COMMON MODE CHOKE - CYB-038-501 SERIES

EXTERNAL DIMENSIONS

(Unit: mm)

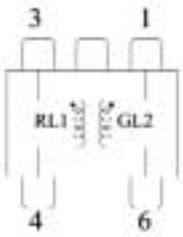
Features

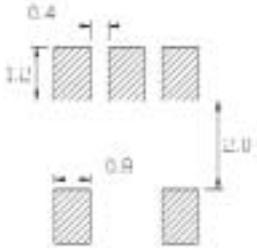
- Low profile: 2.3mm (max.).
- Common mode impedance of 370Ω at 1MHz , 1100Ω at 10MHz.
- Operating Temperature Range:-25°C to +85°C.
- Suitable for reflow soldering.
- Suitable for lead free soldering.

Specifications

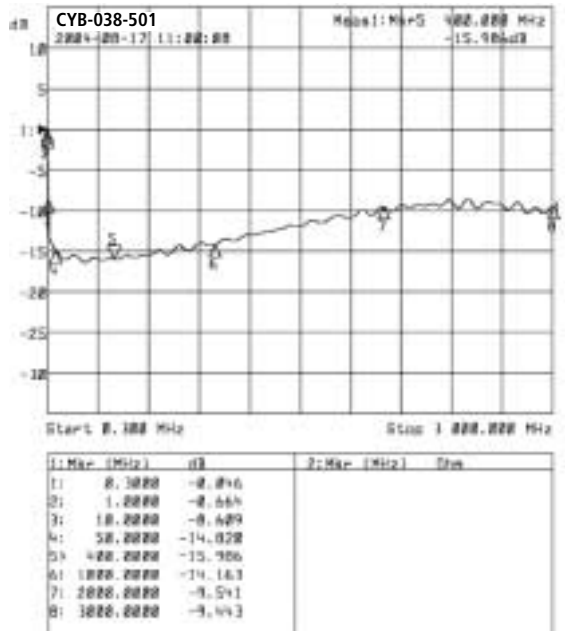
Part Number	Insertion Loss	I_{DC}(A) max.	R_{DC}(Ω) max.	Impedance (Typical)	Withstand Voltage
CYB-038-501	18dB max. @ 0.3~3000MHz	0.3	0.12	500Ω @ 100 MHz	100VAC

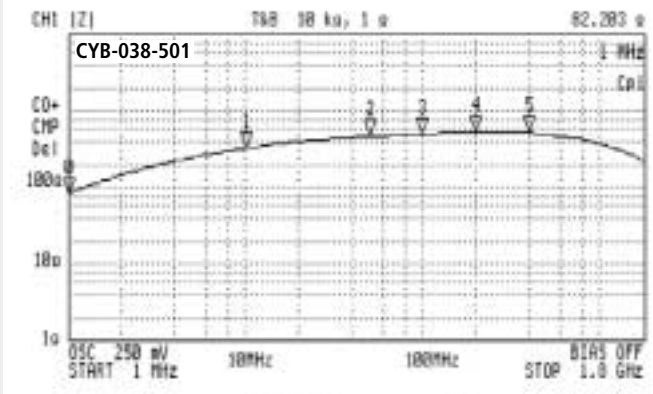
Circuit & Pad: (Top View)





Insertion Loss& Impedance



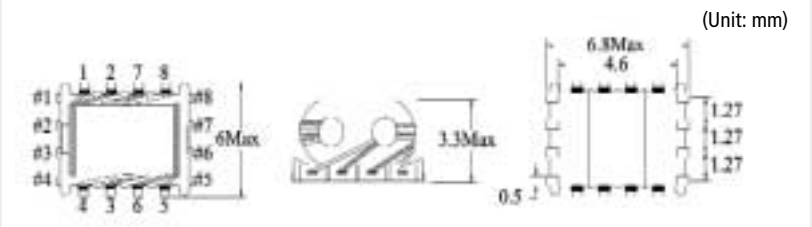


N	STIMULUS	VAL
0	1 MHz	82.203 Ω
1	10 MHz	323.81 Ω
2	50 MHz	461.9 Ω
3	100 MHz	496.27 Ω
4	200 MHz	517.25 Ω
5	400 MHz	507.35 Ω

COMMON MODE CHOKE - CYB-009 FOR IEEE1394/USB2.0

EXTERNAL DIMENSIONS

(Unit: mm)



Features

- Low profile: 3.3mm(max.).
- Common mode impedance of 220Ω at 100MHz ,420Ω at 400MHz.
- Operating Temperature Range: -25°C to +85°C.
- Suitable for reflow soldering.
- Suitable for lead free soldering.

Applications:

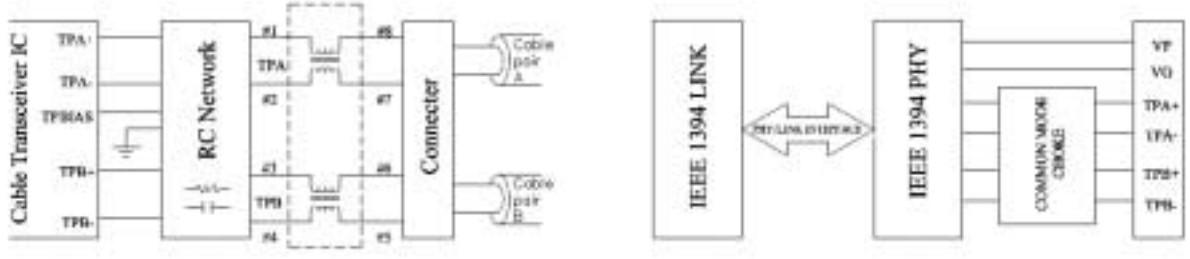
- YB009T-1394A Series is a dual wound common mode choke w/c is ideal for NOISE ATTENUATION in a twisted pair cable interfaces as well as IEEE1394 & USB2.0 applications. An excellent impedance balance between two sets of twisted pairs is achieved by winding across a single core .
- One YB009T-1394A common mode choke coil per interface port is possible with this dual winding configurations.

Specifications

Part Number	Insertion	Loss	I_{DC} (A) max.	R_{DC} (Ω) max.	Impedance (Typical)	Withstand Voltage
CYB-009-1394A	50MHz	2.8 dB±2.0dB	0.65	0.3		50VDC
	100MHz	7.3 dB±2.5dB			220Ω @ 100MHz	
	300MHz	12.0 dB±3.0dB			420Ω @ 400MHz	
	500MHz	14.0 dB±3.0dB				

Circuit(Top View) & Pad

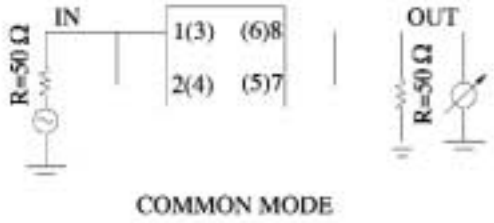
Twisted Pair Cable Interface & IEEE 1394 Port:

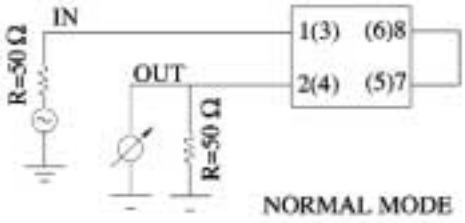


COMMON MODE CHOKE - CYB-009 FOR IEEE1394/USB2.0

Test Mode

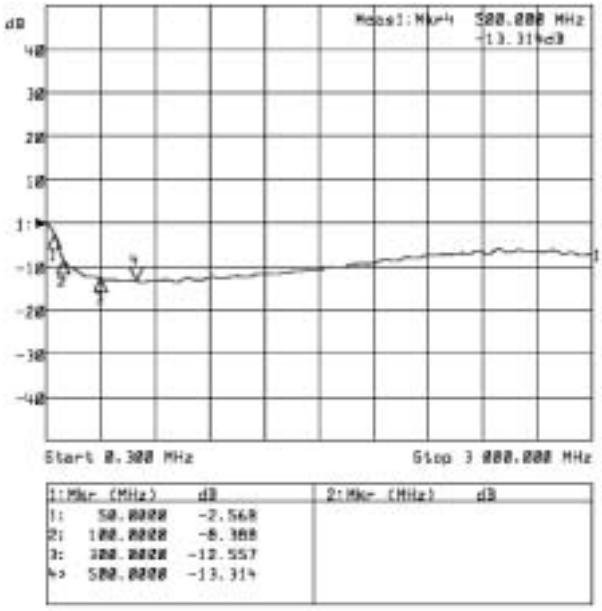
(Unit: mm)



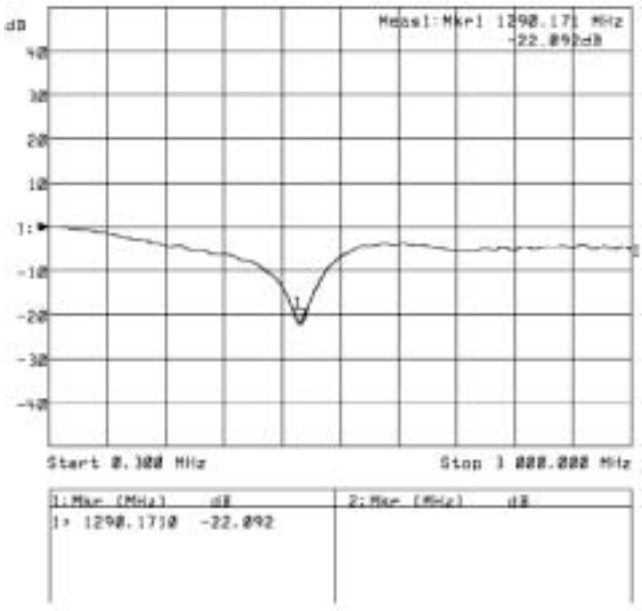


Insertion Loss

CYB-009-11394A

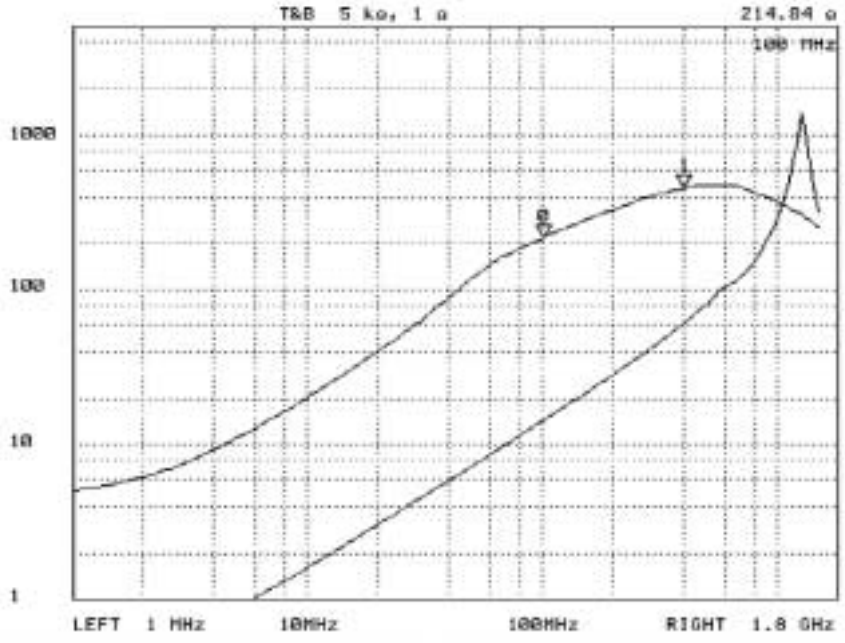


COMMON MODE



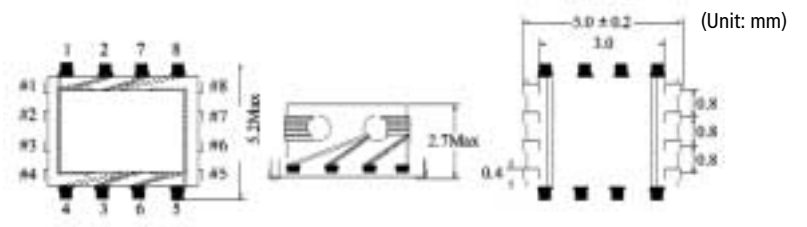
NORMAL MODE

| Z | - F



COMMON MODE CHOKE - CYB-016 FOR IEEE1394/USB2.0

EXTERNAL DIMENSIONS



Features

- Low profile: 2.7mm (max.).
- Common mode impedance of 120~220Ω at 100MHz .
- Operating Temperature Range: -25°C to +85°C.
- Suitable for reflow soldering.
- Suitable for lead free soldering.

Applications:

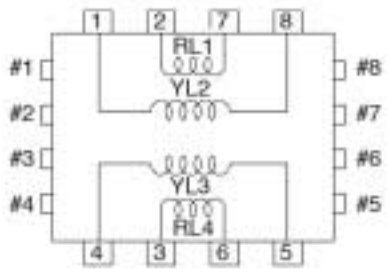
- YB016T series is a dual wound common mode choke w/c is ideal for NOISE ATTENUATION in a twisted pair cable interfaces as well as IEEE1394 & USB2.0 applications. An excellent impedance balance between two sets of twisted pairs is achieved by winding across a single core .
- One YB016T common mode choke coil per interface port is possible with this dual winding configurations.

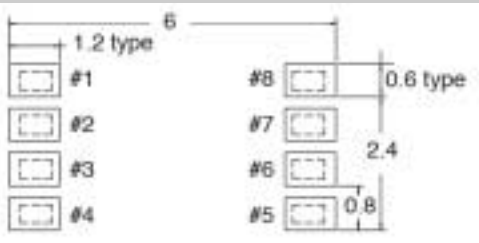
Specifications

Part Number	Insertion Loss (HP-8714C)			
	50MHz	**100MHz**	**300MHz**	**500MHz**
CYB-016-121	1.3dB±0.5dB	4.0dB±1.5dB	8.0dB±2.0dB	11.0dB±3.0dB
CYB-016-151	2.5dB±1.0dB	3.0dB±1.5dB	4.0dB±2.0dB	5.0dB±3.0dB
CYB-016-161	3.0dB±1.0dB	8.0dB±2.0dB	13.0dB±2.5dB	15.0dB±3.0dB
CYB-016-221	2.0dB±1.0dB	6.0dB±2.0dB	12.0dB±2.5dB	14.0dB±3.0dB

Part Number	I_{DC}	R_{DC}	Impedance Common Mode (Typ.)(HP-4291B)	Rated Voltage	Withstand Voltage (CH-901)	Insulation Resistance (CH-702A)
CYB-016-121	0.65A (max.)	0.30Ω (max.)	120Ω @ 100MHz	DC 50V	AC100V/ 1mA/1Minute AT WINDING TO WINDING	DC100V/ 10MΩ/1min AT WINDING TO WINDING
CYB-016-151	0.3A (max.)	0.30Ω (max.)	150Ω @ 100MHz			
CYB-016-161	0.3A (max.)	0.30Ω (max.)	160Ω @ 100MHz			
CYB-016-221	0.65A (max.)	0.12Ω (max.)	220Ω @ 100MHz			

Circuit & Pad: (Top View)

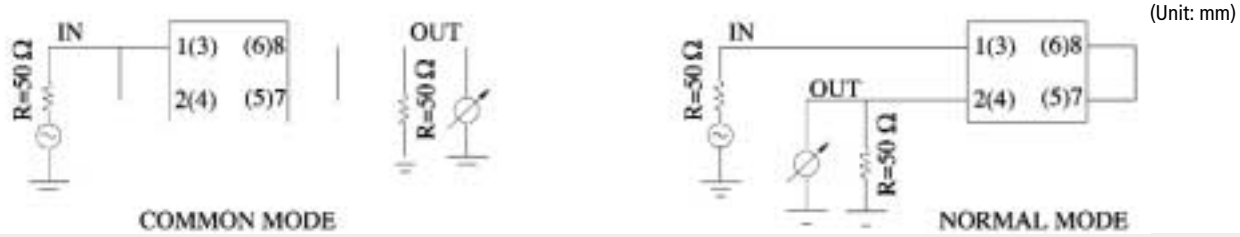




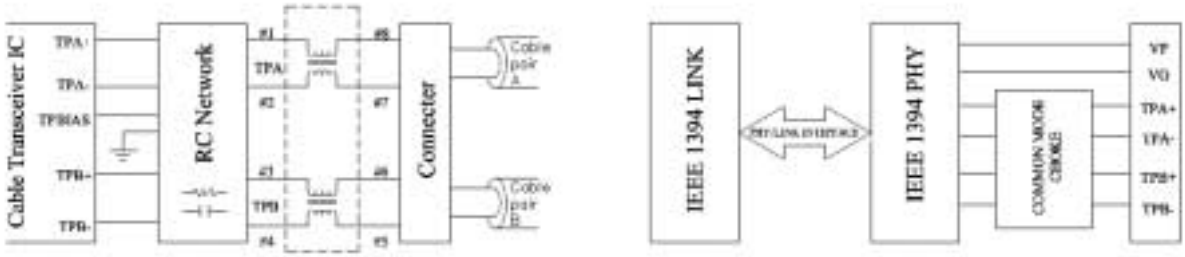
COMMON MODE CHOKE - CYB-016 FOR IEEE1394/USB2.0

Test Mode

(Unit: mm)

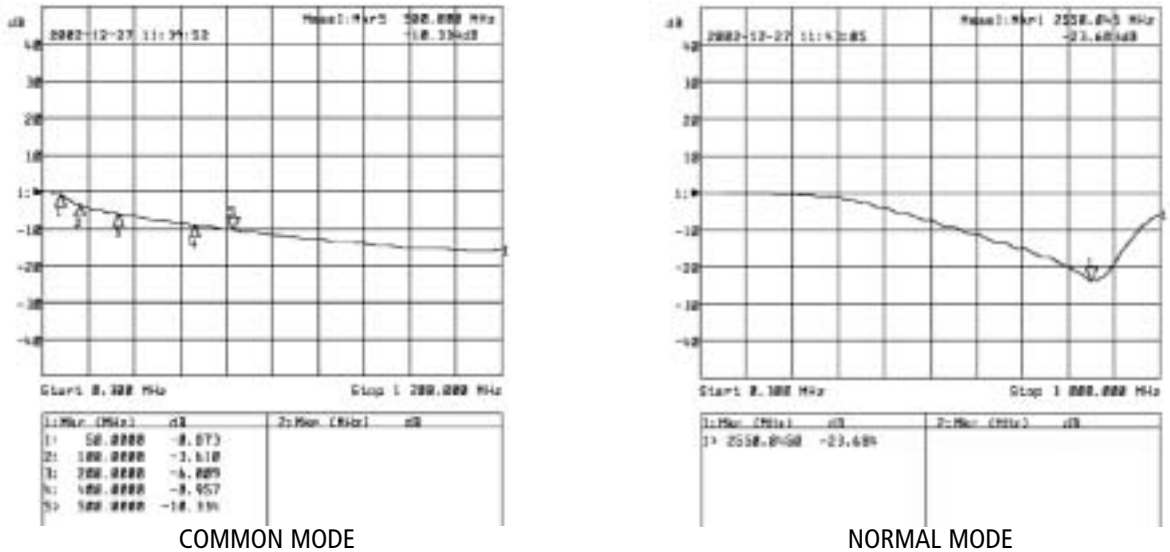


Twisted Pair Cable Interface & IEEE 1394 Port:



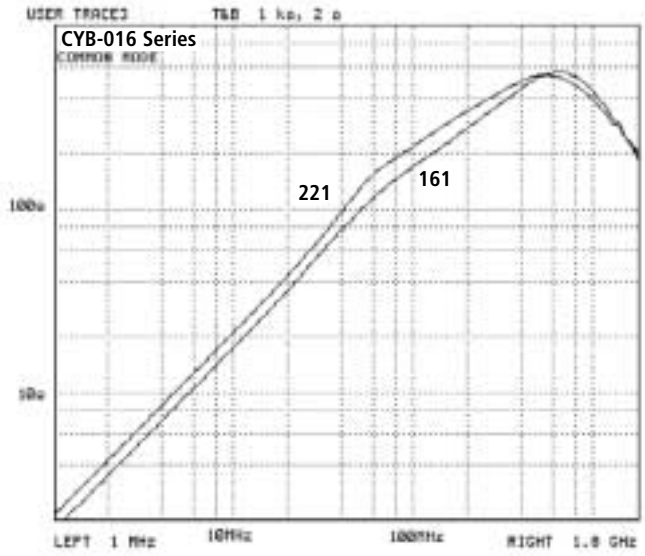
Insertion Loss

CYB-016-121



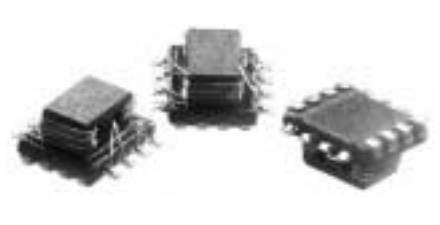
COMMON MODE NORMAL MODE

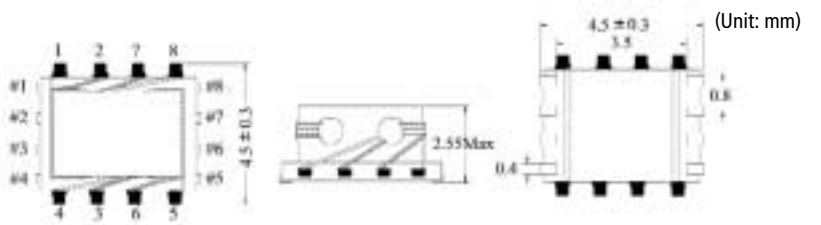
| Z | - F



COMMON MODE CHOKE - CYB-023 FOR IEEE1394/USB2.0

EXTERNAL DIMENSIONS





Features

- Low profile: 2.55mm (max.).
- Common mode impedance of 120~220Ω at 100MHz.
- Operating Temperature Range: -25°C to +85°C.
- Suitable for reflow soldering. Suitable for lead free soldering

Applications:

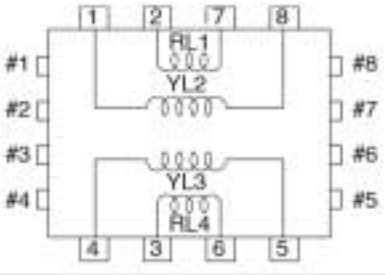
- CYB-023 series is a dual wound common mode choke w/c is ideal for NOISE ATTENUATION in a twisted pair cable interfaces as well as IEEE1394 & USB2.0 applications. An excellent impedance balance between two sets of twisted pairs is achieved by winding across a single core.
- One CYB-023 common mode choke coil per interface port is possible with this dual winding configurations.

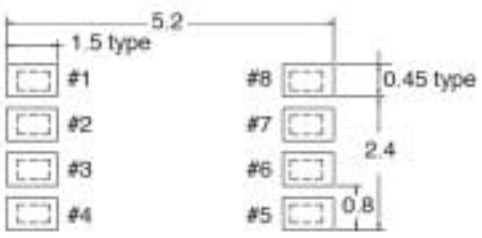
Specifications

Part Number	Insertion Loss (HP-8714C)			
	50MHz	**100MHz**	**300MHz**	**500MHz**
CYB-023-121	1.3dB±0.5dB	4.0dB±1.5dB	8.0dB±2.0dB	11.0dB±3.0dB
CYB-023-151	2.5dB±1.0dB	.3.0dB±1.5dB	4.0dB±2.0dB	5.0dB±3.0dB
CYB-023-161	3.0dB±1.0dB	8.0dB±2.0dB	13.0dB±2.5dB	15.0dB±3.0dB
CYB-023-221	2.0dB±1.0dB	6.0dB±2.0dB	12.0dB±2.5dB	14.0dB±3.0dB

Part Number	I_{DC}	R_{DC}	Impedance Common Mode (Typ.)(HP-4291B)	Rated Voltage	Withstand Voltage (CH-901)	Insulation Resistance (CH-702A)
CYB-023-121	0.65A (max.)	0.30Ω (max.)	120Ω @ 100MHz	DC 50V	AC100V/ 1mA/1Minute AT WINDING TO WINDING	DC100V/ 10MΩ/1min AT WINDING TO WINDING
CYB-023-151	0.3A (max.)	0.30Ω (max.)	150Ω @ 100MHz			
CYB-023-161	0.3A (max.)	0.30Ω (max.)	160Ω @ 100MHz			
CYB-023-221	0.65A (max.)	0.12Ω (max.)	220Ω @ 100MHz			

Circuit & Pad: (Top View)

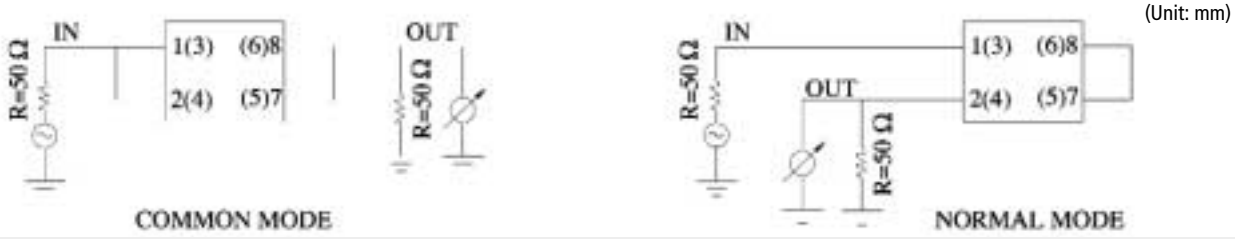




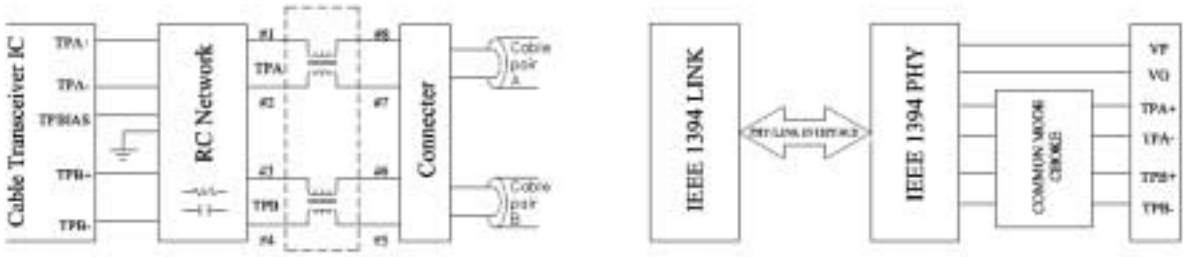
COMMON MODE CHOKE - CYB-023 FOR IEEE1394/USB2.0

Test Mode

(Unit: mm)

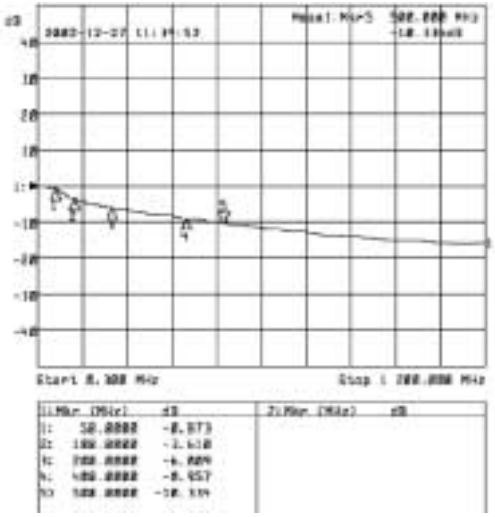


Twisted Pair Cable Interface & IEEE 1394 Port:

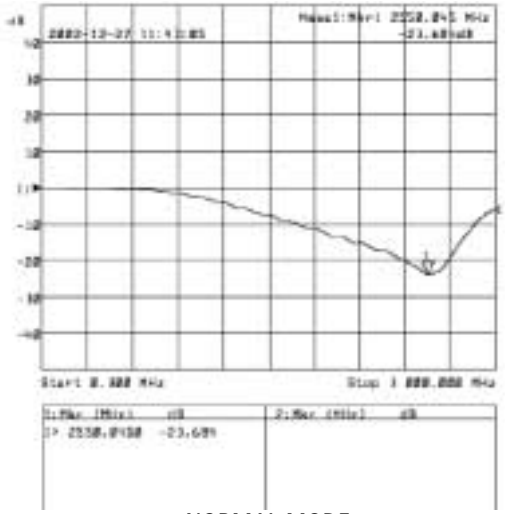


Insertion Loss

CYB-023-121

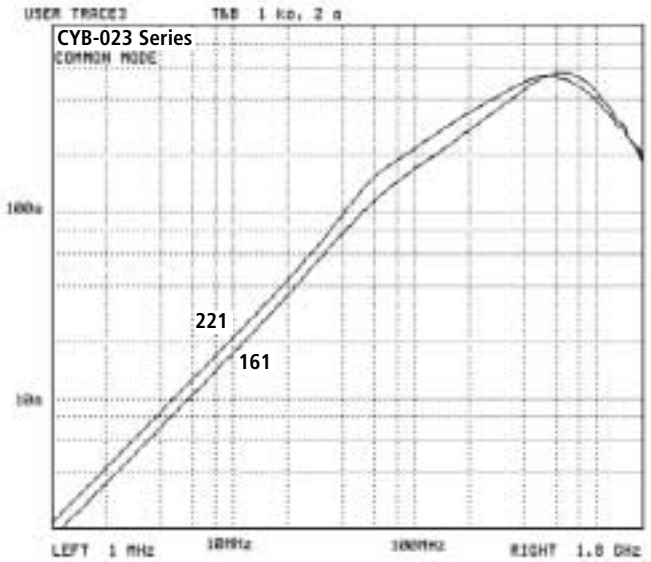


COMMON MODE



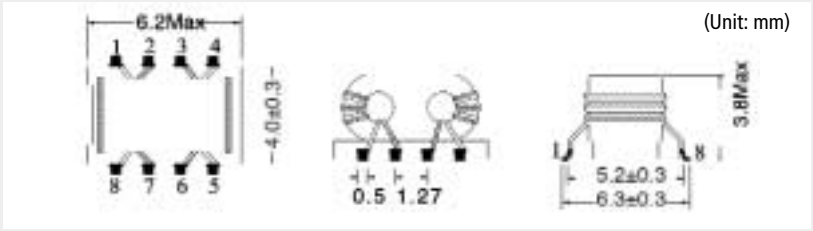
NORMAL MODE

| Z | - F



COMMON MODE CHOKE - CYB-018 FOR IEEE1394/USB2.0

EXTERNAL DIMENSIONS



Features

- Low profile: 3.8mm (max.).
- Common mode impedance of 88~556Ω at 100MHz ,176~860Ω at 400MHz.
- Operating Temperature Range: -25°C to +85°C.
- Suitable for reflow soldering.
- Suitable for lead free soldering.

Applications:

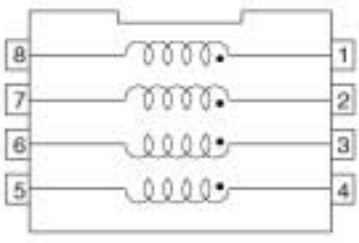
- CYB-018 Series is a dual wound common mode choke w/c is ideal for NOISE ATTENUATION in a twisted pair cable interfaces as well as IEEE1394 & USB2.0 applications. An excellent impedance balance between two sets of twisted pairs is achieved by winding across a single core .
- One CYB-018 common mode choke coil per interface port is possible with this dual winding configurations.

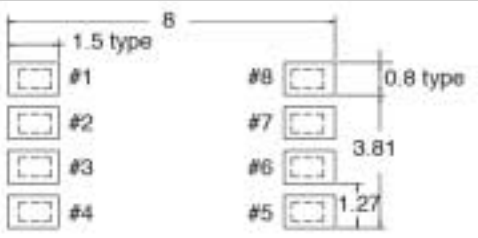
Specifications

Part Number	Insertion Loss (HP-8714C)			
	50MHz	**100MHz**	**300MHz**	**500MHz**
CYB-018-YU1	3.0dB±1.0dB	9.0dB±2.0dB	15.0dB±3.0dB	17.0dB±3.0dB
CYB-018-YU2	1.3dB±1.0dB	5.0dB±2.0dB	10.0dB±3.0dB	12.0dB±3.0dB
CYB-018-YU3	0.9dB±0.5dB	2.6dB±1.0dB	5.4dB±2.0dB	7.0dB±2.0dB
CYB-018-YU4	6.5dB±2.5dB	12dB±3.0dB	18dB±3.0dB	19dB±3.0dB

Part Number	I_{DC}	R_{DC}	Impedance Common Mode (Typ.)(HP-4291B)	Rated Voltage	Withstand Voltage (CH-901)	Insulation Resistance (CH-702A)
CYB-018-YU1	0.5A (max.)	0.10Ω (max.)	340Ω @ 100MHz 740Ω @ 400MHz	DC 80V	AC100V/ 2mA/1Minute AT WINDING TO WINDING	DC100V/ 10MΩ/1Minute AT WINDING TO WINDING
CYB-018-YU2	0.5A (max.)	0.09Ω (max.)	180Ω @ 100MHz 420Ω @ 400MHz			
CYB-018-YU3	0.5A (max.)	0.08Ω (max.)	88Ω @ 100MHz 176Ω @ 400MHz			
CYB-018-YU4	0.5A (max.)	0.12Ω (max.)	556Ω @ 100MHz 860Ω @ 400MHz			

Circuit & Pad: (Top View)

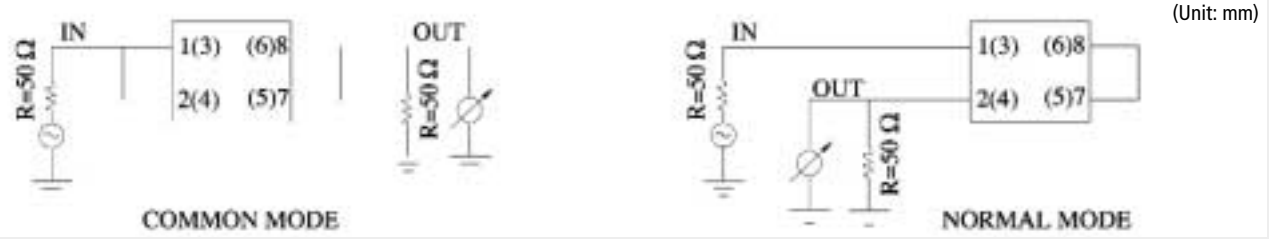




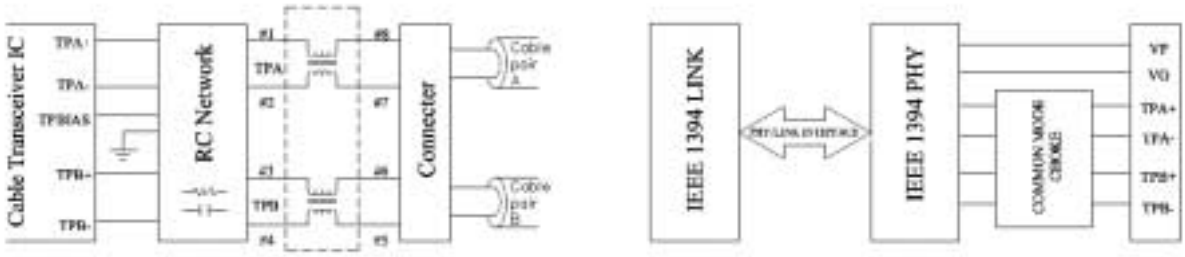
COMMON MODE CHOKE - CYB-018 FOR IEEE1394/USB2.0

Test Mode

(Unit: mm)

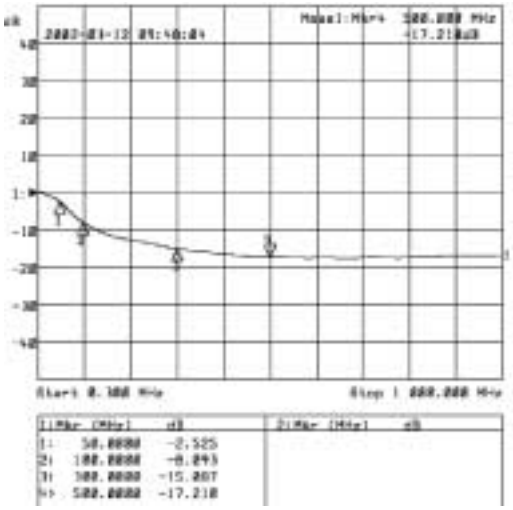


Twisted Pair Cable Interface & IEEE 1394 Port:

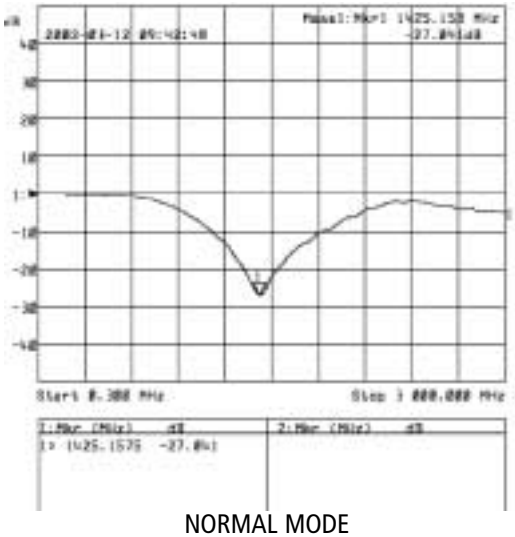


Insertion Loss

CYB-018-YU1



COMMON MODE



NORMAL MODE

| Z | - F