

SMD 3D Coil(11.8X11.8X2.9mm) SMD 3D11 SERIES

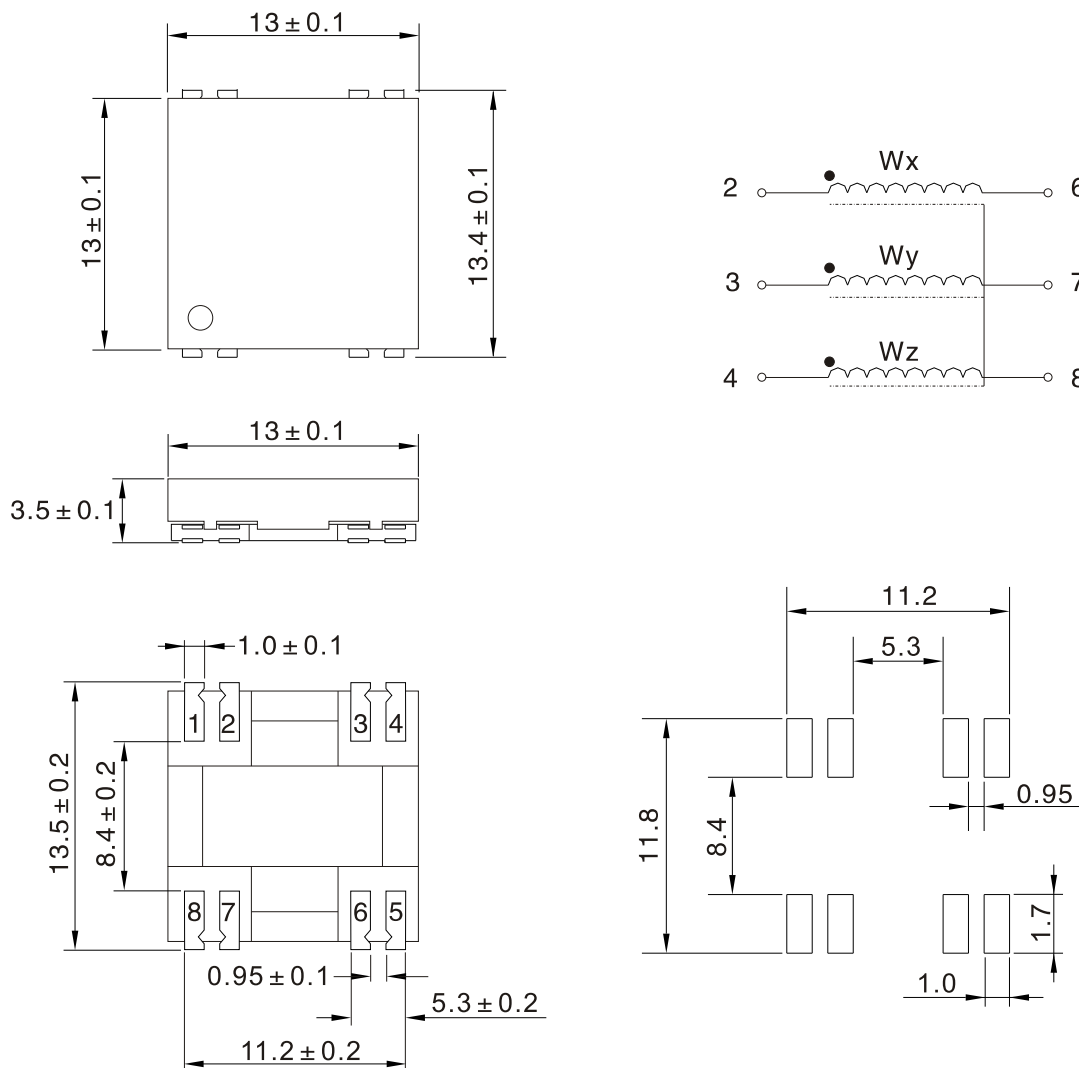
Small solution of 3D coil designed to achieve a very good electrical performance in the smallest dimensions.

Applications:

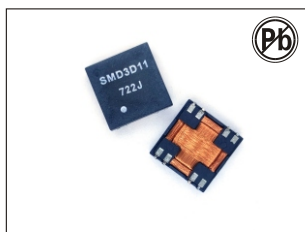
- Automotive
- Passive keyless entry and Keyless Go Systems
- RTPMS with wake up functions
- Industrial logistics and control
- Access control
- Tracking devices

Keyless entry systems is a typical application for this coil, the isotropy is often sought in RF antenna. In transponder applications, this feature has been achieved by the combination of 3 single coils oriented in the 3 space axis with the aim of covering the maximum space orientation. This small size 3D coil offers the possibility of assembly in single component 3 coils with full functionality thus reducing cost saving PCB space and increasing the circuit reliability.

Dimensions



Note: All specifications subject to change without notice.



SMD 3D Coil(11.8X11.8X2.9mm) SMD 3D11 SERIES

Electrical specifications

P/N SMD3D11-	L _{x,y,z} (mH)	Q _{x,y,z}	SRF _{x,y} (KHz,typ)	SRF _z (KHz,Min)	RDC _{x,y} (Ω Max)	RDC _z (Ω Max)
242J	2.38	23	500	1000	75	95
252J	2.47	23	500	800	75	95
352J	3.45	26	450	800	85	120
402J	4.05	26	400	800	98	138
472J	4.77	26	380	800	117	170
492J	4.91	26	350	750	120	175
722J	7.20	30	330	700	150	210
103J	10.0	25	250	550	165	280

- ※ Test frequency 125KHz,1V
- ※ Sensitivity (S0) measured with Helmholtz Coils H=8.36 A/m @ 125kHz.
- ※ SRF: Self Resonant Frequency of the coil.
- ※ W_x/W_y/W_z means winding coil of X, Y and Z axis.
- ※ Test under the condition of relative humidity of 85%
- ※ Operating temperature -40℃ to +85℃
- ※ Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance value in the different winding axis.

Features

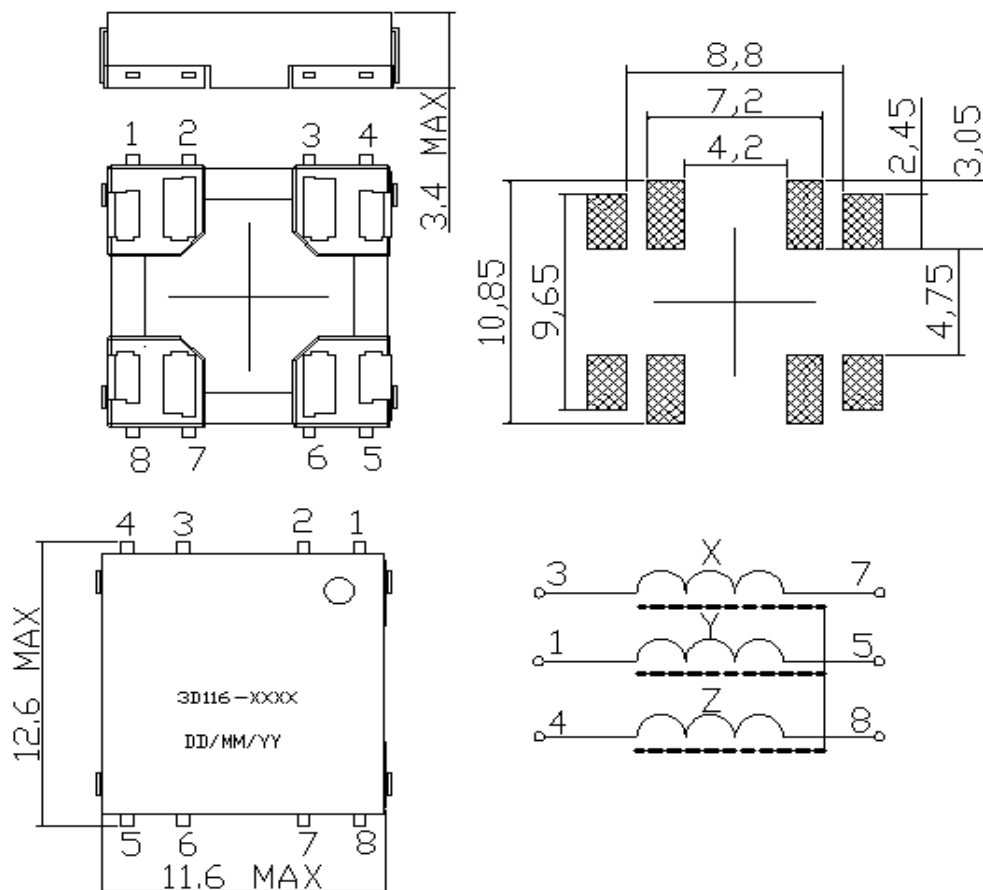
Small solution of 3D coil designed to achieve a very good electrical performance in the smallest dimensions. Applications:

- Automotive.
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- Access control.
- Tracking devices.

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This small size 3D coil offers the possibility of assembly in single component 3 coils with full functionality, thus reducing cost, saving PCB space and increasing the circuit reliability.

Dimensions





Electrical specifications

Part Number	Inductance	Q	Inductance	Q	SRF (MHz)	SRF (KHz)	Remark
产品料号	X,Y,Z轴 (mH)	X,Y轴 (Typ.)	Z轴(mH)	Z轴(Typ.)	X,Y轴 (Typ.)	Z轴(Typ.)	备注
	电感值 (L)	品质因素	电感值 (L)	品质因素	共振频率	共振频率	
3D116-2320	2.38±5%	35	2.38±5%	25	2.1	700	
3D116-4720	4.77±5%	35	4.7±5%	25	1.6	600	
3D116-7220	7.2±5%	35	7.2±5%	20	1.2	500	

※Test Freq. : 125KHz / 1V.

※Operating Temp. : -40°C ~ +85°C

※ Sensitivity (S0) measured with Helmholtz Coils H=8.36 A/m@125kHz.

※ SRF: Self Resonant Frequency of the coil.

※ Wx/Wy/Wz means winding coil of X, Y and Z axis.

※ f20/f125/f134.2 means resonant frequency of 20kHz, 125kHz and 134.2kHz.

※ Test under the condition of relative humidity of 85%

※ Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance value in the different winding axis. Please contact our salesperson for any inquiries.

Soldering heat resistance:

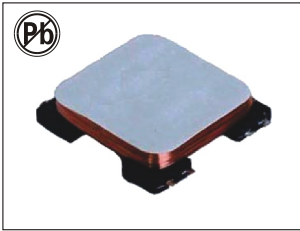
260°C / 10 sec

Operating temperature range:

-40°C to + 125°C

Packaging unit (parts/reel):

1000



SMD 3D Coil 12.6X12.6X2.9mm 3D1229 SERIES

FEATURES:

Small solution of 3D coil designed to achieve a very good electrical performance in the smallest dimensions.

OPTIONS:

Packaging unit (parts/reel):1000

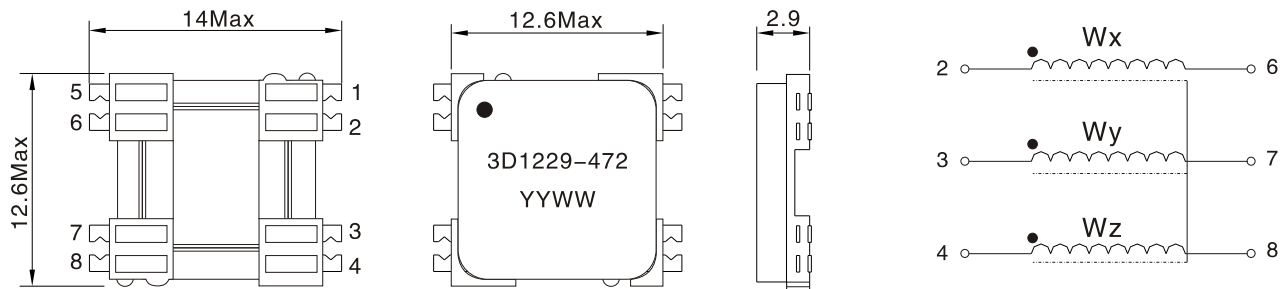
COMMON APPLICATIONS:

- Automotive
- Passive keyless entry and Keyless Go Systems
- RTPMS with wake up functions
- Industrial logistics and control
- Access control
- Tracking devices

Electrical specifications

Part No.	Lx,y,z mH (125KHz,1V)	Qx,y typ	SRFx,y (KHz,typ)	SRFz (KHz,typ)	RDCx,y (Ω Max)	RDCz (Ω Max)
3D1229-242	2.38	23	500	1000	75	95
3D1229-252	2.47	23	500	800	75	95
3D1229-352	3.45	26	450	800	85	120
3D1229-402	4.05	26	400	800	98	138
3D1229-472	4.77	26	380	800	117	170
3D1229-492	4.91	26	350	750	120	175
3D1229-722	7.20	30	350	750	150	210
3D1229-103	10.0	25	250	550	165	280

Dimensions



※ Sensitivity (S0) measured with Helmholtz Coils H=8.36 A/m@125kHz.

※ SRF: Self Resonant Frequency of the coil.

※ Wx/Wy/Wz means winding coil of X, Y and Z axis.

※ f20/f125/f134.2 means resonant frequency of 20kHz, 125kHz and 134.2kHz.

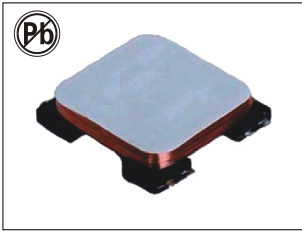
※ Test under the condition of relative humidity of 85%

※ Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance value in the different winding axis. Please contact our salesperson for any inquiries.

Soldering heat resistance:260°C / 10sec

Operating temperature range:-40°C to +125°C

Note:All specifications subject to change without notice.



SMD 3D Coil 12.6X12.6X3.25mm 3D1232 SERIES

FEATURES:

Small solution of 3D coil designed to achieve a very good electrical performance in the smallest dimensions.

OPTIONS:

Packaging unit (parts/reel):1000

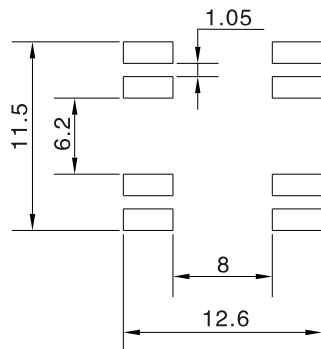
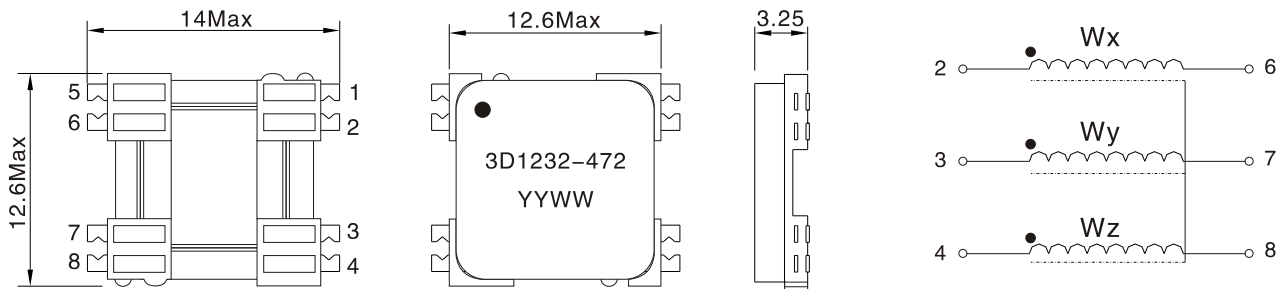
COMMON APPLICATIONS:

- Automotive
- Passive keyless entry and Keyless Go Systems
- RTPMS with wake up functions
- Industrial logistics and control
- Access control
- Tracking devices

Electrical specifications

Part No.	Lx,y,z mH (125KHz,1V)	Qx,y typ	SRFx,y (KHz,typ)	SRFz (KHz,typ)	RDCx,y (Ω Max)	RDCz (Ω Max)
3D1232-242	2.38	23	500	1000	75	75
3D1232-252	2.47	23	500	800	75	75
3D1232-352	3.45	27	450	800	85	100
3D1232-402	4.05	27	400	800	98	98
3D1232-472	4.77	28	380	800	100	136
3D1232-492	4.91	27	350	750	105	140
3D1232-722	7.20	30	330	750	120	172
3D1232-103	10.0	25	250	550	165	258

Dimensions



※ Sensitivity (S0) measured with Helmholtz Coils H=8.36 A/m@125kHz.

※ SRF: Self Resonant Frequency of the coil.

※ Wx/Wy/Wz means winding coil of X, Y and Z axis.

※ f20/f125/f134.2 means resonant frequency of 20kHz, 125kHz and 134.2kHz.

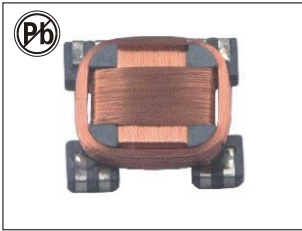
※ Test under the condition of relative humidity of 85%

※ Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance value in the different winding axis. Please contact our salesperson for any inquiries.

Soldering heat resistance:260°C / 10sec

Operating temperature range:-40°C to +125°C

Note:All specifications subject to change without notice.



SMD 3D Coil 12X14X3.2mmMax(2.47mH–10mH) 3D12 SERIES

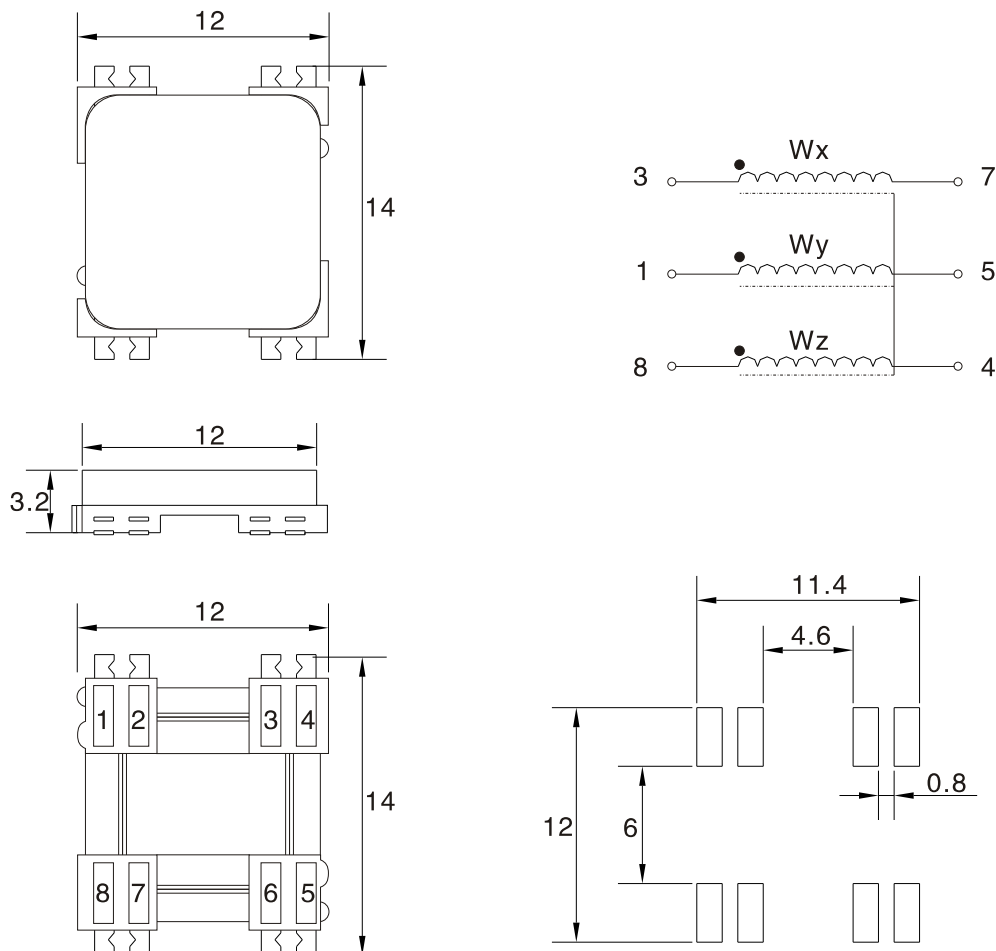
Small solution of 3D coil designed to achieve a very good electrical performance in the smallest dimensions.

Applications:

- Automotive
- Passive keyless entry and Keyless Go Systems
- RTPMS with wake up functions
- Industrial logistics and control
- Access control
- Tracking devices

Keyless entry systems is a typical application for this coil, the isotropy is often sought in RF antenna. In transponder applications, this feature has been achieved by the combination of 3 single coils oriented in the 3 space axis with the aim of covering the maximum space orientation. This small size 3D coil offers the possibility of assembly in single component 3 coils with full functionality thus reducing cost saving PCB space and increasing the circuit reliability.

Dimensions



Note: All specifications subject to change without notice.



SMD 3D Coil 12X14X3.2mmMax(2.47mH-10mH) 3D12 SERIES

Electrical specifications

P/N	Lx,y,z	Cres(pF)	Qx,y typ	SRFx,y (KHz,Min)	SRFz (KHz,Min)	RDCx,y (Ω Max)	RDCz (Ω Max)	Sensitivity x,y,z (mVpp/App/m)
3D12-242	2.47	656	>23	>500	>1000	75	75	>55
3D12-252	2.58	628	>23	>500	>800	75	75	>57
3D12-342	3.45	470	>27	>450	>800	85	100	>67
3D12-402	4.05	400	>27	>400	>800	98	98	>72
3D12-472	4.77	340	>28	>380	>800	100	136	>85
3D12-492	4.91	330	>27	>350	>750	105	140	>85
3D12-722	7.20	225	>30	>330	>700	120	172	>95
3D12-103	10.0	162	>25	>250	>550	165	258	>105

This chart is a reference guide for the most common required values at working frequency of 125 kHz. Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance values in the different winding axis. Please contact our sales department for any inquiry.

L and Q factor measured at 125 kHz, 1 Vac.

Sensitivity measured with Helmholtz coils $H=1.27 \text{ App/m}$ @ 125 kHz. Contact us for measurement specification.

SRF: Self Resonant Frequency of the coil.

Features

Small solution of 3D coil designed to achieve a very good electrical performance in the smallest dimensions. Applications:

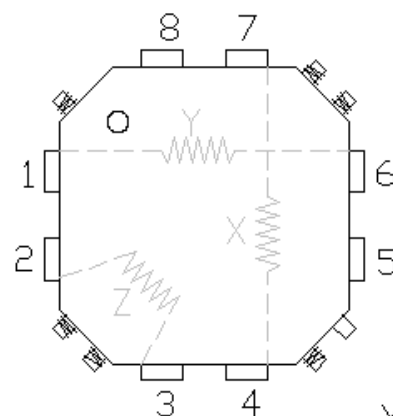
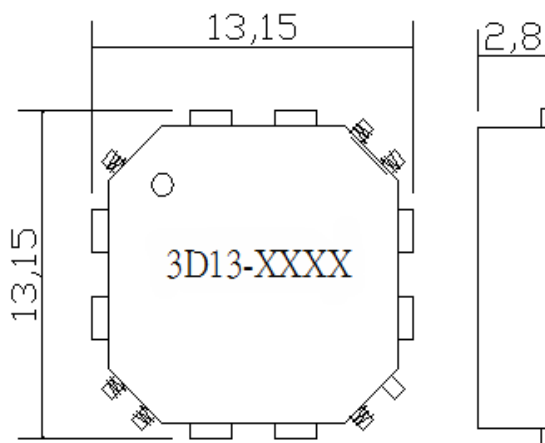
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- Passive keyless entry.
- RTPMS with wake up functions.
- Industrial logistics and control.
- Access control.
- Tracking devices.



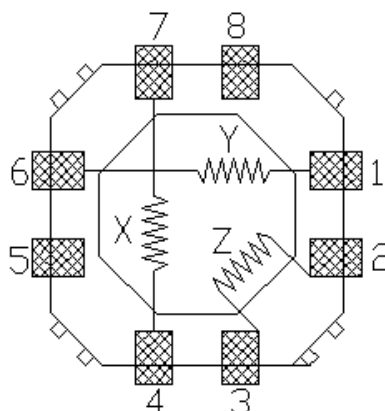
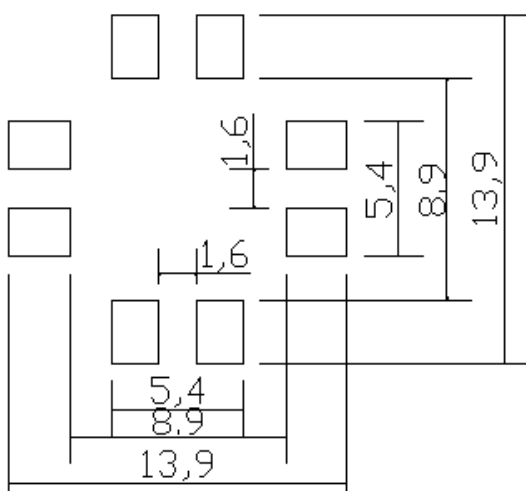
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Dimensions



X : 4-7
Y : 1-6
Z : 2-3





Electrical specifications

Part Number	Inductance	Q	Inductance	Q	SRF (MHz)	SRF (KHz)	Remark
产品料号	X,Y,Z轴 (mH)	X,Y轴 (Typ.)	Z轴(mH)	Z轴(Typ.)	X,Y轴 (Typ.)	Z轴(Typ.)	备注
	电感值 (L)	品质因素	电感值 (L)	品质因素	共振频率	共振频率	
3D13-2320	2.38±4%	35	3.4±4%	25	2.1	700	
3D13-4720	4.77±4%	35	7.2±4%	25	1.6	600	
3D13-6820	6.8±4%	35	7.2±4%	25	1.3	500	
3D13-7220	7.2±4%	35	7.2±4%	25	1.2	500	

※Test Freq. : 125KHz / 1V.

※Operating Temp. : -40℃ ~ +85℃

※ Sensitivity (S0) measured with Helmholtz Coils H=8.36 A/m@125kHz.

※ SRF: Self Resonant Frequency of the coil.

※ Wx/Wy/Wz means winding coil of X, Y and Z axis.

※ f20/f125/f134.2 means resonant frequency of 20kHz, 125kHz and 134.2kHz.

※ Test under the condition of relative humidity of 85%

※ Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance value in the different winding axis. Please contact our salesperson for any inquiries.

Soldering heat resistance:

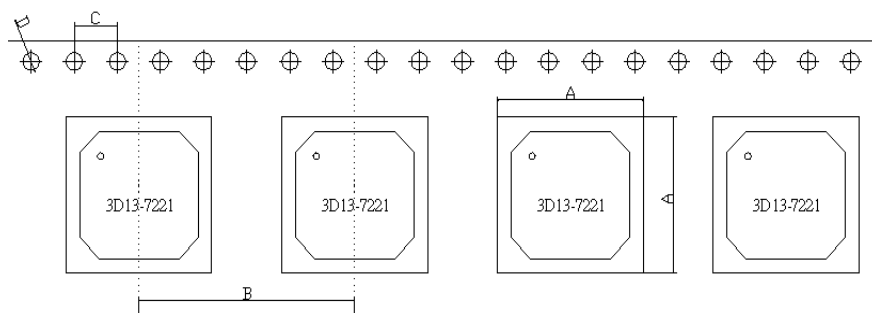
260℃ / 10 sec

Operating temperature range:

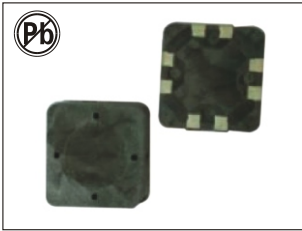
-40℃ to + 125℃

Packaging unit (parts/reel):

900PCS/R



A=13.5,B=40,C=4,D=1.5



SMD 3D Antenna 13.0X13.0X3.1mm M3D13 SERIES

Features

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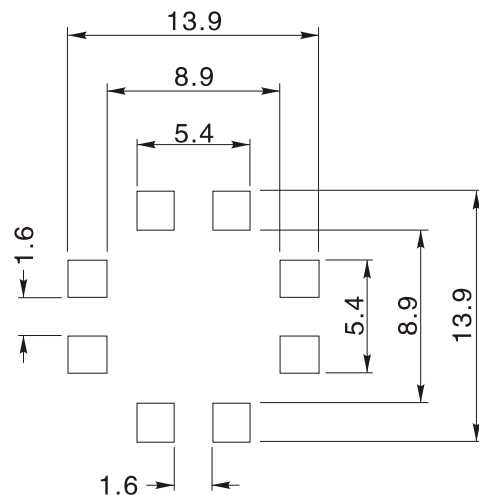
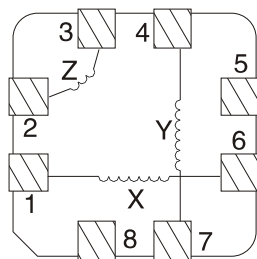
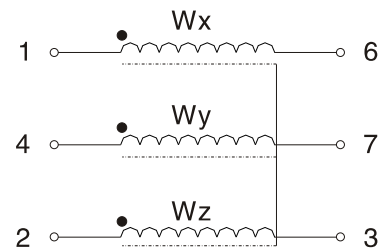
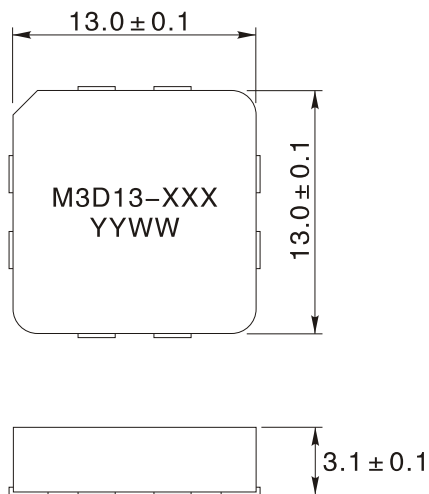
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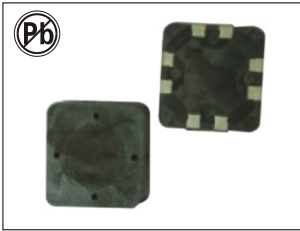
Applications:

- Automotive.
- Passive keyless entry.
- RTPMS with wake up functions.
- Industrial logistics and control.
- Access control.
- Tracking devices.

Dimensions



Note: All specifications subject to change without notice.



SMD 3D Antenna 13.0X13.0X3.1mm M3D13 SERIES

Electrical specifications

P/N	Lx,y (mH)	Lz (mH)	Qx,y (typ.)	Qz (typ.)	SRFx,y (MHz,typ.)	SRFz (KHz,typ.)
M3D13-232	$2.38 \pm 4\%$	$3.4 \pm 4\%$	35	30	2	700
M3D13-472	$4.77 \pm 4\%$	$7.2 \pm 4\%$	35	30	1.5	500
M3D13-7221	$7.2 \pm 4\%$	$7.2 \pm 4\%$	35	30	1	500
M3D13-7222	$7.2 \pm 4\%$	$10.8 \pm 4\%$	35	30	1	400
M3D13-103	$10.0 \pm 4\%$	$10.0 \pm 4\%$	35	30	0.8	400

- **Test Freq. : 125KHz / 1V.**
- **Operating Temp. : -40°C ~ +85°C**
- Sensitivity (S0) measured with Helmholtz Coils H=8.36 A/m @ 125kHz.
- SRF: Self Resonant Frequency of the coil.
- Wx/Wy/Wz means winding coil of X, Y and Z axis.
- f20/f125/f134.2 means resonant frequency of 20kHz, 125kHz and 134.2kHz.
- Test under the condition of relative humidity of 85%
- Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance value in the different winding axis. Please contact our salesperson for any inquiries.