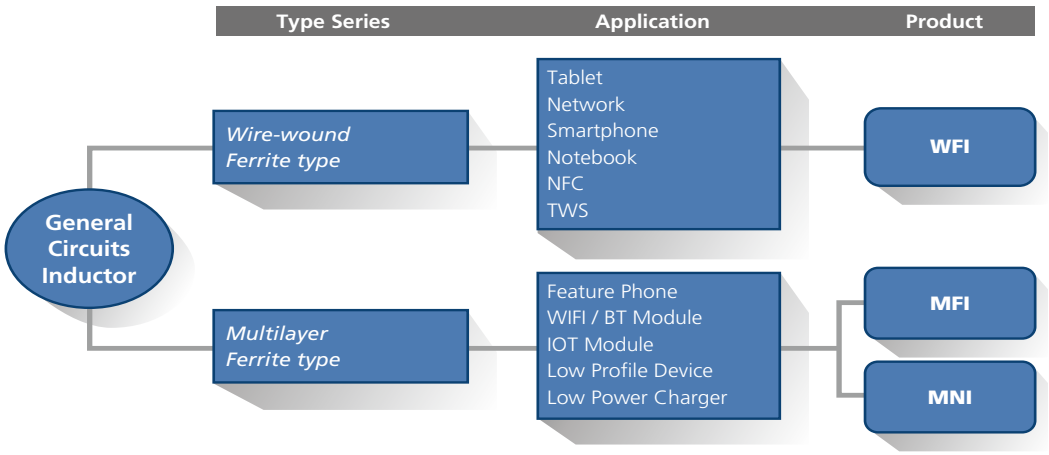
INPAQ's power inductors own multiple process technique, such as Metal molding, Ferrite Multilayer, and Wire-wound types. Besides multiple processes, INPAQ also has optimally design ability to realize the small size and high performance inductors.

Structure		Series	Description
Wire wound	Metal Molding	WIP WPA WMM	This product can be used for a wide range of high current power circuits from smart phones to industrial electronics and automotive device applications. It is composed by metal alloy materials and manufacture by molding process.
	Ferrite Assembly	NIP	This product is characterized by its wide range of inductance. It is widely be used in DC-DC power supply circuits.
		WFI	This product is ferrite construction, It's high current and low resistance be used in NFC circuits.& General Circuits
	Ceramic Assembly	WCI	This product is wire wound type ceramic inductor. And our product provide high Q value. So INPAQ chip inductor can be SRF(self resonant frequency) industry. This can often eliminate the need for variable components in tuned circuits and oscillators.
Multilayer	Metal Alloy	MAP	This product is monolithic construction performs high reliability and ensures a closed magnetic flux in a component avoids magnetic leakage and interference .It's allow for higher mounting density and low DC resistance.
	Ferrite	MIP MPA	This product is characterized by small size and low profile, such as the 2520/2016/2012/1608 and the height can below to 0.5mm. It can be used for lower power circuits, such as wearable devices, IoT Module and automotive device applications. It is composed by ferrite materials and manufacture by multilayer printing process
		MNI	This product is response to large currents with newly-developed ferrite materials. Narrow tolerance response with high-accuracy multiple layers. Significant reductions of high- frequency loss due to the adoption of low-loss materials be used in NFC and power lines circuits for devices such as smartphones and Wearable devices.
		MFI	MFI series, the monolithic construction performs high reliability and ensures a closed magnetic flux in a component avoids magnetic and interference for RF and wireless communication.
	Ceramic	MCI	Particular ceramic material and coil structure provide high frequency application range up to 10GHz.

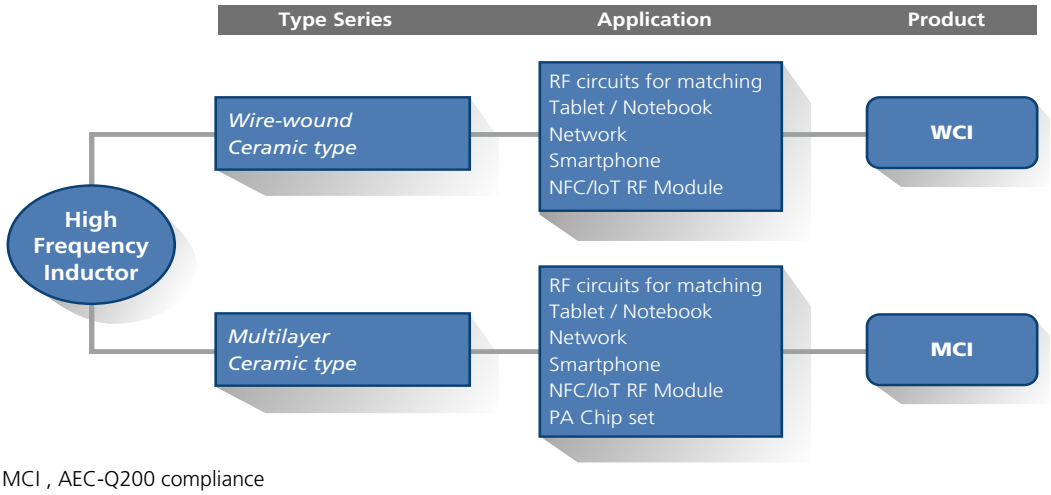
HF Halogen Free Pb lead-free RoHS



**WPA / MPA , AEC-Q200 compliance



Special apply for NFC Inductor



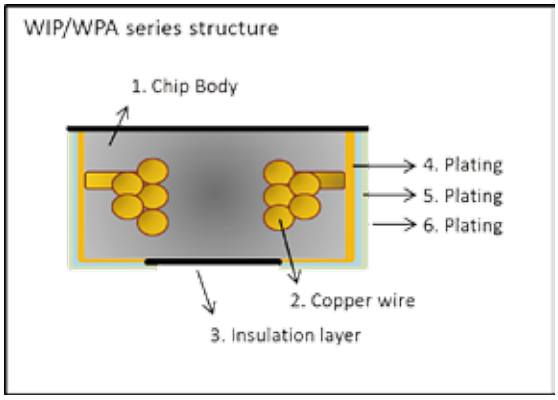
WCI / MCI , AEC-Q200 compliance

Sectional view for each product

HF Halogen Free Pb lead-free RoHS

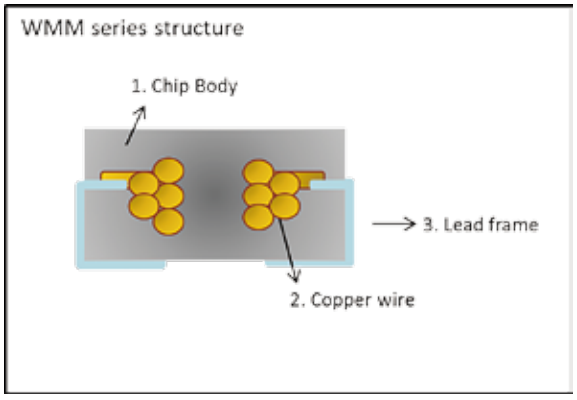
WIP/WPA series

These series inductors are made by winding coils and surrounding magnet around the coil.



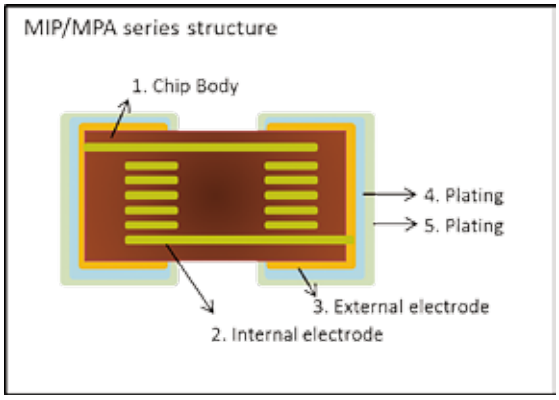
WMM series

These series inductors are made by winding coils and welding it on a lead-frame, then surrounding magnet around the coil.



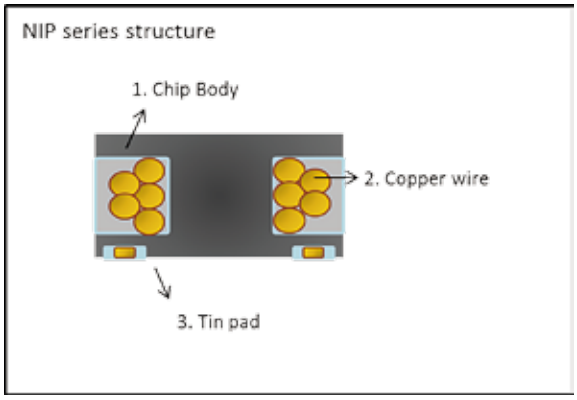
MIP/MPA series

These series inductors are made by printing electrodes on magnetic sheet and stacking sheets together.



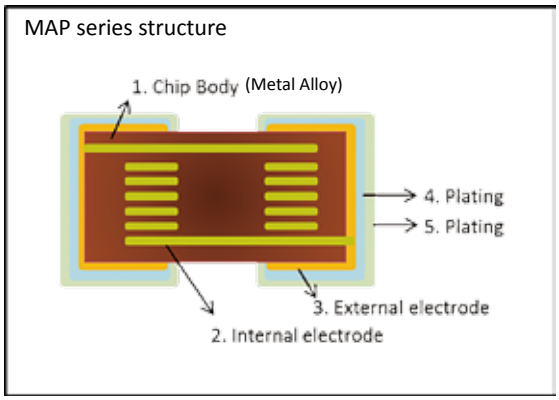
NIP series

These series inductors are made by winding coils on magnetic core.



MAP series

These series inductors are made by printing electrodes on magnetic sheet and stacking sheets together.



Product Guide Line

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PRODUCT GUIDELINE

Series	Structure	Inductance Range (μH)
		0.1 / 0.22 / 0.47 / 0.68 / 0.82 / 1.00 / 1.50 / 2.20 / 4.70 / 10.0 / 100.0
WIP2016P	Metal Molding	
WIP2520P		
WIP2016S		
WIP2520S		
WIP2012Y		
WIP2016Y		
WIP2520T		
WIP3225A		
WIP1412V		
WIP2012V		
WPA2016S		
WPA2520S		
WMM04		
WMM05		
WMM06		
WMM10		
MAP1005ST	Multilayer Type	
MAP1608FT		
MAP1608LT		
MAP1608TT		
MAP2012ST		
MAP2012LT		
MIP2012		
MIP2016		
MIP2520		
MIP2012W		
MIP2520W		
MIP1608P		
MIP2012P		
MIP2016P		
MPA2012		
MPA2016		
MPA2520		
MPA1608P		
MPA2012P		
MPA2016P		
NIP30	Wire-Wound	
NIP40		
NIP50		
NIP60		

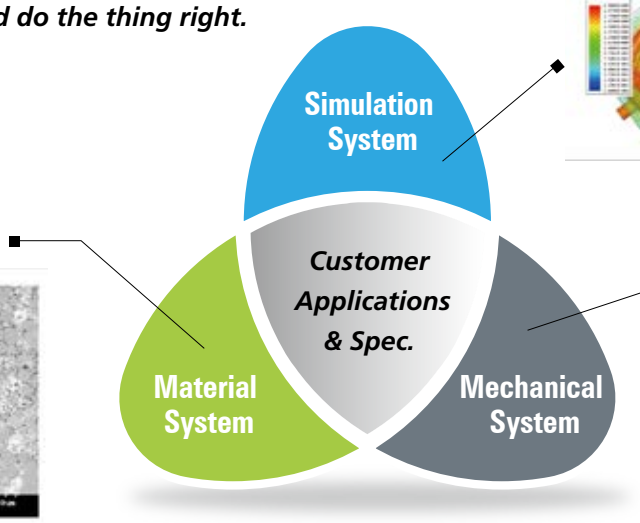
WIRE WOUND
METAL MOLDING POWER INDUCTOR

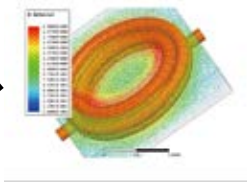
HF Halogen Free Pb lead-free RoHS

FEATURES

- According to customer application and spec to design and develop product.

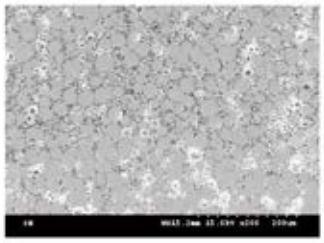
Perfection of organizational efficiency.
Do the right thing and do the thing right.





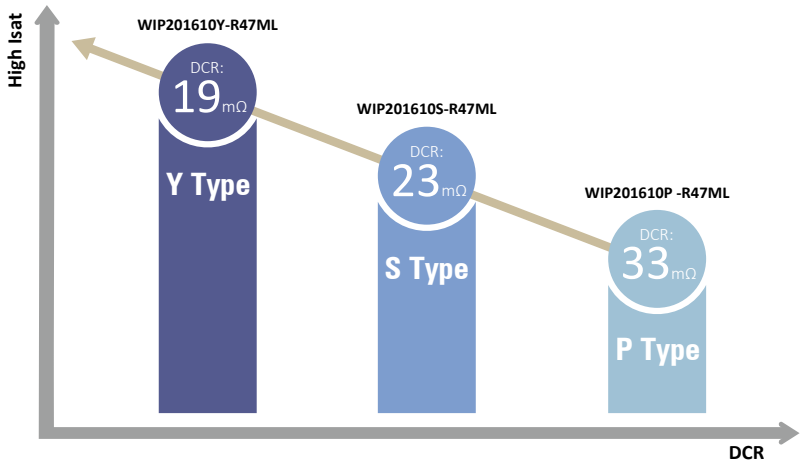
- Spec. design
- Loss simulation
- Performance Verify
- Customer design / AE

- Alloy powder development
- Density
- High Bs
- Low core loss

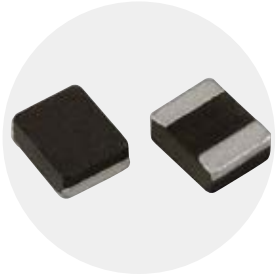


- Wire wound
- Forming of choke
- Process development

WIP DEVELOPING GENERATION



APPEARANCE



Dot : (optional)
- Winding direction note.

Electrode Design:
- Avoid shorting with other device and shielding case.

Insulation : (by epoxy paste)
- Body Protection.

WIP series

FEATURES

- High saturation current realized by material properties and structure design. Low DC resistance to achieve high conversion efficiency and lower temperature rising

APPLICATIONS

- Apply in portable DC to DC converter line, Smart phone, PAD , Network etc..

EXPLANATION OF PART NUMBER

WIP	2016	10	P	—	2R2	M	L
1	2	3	4		5	6	7

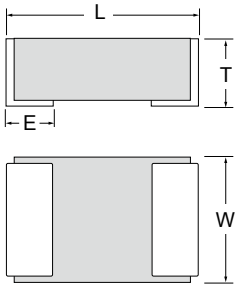
1: Series Name: Wire-wound type power inductor
2: Size Code: The first two digitals: length(mm), The last two digitals: width(mm)
3: Thickness in mm
4: Material code: Iron powder
5: Initial inductance value: 2R2 = 2.2μH
6: Model code, Tolerance of Inductance ±20%
7: Electrode type

DIMENSION

Unit: mm

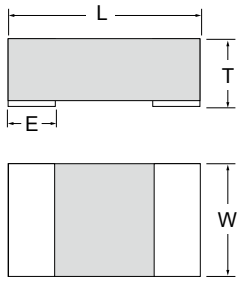
P/S/A/T TYPE

Size (EIA)	201208/10 (0805)	201610 (0806)	252010/12 (1008)	322512 (1210)
L	2.00±0.20	2.00±0.20	2.50±0.20	3.20±0.20
W	1.20±0.20	1.60±0.20	2.00±0.20	2.50±0.20
T	0.80/1.00 MAX	1.00 MAX	1.00/1.20 MAX	1.20 MAX
E	0.50±0.20	0.50±0.30	0.60±0.30	0.60±0.30



V TYPE

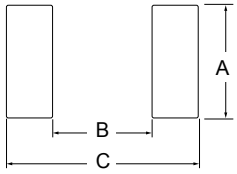
Size (EIA)	141208/10 (05505)	201208 /10 (0806)
L	1.40±0.20	2.00±0.20
W	1.20±0.20	1.20±0.20
T	0.80 MAX	0.80 /1.00 MAX
E	0.40±0.15	0.50±0.20



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	A	B	C
1412 (05505)	1.2	0.43	1.5
2012 (0805)	1.2	0.9	2.0
2016 (0806)	1.6	0.9	2.0
2520 (1008)	2.0	1.2	2.8
3225 (1008)	2.5	1.7	3.2



Reel Packaging Quantity					
Part Size (EIA Size)	1412 (0505)	2012 (0805)	2016 (0806)	2520 (1008)	3225 (1210)
Quantity (pcs)	3000	3000	3000	3000	3000

WIP P series

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PART NUMBERS & CHARACTERISTICS

WIP P series	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)		Irms (A)	
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Max.	Typ.	Max.
WIP 2016P Series											
WIP201610P-R24ML	2.0	1.6	1.0	0.24	20%	17	21	5.60	5.05	5.00	4.50
WIP201610P-R33ML	2.0	1.6	1.0	0.33	20%	24	29	5.00	4.50	4.10	3.69
WIP201610P-R47ML	2.0	1.6	1.0	0.47	20%	33	40	4.40	4.00	3.50	3.15
WIP201610P-R68ML	2.0	1.6	1.0	0.68	20%	41	49	3.70	3.33	3.40	3.06
WIP201610P-1R0ML	2.0	1.6	1.0	1.00	20%	60	69	2.90	2.61	2.60	2.26
WIP201610P-1R5ML	2.0	1.6	1.0	1.50	20%	114	129	2.50	2.25	2.00	1.81
WIP201610P-2R2ML	2.0	1.6	1.0	2.20	20%	135	150	1.90	1.71	1.70	1.50
WIP 2520P Series											
WIP252010P-R22ML	2.5	2.0	1.0	0.22	20%	9	12.5	7.90	7.20	5.90	5.30
WIP252010P-R33ML	2.5	2.0	1.0	0.33	20%	21	26	6.60	6.00	4.40	4.00
WIP252010P-R47ML	2.5	2.0	1.0	0.47	20%	27	32	5.00	4.50	3.90	3.51
WIP252010P-R68ML	2.5	2.0	1.0	0.68	20%	37	44	4.30	3.87	3.40	3.06
WIP252010P-1R0ML	2.5	2.0	1.0	1.00	20%	45	54	3.50	3.15	3.00	2.70
WIP252010P-1R5ML	2.5	2.0	1.0	1.50	20%	76	91	2.60	2.34	2.50	2.25
WIP252010P-2R2ML	2.5	2.0	1.0	2.20	20%	99	119	2.40	2.16	2.30	2.07
WIP252010P-4R7ML	2.5	2.0	1.0	4.70	20%	220	262	1.80	1.62	1.36	1.22
WIP252012P-R47ML	2.5	2.0	1.2	0.47	20%	21	25	5.30	4.95	4.60	4.18
WIP252012P-R68ML	2.5	2.0	1.2	0.68	20%	29	35	5.00	4.63	3.70	3.36
WIP252012P-1R0ML	2.5	2.0	1.2	1.00	20%	41	49	4.40	4.04	3.50	3.18
WIP252012P-1R5ML	2.5	2.0	1.2	1.50	20%	64	77	3.20	2.91	2.50	2.27
WIP252012P-2R2ML	2.5	2.0	1.2	2.20	20%	85	98	3.00	2.73	2.27	2.06
WIP252012P-3R3ML	2.5	2.0	1.2	3.30	20%	125	150	2.10	1.80	2.00	1.80
WIP252012P-4R7ML	2.5	2.0	1.2	4.70	20%	196	235	1.90	1.58	1.61	1.40
Test Instruments and Conditions	Inductance is measured with Agilent® LCR meter 4285A (or equivalent) at 1MHz/1V. DC resistance is measured with HIOKI® micro-ohm meter RM3542 or equivalent.										

WIP S series

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PART NUMBERS & CHARACTERISTICS

WIP S series	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)		Irms (A)	
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Max.	Typ.	Max.
WIP 2016S Series											
WIP201610S-R10ML	2.0	1.6	1.0	0.10	20%	10	12	9.00	8.10	6.00	5.40
WIP201610S-R33ML	2.0	1.6	1.0	0.33	20%	21	26	6.70	6.10	4.70	4.00
WIP201610S-R47ML	2.0	1.6	1.0	0.47	20%	23	30	6.10	5.30	4.50	4.05
WIP201610S-1R0ML	2.0	1.6	1.0	1.00	20%	48	60	3.90	3.30	3.20	3.00
WIP201610S-1R5ML	2.0	1.6	1.0	1.50	20%	86	99	3.40	3.10	2.40	2.20
WIP201610S-2R2ML	2.0	1.6	1.0	2.20	20%	117	140	2.60	2.45	2.20	2.00
WIP201610S-2R2ML	2.0	1.6	1.0	2.20	20%	117	140	2.60	2.45	2.20	2.00
WIP 2520S Series											
WIP252010S-R33ML	2.5	2.0	1.0	0.33	20%	17	22	7.80	7.00	5.60	4.80
WIP252010S-R47ML	2.5	2.0	1.0	0.47	20%	23	29	6.60	6.00	5.20	4.40
WIP252010S-1R0ML	2.5	2.0	1.0	1.00	20%	41	52	4.40	4.00	3.40	3.10
WIP252010S-2R2ML	2.5	2.0	1.0	2.20	20%	88	110	3.30	3.00	2.40	2.10
WIP252012S-R47ML	2.5	2.0	1.2	0.47	20%	16	22	6.80	6.20	5.80	4.90
WIP252012S-1R0ML	2.5	2.0	1.2	1.00	20%	36	44	4.80	4.30	3.90	3.30
WIP252012S-2R2ML	2.5	2.0	1.2	2.20	20%	74	89	3.50	3.20	2.50	2.20
WIP252012S-4R7ML	2.5	2.0	1.2	4.70	20%	160	180	2.50	2.20	1.80	1.50
Test Instruments and Conditions	Inductance is measured with Agilent® LCR meter 4285A (or equivalent) at 1MHz/1V. DC resistance is measured with HIOKI® micro-ohm meter RM3542 or equivalent.										

WIP A/T series

PART NUMBERS & CHARACTERISTICS

WIP A/T Series	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)		Irms (A)	
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Max.	Typ.	Max.
WIP 2520T Series											
WIP252010T-R47ML	2.5	2.0	1.0	0.47	20%	17	21	6.60	6.00	5.80	4.90
WIP252010T-1R0ML	2.5	2.0	1.0	1.00	20%	35	40	5.30	4.70	3.90	3.30
WIP 3225A Series											
WIP322512A-R47ML	3.2	2.5	1.2	0.47	20%	18	22	7.70	7.00	5.80	5.20
WIP322512A-1R0ML	3.2	2.5	1.2	1.00	20%	25	32	5.40	4.70	4.30	3.90
WIP322512A-2R2ML	3.2	2.5	1.2	2.20	20%	60	72	4.00	3.50	3.00	2.70
WIP322512A-3R3ML	3.2	2.5	1.2	3.30	20%	140	168	2.20	1.80	1.70	1.40
WIP322512A-4R7ML	3.2	2.5	1.2	4.70	20%	190	210	2.40	2.10	1.50	1.20
Test Instruments and Conditions	Inductance is measured with Agilent® LCR meter 4285A (or equivalent) at 1MHz/1V. DC resistance is measured with HIOKI® micro-ohm meter RM3542 or equivalent.										

WIP Y series

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PART NUMBERS & CHARACTERISTICS

WIP Y series	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)		Irms (A)	
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Max.	Typ.	Max.
WIP 2012Y Series											
WIP201208Y-R47ML	2.0	1.2	0.8	0.47	20%	29	35	4.60	4.20	4.00	3.70
WIP201210Y-1R0ML*	2.0	1.2	1.0	1.00	20%	58	67	3.40	3.10	3.00	2.70
WIP 2016Y Series											
WIP201610Y-R47ML	2.0	1.6	1.0	0.47	20%	19	23	5.70	5.00	5.30	4.70
WIP201610Y-1R0ML	2.0	1.6	1.0	1.00	20%	37	44	5.70	5.00	2.90	2.60
Test Instruments and Conditions	Inductance is measured with Agilent® LCR meter 4285A (or equivalent) at 1MHz/1V. DC resistance is measured with HIOKI® micro-ohm meter RM3542 or equivalent.										

"*" New Part , please contact INPAQ for detail specification

WIP V series

PART NUMBERS & CHARACTERISTICS

WIP V Series	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)		Irms (A)	
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Max.	Typ.	Max.
WIP 1412V Series											
WIP141208V-R33M*	1.4	1.2	0.8	0.33	20%	25	28	5.60	5.00	4.10	3.70
WIP141208V-R47M*	1.4	1.2	0.8	0.47	20%	28	35	4.90	4.50	3.70	3.50
WIP141210V-1R0M*	1.4	1.2	1.0	1.00	20%	51	58	2.40	2.20	1.70	1.50
WIP 2012V Series											
WIP201208V-R47M	2.0	1.2	0.8	0.47	20%	21	25	5.50	4.80	4.40	4.00
WIP201208V-1R0M*	2.0	1.2	0.8	1.00	20%	45	53	3.80	3.40	3.40	4.00
Test Instruments and Conditions	Inductance is measured with Agilent® LCR meter 4285A (or equivalent) at 1MHz/1V. DC resistance is measured with HIOKI® micro-ohm meter RM3542 or equivalent.										

"*" New Part , please contact INPAQ for detail specification

WPA series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS

FEATURES

- High saturation current realized by material properties and structure design. Low DC resistance to achieve high conversion efficiency and lower temperature rising

APPLICATIONS

- Apply in portable DC to DC converter line, Smart phone, PAD , Network etc..

EXPLANATION OF PART NUMBER

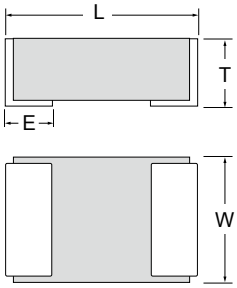
WPA	2016	10	S	—	2R2	M	L
1	2	3	4		5	6	7

1: Series Name: Wire-wound type power inductor
2: Size Code: The first two digitals: length(mm), The last two digitals: width(mm)
3: Thickness in mm
4: Material code: Iron powder
5: Initial inductance value: 2R2 = 2.2μH
6: Model code, Tolerance of Inductance ±20%
7: Electrode type

DIMENSION

Unit: mm

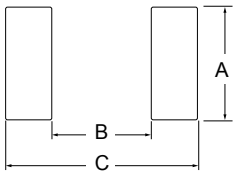
Size (EIA)	201610 (0806)	252010 (1008)	252012 (1008)
L	2.00±0.20	2.50±0.20	2.50±0.20
W	1.60±0.20	2.00±0.20	2.00±0.20
T	1.00 MAX	1.00 MAX	1.20 MAX
E	0.50±0.30	0.60±0.30	0.60±0.30



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	A	B	C
2016 (0806)	1.6	0.9	2.0
2520 (1008)	2.0	1.2	2.8



Reel Packaging Quantity		
Part Size (EIA Size)	2016 (0806)	2520 (1008)
Quantity (pcs)	3,000	3,000

WPA series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

WPA series	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)		Irms (A)	
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Max.	Typ.	Max.
WPA 201610 Series											
WPA201610S-R33ML	2.0	1.6	1.0	0.33	20%	21	26	6.70	6.10	4.70	4.00
WPA201610S-R47ML	2.0	1.6	1.0	0.47	20%	27	33	6.10	5.30	4.50	4.05
WPA201610S-1R0ML	2.0	1.6	1.0	1.00	20%	56	65	3.90	3.30	3.20	3.00
WPA201610S-1R5ML	2.0	1.6	1.0	1.50	20%	86	99	3.40	3.10	2.40	2.20
WPA201610S-2R2ML	2.0	1.6	1.0	2.20	20%	117	140	2.60	2.45	2.20	2.00
WPA 252010 Series											
WPA252010S-R33ML	2.5	2.0	1.0	0.33	20%	17	22	7.80	7.00	5.60	4.80
WPA252010S-R47ML	2.5	2.0	1.0	0.47	20%	23	29	6.60	6.00	5.20	4.40
WPA252010S-1R0ML	2.5	2.0	1.0	1.00	20%	41	52	4.40	4.00	3.40	3.10
WPA252010S-2R2ML	2.5	2.0	1.0	2.20	20%	88	110	3.30	3.00	2.40	2.10
WPA 252012 Series											
WPA252012S-R47ML	2.5	2.0	1.2	0.47	20%	16	22	6.80	6.20	5.80	4.90
WPA252012S-1R0ML	2.5	2.0	1.2	1.00	20%	36	44	4.80	4.30	3.90	3.30
WPA252012S-2R2ML	2.5	2.0	1.2	2.20	20%	74	89	3.50	3.20	2.50	2.20
Test Instruments and Conditions	Inductance is measured with Agilent® LCR meter 4285A (or equivalent) at 1MHz/1V. DC resistance is measured with HIOKI® micro-ohm meter RM3542 or equivalent.										

"*" New Part , please contact INPAQ for detail specification

WMM series

FEATURES

- Magnetic shielded construction
- Frequency range up to 3.0MHz
- Higher rated current, capable handling at high current spikes

APPLICATIONS

- Notebook / Desktop applications
- VGA card applications
- DC-DC Converter applications
- Low profile, high current power supplies

EXPLANATION OF PART NUMBER

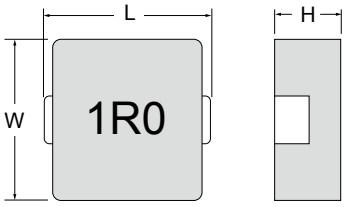
WMM	0420	PX	—	1R0	M
1	2	3		4	5

1: Product Series Name
2: Dimensions
3: Type Name
4: Product type Inductance (μH)
5: Model code: Inductance tolerance (M±20%; N±30%)

DIMENSION

Unit: mm

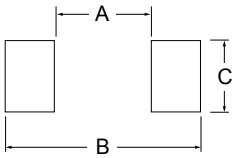
TYPE	0420	0530	0630	1040
L	4.45	5.4	7.3	11.15
W	4.0	5.2	6.6	10.0
H	2.0	3.0	3.0	4.0



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	Recommended Land Patterns		
	A	B	C
WMM0420	2.2	5.2	2.5
WMM0530	2.2	6.0	2.5
WMM0630	3.7	7.4	3.5
WMM1040	5.4	13.5	4.4



WMM series

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)	Irms (A)
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Typ.
▸ WMM0420PX-R22M	4.45	4.0	2.0	0.22	20%	6	6.6	12.50	9.00
WMM0420PX-R47M	4.45	4.0	2.0	0.47	20%	12.5	14	9.50	7.00
WMM0420PX-R56M	4.45	4.0	2.0	0.56	20%	14	16	10.00	6.50
WMM0420PX-R68M	4.45	4.0	2.0	0.68	20%	16	18	9.00	6.00
WMM0420PX-1R0M	4.45	4.0	2.0	1.00	20%	24	27	7.00	4.50
WMM0420PX-1R5M	4.45	4.0	2.0	1.50	20%	38	46	6.00	4.00
WMM0420PX-2R2M	4.45	4.0	2.0	2.20	20%	52	58	5.00	3.00
WMM0420PX-3R3M	4.45	4.0	2.0	3.30	20%	74	87	4.00	2.50
WMM0420PX-4R7M	4.45	4.0	2.0	4.70	20%	98	98	3.50	2.20
WMM0420PX-6R8M	4.45	4.0	2.0	6.80	20%	160	175	2.50	1.50
WMM0420PX-100M	4.7	4.2	2.0	10.00	20%	256	282	2.20	1.20
▸ WMM0530PX-R47M	5.4	5.2	3.0	0.47	20%	7.4	8.5	13.20	12.00
WMM0530PX-R68M	5.4	5.2	3.0	0.68	20%	11	12	14.00	8.50
WMM0530PX-1R0M	5.4	5.2	3.0	1.00	20%	13	14	11.00	7.00
WMM0530PX-1R5M	5.4	5.2	3.0	1.50	20%	20	25	8.50	6.00
WMM0530PX-2R2M	5.4	5.2	3.0	2.20	20%	25	29	7.50	5.50
WMM0530PX-3R3M	5.4	5.2	3.0	3.30	20%	32	38	6.00	5.00
WMM0530PX-4R7M	5.4	5.2	3.0	4.70	20%	50	60	5.00	3.50
WMM0530PX-6R8M	5.4	5.2	3.0	6.80	20%	75	90	4.00	3.00
WMM0530PX-100M	5.4	5.2	3.0	10.00	20%	110	125	3.50	2.50
▸ WMM0630PX-R15M	7.3	6.6	3.0	0.15	20%	1.9	2.5	52.00	26.00
WMM0630PX-R22M	7.3	6.6	3.0	0.22	20%	2.5	2.8	40.00	23.00
WMM0630PX-R24M	7.3	6.6	3.0	0.24	20%	2.5	2.8	40.00	23.00
WMM0630PX-R33M	7.3	6.6	3.0	0.33	20%	3.5	3.9	30.00	20.00
WMM0630PX-R47M	7.3	6.6	3.0	0.47	20%	4.0	4.2	26.00	17.50
WMM0630PX-R56M	7.3	6.6	3.0	0.56	20%	4.7	5.0	25.50	16.50
WMM0630PX-R68M	7.3	6.6	3.0	0.68	20%	5.0	5.5	25.00	15.50
WMM0630PX-R82M	7.3	6.6	3.0	0.82	20%	6.7	8.0	20.00	13.00
WMM0630PX-1R0M	7.3	6.6	3.0	1.00	20%	9.0	10.0	20.00	11.00
WMM0630PX-1R5M	7.3	6.6	3.0	1.50	20%	14	15	16.00	9.00
WMM0630PX-2R2M	7.3	6.6	3.0	2.20	20%	17	20	12.00	8.00
WMM0630PX-3R3M	7.3	6.6	3.0	3.30	20%	28	30	10.00	6.00
WMM0630PX-4R7M	7.3	6.6	3.0	4.70	20%	37	40	7.00	5.50
WMM0630PX-6R8M	7.3	6.6	3.0	6.80	20%	54	60	6.50	4.50
WMM0630PX-8R2M	7.3	6.6	3.0	8.20	20%	54	60	6.00	4.50
WMM0630PX-100M	7.3	6.6	3.0	10.00	20%	62	68	5.50	4.00

WMM series

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Dimension (mm)			Inductance (μH)		DCR (mΩ)		Isat (A)	Irms (A)
	L	W	T	Value	Tolerance (%)	Typ.	Max.	Typ.	Typ.
▸ WMM1040PX-R22M	11.15	10.0	4.0	0.22	20%	0.8	1.0	50.00	30.00
WMM1040PX-R36M	11.15	10.0	4.0	0.36	20%	1.1	1.2	40.00	34.00
WMM1040PX-R47M	11.15	10.0	4.0	0.47	20%	1.3	1.55	35.00	25.00
WMM1040PX-R68M	11.15	10.0	4.0	0.68	20%	2.4	2.7	30.00	22.00
WMM1040PX-1R0M	11.15	10.0	4.0	1.00	20%	3.0	3.3	28.00	18.00
WMM1040PX-2R2M	11.15	10.0	4.0	2.20	20%	6.7	7.0	18.00	12.00
WMM1040PX-3R3M	11.15	10.0	4.0	3.30	20%	10.8	11.8	16.00	10.00
WMM1040PX-4R7M	11.15	10.0	4.0	4.70	20%	17	20	15.00	8.50
WMM1040PX-6R8M	11.15	10.0	4.0	6.80	20%	22.5	25	9.00	6.50
WMM1040PX-8R2M	11.15	10.0	4.0	8.20	20%	26	29	9.00	7.00
▸ WMM1040PX-100M	11.15	10.0	4.0	10.00	20%	27	30	8.50	7.00
WMM1040PX-150M	11.15	10.0	4.0	15.00	20%	40	45	7.00	6.25
WMM1040PX-220M	11.15	10.0	4.0	22.00	20%	60	66	5.50	5.00

MULTILAYER METAL ALLOY POWER INDUCTOR

MAP series

FEATURES

- The monolithic construction performs high reliability and ensures a closed magnetic flux in a component avoids magnetic leakage and interference .
- Allow for higher mounting density.
- Low DC resistance.

APPLICATIONS

- Suitable for DVD, DSC, PND, PC, NB, Power Line.

EXPLANATION OF PART NUMBER

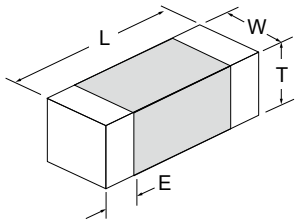
MAP	1005	S	T	R47	M	M	P
1	2	3	4	5	6	7	8

1: Series Name
2: Size Code: The first two digitals: length(mm), the last two digitals: width(mm)
3: Dimension T
1005 series: S=0.55 Max.
1608 series: F=1.00 Max. L=0.65 Max. T=0.60 Max.
2012 series: L=0.80 Max. S=1.0 Max.
4: Type code
5: Inductance: R=Decimal point, Unit=μH
6: Tolerance: M=±20%
7: Polarity Marking: M=with; N=without
8: Packaging: E=Embossed plastic tape; P=Paper tape, 7"reel.

DIMENSION

Unit: mm

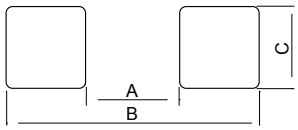
Size (EIA)	1005S (0402)	1608F (0603)	1608L (0603)	1608T (0603)	2012L (0805)	2012S (0805)
L	1.00±0.20	1.60±0.20	1.60±0.20	1.60±0.20	2.00±0.20	2.00±0.20
W	0.50±0.20	0.80±0.20	0.80±0.20	0.80±0.20	1.25±0.20	1.25±0.20
T	0.55 Max.	1.00 Max.	0.65 Max.	0.60 Max.	0.80 Max.	1.00 Max.
E	0.25±0.15	0.30±0.20	0.30±0.20	0.30±0.20	0.50±0.20	0.50±0.20



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	A	B	C
1005	0.5	1.0	1.2
1608	1.3	1.9	2.2
2012	0.7	1.0	1.45



Reel Packaging Quantity					
Part Size (EIA Size)	1005S (0402)	1608L/1608T (0603)	1608F (0603)	2012L (0805)	2012S (0805)
Quantity (pcs)	10,000	4,000	3,000	4,000	3,000

MAP series

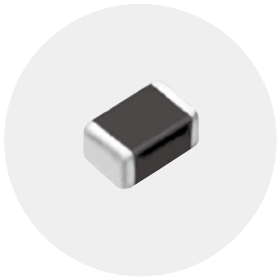
HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Inductance	DCR (mΩ)		Rated Current Irms (mA)		Rated Current Isat (mA)	
	±20% (μH)	Typ.	Max.	Typ.	Max.	Typ.	Typ.
1005 (EIA 0402) T: 0.55mm							
MAP1005STR10MMP	0.10	0.041	0.050	2200	2000	2300	2000
MAP1005STR22MMP	0.22	0.065	0.080	1800	1600	1800	1600
MAP1005STR47MMP	0.47	0.114	0.140	1300	1200	1400	1200
MAP1005ST1R0MMP	1.00	0.244	0.300	900	800	1200	1000
1608 (EIA 0603) T: 1.0mm							
MAP1608FTR24MME	0.24	0.035	0.038	2900	2600	3200	2800
MAP1608FTR47MME	0.47	0.044	0.055	2300	2000	2800	2400
MAP1608FT1R0MME	1.00	0.100	0.123	1500	1300	2400	2000
1608 (EIA 0603) T: 0.65mm							
MAP1608LTR24MNP	0.24	0.075	0.100	1700	1500	3100	2600
MAP1608LTR47MNP	0.47	0.114	0.150	1400	1200	2400	2000
MAP1608LT1R0MNP	1.00	0.270	0.340	900	800	1700	1400
1608 (EIA 0603) T: 0.60mm							
MAP1608TTR24MNP	0.24	0.040	0.050	2400	2100	2700	2300
MAP1608TTR47MNP	0.47	0.069	0.085	1700	1600	2200	1900
MAP1608TT1R0MNP	1.00	0.182	0.224	1100	900	1700	1500
2012 (EIA 0805) T: 0.80mm							
MAP2012LTR24MNP	0.24	0.019	0.024	4000	3600	4960	4320
MAP2012LTR47MNP	0.47	0.030	0.036	3500	3150	3690	3210
MAP2012LT1R0MNP	1.00	0.090	0.111	1630	1470	2600	2260
2012 (EIA 0805) T: 1.0mm							
MAP2012STR24MNE	0.24	0.020	0.025	4500	4000	7100	6200
MAP2012STR47MNE	0.47	0.032	0.039	3500	3100	4900	4500
MAP2012ST1R0MNE	1.00	0.073	0.090	2400	2100	4100	3600

MULTILAYER FERRITE POWER INDUCTOR

MIP series



FEATURES

- High - performance, low-profile multilayer power inductors with superior DC superimposing characteristics and low DC resistance.

APPLICATIONS

- Small mobile devices such as smartphones , wifi – module , Iot module , SSD etc..

EXPLANATION OF PART NUMBER

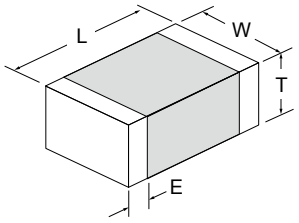
MIP	2012	P	2R2	M	B	E
1	2	3	4	5	6	7

1: Series Name
2: Size Code: The first two digitals: length(mm),the last two digitals: width(mm)
3: Material Code
4: Inductance: R=Decimal point,Unit=μH
5: Tolerance: M=±20%
6: Soldering: Green Parts,B=Lead-Free for whole chip
7: Packaging: E=Embossed plastic tape, 7"reel
P=Paper tape, 7"reel

DIMENSION

Unit: mm

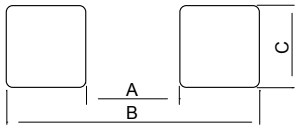
Size (EIA)	1608 (0603)	2012 (0805)	2016 (0806)	2520 (1008)
L	1.60±0.15	2.00±0.20	2.00±0.20	2.50±0.20
W	0.80±0.15	1.25±0.20	1.60±0.20	2.00±0.20
T	0.80±0.15	0.90±0.10	0.90±0.10	0.90±0.10
E	0.30±0.20	0.50±0.30	0.50±0.30	0.50±0.30



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	A	B	C
1608	0.5 ~ 0.7	1.8 ~ 2.0	0.65 ~ 0.95
2012	1.0 ~ 1.2	3.0 ~ 4.0	0.8 ~ 1.1
2016	1.0 ~ 1.2	3.0 ~ 4.0	1.0 ~ 1.5
2520	1.2 ~ 1.5	3.5 ~ 4.0	1.5 ~ 2.0



Reel Packaging Quantity				
Part Size (EIA Size)	1608 (0603)	2012 (0805)	2016 (0806)	2520 (1008)
Quantity (pcs)	4,000	3,000	3,000	3,000

MIP Standard series

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No.	Inductance ±20% (μH)	DCR ±25% (Ω)	Rated Current (mA)	SRF (MHz) Min.
MIP2012 Series				
MIP2012 1R0MBE	1.00	0.100	1100	90
MIP2012 2R2MBE	2.20	0.170	900	70
MIP2012 3R3MBE	3.30	0.200	800	50
MIP2012 4R7MBE	4.70	0.230	700	40
MIP2016 Series				
MIP2016 2R2MBE	2.20	0.120	1100	40
MIP2016 4R7MBE	4.70	0.160	900	20
MIP2520 Series				
MIP2520 R47MBE	0.47	0.040	1800	100
MIP2520 1R0MBE	1.00	0.055	1600	60
MIP2520 1R5MBE	1.50	0.070	1500	50
MIP2520 2R2MBE	2.20	0.080	1300	40
MIP2520 3R3MBE	3.30	0.100	1200	30
MIP2520 4R7MBE	4.70	0.110	1100	25
MIP2520 6R8MBE	6.80	0.200	1100	25
Test Instruments and Conditions	• HP4291B-RF Impedance / Material Analyzer • HP4338A/B Milliohm meter Test Frequency : 1MHz / OSC Level : 100mV			

1: For special part number which is not shown in the above table, please refer to www.inpaq.com.tw
2: Apply DC 0.4 ~ 0.6A to chip for 1 ~ 3 sec. before to measure inductance.

MIP W series

Part No.	Inductance ±20% (μH)	DCR ±25% (Ω)	Rated Current (mA)	SRF (MHz) Min.
MIP2012W Series				
MIP2012W 2R2MBE	2.2	0.34	700	85
MIP2012W 4R7MBE	4.7	0.46	500	50
MIP2012W 5R6MBE	5.6	0.46	500	30
MIP2520W Series				
MIP2520W 1R0MBE	1.0	0.11	1400	70
MIP2520W 2R2MBE	2.2	0.16	1100	50
MIP2520W 3R3MBE	3.3	0.20	1000	40
MIP2520W 4R7MBE	4.7	0.22	900	30
Test Instruments and Conditions	• HP4291B-RF Impedance / Material Analyzer • HP4338A/B Milliohm meter Test Frequency : 1MHz / OSC Level : 100mV			

1: For special part number which is not shown in the above table, please refer to www.inpaq.com.tw
2: Apply DC 0.4 ~ 0.6A to chip for 1 ~ 3 sec. before to measure inductance.

MIP P series

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No.	Inductance ±20% (μH)	DCR ±25% (Ω)	Rated Current (mA)	SRF (MHz) Min.
MIP1608P Series				
MIP1608P R24MBP	0.24	0.100	1200	90
MIP1608P R47MBP	0.47	0.100	1200	70
MIP1608P 1R0MBP	1.00	0.200	950	60
MIP1608P 2R2MBP	2.20	0.300	750	50
MIP2012P Series				
MIP2012P R47MBE	0.47	0.075	1300	100
MIP2012P 1R0MBE	1.00	0.100	900	50
MIP2012P 2R2MBE	2.20	0.230	800	40
MIP2012P 4R7MBE	4.70	0.230	800	40
MIP2016P Series				
MIP2016P R47MBE	0.47	0.060	1600	80
MIP2016P 1R0MBE	1.00	0.085	1400	70
MIP2016P 1R5MBE	1.50	0.110	1200	50
MIP2016P 2R2MBE	2.20	0.110	1200	50
MIP2016P 4R7MBE	4.70	0.140	1100	20
Test Instruments and Conditions	• HP4291B-RF Impedance / Material Analyzer • HP4338A/B Milliohm meter Test Frequency : 1MHz / OSC Level : 100mV			

MPA Standard series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS

FEATURES

- High - performance, low-profile multilayer power inductors with superior DC superimposing characteristics and low DC resistance.

APPLICATIONS

- Small mobile devices such as smartphones , wifi – module , Iot module , SSD etc..

EXPLANATION OF PART NUMBER

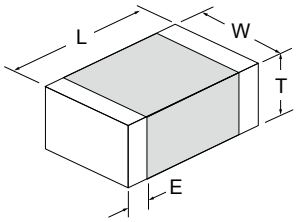
MPA	2012	P	2R2	M	05	B	P
1	2	3	4	5	6	7	8

1: Series Name
2: Size Code: The first two digitals: length(mm), the last two digitals: width(mm)
3: Material Code
4: Inductance: R=Decimal point,Unit=μH
5: Tolerance: M=±20%
6: Thin type: 05=0.5mm
7: Soldering: Green Parts, B=Lead-Free for whole chip
8: Packaging: E=Embossed plastic tape, 7"reel
P=Paper tape, 7"reel

DIMENSION

Unit: mm

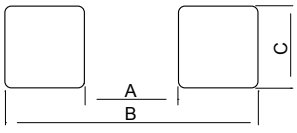
Size (EIA)	1608 (0603)	2012 (0805)	2012_05 (0805)	2016 (0806)
L	1.60±0.15	2.00±0.15	2.00±0.15	2.00±0.15
W	0.80±0.15	1.25±0.15	1.25±0.15	1.60±0.15
T	0.80±0.15	0.90±0.10	0.50±0.05	0.90±0.10
E	0.30±0.20	0.50±0.30	0.50±0.30	0.50±0.30



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	A	B	C
1608	0.5 ~ 0.7	1.8 ~ 2.0	0.65 ~ 0.95
2012	1.0 ~ 1.2	3.0 ~ 4.0	0.8 ~ 1.1
2016	1.0 ~ 1.2	3.0 ~ 4.0	1.0 ~ 1.5



Reel Packaging Quantity				
Part Size (EIA Size)	1608	2012_T : 09	2012_T : 05	2016
Quantity (pcs)	4000	3000	4000	3000

MPA Standard series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No.	Inductance ±20% (μH)	DCR ±25% (Ω)	Rated Current (mA)	SRF (MHz) Min.
2012 Series				
MPA2012 2R2MBE	2.2	0.170	900	70
MPA2012 4R7MBE	4.7	0.230	700	40
2016 Series				
MPA2016 2R2MBE	2.2	0.120	1100	40
MPA2016 4R7MBE	4.7	0.160	900	20
2520 Series				
MPA2520 1R0MBE	1.0	0.055	1600	60
MPA2520 1R5MBE	1.5	0.070	1500	50
MPA2520 2R2MBE	2.2	0.080	1300	40
MPA2520 3R3MBE	3.3	0.100	1200	30
MPA2520 4R7MBE	4.7	0.110	1100	25
Test Instruments and Conditions	• HP4291B-RF Impedance / Material Analyzer • HP4338A/B Milliohm meter Test Frequency : 1MHz / OSC Level : 100mV			

1: For special part number which is not shown in the above table, please refer to appendix.
2: Apply DC 0.4 ~ 0.6A to chip for 1 ~ 3 sec. before to measure inductance.

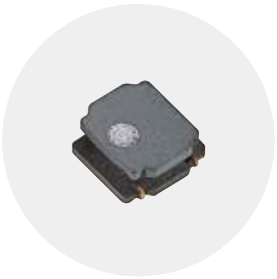
MPA P series

AEC-Q200 Compliance

Part No.	Inductance ±20% (μH)	DCR ±25% (Ω)	Rated Current (mA)	SRF (MHz) Min.
1608 Series				
MPA1608P R47MBP	0.47	0.100	1200	70
MPA1608P 1R0MBP	1.00	0.200	950	60
MPA1608P 2R2MBP	2.20	0.300	750	50
2012 Series				
MPA2012P R47MBE	0.47	0.075	1300	100
MPA2012P 1R0MBE	1.00	0.100	900	50
MPA2012P 2R2MBE	2.20	0.230	800	40
MPA2012P 2R2M05BP	2.20	0.330	600	40
2016 Series				
MPA2016P R47MBE	0.47	0.060	1600	80
MPA2016P 1R0MBE	1.00	0.085	1400	70
MPA2016P 2R2MBE	2.20	0.110	1200	50

• For special part number which is not shown in the above table, please refer to appendix.

NIP series



FEATURES

- Low RDC, high current handling inductor. Magnetically shielded structure that ensures the high-density mounting configurations.

APPLICATIONS

- Apply in Notebook, SSD, PDA, DSC, DC-DC Converters, etc.

EXPLANATION OF PART NUMBER

NIP	3015	GX	—	1R0	M
1	2	3		4	5

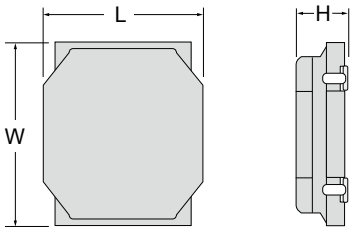
1: Product Series Name
2: Dimensions
3: Type Name
4: Inductance (μH)
5: Inductance tolerance (M±20%; N±30%)

DIMENSION

Unit: mm

TYPE	3015	4018	5020	5040
L	3.0	4.0	4.9	4.9
W	3.0	4.0	4.9	4.9
H	1.5	1.8	2.0	4.0

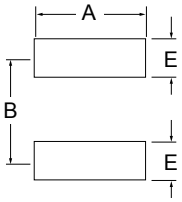
TYPE	6028	6045
L	6.0	6.0
W	6.0	6.0
H	2.8	4.5



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	Recommended Land Patterns		
	A	B	E
NIP3015	2.7	2.2	0.8
NIP4018	3.7	2.8	1.2
NIP5020	4.0	3.6	1.5
NIP5040	4.0	3.6	1.5
NIP6028	5.7	4.7	1.6
NIP6045	5.7	4.7	1.6



NIP series

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Dimension (mm)			Inductance (μH)	DCR (Ω)	Isat (A)	Irms (A)
	L	W	T (max)	Value	±30%	Max.	Max.
▸ NIP3015GX-1R0M	3.0	3.0	1.5	1.00	0.04	2.10	1.90
NIP3015GX-1R5M	3.0	3.0	1.5	1.50	0.05	1.80	1.70
NIP3015GX-2R2M	3.0	3.0	1.5	2.20	0.06	1.60	1.45
NIP3015GX-3R3M	3.0	3.0	1.5	3.30	0.08	1.32	1.20
NIP3015GX-4R7M	3.0	3.0	1.5	4.70	0.13	1.10	1.08
NIP3015GX-6R8M	3.0	3.0	1.5	6.80	0.20	0.87	0.85
NIP3015GX-100M	3.0	3.0	1.5	10.00	0.25	0.72	0.70
NIP3015GX-220M	3.0	3.0	1.5	22.00	0.46	0.57	0.52
▸ NIP4018GX-1R0M	4.0	4.0	1.8	1.00	0.02	4.00	2.00
NIP4018GX-1R5M	4.0	4.0	1.8	1.50	0.03	3.35	1.80
NIP4018GX-2R2M	4.0	4.0	1.8	2.20	0.04	2.70	1.75
NIP4018GX-3R3M	4.0	4.0	1.8	3.30	0.07	2.00	1.23
NIP4018GX-4R7M	4.0	4.0	1.8	4.70	0.09	1.70	1.20
NIP4018GX-6R8M	4.0	4.0	1.8	6.80	0.12	1.45	1.06
NIP4018GX-100M	4.0	4.0	1.8	10.00	0.20	1.30	0.90
NIP4018GX-150M	4.0	4.0	1.8	15.00	0.27	0.94	0.65
NIP4018GX-220M	4.0	4.0	1.8	22.00	0.39	0.80	0.59
▸ NIP4030GX-1R0M	4.0	4.0	3.0	1.00	0.01	5.26	4.15
NIP4030GX-1R5M	4.0	4.0	3.0	1.50	0.02	4.20	3.34
NIP4030GX-2R2M	4.0	4.0	3.0	2.20	0.03	3.80	2.95
NIP4030GX-3R3M	4.0	4.0	3.0	3.30	0.04	3.30	2.40
NIP4030GX-4R7M	4.0	4.0	3.0	4.70	0.06	2.90	2.00
NIP4030GX-6R8M	4.0	4.0	3.0	6.80	0.09	2.00	1.60
NIP4030GX-100M	4.0	4.0	3.0	10.00	0.10	1.85	1.50
NIP4030GX-150M	4.0	4.0	3.0	15.00	0.19	1.45	1.11
NIP4030GX-220M	4.0	4.0	3.0	22.00	0.23	1.30	1.00

NIP series

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Dimension (mm)			Inductance (μH)	DCR (Ω)	Isat (A)	Irms (A)
	L	W	T (max)	Value	±30%	Max.	Max.
▸ NIP5020GX-1R0M	5.0	5.0	2.0	1.00	0.02	4.33	4.30
NIP5020GX-1R5M	5.0	5.0	2.0	1.50	0.03	4.10	3.20
NIP5020GX-2R2M	5.0	5.0	2.0	2.20	0.04	3.85	2.90
NIP5020GX-3R3M	5.0	5.0	2.0	3.30	0.05	3.25	2.50
NIP5020GX-4R7M	5.0	5.0	2.0	4.70	0.07	2.40	2.20
NIP5020GX-6R8M	5.0	5.0	2.0	6.80	0.09	2.10	1.80
NIP5020GX-100M	5.0	5.0	2.0	10.00	0.13	1.50	1.45
NIP5020GX-150M	5.0	5.0	2.0	15.00	0.18	1.44	1.25
NIP5020GX-220M	5.0	5.0	2.0	22.00	0.25	1.18	1.10
▸ NIP5040GX-1R0M	5.0	5.0	4.0	1.00	0.01	7.35	4.90
NIP5040GX-1R5M	5.0	5.0	4.0	1.50	0.02	6.30	4.30
NIP5040GX-2R2M	5.0	5.0	4.0	2.20	0.02	4.90	3.80
NIP5040GX-3R3M	5.0	5.0	4.0	3.30	0.02	3.95	3.40
NIP5040GX-4R7M	5.0	5.0	4.0	4.70	0.03	3.50	3.00
NIP5040GX-6R8M	5.0	5.0	4.0	6.80	0.04	2.75	2.50
NIP5040GX-100M	5.0	5.0	4.0	10.00	0.06	2.35	2.10
NIP5040GX-150M	5.0	5.0	4.0	15.00	0.09	2.00	1.95
NIP5040GX-220M	5.0	5.0	4.0	22.00	0.13	1.60	1.50

NIP series

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Dimension (mm)			Inductance (μH)	DCR (Ω)	Isat (A)	Irms (A)
	L	W	T (max)	Value	±30%	Max.	Max.
▸ NIP6028GX-1R0M	6.0	6.0	2.8	1.00	0.01	5.70	5.20
NIP6028GX-1R5M	6.0	6.0	2.8	1.50	0.02	5.00	4.50
NIP6028GX-2R2M	6.0	6.0	2.8	2.20	0.02	4.50	3.80
NIP6028GX-3R3M	6.0	6.0	2.8	3.30	0.03	3.63	3.20
NIP6028GX-4R7M	6.0	6.0	2.8	4.70	0.03	3.00	2.70
NIP6028GX-6R8M	6.0	6.0	2.8	6.80	0.06	2.60	2.20
NIP6028GX-100M	6.0	6.0	2.8	10.00	0.08	2.05	1.80
NIP6028GX-150M	6.0	6.0	2.8	15.00	0.13	1.75	1.70
NIP6028GX-220M	6.0	6.0	2.8	22.00	0.14	1.45	1.40
NIP6028GX-330M	6.0	6.0	2.8	33.00	0.22	1.23	1.10
NIP6028GX-470M	6.0	6.0	2.8	47.00	0.28	1.10	1.00
NIP6028GX-680M	6.0	6.0	2.8	68.00	0.45	0.88	0.80
▸ NIP6045GX-2R2M	6.0	6.0	4.5	2.20	0.02	6.00	4.00
NIP6045GX-3R3M	6.0	6.0	4.5	3.30	0.02	5.20	3.00
NIP6045GX-4R7M	6.0	6.0	4.5	4.70	0.03	4.00	3.00
NIP6045GX-6R8M	6.0	6.0	4.5	6.80	0.04	3.80	3.00
NIP6045GX-100M	6.0	6.0	4.5	10.00	0.05	3.00	2.50
NIP6045GX-150M	6.0	6.0	4.5	15.00	0.08	2.30	2.00
NIP6045GX-220M	6.0	6.0	4.5	22.00	0.12	1.90	1.80

Product Guide Line

HF Halogen Free Pb lead-free RoHS

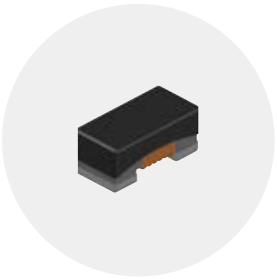
PRODUCT GUIDELINE

Series	Structure	Inductance Range (nH)									
		1	10.0	47.0	100.0	160.0	220.0	560.0	680.0	820.0	1,000.0	1,200.0
WFI0603	Wire-Wound											
WFI1005_N												
WFI1608_N												

Series	Structure	Inductance Range (μH)									
		0.1	1.0	2.2	4.7	6.80	10.0	12.0	18.0	22.0	47.0	56.0
WFI1608_MS	Wire-Wound											
MFI1608	Multilayer Type											
MFI2012												

WIRE WOUND
FERRITE ASSEMBLY GENERAL CIRCUITS INDUCTOR

WFI series



FEATURES

- Ferrite Construction
- SMART PHONE NFC (Near Field Communication)
- High Current and Low Resistance

APPLICATIONS

- Mobile Phone, Micro USB, MP3, etc.

EXPLANATION OF PART NUMBER

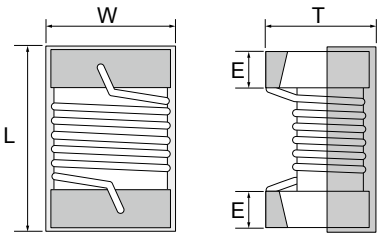
WFI	1005	L	TP	1N0	J	N
1	2	3	4	5	6	7

1: Series Name
2: Dimensions L x W
3: Internal Code
4: Packaging: TAPING
5: Inductance (nH) N means Decimal point, ex 1N0=1.0N
6: Tolerance: C=±0.2nH, J=±5%, K=±10%
7: N: Application

DIMENSION

Unit: mm

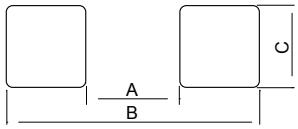
Size (EIA)	0603 (0201)	1005 (0402)	1608 (0603)
L	0.60±0.03	1.02±0.10	1.60±0.10
W	0.30±0.03	0.55±0.10	0.80±0.10
T	0.30±0.03	0.50±0.10	0.80±0.10
E	0.10±0.03	0.23±0.10	0.40±0.10



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	A	B	C
0603	0.32	0.60	0.32
1005	0.44	1.20	0.65
1608	0.64	1.92	1.02



Reel Packaging Quantity			
Part Size (EIA Size)	0603 (0201)	1005 (0402)	1608 (0603)
Quantity (pcs)	5,000	10,000	4,000

WFI N series (FOR NFC)

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Inductance (nH)	Test Freq. (MHz)	Q Min.	S.R.F (MHz) Min.	DCR (Ω) Max.	IDC (mA) Avg.
0603 (EIA 0201)						
WFI0603LTP5N5J	5.5	10	3	2200	0.069	1400
WFI0603LTP12NJ	12	10	5	2200	0.095	1100
WFI0603LTP21NJ	21	10	5	2200	0.126	950
WFI0603LTP30NJ	30	10	5	2000	0.140	1000
WFI0603LTP42NJ	42	10	5	2000	0.170	900
WFI0603LTP56NJ	56	10	5	1600	0.165	650
WFI0603LTP82NJ	82	10	5	1400	0.300	550
WFI0603LTPR10J	100	10	5	1200	0.340	500
WFI0603LTPR12J	120	10	5	1200	0.445	450
WFI0603LTPR13J	130	10	5	1400	0.695	400
WFI0603LTPR15J	150	10	4	1150	1.150	250
WFI0603LTPR16J	160	10	5	1000	1.120	250
WFI0603LTPR19J	190	10	4	1100	1.250	300
1005 (EIA 0402)						
WFI1005LTP2N7CN	2.7	10	4	3000	0.017	2600
WFI1005LTP10NJN	10	10	7	2800	0.035	2100
WFI1005LTP18NJN	18	10	7	2500	0.035	2000
WFI1005LTP33NJN	33	10	7	2400	0.044	1800
WFI1005LTP39NJN	39	10	7	2700	0.085	1200
WFI1005LTP48NJN	48	10	7	1600	0.065	1300
WFI1005LTP56NJN	56	10	7	2000	0.067	1600
WFI1005LTP70NJN	70	10	7	1900	0.086	1400
WFI1005LTP72NJN	72	10	7	2200	0.110	1000
WFI1005LTP82NJN	82	10	7	1700	0.097	1100
WFI1005LTP85NJN	85	10	7	2000	0.193	700
WFI1005LTP96NJN	96	10	7	1600	0.125	1200
WFI1005LTPR10JN	100	10	7	1900	0.092	1300
WFI1005LTPR13JN	130	10	7	1500	0.125	1000
WFI1005LTPR14JN	140	10	7	1800	0.150	850
WFI1005LTPR15JN	150	10	7	1600	0.315	600
WFI1005LTPR18JN	180	10	7	1400	0.288	600
WFI1005LTPR21JN	210	10	7	1400	0.243	700
WFI1005LTPR22JN	220	10	7	1300	0.470	500
WFI1005LTPR27JN	270	10	7	1300	0.520	450
WFI1005LTPR33JN	330	10	7	330	0.492	500
WFI1005LTPR39JN	390	10	7	290	0.565	450
WFI1005LTPR42JN	420	10	7	450	0.528	450
WFI1005LTPR47JN	470	10	7	420	0.558	500
WFI1005LTPR56JN	560	10	7	300	0.600	400

WFI N series (FOR NFC)

HF Halogen Free Pb lead-free RoHS

PART NUMBERS & CHARACTERISTICS

Part No	Inductance (nH)	Test Freq. (MHz)	Q Min.	S.R.F (MHz) Min.	DCR (Ω) Max.	IDC (mA) Avg.
1608 (EIA 0603)						
WFI1608LTP33NJN	33	10	7	2700	0.030	2400
WFI1608LTP56NJN	56	10	7	1700	0.039	1550
WFI1608LTP82NJN	82	10	7	2100	0.043	1900
WFI1608LTP85NJN	85	10	7	1700	0.050	1700
WFI1608LTPR12JN	120	10	7	1300	0.068	1550
WFI1608LTPR16JN	160	10	7	1300	0.079	1300
WFI1608LTPR18JN	180	10	7	1300	0.132	1100
WFI1608LTPR21JN	210	10	7	1300	0.122	1000
WFI1608LTPR27JN	270	10	7	1100	0.124	950
WFI1608LTPR33JN	330	10	7	950	0.231	700
WFI1608LTPR39JN	390	10	7	800	0.171	850
WFI1608LTPR47JN	470	10	7	850	0.283	550
WFI1608LTPR56JN	560	10	7	750	0.320	600
WFI1608LTPR82JN	820	10	7	650	0.610	400
WFI1608LTP1R0JN	1000	10	7	650	0.940	300

WFI MS series (FOR TWS)

Part No	Inductance (μH)	Test Freq. (MHz)	Q Typ.	S.R.F (MHz) Typ.	DCR (Ω) ±30%	Idc1 (mA) Typ.	Idc2 (mA) Typ.
1608 (EIA 0603)							
WFI1608LTP2R2KMS	2.2	7.9	13	160	0.83	520	400
WFI1608LTP4R7KMS	4.7	7.9	16	68	1.25	380	300
WFI1608LTPR10RKMS	10	2.5	15	46	2.30	280	200
WFI1608LTPR15RKMS	15	2.5	13	33	4.20	220	160
WFI1608LTPR22RKMS	22	2.5	14	22	6.25	180	110

MFI Series

FEATURES

- The monolithic construction performs high reliability and ensures a closed magnetic flux in a component avoids magnetic leakage and interference.
- Allow for higher mounting density

APPLICATIONS

- RF and wireless communication, information technology equipment which includes computer, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, audio equipment, PDAs, keyless remote system and low-voltage power supply modules.

PART NUMBER

MFI	1608	_	2R2	K	B	P	_
1	2	3	4	5	6	7	8

1: Product Type
MFI= Multilayer Chip inductor

2: Dimension Code

3: Material Code
NA= Standard Type
P= Low DCR

4: Impedance
Inductance (R=Decimal Point) Unit: uH

5: Tolerance
J= ±5%, K= ±10%, M = ±20%

6: Soldering
A— Soldering Lead-Free
B— Lead-Free for whole chip

7: Packaging
P=7" Reel Paper taping
E=7" Reel Embossed taping

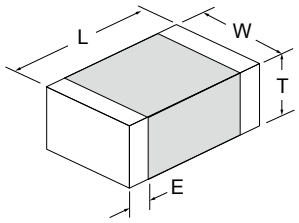
8: Specialized Specification Code
ex.: 1A2=1.2A; A80=0.8A

EQUIVALENT CIRRUIT & DIMENSIONS

Unit: mm

Size (EIA)	1608 (0603)	2012_09 (0805)	2012_12 (0805)
L	1.60±0.15	2.00±0.20	2.00±0.20
W	0.80±0.15	1.25±0.20	1.25±0.20
T	0.80±0.15	0.90±0.20	1.25±0.20
E	0.30±0.20	0.50±0.30	0.50±0.30

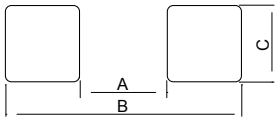
* The thickness of 2012 specification under 4.7μH is 0.90±0.20mm



SOLDER LAND INFORMATION

Unit: mm

Size (EIA)	1608 (0603)	2012 (0805)
A	0.7	1.2
B	1.8 ~ 2.0	3.0 ~ 4.0
C	0.7	1.0



STANDARD PACKING

Size (EIA)	1005 (0402)	1608 (0603)	2012 (0805)	2012_12 (0805)
Quantity (pcs/reel)	10,000	4,000	4,000	3,000

MULTILAYER FERRITE GENERAL CIRCUIT INDUCTOR

MFI Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance & Tolerance (μH)	Q Min.	Test Freq (MHz)	SRF (MHz) Min.	DCR Max. (Ω)	Rated Current Max (mA)
1608 (EIA 0603)						
▸ MFI1608R10KBP	0.10±10%	15	25	240	0.50	50
MFI1608R12KBP	0.12±10%	15	25	235	0.50	50
MFI1608R15KBP	0.15±10%	15	25	205	0.60	50
MFI1608R18KBP	0.18±10%	15	25	190	0.60	50
MFI1608R22KBP	0.22±10%	15	25	170	0.80	50
MFI1608R27KBP	0.27±10%	15	25	155	0.80	50
MFI1608R33KBP	0.33±10%	15	25	140	0.80	35
MFI1608R39KBP	0.39±10%	15	25	125	1.00	35
MFI1608R47KBP	0.47±10%	15	25	120	1.00	35
MFI1608R56KBP	0.56±10%	15	25	110	1.55	35
MFI1608R68KBP	0.68±10%	15	25	100	1.70	35
MFI1608R82KBP	0.82±10%	15	25	95	2.10	35
▸ MFI16081R0KBP	1.0±10%	35	10	85	0.60	25
MFI16081R2KBP	1.2±10%	35	10	70	0.80	25
MFI16081R5KBP	1.5±10%	35	10	65	0.80	25
MFI16081R8KBP	1.8±10%	35	10	60	0.80	25
MFI16082R2KBP	2.2±10%	35	10	55	1.00	15
MFI16082R7KBP	2.7±10%	35	10	50	1.20	15
MFI16083R3KBP	3.3±10%	35	10	45	1.40	15
MFI16083R9KBP	3.9±10%	40	10	42	1.60	15
MFI16084R7KBP	4.7±10%	40	10	40	1.80	15
MFI160810RKBP	10±10%	30	2	17	1.85	3
2012 (EIA 0805)						
▸ MFI2012R10KBP	0.10±10%	20	25	255	0.30	250
MFI2012R12KBP	0.12±10%	20	25	250	0.30	250
MFI2012R15KBP	0.15±10%	20	25	230	0.40	250
MFI2012R18KBP	0.18±10%	20	25	210	0.40	250
MFI2012R22KBP	0.22±10%	20	25	195	0.50	250
MFI2012R27KBP	0.27±10%	20	25	170	0.50	250
MFI2012R33KBP	0.33±10%	20	25	165	0.50	250
MFI2012R39KBP	0.39±10%	25	25	155	0.60	200
MFI2012R47KBP	0.47±10%	25	25	140	0.60	200
MFI2012R56KBP	0.56±10%	25	25	130	0.70	150
MFI2012R68KBP	0.68±10%	25	25	120	0.80	150
MFI2012R82KBP	0.82±10%	25	25	115	1.00	150
▸ MFI20121R0KBP	1.0±10%	45	10	85	0.40	50
MFI20121R2KBP	1.2±10%	45	10	75	0.50	50
MFI20121R5KBP	1.5±10%	45	10	65	0.50	50
MFI20121R8KBP	1.8±10%	45	10	60	0.60	50
MFI20122R2KBP	2.2±10%	45	10	55	0.60	30
MFI20122R7KBP	2.7 ±10%	45	10	50	0.70	30
MFI20123R3KBP	3.3±10%	45	10	45	0.80	30
MFI20123R9KBP	3.9±10%	45	10	44	0.90	30
MFI20124R7KBP	4.7±10%	45	10	41	1.00	30
MFI20125R6KBE	5.6±10%	50	4	37	0.90	15
MFI20126R8KBE	6.8±10%	50	4	34	1.00	15
MFI20128R2KBE	8.2±10%	50	4	30	1.10	15
MFI201210RKBE	10±10%	50	2	28	1.00	15
MFI201212RKBE	12±10%	50	2	26	1.10	15
MFI201215RKBE	15±10%	35	1	22	0.80	5
MFI201218RKBE	18±10%	35	1	21	0.90	5

MNI series (FOR NFC)

FEATURES

- Ferrite Construction
- SMART PHONE NFC (Near Field Communication)
- High Current and Low Resistance

APPLICATIONS

- Mobile Phone, Micro USB, MP3, etc.

PART NUMBER

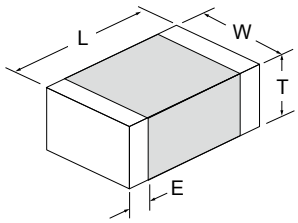
MNI	1005	P	R16	K	B	P
1	2	3	4	5	6	7

1: Series Name
2: Size Code : The first two digitals: length(mm), the last two digitals: width(mm)
3: Material code
4: Inductance: R16=160nH
5: Tolerance: J=±5%, K=±10%
6: Soldering: Green Parts, B= Lead-Free for whole chip
7: Packaging: P=Paper tape, 7"reel.

EQUIVALENT CIRRUIT & DIMENSIONS

Unit: mm

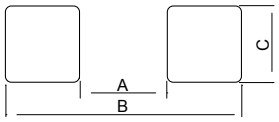
Size (EIA)	1005 (0402)	1608 (0603)
L	1.00±0.10	1.60±0.15
W	0.50±0.10	0.80±0.15
T	0.50±0.10	0.80±0.15
E	0.25±0.10	0.30±0.20



SOLDER LAND INFORMATION

Unit: mm

Size (EIA)	1005 (0402)	1608 (0603)
A	0.40 ~ 0.60	0.50 ~ 0.70
B	1.20 ~ 1.40	1.80 ~ 2.00
C	0.40 ~ 0.70	0.65 ~ 0.95



STANDARD PACKING

Size (EIA)	1005 (0402)	1608 (0603)
Quantity (pcs/reel)	10,000	4,000

PART NUMBERS & CHARACTERISTICS

Part No.	Inductance (μH)	Inductance Tolerance	DCR ±25% (Ω)	Rated Current (mA)	SRF (MHz)
1005 Series					
MNI1005PR16_BP	160	J, K	0.33	480	600
1608 Series					
MNI1608PR16_BP	160	J, K	0.125	1,200	180
MNI1608PR18_BP	180	J, K	0.15	1,000	150
Test Instruments and Conditions	• HP4291B-RF Impedance / Material Analyzer • HP4338A/B Milliohm meter • Test Frequency : 13.56 MHz • OSC Level : 100mV				

** For special part number which is not shown in the above table, please refer to appendix.

Product Guide Line

HF Halogen Free Pb lead-free RoHS

PRODUCT GUIDELINE

Series	Structure	Inductance Range (nH)											
		0.3	1.0	10.0	18.0	22.0	27.0	39.0	100.0	120.0	150.0	220.0	400.0	470.0
MCI0603HQ	Multilayer Type													
MCI1005HQ														
MCI1608HQ														
MCI0603TG														
MCI0603TN														
MCI0603HW														
MCI1005HW														
MCI1608HW														
MCI0603GW														
WCI0603	Wire-Wound													
WCI1005														
WCI1608														

MCI-HQ/TG/TN Series

FEATURES

- Particular ceramic material and coil structure provide high frequency application range up to 10GHz
- Small size and low profile
- Available in various sizes
- Excellent solderability and heat resistance
- Monolithic structure for high reliability
- Good property of Q and high SRF

APPLICATIONS

- RF and wireless communication, information technology equipment which includes computer, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, audio equipment, PDAs, keyless remote system and low-voltage power supply modules.
- High frequency modules (PAs, VCOs, FEMs , etc.), Bluetooth, W-LAN, UWB, and Impedance matching at RF circuits

PART NUMBER

MCI	1005	HQ	10N	J	H	B	P
1	2	3	4	5	6	7	8

1: Product Type
MCI= Multilayer Ceramic inductor

2: Dimension Code

3: Material Code
HQ=Standard Q
TG=High Q
TN=Ultra High Q

4: Impedance
Inductance (N= Decimal point) Unit: nH
ex 4.7nH → 4N7, 39nH → 39N

5: Tolerance
B= ±0.1nH, C = ±0.2nH, S = ±0.3nH, G=±2%, H = ±3%, J = ±5%

6: Mark
H= 1/8 Mark, M= 1/4 Mark, N= No Mark

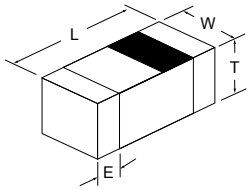
7: Soldering
B— Lead-Free for whole chip

8: Packaging
P=7" Reel Paper taping

EQUIVALENT CIRRUIT & DIMENSIONS

Unit: mm

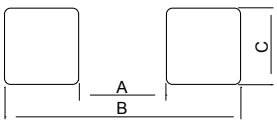
Size (EIA)	0603 (0201)	1005 (0402)	1608 (0603)
L	0.60±0.03	1.00±0.10	1.60±0.15
W	0.30±0.03	0.50±0.10	0.80±0.15
T	0.30±0.03	0.50±0.10	0.80±0.15
E	0.10~0.20	0.10~0.30	0.20~0.60



SOLDER LAND INFORMATION

Unit: mm

Size (EIA)	0603 (0201)	1005 (0402)	1608 (0603)
A	0.2~0.3	0.4	0.7
B	0.8~0.9	1.4~1.5	1.9~2.3
C	0.2~0.3	0.5~0.6	0.6~0.8



STANDARD PACKING

Size (EIA)	0603 (0201)	1005 (0402)	1608 (0603)
Quantity (pcs/reel)	15,000	10,000	4,000

MULTILAYER CERAMIC HIGH FREQUENCY INDUCTOR

MCI-HQ Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
0603 HQ (EIA 0201)							
MCI0603HQ0N3_HBP	0.3	B	4	100	0.07	10,000	850
MCI0603HQ0N4_HBP	0.4	B	4	100	0.07	10,000	850
MCI0603HQ0N5_HBP	0.5	B	4	100	0.08	10,000	800
MCI0603HQ0N6_HBP	0.6	B	4	100	0.08	10,000	800
MCI0603HQ0N7_HBP	0.7	B	4	100	0.09	10,000	750
MCI0603HQ0N8_HBP	0.8	B	4	100	0.10	10,000	750
MCI0603HQ0N9_HBP	0.9	B	4	100	0.10	10,000	750
MCI0603HQ1N0_HBP	1.0	B , C , S	4	100	0.14	10,000	600
MCI0603HQ1N1_HBP	1.1	B , C , S	4	100	0.14	10,000	600
MCI0603HQ1N2_HBP	1.2	B , C , S	4	100	0.14	10,000	600
MCI0603HQ1N3_HBP	1.3	B , C , S	4	100	0.14	10,000	600
MCI0603HQ1N5_HBP	1.5	B , C , S	4	100	0.18	10,000	550
MCI0603HQ1N6_HBP	1.6	B , C , S	4	100	0.18	10,000	500
MCI0603HQ1N8_HBP	1.8	B , C , S	4	100	0.19	10,000	500
MCI0603HQ1N9_HBP	1.9	B , C , S	4	100	0.20	10,000	450
MCI0603HQ2N0_HBP	2.0	B , C , S	4	100	0.20	10,000	450
MCI0603HQ2N1_HBP	2.1	B , C , S	4	100	0.20	10,000	450
MCI0603HQ2N2_HBP	2.2	B , C , S	4	100	0.22	10,000	450
MCI0603HQ2N3_HBP	2.3	B , C , S	4	100	0.22	10,000	450
MCI0603HQ2N4_HBP	2.4	B , C , S	4	100	0.24	10,000	450
MCI0603HQ2N7_HBP	2.7	B , C , S	5	100	0.25	10,000	450
MCI0603HQ2N9_HBP	2.9	B , C , S	5	100	0.28	9,500	450
MCI0603HQ3N0_HBP	3.0	B , C , S	5	100	0.28	9,500	450
MCI0603HQ3N2_HBP	3.2	B , C , S	5	100	0.30	9,500	450
MCI0603HQ3N3_HBP	3.3	B , C , S	5	100	0.30	9,500	450
MCI0603HQ3N4_HBP	3.4	B , C , S	5	100	0.30	8,000	400
MCI0603HQ3N6_HBP	3.6	B , C , S	5	100	0.30	8,000	400
MCI0603HQ3N9_HBP	3.9	B , C , S	5	100	0.30	6,500	400
MCI0603HQ4N3_HBP	4.3	B , C , S	5	100	0.40	6,500	350
MCI0603HQ4N7_HBP	4.7	B , C , S	5	100	0.40	6,500	350
MCI0603HQ5N1_HBP	5.1	B , C , S	5	100	0.40	6,500	350
MCI0603HQ5N6_HBP	5.6	B , C , S	5	100	0.40	6,000	350
MCI0603HQ6N2_HBP	6.2	B , C , S	5	100	0.44	6,000	300
MCI0603HQ6N8_HBP	6.8	H , J	5	100	0.50	5,400	300
MCI0603HQ7N5_HBP	7.5	H , J	5	100	0.53	4,800	300
MCI0603HQ8N2_HBP	8.2	H , J	5	100	0.55	4,800	250
MCI0603HQ9N1_HBP	9.1	H , J	5	100	0.62	4,500	250
MCI0603HQ10N_HBP	10	H , J	5	100	0.65	4,500	250
MCI0603HQ12N_HBP	12	H , J	5	100	0.70	3,700	250
MCI0603HQ15N_HBP	15	H , J	5	100	0.80	2,200	250
MCI0603HQ18N_HBP	18	H , J	5	100	0.90	2,200	200
MCI0603HQ22N_HBP	22	H , J	5	100	1.20	2,000	150
MCI0603HQ27N_HBP	27	H , J	4	100	1.80	1,800	140
MCI0603HQ33N_HBP	33	J	4	100	2.10	1,700	120
MCI0603HQ39N_HBP	39	J	4	100	2.40	1,500	120

MCI-HQ Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
1005 HQ (EIA 0402)							
MCI1005HQ0N3_HBP	0.3	B	8	100	0.08	10,000	1000
MCI1005HQ0N4_HBP	0.4	B	8	100	0.08	10,000	1000
MCI1005HQ0N5_HBP	0.5	B	8	100	0.08	10,000	1000
MCI1005HQ0N6_HBP	0.6	B	8	100	0.08	10,000	1000
MCI1005HQ0N8_HBP	0.8	B	8	100	0.08	10,000	1000
MCI1005HQ1N0_HBP	1.0	B , C , S	8	100	0.08	10,000	1000
MCI1005HQ1N1_HBP	1.1	B , C , S	8	100	0.08	10,000	1000
MCI1005HQ1N2_HBP	1.2	B , C , S	8	100	0.09	10,000	1000
MCI1005HQ1N3_HBP	1.3	B , C , S	8	100	0.09	10,000	1000
MCI1005HQ1N5_HBP	1.5	B , C , S	8	100	0.10	10,000	1000
MCI1005HQ1N6_HBP	1.6	B , C , S	8	100	0.10	10,000	1000
MCI1005HQ1N8_HBP	1.8	B , C , S	8	100	0.12	10,000	900
MCI1005HQ2N0_HBP	2.0	B , C , S	8	100	0.12	10,000	900
MCI1005HQ2N2_HBP	2.2	B , C , S	8	100	0.13	10,000	900
MCI1005HQ2N4_HBP	2.4	B , C , S	8	100	0.13	10,000	800
MCI1005HQ2N7_HBP	2.7	B , C , S	8	100	0.16	6,000	800
MCI1005HQ3N0_HBP	3.0	B , C , S	8	100	0.16	6,000	800
MCI1005HQ3N3_HBP	3.3	B , C , S	8	100	0.16	6,000	800
MCI1005HQ3N6_HBP	3.6	B , C , S	8	100	0.20	6,000	700
MCI1005HQ3N9_HBP	3.9	B , C , S	8	100	0.20	6,000	700
MCI1005HQ4N3_HBP	4.3	B , C , S	8	100	0.20	6,000	700
MCI1005HQ4N7_HBP	4.7	B , C , S	8	100	0.20	6,000	700
MCI1005HQ5N1_HBP	5.1	B , C , S	8	100	0.23	5,300	600
MCI1005HQ5N6_HBP	5.6	B , C , S	8	100	0.23	4,500	600
MCI1005HQ6N2_HBP	6.2	B , C , S	8	100	0.25	4,500	600
MCI1005HQ6N8_HBP	6.8	G , H , J	8	100	0.25	4,500	600
MCI1005HQ7N5_HBP	7.5	G , H , J	8	100	0.28	4,200	500
MCI1005HQ8N2_HBP	8.2	G , H , J	8	100	0.28	3,700	500
MCI1005HQ9N1_HBP	9.1	G , H , J	8	100	0.30	3,400	500
MCI1005HQ10N_HBP	10	G , H , J	8	100	0.30	3,400	500
MCI1005HQ12N_HBP	12	G , H , J	8	100	0.45	3,000	400
MCI1005HQ13N_HBP	13	G , H , J	8	100	0.50	3,000	400
MCI1005HQ15N_HBP	15	G , H , J	8	100	0.55	2,500	400
MCI1005HQ18N_HBP	18	G , H , J	8	100	0.65	2,200	300
MCI1005HQ22N_HBP	22	G , H , J	8	100	0.70	1,900	300
MCI1005HQ24N_HBP	24	G , H , J	8	100	0.70	1,700	300
MCI1005HQ27N_HBP	27	G , H , J	8	100	0.80	1,700	300
MCI1005HQ33N_HBP	33	G , H , J	8	100	0.90	1,600	200
MCI1005HQ39N_HBP	39	G , H , J	8	100	1.00	1,200	200
MCI1005HQ47N_HBP	47	G , H , J	8	100	1.10	1,100	200
MCI1005HQ56N_HBP	56	G , H , J	8	100	1.10	1,000	200
MCI1005HQ68N_HBP	68	G , H , J	8	100	1.20	800	200
MCI1005HQ82N_HBP	82	J	8	100	1.30	600	200
MCI1005HQR10_HBP	100	J	8	100	1.60	600	200
MCI1005HQR12_HBP	120	J	8	100	1.60	600	150
MCI1005HQR15_HBP	150	J	8	100	3.20	550	140

MCI-HQ Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
1608 HQ (EIA 0603)							
MCI1608HQ1N0_HBP	1.0	S	8	100	0.05	10,000	1,000
MCI1608HQ1N2_HBP	1.2	S	8	100	0.05	10,000	1,000
MCI1608HQ1N5_HBP	1.5	S	8	100	0.10	10,000	1,000
MCI1608HQ1N8_HBP	1.8	S	8	100	0.10	10,000	1,000
MCI1608HQ2N2_HBP	2.2	S	8	100	0.10	8,000	1,000
MCI1608HQ2N7_HBP	2.7	S	10	100	0.13	7,000	1,000
MCI1608HQ3N3_HBP	3.3	S	10	100	0.13	6,000	1,000
MCI1608HQ3N9_HBP	3.9	S	10	100	0.15	6,000	1,000
MCI1608HQ4N7_HBP	4.7	S	10	100	0.20	5,000	1,000
MCI1608HQ5N6_HBP	5.6	S	10	100	0.23	4,000	600
MCI1608HQ6N8_HBP	6.8	J	10	100	0.25	4,000	600
MCI1608HQ8N2_HBP	8.2	J	10	100	0.28	3,500	600
MCI1608HQ10N_HBP	10	J	12	100	0.30	3,400	600
MCI1608HQ12N_HBP	12	J	12	100	0.35	2,600	600
MCI1608HQ15N_HBP	15	J	12	100	0.40	2,300	600
MCI1608HQ18N_HBP	18	J	12	100	0.45	2,000	600
MCI1608HQ22N_HBP	22	J	12	100	0.50	1,600	600
MCI1608HQ27N_HBP	27	J	12	100	0.55	1,400	600
MCI1608HQ33N_HBP	33	J	12	100	0.60	1,200	600
MCI1608HQ39N_HBP	39	J	12	100	0.65	1,100	500
MCI1608HQ47N_HBP	47	J	12	100	0.70	900	500
MCI1608HQ56N_HBP	56	J	12	100	0.75	900	500
MCI1608HQ68N_HBP	68	J	12	100	0.85	700	400
MCI1608HQ82N_HBP	82	J	12	100	0.95	600	300
MCI1608HQR10_HBP	100	J	12	100	1.00	600	300
MCI1608HQR12_HBP	120	J	8	50	1.20	500	300
MCI1608HQR15_HBP	150	J	8	50	1.20	500	300
MCI1608HQR18_HBP	180	J	8	50	1.30	400	300
MCI1608HQR22_HBP	220	J	8	50	1.50	400	300
MCI1608HQR27_HBP	270	J	8	50	1.90	400	200
MCI1608HQR33_HBP	330	J	8	50	2.10	350	200
MCI1608HQR39_HBP	390	J	8	50	2.30	350	150
MCI1608HQR47_HBP	470	J	8	50	2.60	300	150

MCI-TG Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
0603 TG (EIA 0201)							
MCI0603TG0N3_HBP	0.3	B , C	11	500	0.07	18,000	850
MCI0603TG0N4_HBP	0.4	B , C	11	500	0.07	18,000	850
MCI0603TG0N5_HBP	0.5	B , C	11	500	0.08	18,000	850
MCI0603TG0N6_HBP	0.6	B , C	11	500	0.08	18,000	850
MCI0603TG0N7_HBP	0.7	B , C	12	500	0.09	18,000	750
MCI0603TG0N8_HBP	0.8	B , C	12	500	0.10	18,000	750
MCI0603TG0N9_HBP	0.9	B , C	12	500	0.12	18,000	700
MCI0603TG1N0_HBP	1.0	B , C	12	500	0.14	17,000	600
MCI0603TG1N1_HBP	1.1	B , C	12	500	0.14	17,000	600
MCI0603TG1N2_HBP	1.2	B , C	12	500	0.14	15,000	600
MCI0603TG1N3_HBP	1.3	B , C	12	500	0.15	15,000	600
MCI0603TG1N4_HBP	1.4	B , C	12	500	0.15	14,000	600
MCI0603TG1N5_HBP	1.5	B , C	12	500	0.15	13,500	600
MCI0603TG1N6_HBP	1.6	B , C	12	500	0.15	13,000	600
MCI0603TG1N7_HBP	1.7	B , C	12	500	0.19	12,500	500
MCI0603TG1N8_HBP	1.8	B , C	12	500	0.20	12,500	500
MCI0603TG1N9_HBP	1.9	B , C	12	500	0.20	12,500	450
MCI0603TG2N0_HBP	2.0	B , C	12	500	0.20	12,500	450
MCI0603TG2N1_HBP	2.1	B , C	12	500	0.22	12,000	450
MCI0603TG2N2_HBP	2.2	B , C	12	500	0.22	12,000	450
MCI0603TG2N3_HBP	2.3	B , C	12	500	0.24	11,500	450
MCI0603TG2N4_HBP	2.4	B , C	12	500	0.25	11,000	450
MCI0603TG2N5_HBP	2.5	B , C	12	500	0.25	11,000	450
MCI0603TG2N6_HBP	2.6	B , C	12	500	0.25	11,000	450
MCI0603TG2N7_HBP	2.7	B , C	12	500	0.25	11,000	450
MCI0603TG2N8_HBP	2.8	B , C	12	500	0.25	9,500	450
MCI0603TG2N9_HBP	2.9	B , C	12	500	0.25	9,500	450
MCI0603TG3N0_HBP	3.0	B , C	12	500	0.25	9,500	450
MCI0603TG3N1_HBP	3.1	B , C	12	500	0.30	9,500	450
MCI0603TG3N2_HBP	3.2	B , C	12	500	0.30	9,500	450
MCI0603TG3N3_HBP	3.3	B , C	12	500	0.30	9,500	400
MCI0603TG3N4_HBP	3.4	B , C	12	500	0.30	8,000	400
MCI0603TG3N5_HBP	3.5	B , C	12	500	0.30	8,000	400
MCI0603TG3N6_HBP	3.6	B , C	12	500	0.30	8,000	400
MCI0603TG3N7_HBP	3.7	B , C	12	500	0.30	7,000	400
MCI0603TG3N8_HBP	3.8	B , C	12	500	0.35	7,000	350
MCI0603TG3N9_HBP	3.9	B , C	12	500	0.35	6,500	350
MCI0603TG4N3_HBP	4.3	H , J	12	500	0.40	6,500	350
MCI0603TG4N7_HBP	4.7	H , J	12	500	0.40	6,500	350
MCI0603TG5N1_HBP	5.1	H , J	12	500	0.40	6,500	350
MCI0603TG5N6_HBP	5.6	H , J	12	500	0.44	6,000	300
MCI0603TG6N2_HBP	6.2	H , J	12	500	0.50	6,000	300
MCI0603TG6N8_HBP	6.8	H , J	12	500	0.53	5,400	300
MCI0603TG7N5_HBP	7.5	H , J	12	500	0.55	4,800	250
MCI0603TG8N2_HBP	8.2	H , J	12	500	0.62	4,800	250
MCI0603TG9N1_HBP	9.1	H , J	12	500	0.65	4,500	250
MCI0603TG10N_HBP	10	H , J	11	500	0.70	4,000	250
MCI0603TG12N_HBP	12	H , J	11	500	0.75	3,700	250
MCI0603TG15N_HBP	15	H , J	11	500	0.85	3,100	250
MCI0603TG18N_HBP	18	H , J	11	500	1.00	2,800	200
MCI0603TG22N_HBP	22	H , J	9	500	1.20	2,500	150
MCI0603TG27N_HBP	27	H , J	9	500	1.80	1800	140
MCI0603TG33N_HBP	33	H , J	7	300	2.10	1700	120
MCI0603TG39N_HBP	39	H , J	7	300	2.40	1500	120

MCI-TN Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
0603 TN (EIA 0201)							
MCI0603TN0N6_HBP	0.6	B , C	14	500	0.07	20,000	850
MCI0603TN0N7_HBP	0.7	B , C	14	500	0.08	20,000	800
MCI0603TN0N8_HBP	0.8	B , C	14	500	0.08	18,000	800
MCI0603TN0N9_HBP	0.9	B , C	14	500	0.10	18,000	750
MCI0603TN1N0_HBP	1.0	B , C	14	500	0.10	17,000	750
MCI0603TN1N1_HBP	1.1	B , C	14	500	0.10	17,000	750
MCI0603TN1N2_HBP	1.2	B , C	14	500	0.10	17,000	750
MCI0603TN1N3_HBP	1.3	B , C	14	500	0.15	17,000	600
MCI0603TN1N4_HBP	1.4	B , C	14	500	0.15	16,000	600
MCI0603TN1N5_HBP	1.5	B , C	14	500	0.15	15,000	600
MCI0603TN1N6_HBP	1.6	B , C	14	500	0.15	15,000	600
MCI0603TN1N7_HBP	1.7	B , C	14	500	0.15	15,000	600
MCI0603TN1N8_HBP	1.8	B , C	14	500	0.15	15,000	600
MCI0603TN1N9_HBP	1.9	B , C	14	500	0.15	12,500	600
MCI0603TN2N0_HBP	2.0	B , C	14	500	0.15	12,500	600
MCI0603TN2N1_HBP	2.1	B , C	14	500	0.15	11,000	600
MCI0603TN2N2_HBP	2.2	B , C	14	500	0.15	11,000	600
MCI0603TN2N3_HBP	2.3	B , C	14	500	0.20	10,000	500
MCI0603TN2N4_HBP	2.4	B , C	14	500	0.20	10,000	500
MCI0603TN2N5_HBP	2.5	B , C	14	500	0.20	10,000	500
MCI0603TN2N6_HBP	2.6	B , C	14	500	0.20	10,000	500
MCI0603TN2N7_HBP	2.7	B , C	14	500	0.20	10,000	500
MCI0603TN2N8_HBP	2.8	B , C	14	500	0.20	9,500	500
MCI0603TN2N9_HBP	2.9	B , C	14	500	0.20	9,500	500
MCI0603TN3N0_HBP	3.0	B , C	14	500	0.25	9,500	450
MCI0603TN3N1_HBP	3.1	B , C	14	500	0.25	8,000	450
MCI0603TN3N2_HBP	3.2	B , C	14	500	0.25	8,000	450
MCI0603TN3N3_HBP	3.3	B , C	14	500	0.25	8,000	450
MCI0603TN3N4_HBP	3.4	B , C	14	500	0.25	7,000	450
MCI0603TN3N5_HBP	3.5	B , C	14	500	0.25	7,000	450
MCI0603TN3N6_HBP	3.6	B , C	14	500	0.30	6,000	400
MCI0603TN3N7_HBP	3.7	B , C	14	500	0.30	6,000	400
MCI0603TN3N8_HBP	3.8	B , C	14	500	0.30	6,000	400
MCI0603TN3N9_HBP	3.9	B , C	14	500	0.30	5,700	400
MCI0603TN4N0_HBP	4.0	B , C	14	500	0.40	5,300	350
MCI0603TN4N1_HBP	4.1	B , C	14	500	0.40	5,300	350
MCI0603TN4N2_HBP	4.2	B , C	14	500	0.40	5,300	350
MCI0603TN4N3_HBP	4.3	H , J	14	500	0.40	5,300	350
MCI0603TN4N7_HBP	4.7	H , J	14	500	0.40	4,400	350
MCI0603TN5N1_HBP	5.1	H , J	14	500	0.40	4,200	350
MCI0603TN5N6_HBP	5.6	H , J	14	500	0.40	4,000	350
MCI0603TN6N2_HBP	6.2	H , J	14	500	0.60	4,000	300
MCI0603TN6N8_HBP	6.8	H , J	14	500	0.60	3,900	300
MCI0603TN7N5_HBP	7.5	H , J	14	500	0.60	3,700	300
MCI0603TN8N2_HBP	8.2	H , J	14	500	0.70	3,600	250
MCI0603TN9N1_HBP	9.1	H , J	14	500	0.70	3,300	250

MCI-TN Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

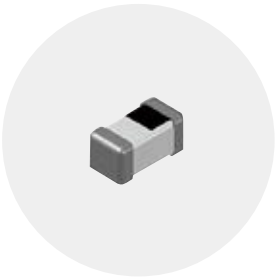
Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
0603 TN (EIA 0201)							
MCI0603TN10N_HBP	10	H , J	14	500	0.70	3,200	250
MCI0603TN11N_HBP	11	H , J	14	500	0.80	2,900	250
MCI0603TN12N_HBP	12	H , J	12	500	0.70	2,900	250
MCI0603TN13N_HBP	13	H , J	12	500	0.80	2,600	250
MCI0603TN15N_HBP	15	H , J	12	500	0.70	2,600	250
MCI0603TN16N_HBP	16	H , J	12	500	0.95	2,200	200
MCI0603TN18N_HBP	18	H , J	12	500	0.80	2,200	200
MCI0603TN20N_HBP	20	H , J	12	500	2.30	2,200	150
MCI0603TN22N_HBP	22	H , J	12	500	1.90	2,200	150

MULTILAYER CERAMIC HIGH FREQUENCY INDUCTOR

MCI-HW/GW Series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS



FEATURES

- Particular ceramic material and coil structure provide high frequency application range up to 10GHz.
- Small size and low profile.
- Available in various sizes.
- Excellent solderability and heat resistance.

APPLICATIONS

- RF and wireless communication, information technology equipment which includes computer, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, audio equipment, PDAs, keyless remote system and low-voltage power supply modules.

PART NUMBER

MCI	0603	HW	1N0	_	H	B	P
1	2	3	4	5	6	7	8

1: Product Type
MCI= Multilayer Ceramic inductor

2: Dimension Code

3: HW: For Automotive Standard Q Type
GW: For Automotive High Q Type

4: Inductance(nH)
N means Decimal point , ex: 1.0 nH = 1N0

5: Tolerance
B = ±0.1nH, C = ±0.2nH, S=±0.3nH , G=±2%, H = ±3%, J = ±5%

6: Mark
H = 1/8 Mark, M = 1/4 Mark, N = No Mark

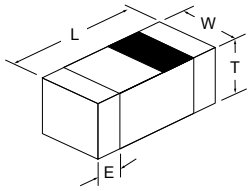
7: Soldering
Green Parts, B= Lead-Free for whole chip

8: Packaging
P=7" Reel Paper taping

EQUIVALENT CIRRUIT & DIMENSIONS

Unit: mm

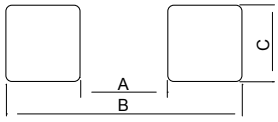
Size (EIA)	0603 (0201)	1005 (0402)	1608 (0603)
L	0.60±0.03	1.00±0.10	1.60±0.15
W	0.30±0.03	0.50±0.10	0.80±0.15
T	0.30±0.03	0.50±0.10	0.80±0.15
E	0.10~0.20	0.10~0.30	0.20~0.60



SOLDER LAND INFORMATION

Unit: mm

Size (EIA)	0603 (0201)	1005 (0402)	1608 (0603)
A	0.2 ~ 0.3	0.4	0.70
B	0.8 ~ 0.9	1.4 ~ 1.5	1.9 ~ 2.3
C	0.2 ~ 0.3	0.5 ~ 0.6	0.60 ~ 0.80



STANDARD PACKING

Size (EIA)	0603 (0201)	1005 (0402)	1608 (0603)
Quantity (pcs/reel)	15,000	10,000	4,000

MCI-HW Series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
0603 HW (EIA 0201)							
MCI0603HW0N3_HBP	0.3	B	4	100	0.07	10,000	850
MCI0603HW0N4_HBP	0.4	B	4	100	0.07	10,000	850
MCI0603HW0N5_HBP	0.5	B	4	100	0.08	10,000	800
MCI0603HW0N6_HBP	0.6	B	4	100	0.08	10,000	800
MCI0603HW0N7_HBP	0.7	B	4	100	0.09	10,000	750
MCI0603HW0N8_HBP	0.8	B	4	100	0.10	10,000	750
MCI0603HW0N9_HBP	0.9	B	4	100	0.10	10,000	750
MCI0603HW1N0_HBP	1.0	B , C , S	4	100	0.14	10,000	600
MCI0603HW1N1_HBP	1.1	B , C , S	4	100	0.14	10,000	600
MCI0603HW1N2_HBP	1.2	B , C , S	4	100	0.14	10,000	600
MCI0603HW1N3_HBP	1.3	B , C , S	4	100	0.14	10,000	600
MCI0603HW1N5_HBP	1.5	B , C , S	4	100	0.18	10,000	550
MCI0603HW1N6_HBP	1.6	B , C , S	4	100	0.18	10,000	500
MCI0603HW1N8_HBP	1.8	B , C , S	4	100	0.19	10,000	500
MCI0603HW1N9_HBP	1.9	B , C , S	4	100	0.20	10,000	450
MCI0603HW2N0_HBP	2.0	B , C , S	4	100	0.20	10,000	450
MCI0603HW2N1_HBP	2.1	B , C , S	4	100	0.20	10,000	450
MCI0603HW2N2_HBP	2.2	B , C , S	4	100	0.22	10,000	450
MCI0603HW2N3_HBP	2.3	B , C , S	4	100	0.22	10,000	450
MCI0603HW2N4_HBP	2.4	B , C , S	4	100	0.24	10,000	450
MCI0603HW2N7_HBP	2.7	B , C , S	5	100	0.25	10,000	450
MCI0603HW2N9_HBP	2.9	B , C , S	5	100	0.28	9,500	450
MCI0603HW3N0_HBP	3.0	B , C , S	5	100	0.28	9,500	450
MCI0603HW3N2_HBP	3.2	B , C , S	5	100	0.30	9,500	450
MCI0603HW3N3_HBP	3.3	B , C , S	5	100	0.30	9,500	450
MCI0603HW3N4_HBP	3.4	B , C , S	5	100	0.30	8,000	400
MCI0603HW3N6_HBP	3.6	B , C , S	5	100	0.30	8,000	400
MCI0603HW3N9_HBP	3.9	B , C , S	5	100	0.30	6,500	400
MCI0603HW4N3_HBP	4.3	B , C , S	5	100	0.40	6,500	350
MCI0603HW4N7_HBP	4.7	B , C , S	5	100	0.40	6,500	350
MCI0603HW5N1_HBP	5.1	B , C , S	5	100	0.40	6,500	350
MCI0603HW5N6_HBP	5.6	B , C , S	5	100	0.40	6,000	350
MCI0603HW6N2_HBP	6.2	B , C , S	5	100	0.44	6,000	300
MCI0603HW6N8_HBP	6.8	H , J	5	100	0.50	5,400	300
MCI0603HW7N5_HBP	7.5	H , J	5	100	0.53	4,800	300
MCI0603HW8N2_HBP	8.2	H , J	5	100	0.55	4,800	250
MCI0603HW9N1_HBP	9.1	H , J	5	100	0.62	4,500	250
MCI0603HW10N_HBP	10	H , J	5	100	0.65	4,500	250
MCI0603HW12N_HBP	12	H , J	5	100	0.70	3,700	250
MCI0603HW15N_HBP	15	H , J	5	100	0.80	2,200	250
MCI0603HW18N_HBP	18	H , J	5	100	0.90	2,200	200

MULTILAYER CERAMIC HIGH FREQUENCY INDUCTOR

MCI-HW Series

AEC-Q200 Compliance

HF Halogen Free

Pb lead-free

RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
1005 HW (EIA 0402)							
MCI1005HW0N3_HBP	0.3	B	8	100	0.08	10,000	1000
MCI1005HW0N4_HBP	0.4	B	8	100	0.08	10,000	1000
MCI1005HW0N5_HBP	0.5	B	8	100	0.08	10,000	1000
MCI1005HW0N6_HBP	0.6	B	8	100	0.08	10,000	1000
MCI1005HW0N8_HBP	0.8	B	8	100	0.08	10,000	1000
MCI1005HW1N0_HBP	1.0	B , C , S	8	100	0.08	10,000	1000
MCI1005HW1N1_HBP	1.1	B , C , S	8	100	0.08	10,000	1000
MCI1005HW1N2_HBP	1.2	B , C , S	8	100	0.09	10,000	1000
MCI1005HW1N3_HBP	1.3	B , C , S	8	100	0.09	10,000	1000
MCI1005HW1N5_HBP	1.5	B , C , S	8	100	0.10	10,000	1000
MCI1005HW1N6_HBP	1.6	B , C , S	8	100	0.10	10,000	1000
MCI1005HW1N8_HBP	1.8	B , C , S	8	100	0.12	10,000	900
MCI1005HW2N0_HBP	2.0	B , C , S	8	100	0.12	10,000	900
MCI1005HW2N2_HBP	2.2	B , C , S	8	100	0.13	10,000	900
MCI1005HW2N4_HBP	2.4	B , C , S	8	100	0.13	10,000	800
MCI1005HW2N7_HBP	2.7	B , C , S	8	100	0.16	6,000	800
MCI1005HW3N0_HBP	3.0	B , C , S	8	100	0.16	6,000	800
MCI1005HW3N3_HBP	3.3	B , C , S	8	100	0.16	6,000	800
MCI1005HW3N6_HBP	3.6	B , C , S	8	100	0.20	6,000	700
MCI1005HW3N9_HBP	3.9	B , C , S	8	100	0.20	6,000	700
MCI1005HW4N3_HBP	4.3	B , C , S	8	100	0.20	6,000	700
MCI1005HW4N7_HBP	4.7	B , C , S	8	100	0.20	6,000	700
MCI1005HW5N1_HBP	5.1	B , C , S	8	100	0.23	5,300	600
MCI1005HW5N6_HBP	5.6	B , C , S	8	100	0.23	4,500	600
MCI1005HW6N2_HBP	6.2	B , C , S	8	100	0.25	4,500	600
MCI1005HW6N8_HBP	6.8	G , H , J	8	100	0.25	4,500	600
MCI1005HW7N5_HBP	7.5	G , H , J	8	100	0.28	4,200	500
MCI1005HW8N2_HBP	8.2	G , H , J	8	100	0.28	3,700	500
MCI1005HW9N1_HBP	9.1	G , H , J	8	100	0.30	3,400	500
MCI1005HW10N_HBP	10	G , H , J	8	100	0.30	3,400	500
MCI1005HW12N_HBP	12	G , H , J	8	100	0.45	3,000	400
MCI1005HW13N_HBP	13	G , H , J	8	100	0.50	3,000	400
MCI1005HW15N_HBP	15	G , H , J	8	100	0.55	2,500	400
MCI1005HW18N_HBP	18	G , H , J	8	100	0.65	2,200	300
MCI1005HW22N_HBP	22	G , H , J	8	100	0.70	1,900	300
MCI1005HW24N_HBP	24	G , H , J	8	100	0.70	1,700	300
MCI1005HW27N_HBP	27	G , H , J	8	100	0.80	1,700	300
MCI1005HW33N_HBP	33	G , H , J	8	100	0.90	1,600	200
MCI1005HW39N_HBP	39	G , H , J	8	100	1.00	1,200	200
MCI1005HW47N_HBP	47	G , H , J	8	100	1.10	1,100	200
MCI1005HW56N_HBP	56	G , H , J	8	100	1.10	1,000	200
MCI1005HW68N_HBP	68	G , H , J	8	100	1.20	800	200
MCI1005HW82N_HBP	82	J	8	100	1.30	600	200
MCI1005HWR10_HBP	100	J	8	100	1.60	600	200

MCI-HW Series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
1608 HW (EIA 0603)							
MCI1608HW1N0_HBP	1	S	8	100	0.05	10,000	1,000
MCI1608HW1N2_HBP	1.2	S	8	100	0.05	10,000	1,000
MCI1608HW1N5_HBP	1.5	S	8	100	0.10	10,000	1,000
MCI1608HW1N8_HBP	1.8	S	8	100	0.10	10,000	1,000
MCI1608HW2N2_HBP	2.2	S	8	100	0.10	8,000	1,000
MCI1608HW2N7_HBP	2.7	S	10	100	0.13	7,000	1,000
MCI1608HW3N3_HBP	3.3	S	10	100	0.13	6,000	1,000
MCI1608HW3N9_HBP	3.9	S	10	100	0.15	6,000	1,000
MCI1608HW4N7_HBP	4.7	S	10	100	0.20	5,000	1,000
MCI1608HW5N6_HBP	5.6	S	10	100	0.23	4,000	600
MCI1608HW6N8_HBP	6.8	J	10	100	0.25	4,000	600
MCI1608HW8N2_HBP	8.2	J	10	100	0.28	3,500	600
MCI1608HW10N_HBP	10	J	12	100	0.30	3,400	600
MCI1608HW12N_HBP	12	J	12	100	0.35	2,600	600
MCI1608HW15N_HBP	15	J	12	100	0.40	2,300	600
MCI1608HW18N_HBP	18	J	12	100	0.45	2,000	600
MCI1608HW22N_HBP	22	J	12	100	0.50	1,600	600
MCI1608HW27N_HBP	27	J	12	100	0.55	1,400	600
MCI1608HW33N_HBP	33	J	12	100	0.60	1,200	600
MCI1608HW39N_HBP	39	J	12	100	0.65	1,100	500
MCI1608HW47N_HBP	47	J	12	100	0.70	900	500
MCI1608HW56N_HBP	56	J	12	100	0.75	900	500
MCI1608HW68N_HBP	68	J	12	100	0.85	700	400
MCI1608HW82N_HBP	82	J	12	100	0.95	600	300
MCI1608HWR10_HBP	100	J	12	100	1.00	600	300
MCI1608HWR12_HBP	120	J	8	50	1.20	500	300

MULTILAYER CERAMIC HIGH FREQUENCY INDUCTOR

MCI-GW Series

AEC-Q200 Compliance

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
0603 GW (EIA 0201)							
MCI0603GW0N3_HBP	0.3	B , C	11	500	0.07	18,000	850
MCI0603GW0N4_HBP	0.4	B , C	11	500	0.07	18,000	850
MCI0603GW0N5_HBP	0.5	B , C	11	500	0.08	18,000	850
MCI0603GW0N6_HBP	0.6	B , C	11	500	0.08	18,000	850
MCI0603GW0N7_HBP	0.7	B , C	12	500	0.09	18,000	750
MCI0603GW0N8_HBP	0.8	B , C	12	500	0.10	18,000	750
MCI0603GW0N9_HBP	0.9	B , C	12	500	0.12	18,000	700
MCI0603GW1N0_HBP	1.0	B , C	12	500	0.14	17,000	600
MCI0603GW1N1_HBP	1.1	B , C	12	500	0.14	17,000	600
MCI0603GW1N2_HBP	1.2	B , C	12	500	0.14	15,000	600
MCI0603GW1N3_HBP	1.3	B , C	12	500	0.15	15,000	600
MCI0603GW1N4_HBP	1.4	B , C	12	500	0.15	14,000	600
MCI0603GW1N5_HBP	1.5	B , C	12	500	0.15	13,500	600
MCI0603GW1N6_HBP	1.6	B , C	12	500	0.15	13,000	600
MCI0603GW1N7_HBP	1.7	B , C	12	500	0.19	12,500	500
MCI0603GW1N8_HBP	1.8	B , C	12	500	0.20	12,500	500
MCI0603GW1N9_HBP	1.9	B , C	12	500	0.20	12,500	450
MCI0603GW2N0_HBP	2.0	B , C	12	500	0.20	12,500	450
MCI0603GW2N1_HBP	2.1	B , C	12	500	0.22	12,000	450
MCI0603GW2N2_HBP	2.2	B , C	12	500	0.22	12,000	450
MCI0603GW2N3_HBP	2.3	B , C	12	500	0.24	11,500	450
MCI0603GW2N4_HBP	2.4	B , C	12	500	0.25	11,000	450
MCI0603GW2N5_HBP	2.5	B , C	12	500	0.25	11,000	450
MCI0603GW2N6_HBP	2.6	B , C	12	500	0.25	11,000	450
MCI0603GW2N7_HBP	2.7	B , C	12	500	0.25	11,000	450
MCI0603GW2N8_HBP	2.8	B , C	12	500	0.25	9,500	450
MCI0603GW2N9_HBP	2.9	B , C	12	500	0.25	9,500	450
MCI0603GW3N0_HBP	3.0	B , C	12	500	0.25	9,500	450
MCI0603GW3N1_HBP	3.1	B , C	12	500	0.30	9,500	450
MCI0603GW3N2_HBP	3.2	B , C	12	500	0.30	9,500	450
MCI0603GW3N3_HBP	3.3	B , C	12	500	0.30	9,500	400
MCI0603GW3N4_HBP	3.4	B , C	12	500	0.30	8,000	400
MCI0603GW3N5_HBP	3.5	B , C	12	500	0.30	8,000	400
MCI0603GW3N6_HBP	3.6	B , C	12	500	0.30	8,000	400
MCI0603GW3N7_HBP	3.7	B , C	12	500	0.30	7,000	400
MCI0603GW3N8_HBP	3.8	B , C	12	500	0.35	7,000	350
MCI0603GW3N9_HBP	3.9	B , C	12	500	0.35	6,500	350

MCI-GW Series

AEC-Q200 Compliance

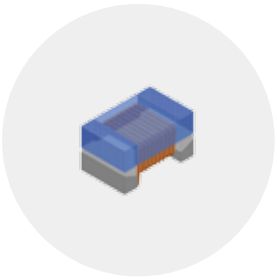
HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Freq. (MHz)	DCR Max. (Ω)	SRF (MHz) Min.	Rated Current Max. (mA)
0603 GW (EIA 0201)							
MCI0603GW4N3_HBP	4.3	H , J	12	500	0.40	6,500	350
MCI0603GW4N7_HBP	4.7	H , J	12	500	0.40	6,500	350
MCI0603GW5N1_HBP	5.1	H , J	12	500	0.40	6,500	350
MCI0603GW5N6_HBP	5.6	H , J	12	500	0.44	6,000	300
MCI0603GW6N2_HBP	6.2	H , J	12	500	0.50	6,000	300
MCI0603GW6N8_HBP	6.8	H , J	12	500	0.53	5,400	300
MCI0603GW7N5_HBP	7.5	H , J	12	500	0.55	4,800	250
MCI0603GW8N2_HBP	8.2	H , J	12	500	0.62	4,800	250
MCI0603GW9N1_HBP	9.1	H , J	12	500	0.65	4,500	250
MCI0603GW10N_HBP	10	H , J	11	500	0.70	4,000	250
MCI0603GW12N_HBP	12	H , J	11	500	0.75	3,700	250
MCI0603GW15N_HBP	15	H , J	11	500	0.85	3,100	250
MCI0603GW18N_HBP	18	H , J	11	500	1.00	2,800	200

WIRE WOUND
CERAMIC ASSEMBLY HIGH FREQUENCY INDUCTOR

WCI Series



FEATURES

- Can be for high frequency bands up to GHz and stable inductance at high frequency.
- The high self resonant frequency realizes high Q value
- Low DC resistance design is ideal for low loss.

APPLICATIONS

- For high-frequency applications including mobile phones, portable phones, such as PA, ANT, VCO, SAW, etc.
- Mobile phones such as GSM, CDMA, PDC, ete.
- Bluetooth, W-LAN.

PART NUMBER

WCI	1005	CP	1N0	_	N	B	P
1	2	3	4	5	6	7	8

1: Series Name

2: Dimensions LxW

3: Material Code

4: Inductance(nH):
N means Decimal point, ex 3.3 nH= 3N3

5: Tolerance:
G= ±2%, H= ±3%, J= ±5%

6: Mark:
H= 1/8 Mark, M= 1/4 Mark, N= No Mark, R= Color code

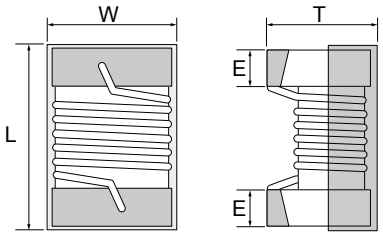
7: Soldering:
Green Parts B= Lead-Free for whole chip

8: Packaging:
P= Paper tape, 7" reel

DIMENSION

Unit: mm

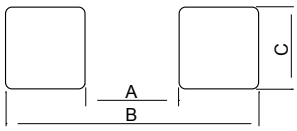
Size (EIA)	1005 (0402)	1608 (0603)	2012 (0805)
L	1.19(Max.)	1.80(Max.)	2.29(Max.)
W	0.64(Max.)	1.12(Max.)	1.73(Max.)
T	0.66(Max.)	1.02(Max.)	1.52(Max.)
E	0.23±0.10	0.33±0.10	0.44±0.10



RECOMMEND LAND PATTERN DIMENSIONS

Unit: mm

Size (EIA)	1005 (0402)	1608 (0603)	2012 (0805)
A	0.46	0.64	0.76
B	1.18	1.92	2.80
C	0.66	1.02	1.78



Reel Packaging Quantity			
Part Size (EIA Size)	1005 (0402)	1608 (0603)	2012 (0805)
Quantity (pcs)	4,000	4,000	3,000

WCI Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH) @250MHz	Inductance Tolerance	Q Min.	L @900MHz Typ.	Q @900MHz Typ.	L @1700MHz Typ.	Q @1700MHz Typ.	S.R.F (GHz) Min.	DCR (Ω) Max.	Rated Current (mA) Max.
1005CP (EIA 0402)										
WCI1005CP1N0_NBP	1	J	16	1.02	75	1.02	70	12.7	0.045	1,360
WCI1005CP1N2_NBP	1.2	J	16	1.17	30	1.17	40	12.9	0.09	740
WCI1005CP1N8_NBP	1.8	J	16	2.08	59	1.94	74	12	0.07	1,040
WCI1005CP1N9_NBP	1.9	J	16	1.72	65	1.74	80	11.3	0.07	1,040
WCI1005CP2N0_NBP	2	H , J	16	1.93	54	1.93	75	11.1	0.07	1,040
WCI1005CP2N2_NBP	2.2	H , J	19	2.19	55	2.23	82	10.8	0.07	960
WCI1005CP2N4_NBP	2.4	H , J	15	2.24	51	2.27	70	10.5	0.068	790
WCI1005CP2N7_NBP	2.7	H , J	16	2.58	42	2.6	61	10.4	0.12	640
WCI1005CP3N3_NBP	3.3	H , J	19	3.1	65	3.12	80	7	0.066	840
WCI1005CP3N6_NBP	3.6	H , J	19	3.56	45	3.62	71	6.8	0.066	840
WCI1005CP3N9_NBP	3.9	H , J	19	3.89	50	4.14	72	6	0.066	840
WCI1005CP4N3_NBP	4.3	H , J	18	4.19	40	4.3	71	6	0.091	700
WCI1005CP4N7_NBP	4.7	H , J	15	4.78	47	4.59	62	4.7	0.13	640
WCI1005CP5N1_NBP	5.1	H , J	20	5.16	52	5.19	76	4.8	0.083	800
WCI1005CP5N6_NBP	5.6	H , J	20	5.2	48	5.28	75	4.8	0.083	760
WCI1005CP6N2_NBP	6.2	H , J	20	6.15	50	6.2	73	4.8	0.083	760
WCI1005CP6N8_NBP	6.8	H , J	20	6.73	65	6.95	70	4.8	0.083	680
WCI1005CP7N3_NBP	7.3	H , J	20	7.51	60	7.89	80	4.8	0.1	680
WCI1005CP7N5_NBP	7.5	H , J	22	7.91	60	8.22	85	4.8	0.1	680
WCI1005CP8N2_NBP	8.2	H , J	22	8.53	64	8.81	88	4.4	0.1	680
WCI1005CP8N7_NBP	8.7	H , J	18	8.78	54	9.21	73	4.1	0.2	480
WCI1005CP9N0_NBP	9	H , J	22	9.07	65	9.53	83	4.16	0.1	680
WCI1005CP9N1_NBP	9.1	H , J	22	9.27	63	8.61	73	4.16	0.1	680
WCI1005CP9N5_NBP	9.5	H , J	18	9.64	62	9.93	56	4	0.2	480
WCI1005CP10N_NBP	10	H , J	21	10.16	50	9.72	85	3.9	0.2	480
WCI1005CP11N_NBP	11	H , J	24	10.89	53	11.46	77	3.68	0.12	640
WCI1005CP12N_NBP	12	G , J	24	12.71	62	12.87	77	3.6	0.12	640
WCI1005CP13N_NBP	13	G , J	24	13.4	51	14.63	57	3.45	0.21	440
WCI1005CP15N_NBP	15	G , J	24	15.2	55	16.88	76	3.28	0.17	560
WCI1005CP16N_NBP	16	G , J	24	16.43	45	18.79	49	3.1	0.22	560
WCI1005CP18N_NBP	18	G , J	25	17.39	52	22.18	64	3.1	0.23	420
WCI1005CP19N_NBP	19	G , J	24	19.51	60	21.85	72	3.04	0.2	480
WCI1005CP20N_NBP	20	G , J	25	20.7	52	23.66	53	3	0.25	420
WCI1005CP22N_NBP	22	G , J	25	22.33	57	26.54	53	2.8	0.3	400
WCI1005CP23N_NBP	23	G , J	22	23.8	49	26.85	64	2.72	0.3	400
WCI1005CP24N_NBP	24	G , J	25	25.59	59	31.06	56	2.7	0.3	400
WCI1005CP27N_NBP	27	G , J	24	29.26	45	32.56	62	2.48	0.3	400
WCI1005CP30N_NBP	30	G , J	25	31.9	45	40.38	41	2.35	0.3	400
WCI1005CP33N_NBP	33	G , J	24	34.12	35	40.32	36	2.35	0.44	400
WCI1005CP36N_NBP	36	G , J	24	39.5	45	48.4	53	2.32	0.44	320
WCI1005CP39N_NBP	39	G , J	25	42.65	45	50.96	42	2.1	0.55	200
WCI1005CP40N_NBP	40	G , J	24	39	44	47.41	35	2.24	0.44	320
WCI1005CP43N_NBP	43	G , J	25	45.8	46	61.55	35	2.03	0.81	100
WCI1005CP47N_NBP	47	G , J	20	52.85	42	-	-	2.1	0.83	150
WCI1005CP51N_NBP	51	G , J	25	56.6	40	-	-	1.75	0.82	100
WCI1005CP56N_NBP	56	G , J	22	58.59	40	-	-	1.76	0.97	100
WCI1005CP68N_NBP	68	G , J	22	72.17	40	-	-	1.62	1.12	100
WCI1005CP82N_NBP	82	J	20	-	-	-	-	1.26	1.55	50
WCI1005CPR10_NBP	100	G , J	20	-	-	-	-	1.16	2	30
WCI1005CPR12_NBP	120	J	20	-	-	-	-	1.9	2.2	50

WCI Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Test Freq. (MHz)	S.R.F (MHz) Min.	DCR (Ω) Max.	Irms (mA)	COLOR CODE
1608CP (EIA 0603)								
WCI1608CP1N6_RBE	1.6	J	24	250	12500	0.03	700	BLACK
WCI1608CP1N8_RBE	1.8	J	16	250	12500	0.045	700	BROWN
WCI1608CP2N1_RBE	2.1	J	20	250	5800	0.05	700	RED
WCI1608CP2N2_RBE	2.2	J	20	100	5800	0.1	700	ORANGE
WCI1608CP3N3_RBE	3.3	J	20	250	5500	0.07	700	VIOLET
WCI1608CP3N6_RBE	3.6	J	22	250	5900	0.063	700	RED
WCI1608CP3N9_RBE	3.9	J	22	250	6900	0.08	700	ORANGE
WCI1608CP4N3_RBE	4.3	J	22	250	5900	0.063	700	YELLOW
WCI1608CP4N7_RBE	4.7	J	20	250	5800	0.116	700	GREEN
WCI1608CP5N1_RBE	5.1	J	20	250	5700	0.14	700	BLUE
WCI1608CP5N6_RBE	5.6	J	20	250	5800	0.15	700	GRAY
WCI1608CP6N1_RBE	6.1	J	25	250	5800	0.11	700	WHITE
WCI1608CP6N8_RBE	6.8	G , J	27	250	5800	0.11	700	VIOLET
WCI1608CP7N5_RBE	7.5	G , J	28	250	4800	0.106	700	GRAY
WCI1608CP8N2_RBE	8.2	G , J	25	250	5800	0.12	700	BLACK
WCI1608CP8N4_RBE	8.4	G , J	28	250	4600	0.109	700	RED
WCI1608CP8N5_RBE	8.5	G , J	28	250	4600	0.109	700	RED
WCI1608CP8N7_RBE	8.7	G , J	28	250	4600	0.109	700	WHITE
WCI1608CP9N5_RBE	9.5	G , J	28	250	5400	0.135	700	BLACK
WCI1608CP10N_RBE	10	G , J	31	250	4800	0.13	700	BROWN
WCI1608CP11N_RBE	11	G , J	33	250	4000	0.086	700	RED
WCI1608CP12N_RBE	12	G , J	35	250	4000	0.13	700	ORANGE
WCI1608CP14N_RBE	14	G , J	35	250	4000	0.17	700	BROWN
WCI1608CP15N_RBE	15	G , J	35	250	4000	0.17	700	YELLOW
WCI1608CP16N_RBE	16	G , J	34	250	3300	0.104	700	GREEN
WCI1608CP18N_RBE	18	G , J	35	250	3100	0.17	700	BLUE
WCI1608CP20N_RBE	20	G , J	35	250	3000	0.17	700	YELLOW
WCI1608CP22N_RBE	22	G , J	38	250	3000	0.19	700	VIOLET
WCI1608CP24N_RBE	24	G , J	37	250	2650	0.135	700	GRAY
WCI1608CP27N_RBE	27	G , J	40	250	2800	0.22	600	WHITE
WCI1608CP30N_RBE	30	G , J	37	250	2250	0.144	600	BLACK
WCI1608CP33N_RBE	33	G , J	40	250	2300	0.22	600	BROWN
WCI1608CP36N_RBE	36	G , J	38	250	2080	0.25	600	RED
WCI1608CP39N_RBE	39	G , J	40	250	2200	0.25	600	ORANGE
WCI1608CP43N_RBE	43	G , J	39	250	2000	0.28	600	YELLOW
WCI1608CP47N_RBE	47	G , J	38	200	2000	0.28	600	GREEN
WCI1608CP56N_RBE	56	G , J	38	200	1900	0.31	600	BLUE
WCI1608CP68N_RBE	68	G , J	37	200	1700	0.34	600	VIOLET
WCI1608CP72N_RBE	72	G , J	34	150	1700	0.49	400	GRAY
WCI1608CP82N_RBE	82	G , J	34	150	1700	0.54	400	WHITE
WCI1608CP91N_RBE	91	G , J	34	150	1400	0.58	400	VIOLET
WCI1608CPR10_RBE	100	G , J	34	150	1400	0.58	400	BLACK

WCI Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Inductance Tolerance	Q Min.	Test Freq. (MHz)	S.R.F (MHz) Min.	DCR (Ω) Max.	Irms (mA)	COLOR CODE
1608CP (EIA 0603)								
WCI1608CPR11_RBE	110	G , J	32	150	1350	0.61	300	BROWN
WCI1608CPR12_RBE	120	G , J	32	150	1300	0.65	300	RED
WCI1608CPR15_RBE	150	G , J	28	150	990	0.92	280	ORANGE
WCI1608CPR18_RBE	180	G , J	25	100	990	1.25	240	YELLOW
WCI1608CPR22_RBE	220	G , J	25	100	900	1.9	200	GREEN
WCI1608CPR27_RBE	270	G , J	24	100	900	2.3	170	BLUE
WCI1608CPR33_RBE	330	G , J	24	100	900	3.9	185	VIOLET
WCI1608CPR39_RBE	390	G , J	25	100	900	4.35	100	GRAY

WCI Series

HF Halogen Free Pb lead-free RoHS

SPECIFICATIONS

Part Number	Inductance (nH)	Test Freq. (MHz)	Inductance Tolerance	Q Min.	Test Freq. (MHz)	S.R.F (MHz) Min.	DCR (Ω) Max.	Irms (mA)	COLOR CODE
2012CP (EIA 0805)									
WCI2012CP2N7_RBE	2.7	250	J	35	1000	6000	0.03	600	BROWN
WCI2012CP2N8_RBE	2.8	250	J	80	1000	7900	0.06	800	RED
WCI2012CP2N9_RBE	2.9	250	J	50	1500	4700	0.05	600	BLUE
WCI2012CP3N0_RBE	3	250	J	65	1500	7900	0.06	800	VIOLET
WCI2012CP3N3_RBE	3.3	250	J	50	1500	7900	0.08	600	BLACK
WCI2012CP5N6_RBE	5.6	250	J	65	1000	5500	0.08	600	VILOET
WCI2012CP6N8_RBE	6.8	250	J	50	1000	5500	0.11	600	BROWN
WCI2012CP7N5_RBE	7.5	250	J	50	1000	4500	0.14	600	BLACK
WCI2012CP8N2_RBE	8.2	250	G , J	50	1000	4700	0.12	600	RED
WCI2012CP10N_RBE	10	250	G , J	60	500	4200	0.1	600	RED
WCI2012CP11N_RBE	11	700	G , J	45	500	3000	0.15	600	ORANGE
WCI2012CP12N_RBE	12	250	G , J	50	500	4000	0.15	600	ORANGE
WCI2012CP15N_RBE	15	250	G , J	50	500	3400	0.17	600	YELLOW
WCI2012CP18N_RBE	18	250	G , J	50	500	3300	0.2	600	GREEN
WCI2012CP22N_RBE	22	250	G , J	55	500	2600	0.22	500	BLUE
WCI2012CP24N_RBE	24	250	G , J	50	500	2000	0.22	500	RED
WCI2012CP27N_RBE	27	250	G , J	55	500	2500	0.25	500	VIOLET
WCI2012CP33N_RBE	33	250	G , J	60	500	2050	0.27	500	GRAY
WCI2012CP36N_RBE	36	250	G , J	55	500	1700	0.27	500	YELLOW
WCI2012CP37N_RBE	37	350	G , J	40	500	1800	0.27	500	GREEN
WCI2012CP38N_RBE	38	350	G , J	40	500	1800	0.27	500	BLUE
WCI2012CP39N_RBE	39	250	G , J	60	500	2000	0.29	500	WHITE
WCI2012CP43N_RBE	43	200	G , J	60	500	1650	0.34	500	YELLOW
WCI2012CP47N_RBE	47	200	G , J	60	500	1650	0.31	500	BLACK
WCI2012CP56N_RBE	56	200	G , J	60	500	1550	0.34	500	BROWN
WCI2012CP68N_RBE	68	200	G , J	60	500	1450	0.38	500	RED
WCI2012CP82N_RBE	82	150	G , J	65	500	1300	0.42	400	ORANGE
WCI2012CP91N_RBE	91	150	G , J	65	500	1200	0.48	400	BLUE
WCI2012CPR10_RBE	100	150	G , J	65	500	1200	0.46	400	YELLOW
WCI2012CPR11_RBE	110	150	G , J	50	500	1000	0.48	400	VIOLET
WCI2012CPR12_RBE	120	150	G , J	50	250	1100	0.51	400	GREEN
WCI2012CPR15_RBE	150	100	G , J	50	250	920	0.56	400	BLUE
WCI2012CPR18_RBE	180	100	G , J	50	250	870	0.64	400	VIOLET
WCI2012CPR22_RBE	220	100	G , J	50	250	850	0.7	400	GRAY
WCI2012CPR24_RBE	240	100	G , J	44	250	690	1	350	BLACK
WCI2012CPR27_RBE	270	100	G , J	48	250	650	1	350	WHITE
WCI2012CPR30_RBE	300	150	G , J	25	250	450	1.4	310	GRAY
WCI2012CPR33_RBE	330	100	G , J	48	250	600	1.4	300	BLACK
WCI2012CPR36_RBE	360	100	G , J	35	250	460	0.9	300	ORANGE
WCI2012CPR39_RBE	390	150	G , J	48	250	560	1.5	290	BROWN
WCI2012CPR43_RBE	430	100	G , J	25	100	400	1.7	190	WHITE
WCI2012CPR47_RBE	470	50	J	33	100	375	1.76	250	VIOLET
WCI2012CPR68_RBE	680	25	J	23	50	188	2.2	190	GREEN
WCI2012CPR82_RBE	820	25	J	23	50	215	2.35	180	BROWN

Reliability and Test Condition

For WIP Products

Test item	Test condition	Criteria
Resistance to Solder Heat	1. Solder temperature : 260 ±5°C 2. Flux : Rosin 3. DIP time : 10 ±1 sec	1. More than 95% of terminal electrode should be covered with new solder 2. No mechanical damage 3. Inductance value should be within ±20% of the initial value
Adhesive Test	1. Reflow temperature : 245°C It shall be Soldered on the substrate applying direction parallel to the substrate 2. Apply force (F) : 5 N 3. Test time : 10 sec	1. No mechanical damage 2. Soldering the products on PCB after the pulling test force > 5 N
Temperature Cycle	1. Temperature:-50 ~ 125°C For 30 minutes each 2. Cycle: 500 cycles 3. Measurement: At ambient temperature 24 hours after test completion	1. No mechanical damage 2. Inductance should be within ±20% of the initial value
Dry Heat Test	1. Temperature: 85 ±2°C 2. Testing time: 500 hrs 3. Applied current: Full rated current 4. Measurement: At ambient temperature 24 hours after test completion	1. No mechanical damage 2. Inductance should be within ±20% of the initial value
Humidity Test	1. Temperature: 60 ± 2°C 2. Humidity: 90 ~ 95% RH 3. Applied current: Full rated current 4. Testing time: 500 hrs 5. Measurement: At ambient temperature 24 hours after test completion	1. No mechanical damage 2. Inductance should be within ±20% of the initial value

Reliability and Test Condition

For MIP/MAP/MFI/WFI/MNI/MCI/WCI Products

Test item	Test condition	Criteria	Reference
Resistance to Solder Heat	1. Solder temperature : 260 ± 5°C 2. Flux : Rosin 3. DIP time : 10 ±1 sec	1. More than 95% of terminal electrode should be covered with new solder 2. No mechanical damage 3. Inductance value should be within ±10% of the initial value (MIP & MNI Series +/-20%)	MIL-STD-202G Method 210
Solderability Test	1. Solder temperature : 235 ±5°C 2. Flux : Rosin 3. DIP time : 5 ±1 sec	More than 95% of terminal electrode should be covered with new solder	J-STD-002C
Temperature Cycle	1. Temperature : -40 ~ +85°C (For MCI Series : -55 ~ +125°C) (For WCI Series : -40 ~ +125°C) 2. Cycle : 100 cycles (MC Series 5cycle) 3. Dwell time : 30minutes Measurement : at ambient temperature 24 hrs after test completion	1. No mechanical damage 2. Inductance value should be within ±10% of the initial value (MIP & MNI Serie+A1:D7)	JESD22 A-106B
Operational Life	1. Temperature : 85°C ±5°C (For MFI Series 125°C ±5°C) 2. Test time : 1000 hrs (For WCI & WFI series 240 hrs) 3. Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion	1. No mechanical damage 2. Inductance value should be within ±10% of the initial value (MIP & MNI Series +/-20%)	MIL-STD-202G Method 108
Biased Humidity	1. Temperature : 40 ±2°C (For WCI & WFI series 85 ±2°C) 2. Humidity : 90 ~ 95% RH (For WCI & WFI series 85%RH) 3. Test time : 1000 hrs (For WCI & WFI Series : 120hrs) 4. Apply current : full rated current (For WCI & WFI Series : 90 min. On, 30 min. Off) Measurement : at ambient temperature 24 hrs after test completion	1. No mechanical damage 2. Inductance value should be within ±10% of the initial value (MIP & MNI Series +/-20%)	MIL-STD-202G Method 103

Reliability and Test Condition

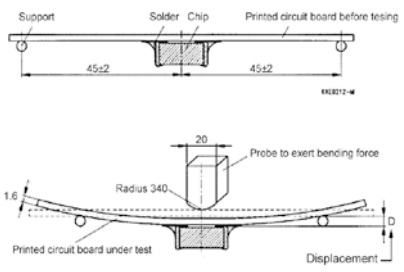
For WPA/MPA Products follow AEC-Q200 Table

Test item	Test condition	Criteria
Resistance to Solder Heat	1. Solder temperature : 260 ± 5°C 2. Flux : Rosin 3. DIP time : 10 ± 1 sec	1. More than 95% of terminal electrode should be covered with new solder 2. No mechanical damage 3. Inductance value should be within ±20% of the initial value
Terminal Strength	1. Reflowtemperature: 245°C It shall be soldered on the substrate. Force applying direction parallel to the substrate. 2. Apply force(F) : 17.7 N (1.8Kg) 3. Test time: 60± 1 sec	1. No mechanical damage 2. Inductance value should be within ±20% of the initial value
Temperature Cycle	1. Temperature: -40 ~ 125°C for 30 minutes at each temperature extreme. 2. Cycle: 1000 cycles 3. Measurement: At ambient temperature 24± 4 hours after test completion.	1. No mechanical damage 2. Inductance should be within ±20% of the initial value
Operational Life	1. Temperature: 105°C 2. Testing time: 1000 hours 3. Applied current: Full rated current 4. Measurement: At ambient temperature 24± 4 hours after test completion.	1. No mechanical damage 2. Inductance should be within ±20% of the initial value
Biased Humidity	1. Temperature: 85°C 2. Humidity: 85% RH 3. Testing time: 1000 hours 4. Measurement: At ambient temperature 24± 4 hours after test completion.	1. No mechanical damage 2. Inductance should be within ±20% of the initial value

Reliability and Test Condition

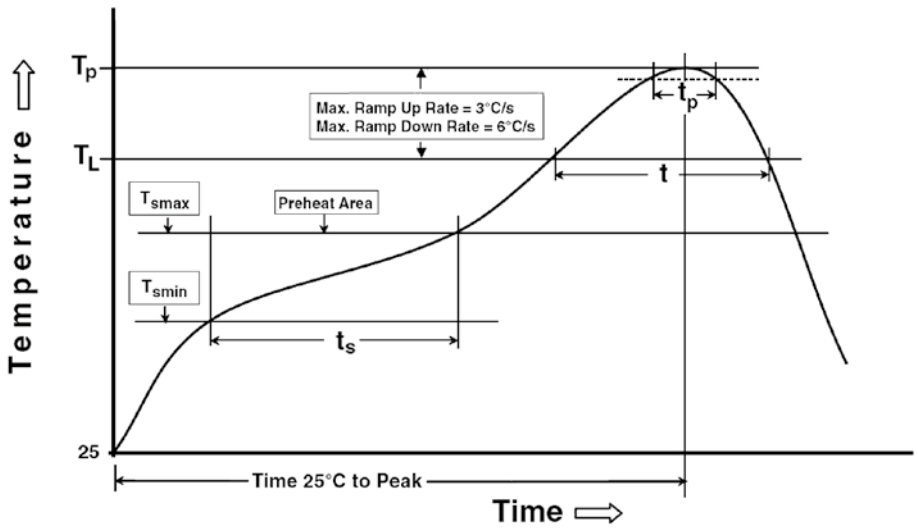
HF Halogen Free Pb lead-free RoHS

For MCI-HW/GW Products follow AEC-Q200

Test item	Test condition	Criteria	Reference AEC-Q200
High Temperature Exposure	1. Temperature : 125°C ±5°C 2. Test time : 1000 hrs Measurement: at ambient temperature 24 hrs after test completion	1. No mechanical damage 2. Impedance value should be within ±10% of the initial value	MIL-STD-202 Method 108
Temperature Cycling	1. Temperature : -55 ~ +125°C 2. Cycle : 1000 cycles 3. Dwell time : 30minutes Measurement : at ambient temperature 24 hrs after test completion	1. No mechanical damage 2. Impedance value should be within ±10% of the initial value	JESD22 Method JA-104
Biased Humidity	1. Temperature : 85°C ±2°C 2. Humidity : 85 % RH 3. Test time : 1000 hrs 4. Apply current : full rated current Measurement: At ambient temperature 24 hrs after test completion	1. No mechanical damage 2. Impedance value should be within ±10% of the initial value	MIL-STD-202 method 103
Operational Life	1. Temperature : 125°C ±5°C 2. Test time : 1000 hrs 3. Apply current : full rated current Measurement: At ambient temperature 24 hrs after test completion	1. No mechanical damage 2. Impedance value should be within ±10% of the initial value	MIL-STD-202 Method 108
Mechanical Shock	Condition F:1500g's/0.5ms/Half sine	No mechanical damage	MIL-STD-202 Method 213
Vibration Test	1. 5g's for 20 minutes,12cycles each of 3 orientations 2. Test from 10-2000Hz.,12cycles each of 3 orientations	No mechanical damage	MIL-STD-202 Method 204
Resistance to Solder Heat	1. Solder temperature : 260 ±5°C 2. Flux : Rosin 3. DIP time : 10 ± 1 sec	1. More than 95% of terminal electrode should be covered with new solder 2. No mechanical damage 3. Impedance value should be within ±10% of the initial value	MIL-STD-202 Method 210
ESD	Classification Levels 1C 1000 V (DC) to < 2000 V (DC)	1. No mechanical damage 2. Impedance value should be within ±10% of the initial value	AEC-Q200-002
Solderability Test	1. Solder temperature : 235 ±5°C 2. Flux : Rosin 3. DIP time : 5 ± 1 sec	More than 95% of terminal electrode should be covered with new solder	J-STD-002
Board Flex	60 sec minimum holding time 	No mechanical damage	AEC-Q200-005
Terminal Strength	<table><tr><th>DIMENSIONS</th><th>Apply Force (F)</th><th>Test Time</th></tr><tr><td>0603</td><td>2N</td><td>5 sec.</td></tr><tr><td>1005/1012</td><td>5N</td><td>10 sec.</td></tr><tr><td>1608</td><td>10N</td><td>10 sec.</td></tr><tr><td>≥ 2012</td><td>17.7N</td><td>60 sec.</td></tr></table>	No mechanical damage	INPAQ Specification

Recommendable reflow soldering

Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (Tsmax to Tp)	3°C /second max.
Preheat	
– Temperature Min (Tsmin)	150°C
– Temperature Max (Tsmax)	200°C
– Time (tsmin to tsmax)	60-180 seconds
Time maintained above:	
– Temperature (TL)	217°C
– Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp)	260°C
Time within 5°C of actual Peak Temperature (tp)	20-40 seconds
Ramp-Down Rate	6°C /second max.
Time 25°C to Peak Temperature	8 minutes max.



Cross Reference For WIP Series

INPAQ		Cyntec	TOKO / Murata	Chilisin	Sunlord	ICT	Semco
WIP-Y	**WIP2016Y**	HTQH2016		EHEI2016		MP2016ER	CIGT2016EH
WIP-S	**WIP2016S**	HMMQ2016	DFE2016F	HEI2016	WPN2016U	MP2016HR	CIGT2016EH
	WIP2520S	HMMQ2520	DFE2520F	HEI2520	WPN2520U	MP2520HR	CIGT2016EH
WIP-P	**WIP2520P**	PIFE/PCSB2520	DFE2520C/P/R	MHCD2520	WPN2520 SPH2520	MP2520ER	CIGT2520LM
	WIP2016P	PIFE/PCSB2016	DFE2016C/P/R	MHCD2016	WPN2016 SPH2016	MP2016ER	CIGT2520LM

佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.

E-Mail: info@inpaq.com.tw
http: //www.inpaq.com.tw
http: //www.inpaqgp.com

業務據點 / SALES SITE

Taiwan
Headquarters/Chunan Plant
INPAQ TECHNOLOGY CO., LTD.
35059 苗栗縣竹南鎮公義里 11 鄰科義街 11 號
No.11, Ke-Yi Street, Chunan, Miaoli 35059,
Taiwan (R.O.C)
TEL: +886-37-585-555
FAX: +886-37-585-511

Taiwan INPAQ Office
TAIWAN INPAQ ELECTRONIC CO., LTD.
35059 苗栗縣竹南鎮科義街38號1樓
1F, No.38, Ke-Yi Street, Chunan, Miaoli 35059,
Taiwan (R.O.C.)
TEL: +886-37-585-555
FAX: +886-37-585-511

Taipei Office
11261 台北市北投區立功街 135 號 2 樓
2F, No.135, Ligong Street, Beitou District,
Taipei City 11261, Taiwan (R.O.C.)
TEL: +886-2-7729-4296
FAX: +886-2-2858-5654

Yangmei Office
32668 桃園市楊梅區高獅路566-1號
No.566-1, Kao-Shi Road, Yang-Mei, Taoyuan 32668,
Taiwan (R.O.C.)
TEL: +886-3-475-6600
FAX: +886-3-488-3728

China
Shanghai Office
200235 上海市徐匯區中山西路 1800 號
兆豐環球大廈 14 樓 J2 座
J2, 14F, Zhao Feng Universe Building Block, No.1800,
Zhongshan West Road, Xuhui District, Shanghai City 200235,
China
TEL: +86-21-6440-3187
FAX: +86-21-6440-0138

Shenzhen Office
518057 廣東省深圳市南山區科技園中區科苑路15 號
科興科學園 A 棟 2 單元 802 室
Room 802, Unit 2, Building A, Kexing Science Park, No.15,
Keyuan Avenue, Central Zone, High-tech Zone, Nanshan
District, Shenzhen City, Guangdong Province 518057, China
TEL: +86-755-8279-4585
FAX: +86-755-8279-4565

Shenzhen Baoan Office
518100 廣東省深圳市寶安區創業二路
新一代資訊技術產業園C座515室
Room 515, Building C, Next Generation Information
Technology Industrial Park, Chuangye 2nd Road, Baoan
District, Shenzhen City, Guangdong Province 518100, China
TEL: +86-755-2772-5162

Xian Office
710065 陝西省西安市高新區丈八一路
綠地SOHO同盟 B 座 608 室
Room 608, Plaza B, GreenLand SOHO Association, Zhangbayi
Road, Gaoxin Area, Xian City, Shaanxi Province 710065, China
TEL: +86-29-6569-1168
FAX: + 86-29-6569-1158

Overseas
USA Office
California
2055 Junction Ave, Suite 100, San Jose,
CA 95131, U.S.A
TEL: +1-669-268-5804

New Hampshire
21 Echo Brook Road, Rochester, NH 03839, U.S.A.
TEL: +1-603-332-6222
FAX: +1-603-509-2900

Korea Office
221 Raemian Seocho Univill, 1445-4, Seocho-Dong,
Seocho_Gu, Seoul 130-070, Korea
TEL: +82-2-584-8959
FAX: +82-2-584-8951

Authorized Agent
Russia: Saint Petersburg, Moscow
USA: Seattle, Minnesota
Germany: Nagold
India: Bangalore
Japan: Tokyo, Osaka
Malaysia: Perak

工廠據點 / PLANT SITE

Taiwan
Taichung Plant
INPAQ TECHNOLOGY (TAICHUNG) CO., LTD.
42881 台中市大雅區秀山村科雅路27號4樓
(中科第一期標準廠房四樓)
4F, No.27, Keya Road, Daya District,
Taichung City 42881, Taiwan (R.O.C.)
TEL: +886-4-2560-6555
FAX: +886-4-2560-5151

China
Suzhou Plant
INPAQ TECHNOLOGY (SUZHOU) CO., LTD.
21543 江蘇省蘇州相城區黃埭鎮潘陽工業園春秋路5號
No.5, Chunqiu Road, Panyang Industrial Park,
Huangdai Town, Xiangcheng Zone, Suzhou City, 215143
Jiangsu Province, China
TEL: +86-512-6571-9988
FAX: +86-512-6571-6988

Suzhou II Plant
215126 中國江蘇省蘇州工業園區長陽街369號
No.369 Changyang Street, Suzhou Industrial Park,
Jiangsu Province 215126, China
TEL: +86-510-6283-6888
FAX: +86-510-6283-7888

China
Wuxi Plant
INPAQ TECHNOLOGY (China) CO., LTD.
214105 江蘇省無錫市錫山經濟開發區
安鎮安泰一路81號
No.81, Antai First Road, Anzheng Town,
Xishan Economic Development Zone, Wuxi City,
Jiangsu Province 214105, China
TEL: +86-510-8878-5968
FAX: +86-510-8878-9918

RoHS