THE DATASHEET OF

MCI-2012-201-RU

Mag Layers USA, INC

Specification Sheet

P/N : MCI-2012-Series-RU

Products:

Molded Power Chokes

Multilayer Chip Inductors

Lan Transformer

RF Passive / Antennas

Automotive

Certifications:

ISO9001

IATF16949

ISO14001

QC080000

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www.maglayersusa.com
info@maglayersusa.com

SCOPE：

This specification applies to the Pb Free Common mode filters

for MCI-2012-SERIES-□□

PRODUCT INDENTIFICATION

MCI- **2012** - Series-**RU**

① ② · ④

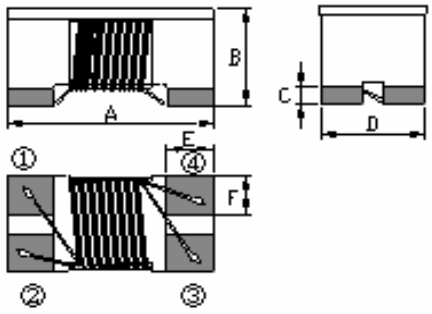
MCII- **Product Code**

MCIII- **Dimensions Code**

MCIV- **Impedance Code**

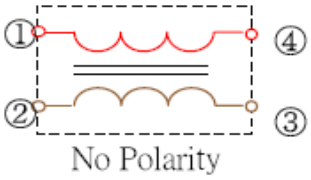
MCV- **Inner Control Code**

(1) SHAPES AND DIMENSIONS



A: 2.0±0.20 mm
B: 1.2±0.20 mm
C: 0.17 Typ. mm
D: 1.2±0.20 mm
E: 0.45 Typ. mm
F: 0.40 Typ. mm

Equivalent circuit



No Polarity

(2) ELECTRICAL SPECIFICATIONS

SEE TABLE 1

TEST INSTRUMENTS

Z : HP 4291B IMPEDANCE ANALYZER (or equivalent)

RDC : CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)

I.R : CHROMA MODEL 19073 AC/DC/IR HIPOT TESTER (or equivalent)

(3) CHARACTERISTICS

(3)-1 Temperature rise ..... ＋20℃ Max.

(3)-2 Ambient temperature ..... ＋60℃ Max.

(3)-3 Operate temperature range ..... －25℃～＋85℃

(Including self temp. rise)

(3)-4 Storage temperature range ..... －40℃～＋85℃

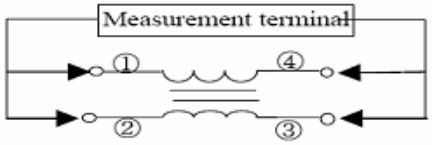
TABLE 1

MAGLAYERS PT/NO.	Impedance Z(Ω) @ 100MHz/0.5V	RDC (Ω) Max.	Rated Voltage Vdc(V)	Idc Max.(mA)	Withstanding Voltage Vdc(V)	Insulation Resistance (MΩ)Min.
MCI-2012-670-RU	67 ±25%	0.25	50	400	125	10
MCI-2012-900-RU	90 ±25%	0.35	50	330	125	10
MCI-2012-121-RU	120±25%	0.30	50	370	125	10
MCI-2012-181-RU	180±25%	0.35	50	330	125	10
MCI-2012-201-RU	200±25%	0.35	50	330	125	10
MCI-2012-261-RU	260±25%	0.40	50	300	125	10
MCI-2012-371-RU	370±25%	0.40	50	280	125	10

TEST EQUIPMENT

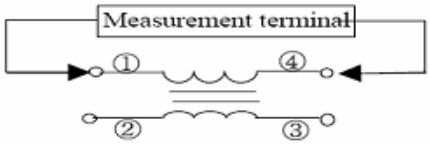
1. Impedance

Measured by using HP 4291B RF Impedance Analyzer.



2. DC Resistance

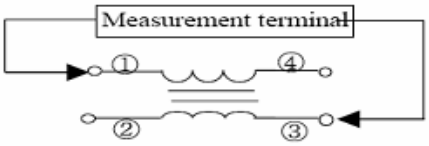
Measured by using Chroma 16502 mill ohm meter



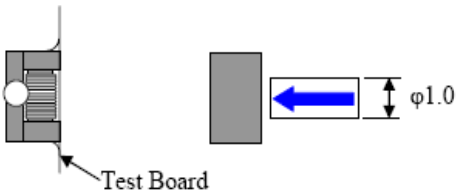
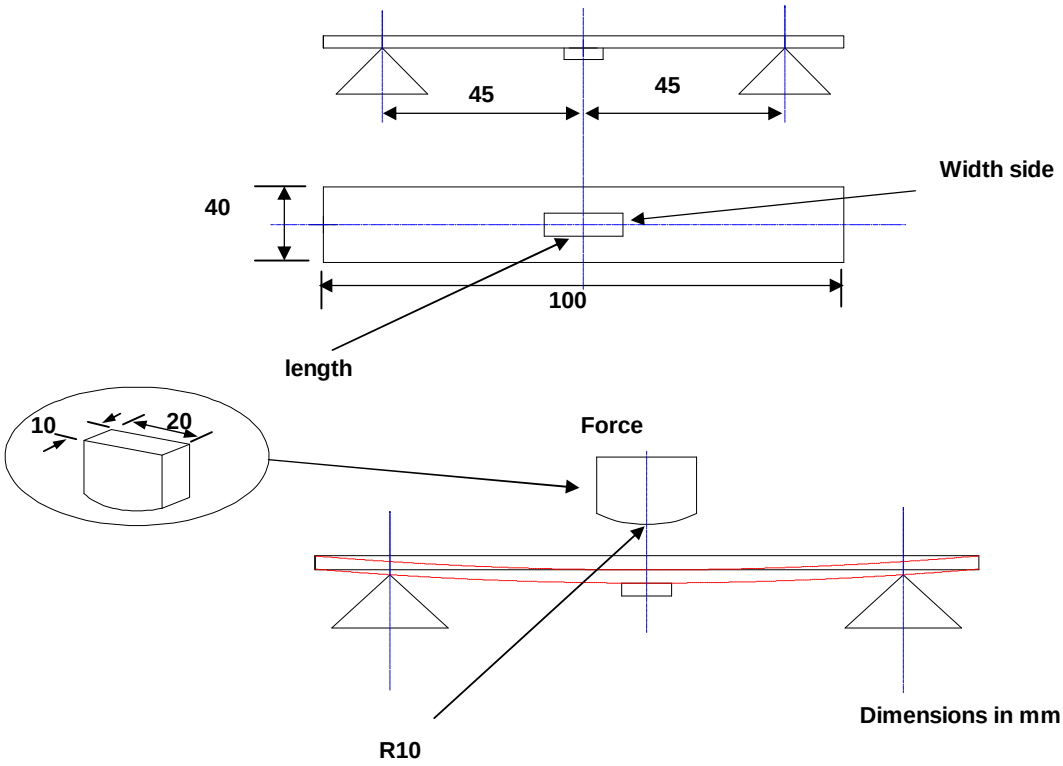
3. Insulation Resistance

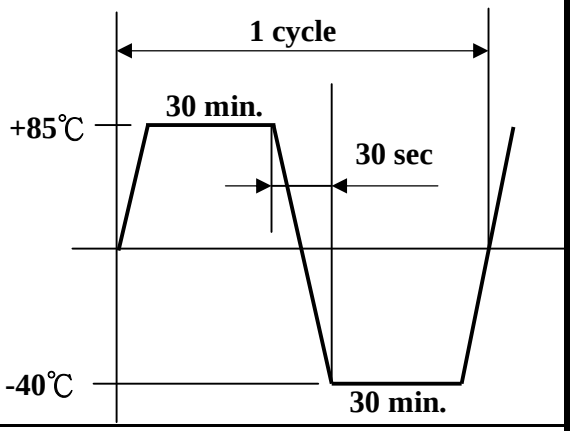
Measured by using Chroma 19073

Measurement voltage: 50v, Measurement time: 60 sec.



(4) RELIABILITY TEST METHOD

Item	Specifications	Test conditions
Solder ability	It can be connected on the Recommendation soldering condition.	Apply cream solder to the test circuit board . It is mounted on the recommendation soldering condition. Dip pads in flux and dip in solder pot (96.5 Sn/3.5 Ag solder) at 260°C ±5°C.
Terminal strength	The terminal electrode and the ferrite must not be damaged.	Solder a chip to test substrate , and then laterally apply a load 0.5Kg in the arrow direction. 
Strength on pc board bending	The terminal electrode and the ferrite must not be damaged.	Soldering a chip to a test substrate , bend the substrate by 2mm and then return.  Test board : Glass base epoxy multiplayer board pc board pattern. PC board pattern : Recommended PC board pattern.

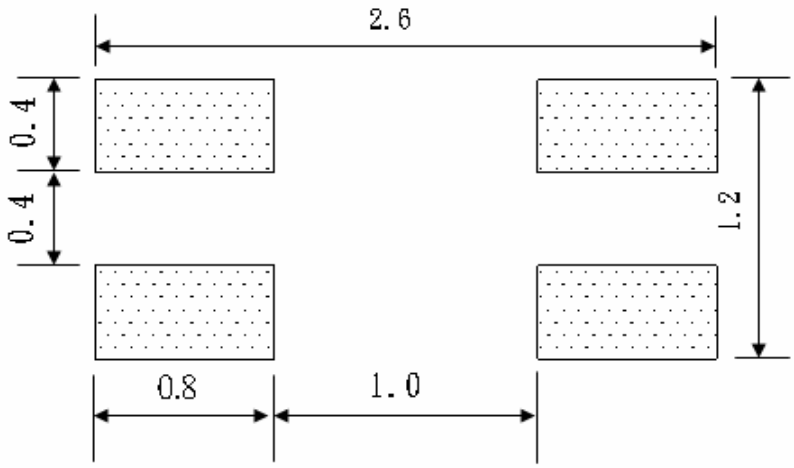
Item	Specifications	Test conditions
High temperature	Appearance : Ferrite shall not be damaged. Impedance:Within±20% of the initial value. insulation resistance: >10(MΩ) DC resistance : standard value inside.	Temperature : +85±2℃ Applied voltage : Rated voltage Applied current : Rated current Testing time : 500±12 hours Measurement :After placing for 24 hours min.
Humidity resistance		Temperature : +85±2℃ Humidity : 90 to 95%RH Applied current : Rated current Applied voltage : Rated voltage Testing time : 500±12 hours Measurement :After placing for 24 hours min.
Thermal shock		Temperature : -25℃,+85℃ kept stabilized for 30 minutes each. Cycle : 100 cycle Measurement :After placing for 24 hours min. 
Low temperature Storage		Temperature : -25±2℃ Testing time : 500±12 hours Measurement :After placing for 24 hours min.
Vibration	Appearance : Ferrite shall not be damaged.	Frequency : 10 to 50 Hz Amplitude : 1.52 mm Dimension and times : X ,Y and Z directions for 2 hours each.

(5) RECOMMENDED SOLDERING CONDITIONS

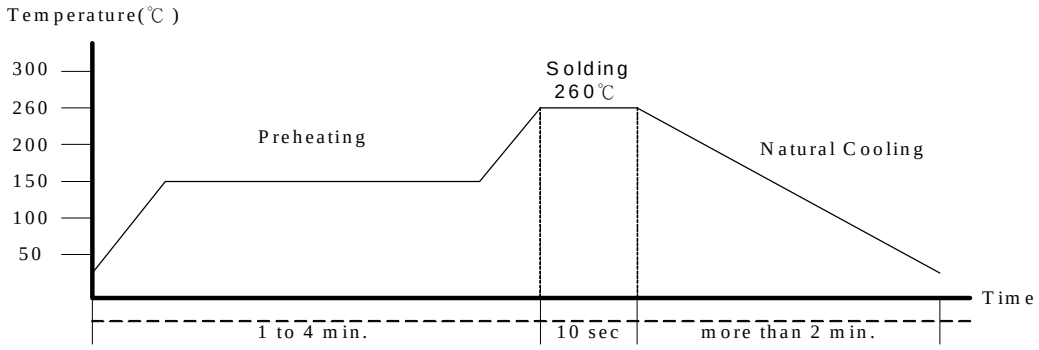
(Please use this product by reflow soldering)

(5)-1 RECOMMENDED FOOTPRINT

Unit: mm



(5)-2 RECOMMENED REFLOW PATTERN



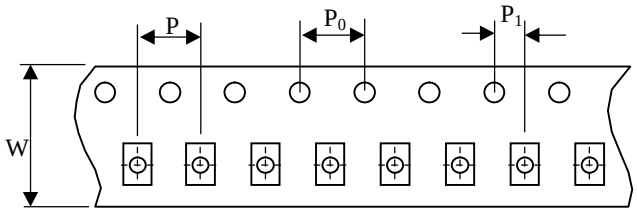
(5)-3 IRON SOLDERING

Use a solder iron of less than 30W when soldering ,do not allow the soldering iron tip directly touch the Ceramic body outside of terminal electrode.

3 seconds max. at 260℃.

(6) PACKAGING

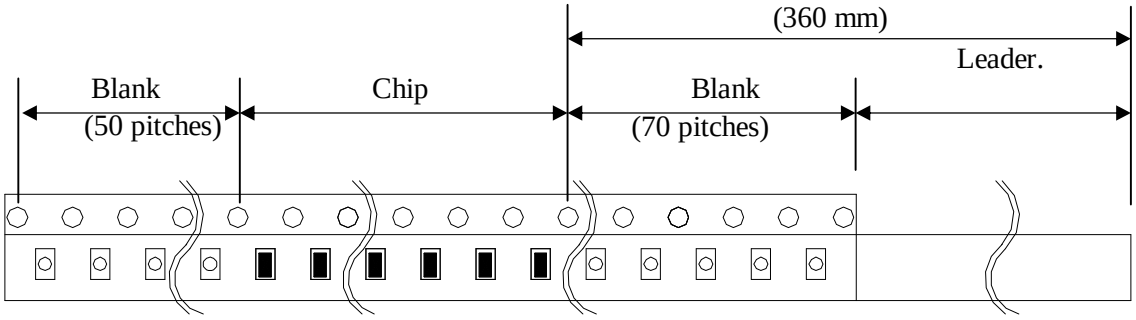
(6)-1 CARRIER TAPE DIMENSIONS (mm)



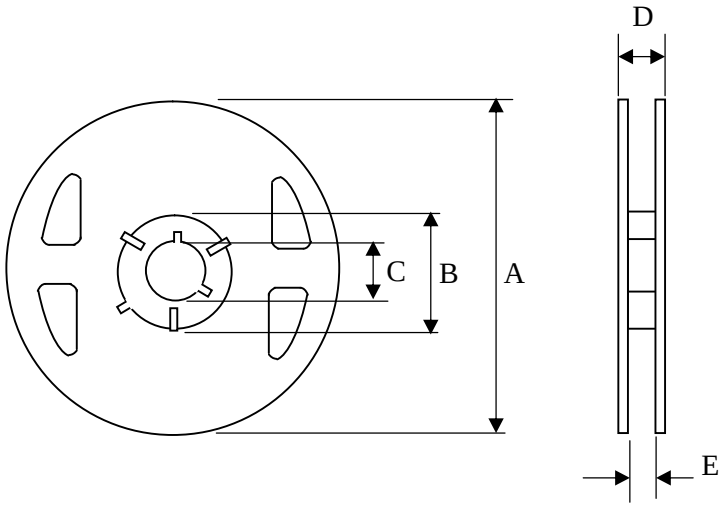
W : 8.0 mm
P : 4.0 mm
P0 : 4.0 mm
P1 : 2.0 mm

(6)-2 TAPING DIMENSIONS (mm)

There shall not continuation more than two vacancies of the product.



(6)-3 REEL DIMENSIONS



A : 180 mm
B : 60 mm
C : 13 mm
D : 12 mm
E : 8.4 mm

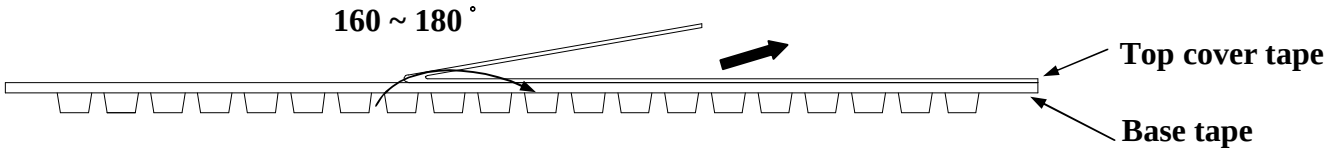
(6)-4 COVER TAPE PEEL STRENGTH

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35℃

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



(6)-5 QUANTITY

2000 pcs/Reel

(6)-6 The products are packaged so that no damage will be sustained.

(7) ATTENTION IN CASE OF USING

In case of using product ,please avoid following matters:

Splashing water or salt water

Dew condenses

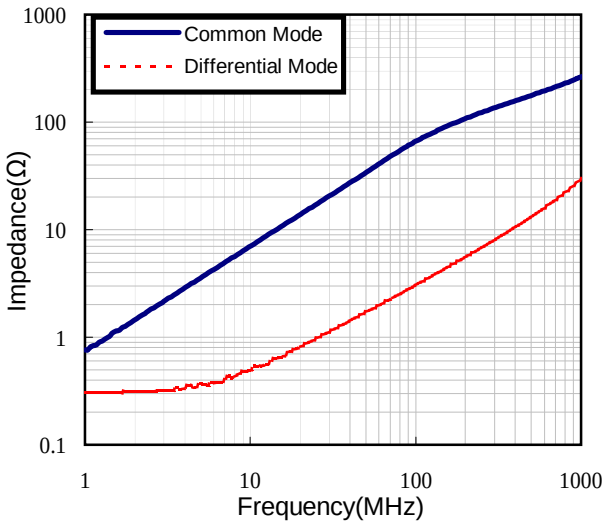
Toxic gas (Hydrogen sulfide, Sulfurous acid ,Chlorine, Ammonia)

Vibrations or shocks which exceed the specified condition

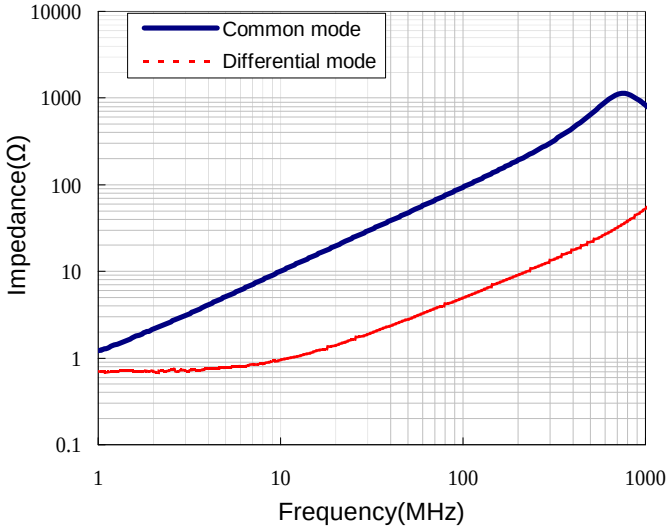
Please be careful for the stress to this product by board flexure or something after the mounting.

TYPICAL ELECTRICAL CHARACTERISTICS

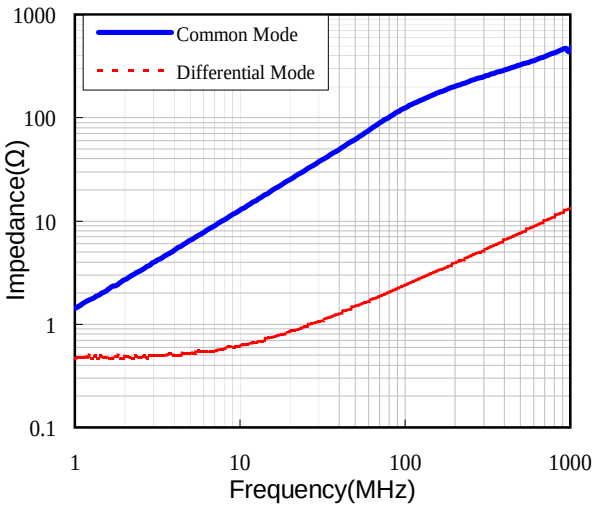
MCI-2012-670-RU



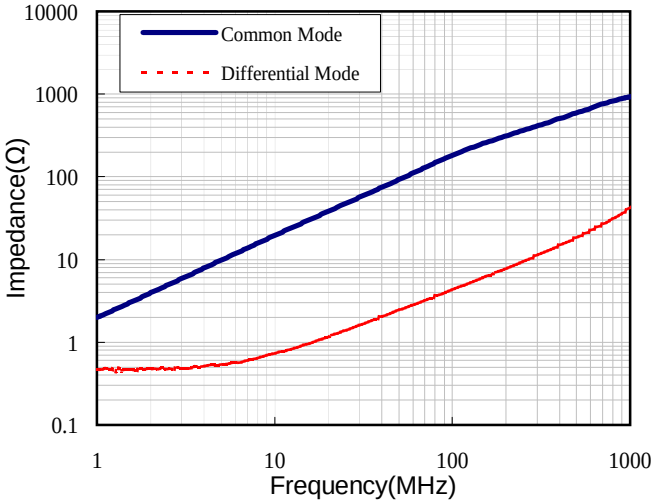
MCI-2012-900-RU



MCI-2012-121-RU

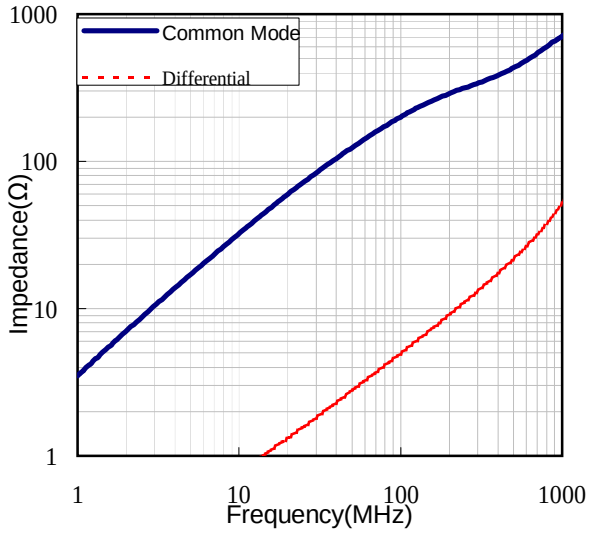


MCI-2012-181-RU

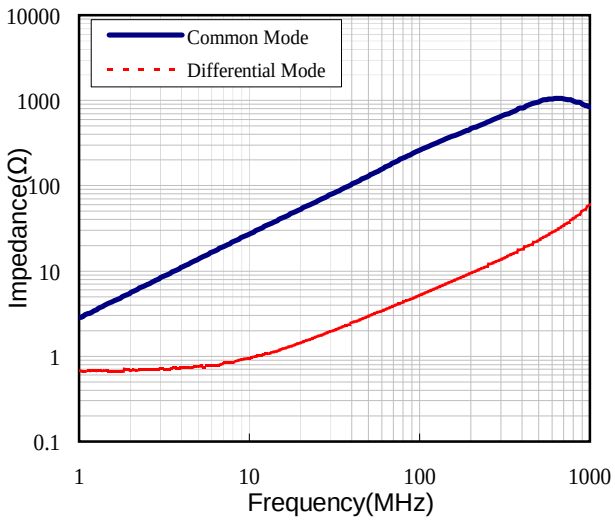


TYPICAL ELECTRICAL CHARACTERISTICS

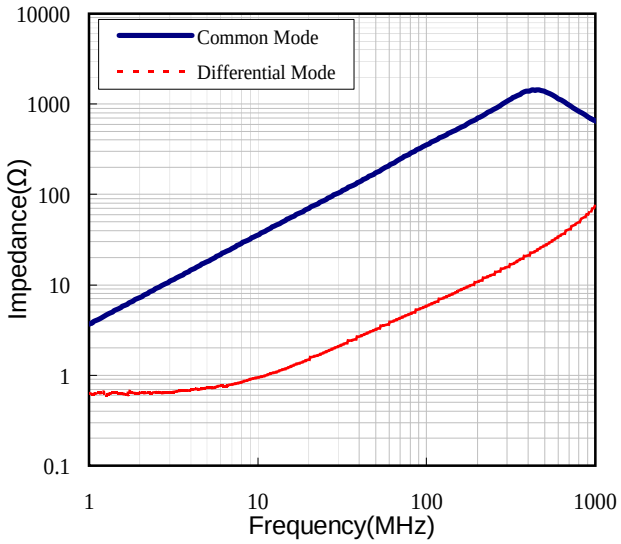
MCI-2012-201-RU



MCI-2012-261-RU



MIC-2012-371-RU



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- Shortage Management
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