CERATECH CORPORATION

CHIP COMMON MODE FILTERS

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Features

1. Effective to suppress common mode noise at high frequencies.
2. Compact design.
3. Excellent solderability characteristics.
4. Lead Free (RoHS Compliant)
5. Halogen Free (IPC4101B Compliant)

Applications

1. Noise suppression in digital bus line equipment.
2. IEEE1394a HUB & IEEE1394a control lines.
3. USB 2.0 host controller & USB, HUB control lines
4. LVDS, panel link line for liquid crystal display panels.
5. For HDMI interfaces used in digital video devices.

Ordering Information

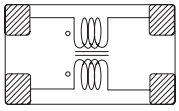
CL	-	2	S	2012	-	900	J	T
(1)		(2)	(3)	(4)		(5)	(6)	(7)

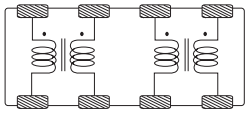
(1) Series
CM : Electrode directed in vertical line
CL : Electrode directed in horizontal line

(2) Number of line
2 : 2 line (Single)
4 : 4 line (Double)

(3) Material & Design
M : General Signal line
Y,S : High speed differential signal line

(4) Dimensions
First two digits : length(mm)
Last two digits : width(mm)


CL-series

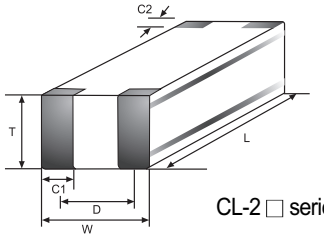

CM-series

(5) Common mode impedance (at 100MHz)
First two digits are values.
Last digit is the number of zeros.

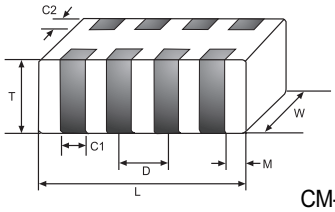
(6) Termination
J : Nickel barrier

(7) Packaging
B : Bulk Package
T : Tape & Reel (ø 178mm [7 inches])
L : Tape & Reel (ø 254mm [10 inches])

Shape and Dimensions



CL-2 □ series



CM-4 □ series

unit : mm[inches]

Type	L	W	T	C_1	C_2	D	M
CL-2□1210-	1.25±0.1 [.049±.004]	1.0±0.15 [.004±.006]	0.6±0.1 [.024±.004]	0.3±0.1 [.012±.004]	0.25±0.15 [.010±.006]	0.55±0.1 [.02±.004]	— —
CL-2□2012-	2.0±0.2 [.079±.008]	1.25±0.2 [.049±.008]	1.0±0.1 [.039±.004]	0.425±0.2 [.017±.008]	0.25±0.15 [.010±.006]	0.825±0.1 [.032±.004]	— —
CM-4□3216-	3.2±0.2 [.126±.008]	1.6±0.2 [.063±.008]	1.3±0.1 [.051±.004]	0.4±0.2 [.016±.008]	0.3±0.2 [.012±.008]	0.80±0.1 [.031±.004]	0.20±0.1 [.008±.004]

Specifications

CL series (Single)

Part No.	Impedance at 100MHz(Ω)		DC Resistance max. (Ω)	Rated Current max. (mA)	Rated Voltage max. (V)	Insulation Resistance min. (MΩ)
	typ.	Min				
CL-2S1210-900□□	90	67	2.00	100	5	10
CL-2S2012-700□□	70	52	0.60	400	10	10
CL-2S2012-900□□	90	67	0.70	400	10	10
CL-2S2012-121□□	120	90	0.80	400	10	10
CL-2S2012-181□□	180	135	1.00	330	10	10

CM series (Double)

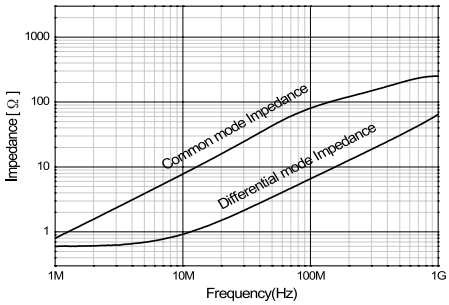
Part No.	Impedance at 100MHz(Ω)		DC Resistance max. (Ω)	Rated Current max. (mA)	Rated Voltage max. (V)	Insulation Resistance min. (MΩ)
	typ.	Min				
CM-4S3216-900□□	90	67	0.70	400	10	10
CM-4S3216-121□□	120	90	0.80	400	10	10
CM-4S3216-181□□	180	135	1.00	330	10	10

※The characteristics of Low Profile Products is same as above Table.

Electrical Characteristics

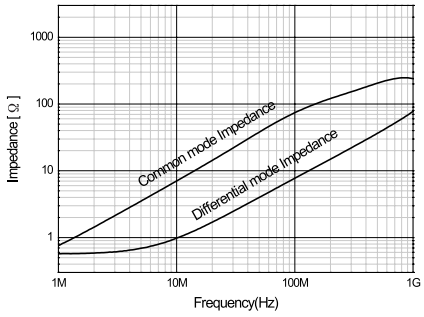
CL 1210

CL-2S1210-900J



CL 2012

CL-2S2012-700J



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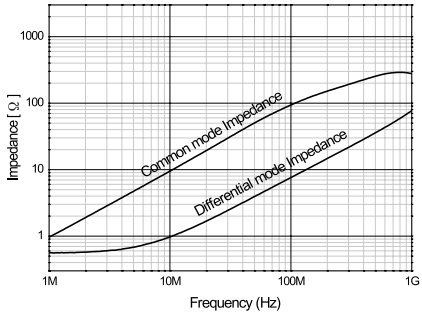

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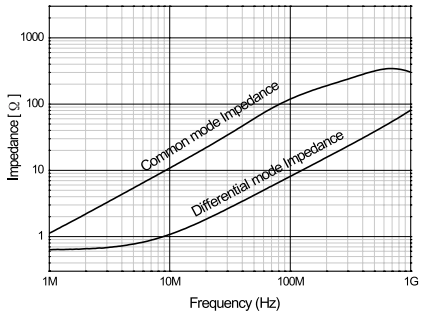

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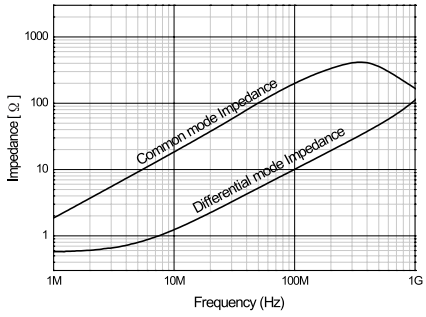

CM 3216 (Double)

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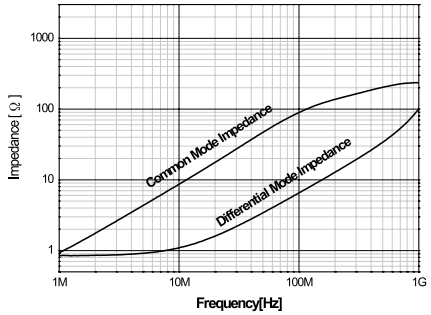

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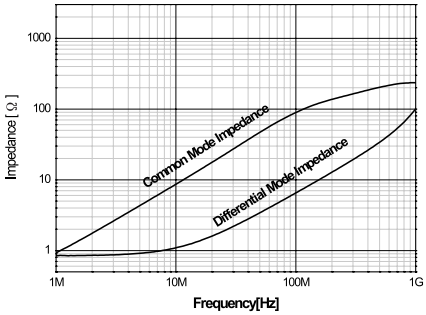

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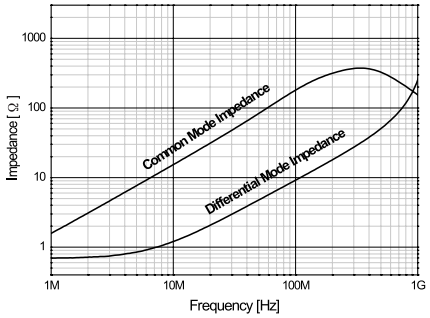
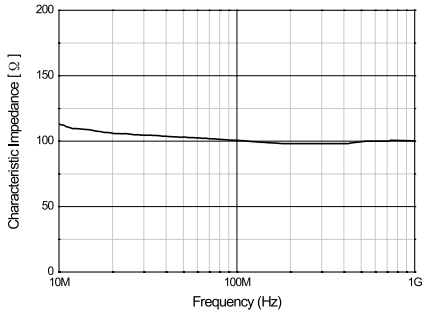


Characteristic Impedance vs. Frequency characteristics

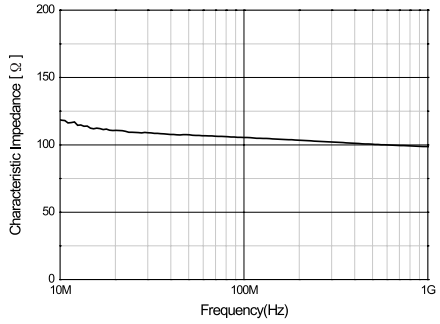
CL 1210

CL-2S1210-900J



CL 2012

CL-2S2012-700J



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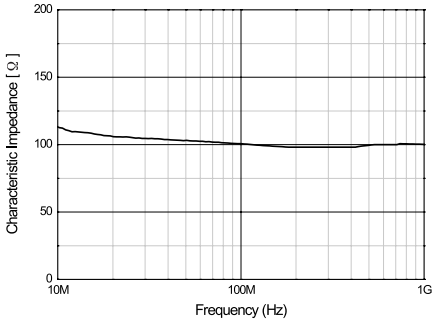

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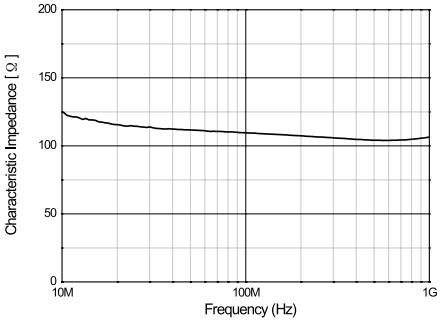

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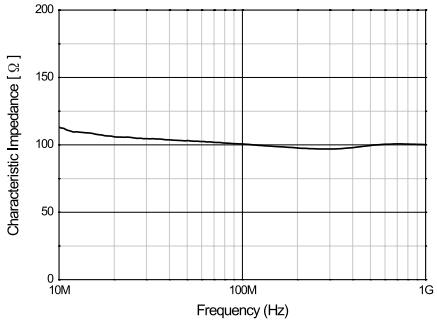

CM 3216 (Double)

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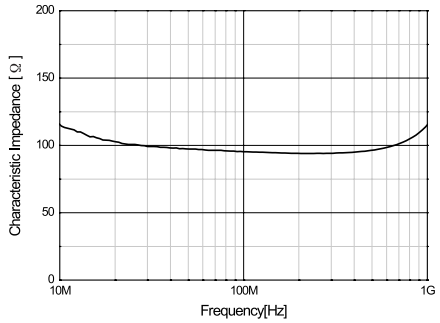

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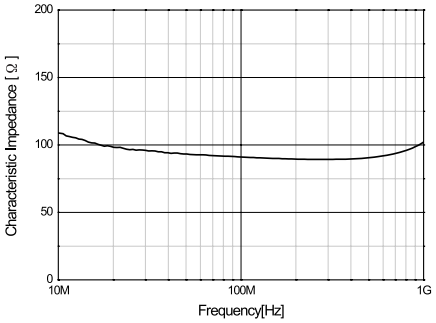

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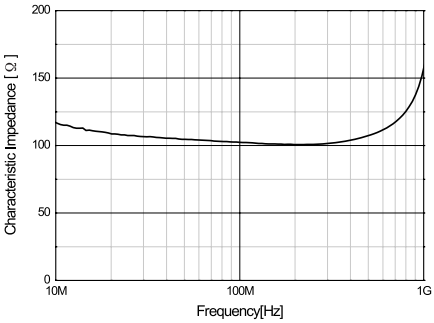
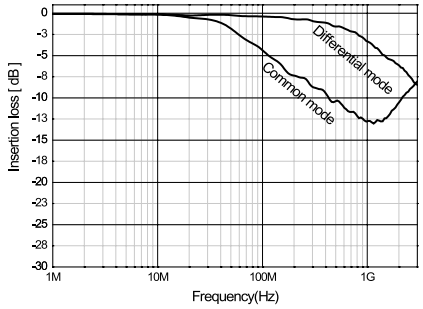


Insertion loss vs. Frequency Characteristics

CL 1210

CL-2S1210-900J



CL 2012

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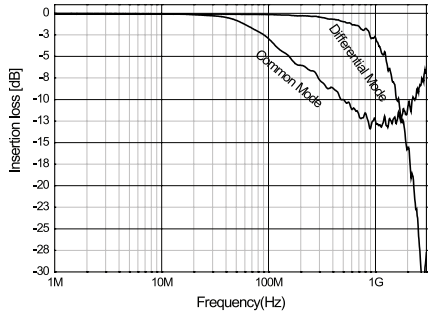

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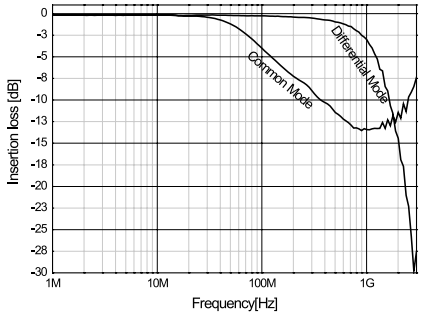

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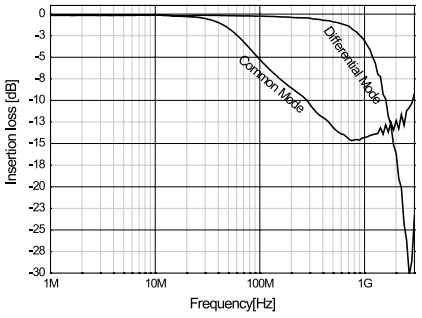

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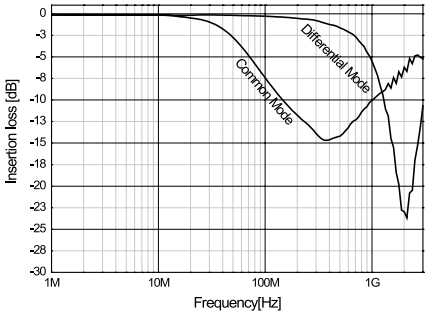
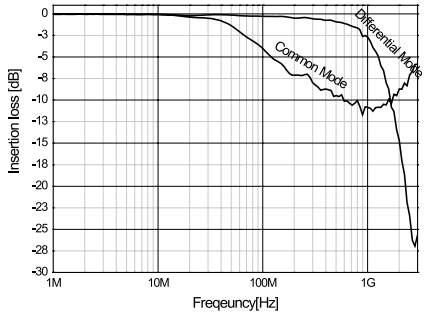


CM 3216 (Double)

CM-4S3216-900J



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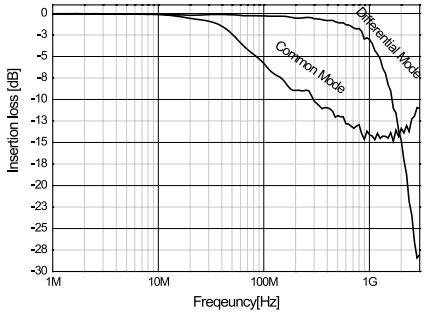

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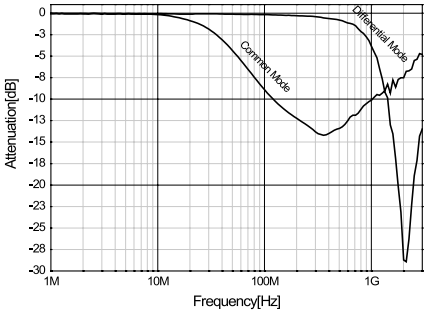
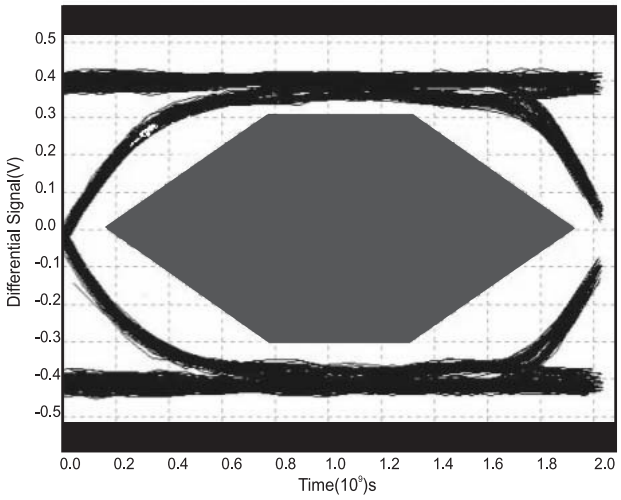


Eye Pattern Test Result For USB 2.0

CM-4S-3216-900J



MEMO