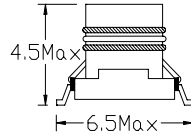
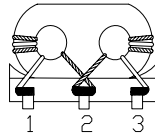
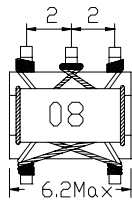


EXTERNAL DIMENSIONS

(Unit: m/m)



Part Number	Winding Turns	Operating Frequency Range	Insertion Loss	Pin Connection Fig.	
Double Balanced Mixer					
RF-5-1003	3x4	8MHz~800MHz	3.5 dB Max.	1	
RF-5-1005	2x4	400MHz~1.3GHz	4 dB Max.	1	
RF-5-1008	4x4	6MHz~600MHz	2.5 dB Max.	1	
RF-5-1011	5x4	5MHz~500MHz	2 dB Max.	1	
RF-5-1012	1x4	50MHz~400MHz	10 dB Max.	1	
RF-5-1013	2x4	10MHz~1.0GHz	6 dB Max.	1	
Frequency Mixer	Pri	Sec			
RF-5-1024	3 x 2	3	3.5MHz~470MHz	3 dB Max.	2
RF-5-1052	2 x 2	2	9MHz~350MHz	3 dB Max.	2
RF-5-1085	1 x 2	1	—	3 dB Max.	2
RF-5-1086	4 x 2	4	2.2MHz~400MHz	3 dB Max	2
RF-5-1087	5 x 2	5	1.5MHz~300MHz	3 dB Max	2
Distributor					
RF-5-1014	—	20MHz~600MHz	IN to OUT-1,2 4.5 dB Max. OUT-1 to OUT-2 (ISOLATION) 10 dB Min.	3	
Directional Coupler					
RF-5-1006	5	6MHz~600MHz	IN to OUT-1 0.9 dB Max. IN to OUT-2 13~16 dB	4	
RF-5-1007	6	6MHz~600MHz	IN to OUT-1 0.8 dB Max. IN to OUT-2 15~17 dB	4	
RF-5-1015	4	6MHz~600MHz	IN to OUT-1 1.3 dB Max. IN to OUT-2 11~14 dB	4	

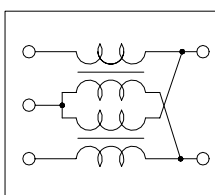
Features

- Pair wire coil for high stability.
- Base pin terminal treated, allowing mounting “as is” on a PCB

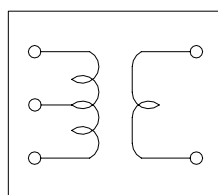
Applications

- Double balance mixers, broad-band transformers, impedance transformers, etc.

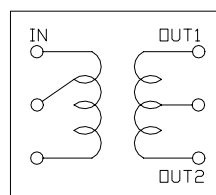
Pin Connection



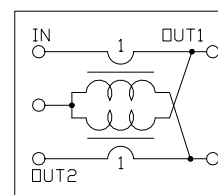
Double Balanced Mixer
Fig.1



Transformer
Fig.2



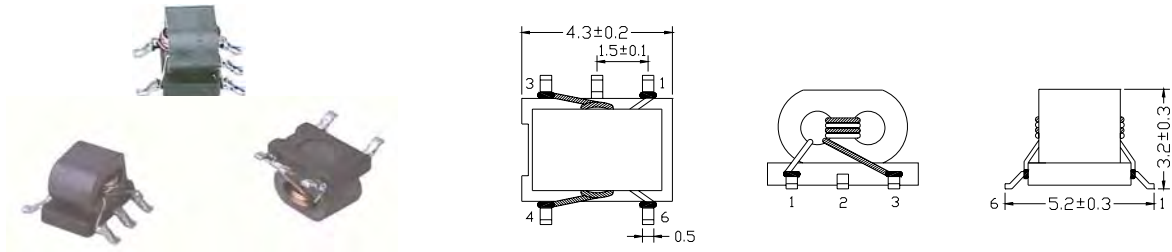
Distributor
Fig.3



Directional Coupler
Fig.4

EXTERNAL DIMENSIONS

(Unit: m/m)



Part Number	Winding Turns	Operating Frequency Range (MHz)	Insertion Loss (dB)	Pin Connection Fig.
Double Balanced Mixer				
RF-3-1007A	2	25MHz ~ 2000MHz	3	1
RF-3-1009A	3	6MHz ~ 2000MHz	3	1
RF-3-1006A	3	150MHz ~ 2300MHz	3	1
RF-3-1010A	4	3.5MHz ~ 2000MHz	3	1
RF-3-1018A	5	2MHz ~ 2000MHz	3	1
Frequency mixer				
RF-3-1025A	1	—		2
RF-3-1019A	2	8MHz ~ 750MHz	3	2
RF-3-1026A	3	3.5MHz ~ 700MHz	3	2
Balun transformer				
RF-3-1021A	1.5	20MHz ~ 750 MHz	3	3
RF-3-1022A	2.5	4.5MHz ~ 3300MHz	3	3
RF-3-1023A	3.5	2.3MHz ~ 2700MHz	3	3
RF-3-1024A	4.5	1.5MHz ~ 2400MHz	3	3
DISTRIBUTOR				
RF-3-1079A	2	1300MHz ~ 1700MHz	IN to OUT-1,2 4.5dB Max.	4
RF-3-1076A	3	800MHz ~ 1000MHz	OUT-1 to OUT-2 (ISOLATION) 15dB Min.	4

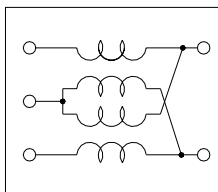
Features

- Pair wire coil for high stability.
- Base pin terminal treated, allowing mounting “as is” on a PCB

Applications

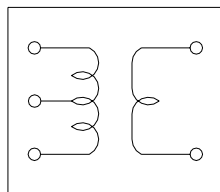
- Double balance mixers, broad-band transformers, impedance transformers, etc.

Pin Connection



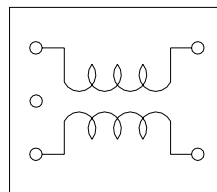
Double Balanced

Fig.1



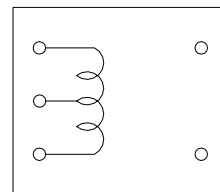
Mixer Transformer

Fig.2



Balun Transformer

Fig.3

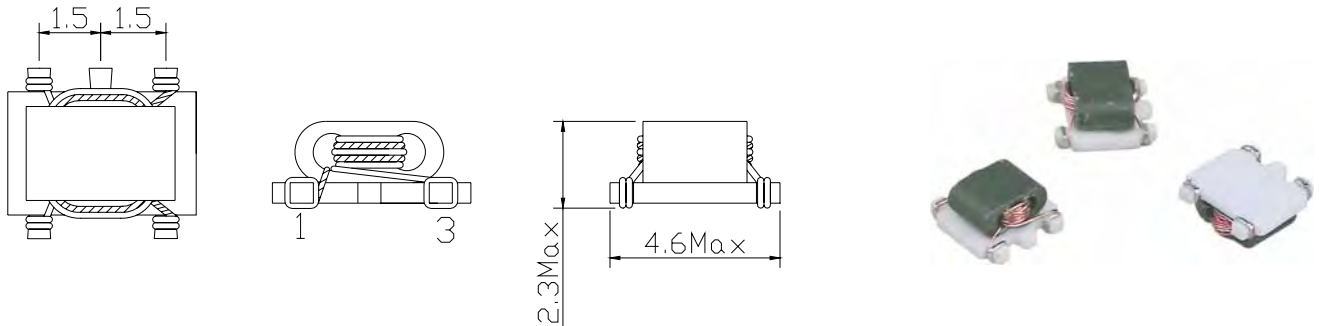


Distributor

Fig.4

EXTERNAL DIMENSIONS

(Unit:m/m)

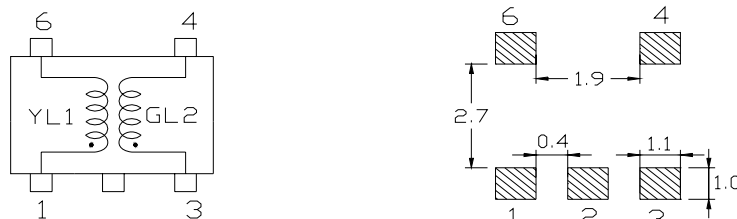


Part Number	Insertion Loss	I _{DC} (A) Max	R _{DC} (Ω) Max	Impedance (Typical)	Withstand Voltage
RF-3L-371	0.3 MHz 6±2 dB	0.25	0.35	370 Ω @ 1 MHz 1100 Ω @ 10 MHz	150VAC
	1 MHz 7±2 dB				
	10 MHz 18±3 dB				
	40 MHz 2±3 dB				

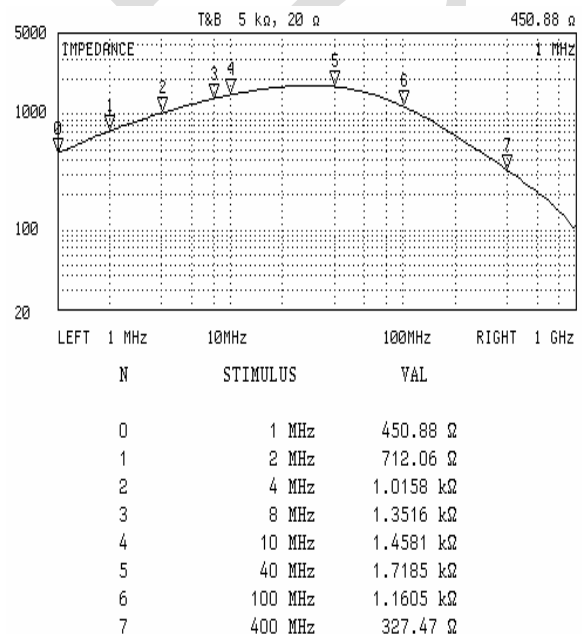
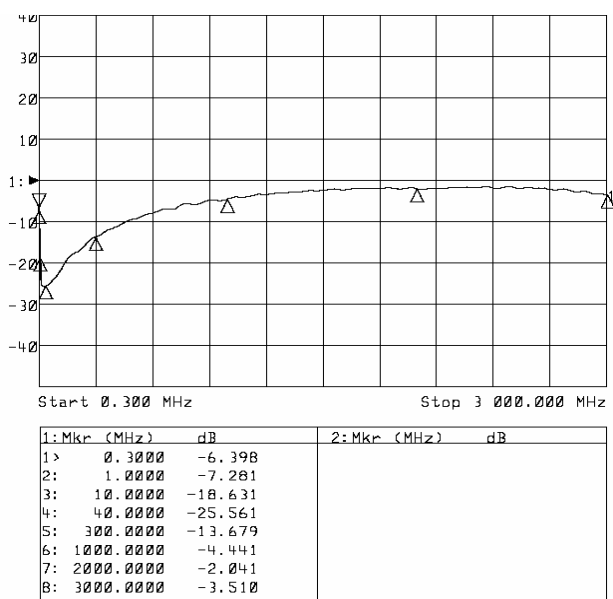
Features:

- Low profile: 2.3mm(Max).
- Common mode impedance of 370 Ω at 1MHz , 1100 Ω at 10MHz.
- Operating temperature Range:-25℃ ~ +85℃.
- Suitable for reflow soldering.

Circuit & Pad: (Top View)

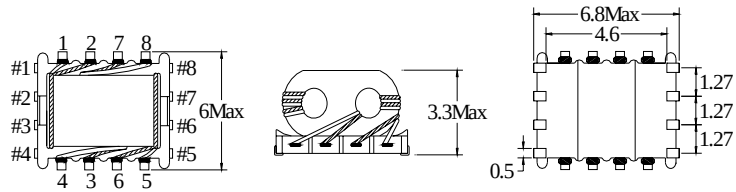
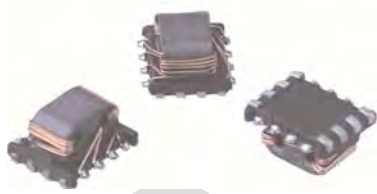


Insertion Loss & Impedance



EXTERNAL DIMENSIONS

(Unit:m/m)



Part Number	Insertion Loss	I_{DC} (A)Max	R_{DC} (Ω)Max	Impedance (Typical)	Withstand Voltage
LRF009-221	50MHz 2.8 dB $\pm$ 2.0dB	0.65	0.3	220 Ω @ 100MHz 420 Ω @ 400MHz	50V _{DC}
	100MHz 7.3 dB $\pm$ 2.5dB				
	300MHz 12.0dB $\pm$ 3.0dB				
	500MHz 14.0dB $\pm$ 3.0dB				

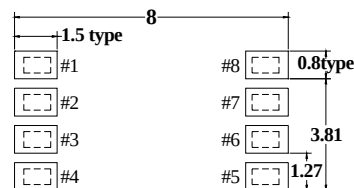
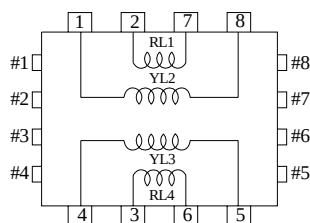
Features:

- Low profile: 3.3mm(Max).
- Common mode impedance of 220 Ω at 100MHz ,420 Ω at 400MHz.
- Operating temperature Range: -25 $^{\circ}$ C ~+85 $^{\circ}$ C.
- Suitable for reflow soldering.

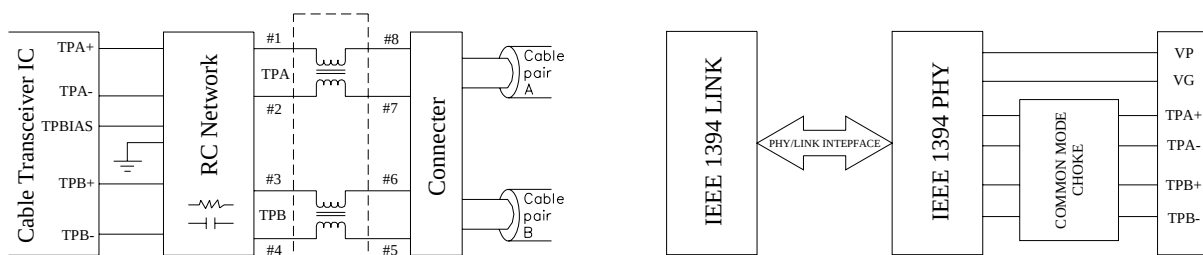
Applications:

- LRF009-221 Series is a dual wound common mode choke w/c is ideal for NOISE ATTENUATION in a twisted pair cable interfaces as well as IEEE1394 & USB2.0 applications. An excellent impedance balance between two sets of twisted pairs is achieved by winding across a single core .
- One LRF009-221 common mode choke coil per interface port is possible with this dual winding configurations.

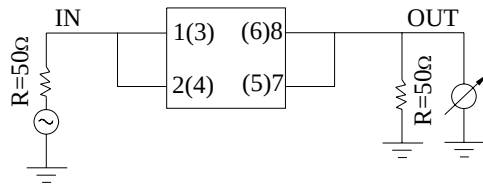
Circuit(Top View) & Pad:



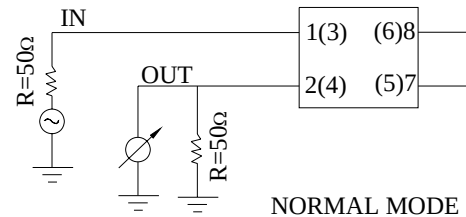
Twisted Pair Cable Interface & IEEE 1394 Port:



Test Mode :

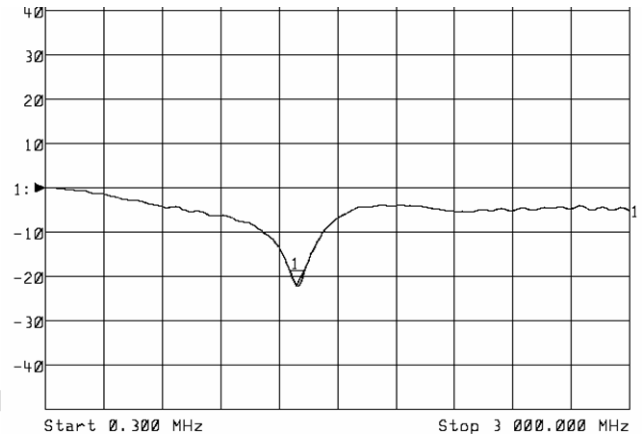
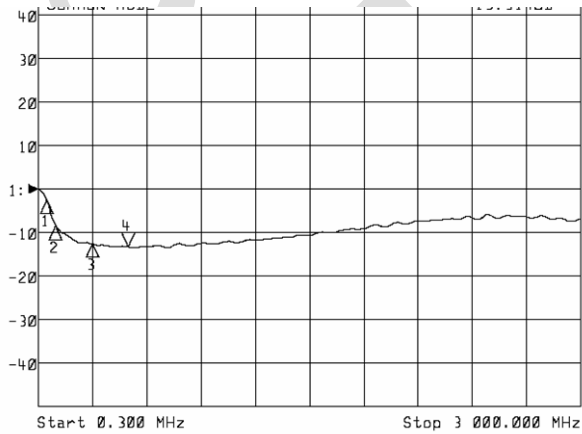


COMMON MODE

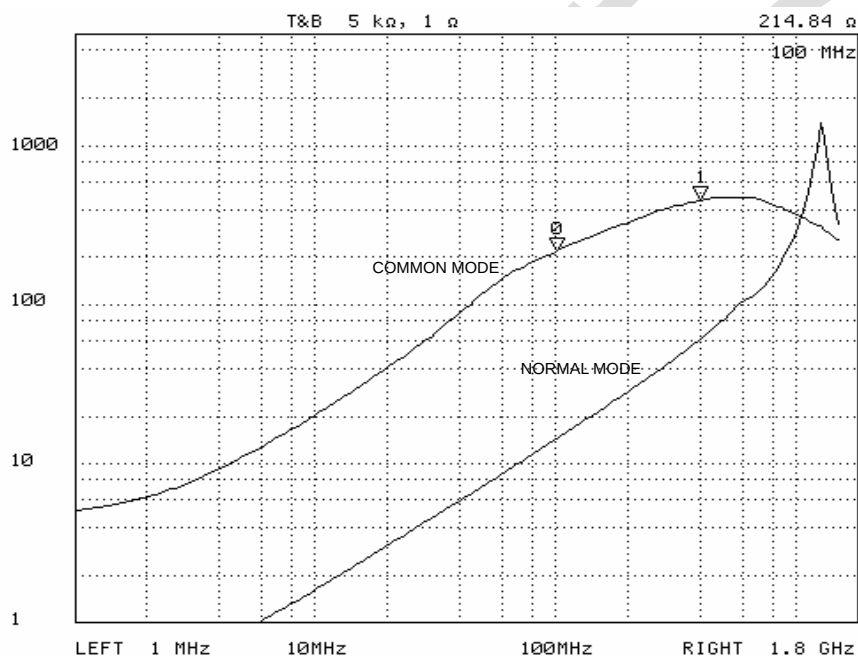


NORMAL MODE

Insertion Loss :

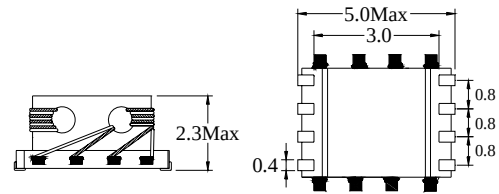
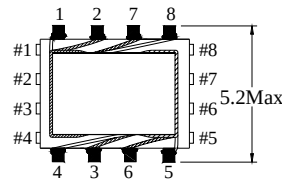


| Z | - F :



EXTERNAL DIMENSIONS

(Unit:m/m)



Part Number	Insertion Loss	R_{DC} (Ω)Max	Impedance (Typical)	Withstand Voltage
LRF019T-221	50MHz	0.12	220 Ω @ 100MHz 500 Ω @ 400MHz	50V _{DC}
	100MHz			
	300MHz			
	500MHz			

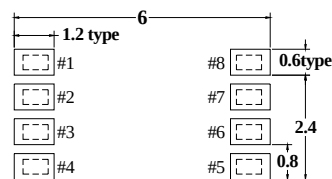
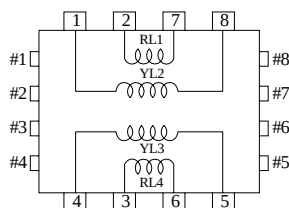
Features:

- Low profile: 2.3mm(Max).
- Common mode impedance of 220 Ω at 100MHz , 500 Ω at 400MHz .
- Operating temperature Range: -25°C ~+85°C.
- Suitable for reflow soldering.

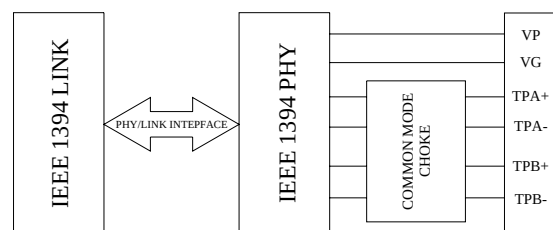
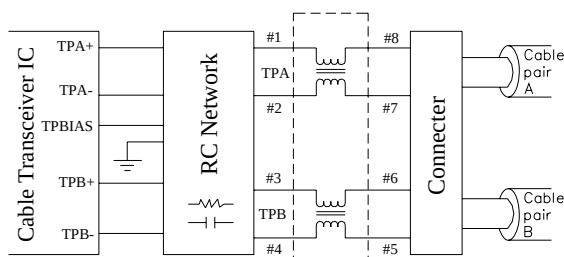
Applications:

- LRF019T-221 is a dual wound common mode choke w/c is ideal for NOISE ATTENUATION in a twisted pair cable interfaces as well as IEEE1394 & USB2.0 applications. An excellent impedance balance between two sets of twisted pairs is achieved by winding across a single core .
- One LRF019T-221 common mode choke coil per interface port is possible with this dual winding configurations.

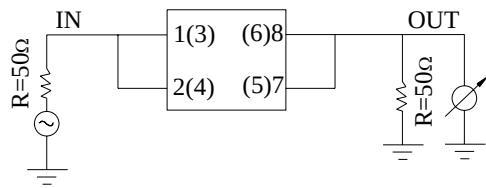
Circuit(Top View) & Pad:



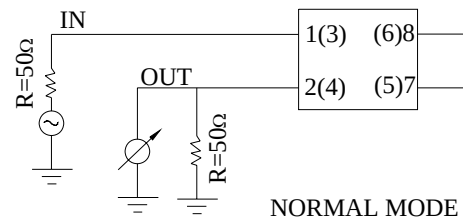
Twisted Pair Cable Interface & IEEE 1394 Port:



Test Mode :

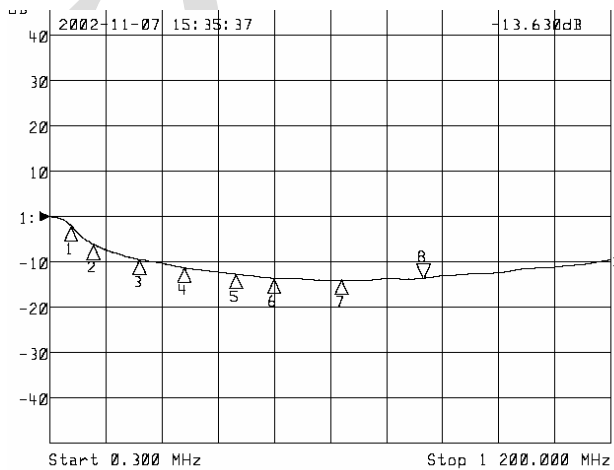


COMMON MODE

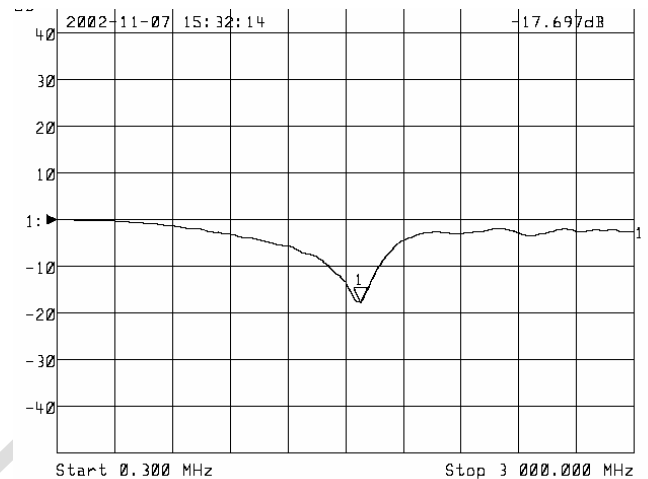


NORMAL MODE

Insertion Loss :

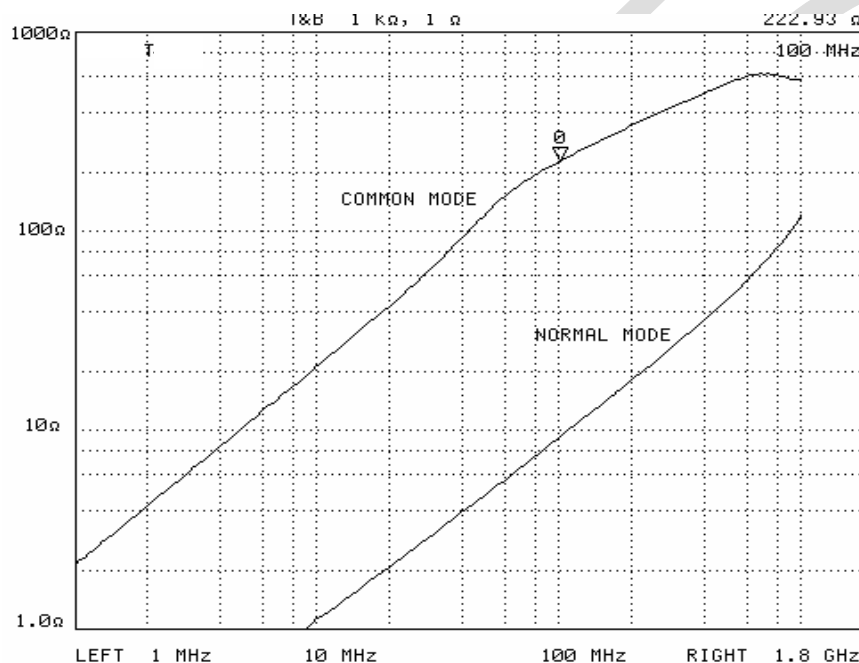


1: Mkr (MHz)	dB
1: 48.0000	-2.151
2: 96.0000	-6.183
3: 192.0000	-9.481
4: 288.0000	-11.318
5: 400.0000	-12.763
6: 480.0000	-13.650
7: 624.0000	-14.107
8: 800.0000	-13.630



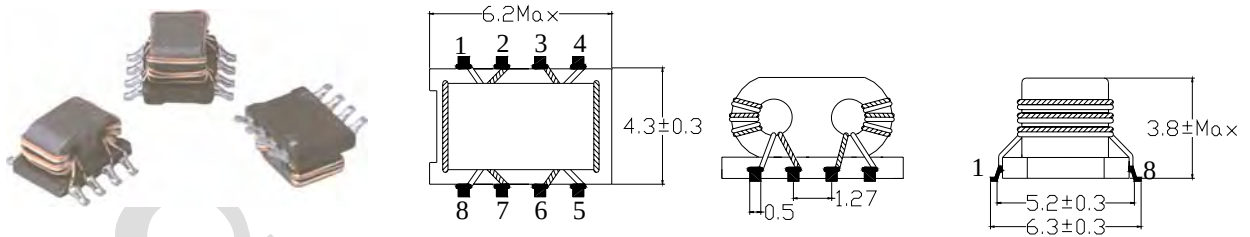
1: Mkr (MHz)	dB
1: 1575.1425	-17.697

|Z| - F :



EXTERNAL DIMENSIONS

(Unit:m/m)



Part Number	Insertion Loss (HP-8711C)			
	50MHz	100MHz	300MHz	500MHz
LRF018T-331	3.0dB±1.0dB	9.0dB±2.0dB	15.0dB±3.0dB	17.0dB±3.0dB
LRF018T-181	1.3dB±1.0dB	5.0dB±2.0dB	10.0dB±3.0dB	12.0dB±3.0dB
LRF018T-900	0.9dB±0.5dB	2.6dB±1.0dB	5.4dB±2.0dB	7.0dB±2.0dB
LRF018T-560	6.5dB±2.5dB	12dB±3.0dB	18dB±3.0dB	19dB±3.0dB

Part Number	I _{DC}	R _{DC}	Impedance Common Mode (Typ.)(HP-4395A)	Rated Voltage	Wisting Voltage (CH-901)	Insulation Resistance (CH-702A)
LRF018T-331	0.5A (Max)	0.10Ω (Max)	330Ω @ 100MHz 740Ω @ 400MHz	DC 80V	AC150V/ 2mA/1min AT WINDING TO WINDING	DC100V/ 10MΩ Min AT WINDING TO WINDING
LRF018T-181	0.5A (Max)	0.09Ω (Max)	180Ω @ 100MHz 420Ω @ 400MHz			
LRF018T-900	0.5A (Max)	0.08Ω (Max)	90Ω @ 100MHz 180Ω @ 400MHz			
LRF018T-560	0.5A (Max)	0.12Ω (Max)	560Ω @ 100MHz 860Ω @ 400MHz			

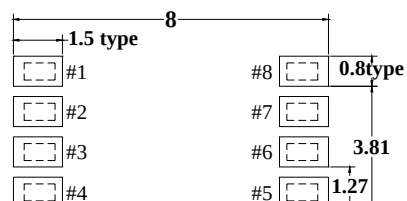
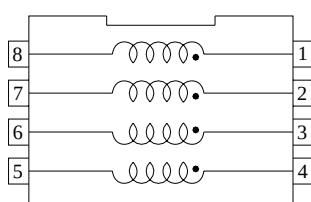
Features:

- Low profile: 3.8mm(Max).
- Common mode impedance of 88~556Ω at 100MHz ,176~860Ω at 400MHz.
- Operating temperature Range: -25℃~+85℃.
- Suitable for reflow soldering.

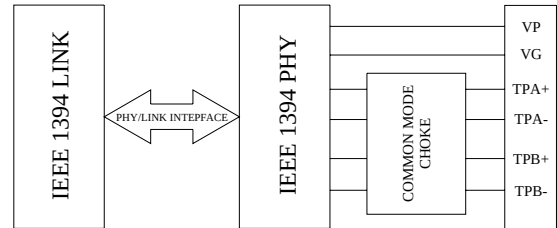
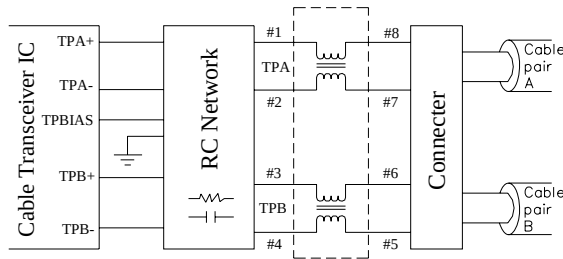
Applications:

- LRF018T Series is a dual wound common mode choke w/c is ideal for NOISE ATTENUATION in a twisted pair cable interfaces as well as IEEE1394 & USB2.0 applications. An excellent impedance balance between two sets of twisted pairs is achieved by winding across a single core .
- One LRF018T common mode choke coil per interface port is possible with this dual winding configurations.

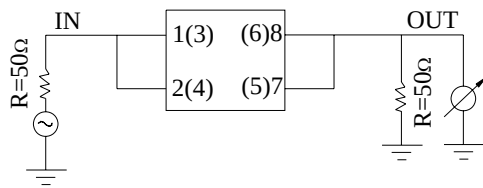
Circuit(Top View) & Pad:



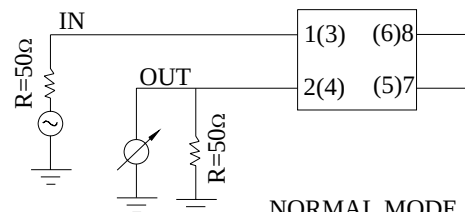
Twisted Pair Cable Interface & IEEE 1394 Port:



Test Mode :



COMMON MODE



NORMAL MODE

Insertion Loss :

