

TEST DATA OF NBM-20-□□□**Noise Filter**

Oct. 17. 2007

Approved by : Toshio Watanabe Watanabe
Toshio Watanabe Design Manager

Prepared by : Tadayuki Noda Noda
Tadayuki Noda Design Engineer

COSEL CO.,LTD.



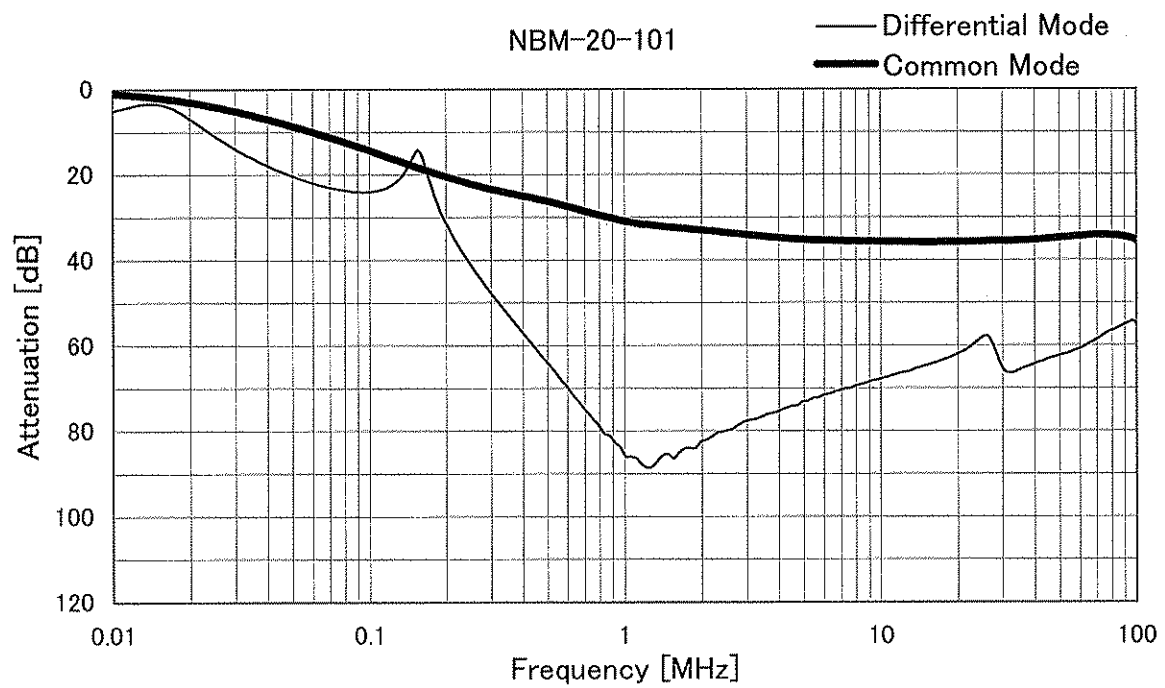
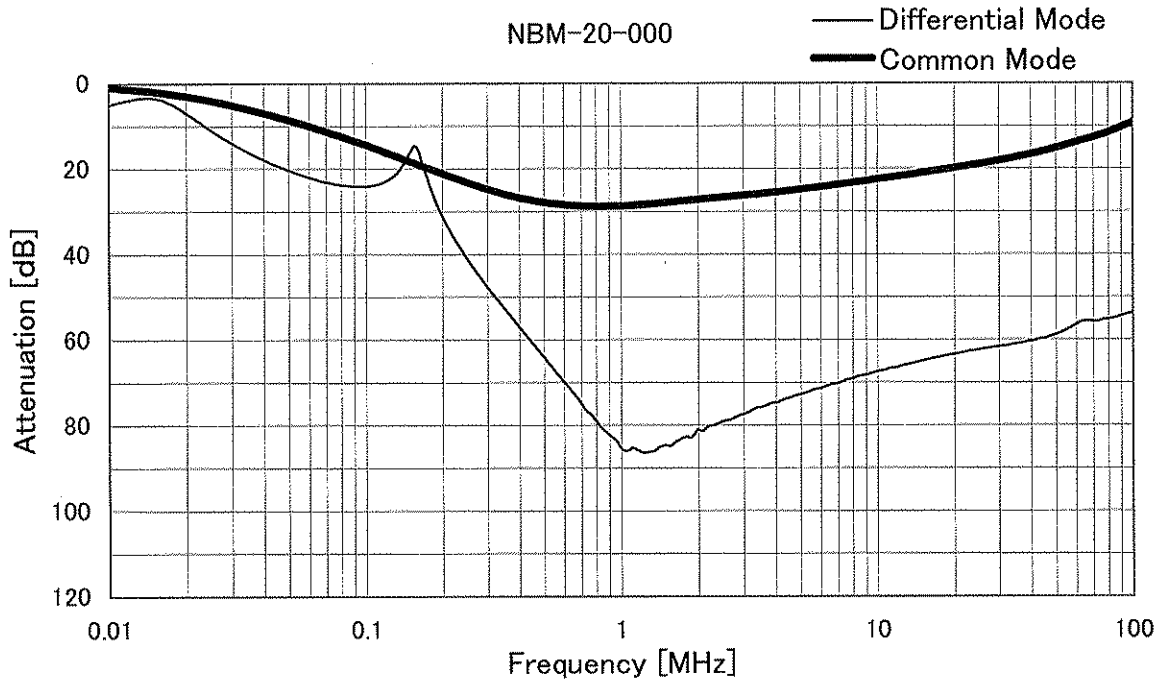
CONTENTS

| | |
|--|---|
| 1. Attenuation Characteristics | 1 |
| 2. Pulse Attenuation Characteristics | 4 |
| 3. Leakage Current | 6 |
| 4. Figure of Testing Circuitry | 7 |

(Final Page 8)

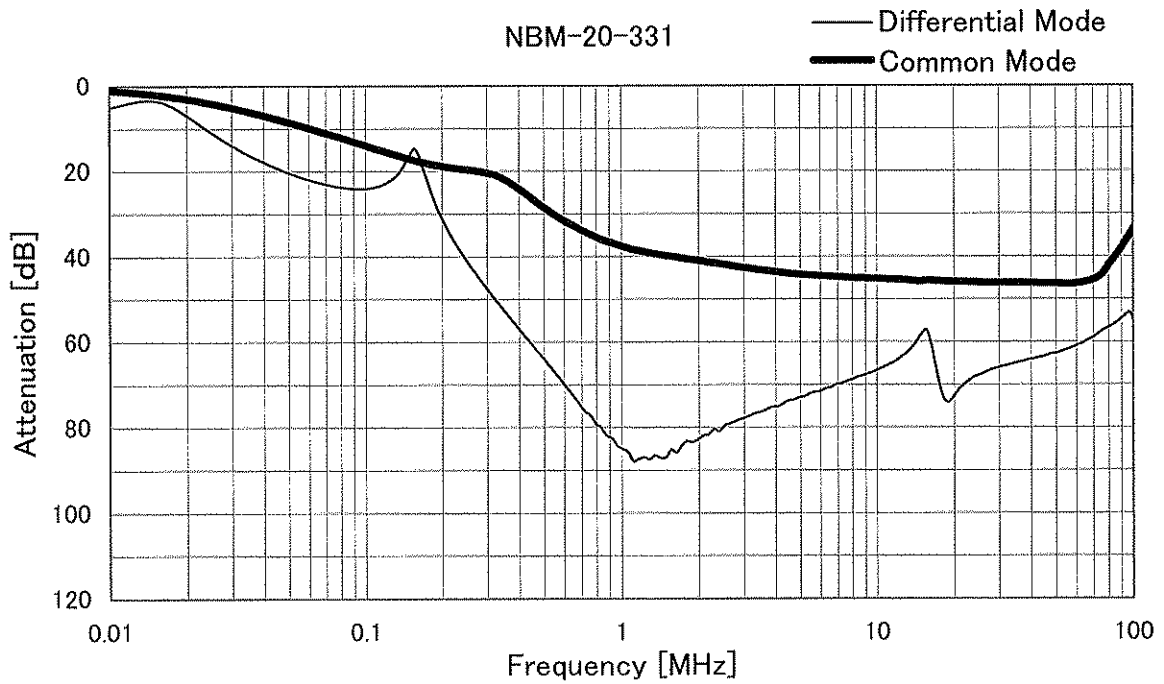
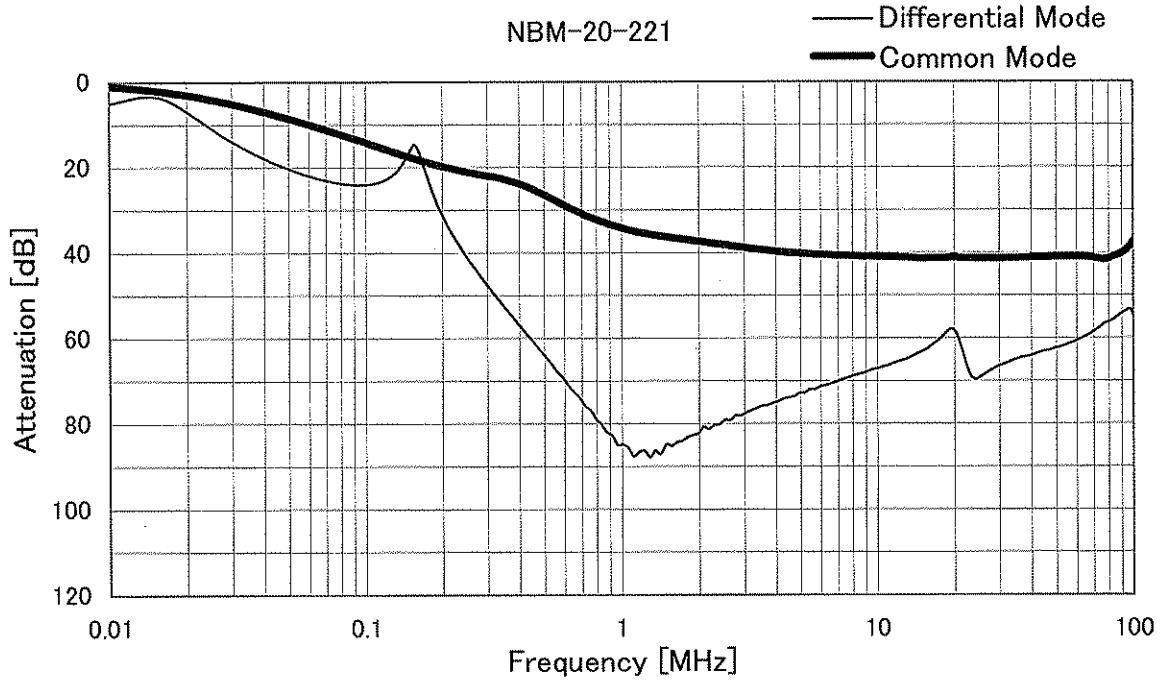


| | | | |
|--------|-----------------------------|-------------------|----------|
| Model | NBM-20-□□□ | Temperature | 25°C |
| Item | Attenuation Characteristics | Testing Circuitry | Figure A |
| Object | _____ | | |



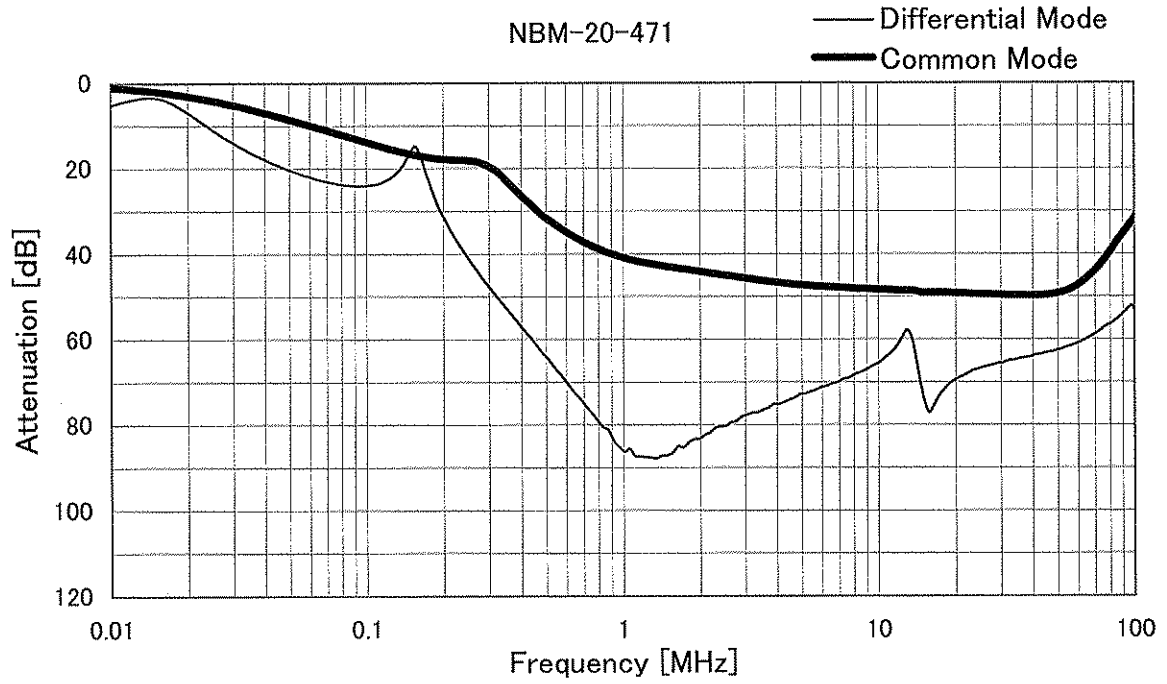


| | | | |
|--------|-----------------------------|-------------------|----------|
| Model | NBM-20-□□□ | Temperature | 25°C |
| Item | Attenuation Characteristics | Testing Circuitry | Figure A |
| Object | _____ | | |



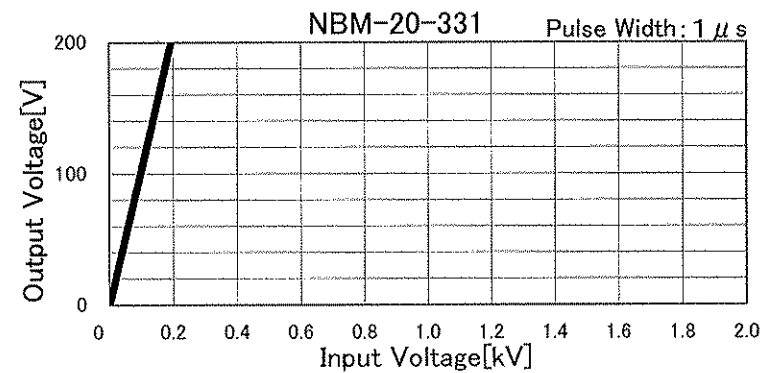
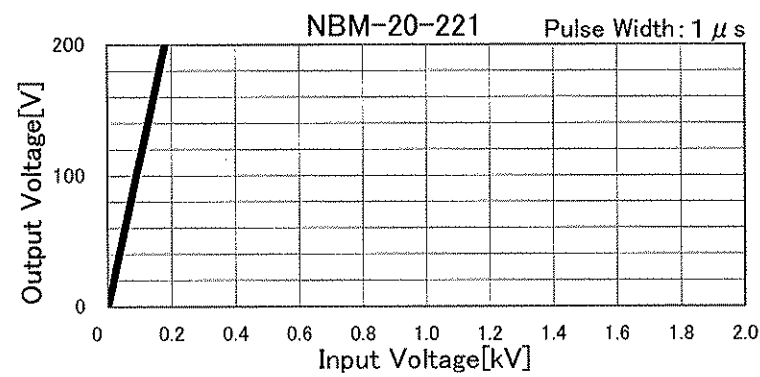
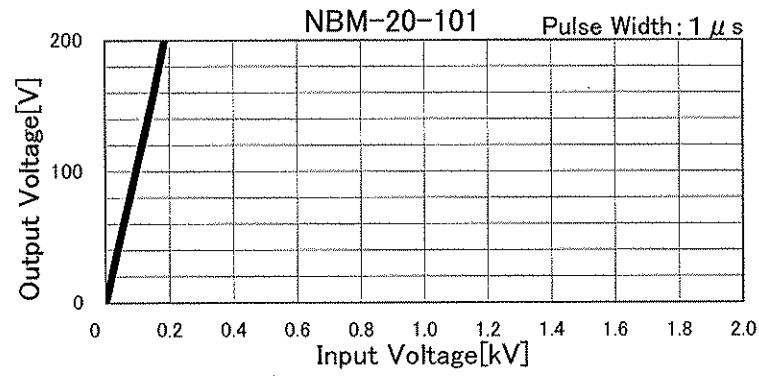
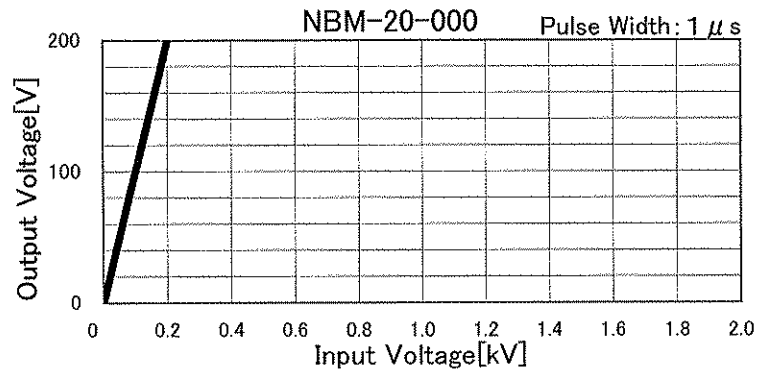


| | | |
|--------|-----------------------------|--|
| Model | NBM-20-□□□ | Temperature 25°C Testing Circuitry Figure A |
| Item | Attenuation Characteristics | |
| Object | _____ | |



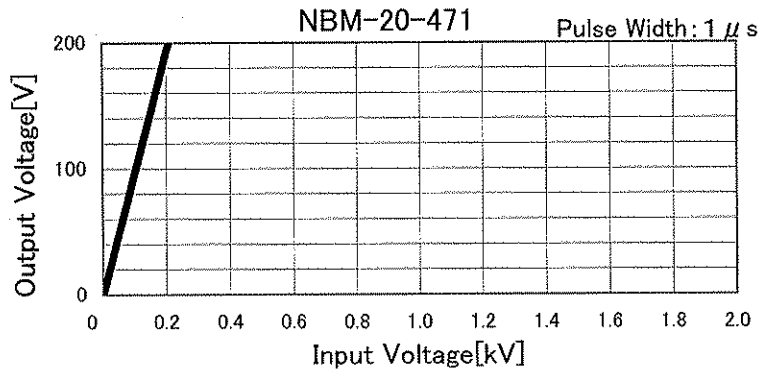


| | | | |
|--------|-----------------------------------|-------------------|----------|
| Model | NBM-20-□□□ | Temperature | 25°C |
| Item | Pulse Attenuation Characteristics | Testing Circuitry | Figure B |
| Object | _____ | | |





| | | | |
|--------|--|-----------------------------------|--|
| Model | | NBM-20-□□□ | Temperature 25°C Testing Circuitry Figure B |
| Item | | Pulse Attenuation Characteristics | |
| Object | | _____ | |





| | | |
|--------------|-----------------|--|
| COSEL | | |
| Model | NBM-20-□□□ | Temperature 25°C Testing Circuitry Figure C |
| Item | Leakage Current | |
| Object | _____ | |

1.Results

[mA]

| Model | Standards | Input Volt. | | | | Note |
|------------|-----------|-------------|---------|---------|---------|------|
| | | 100 [V] | 125 [V] | 230 [V] | 250 [V] | |
| NBM-20-000 | UL1283 | 0.002 | 0.002 | 0.004 | 0.005 | |
| NBM-20-101 | UL1283 | 0.006 | 0.007 | 0.013 | 0.015 | |
| NBM-20-221 | UL1283 | 0.011 | 0.013 | 0.025 | 0.028 | |
| NBM-20-331 | UL1283 | 0.015 | 0.019 | 0.038 | 0.042 | |
| NBM-20-471 | UL1283 | 0.023 | 0.030 | 0.061 | 0.069 | |

2.Condition

Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

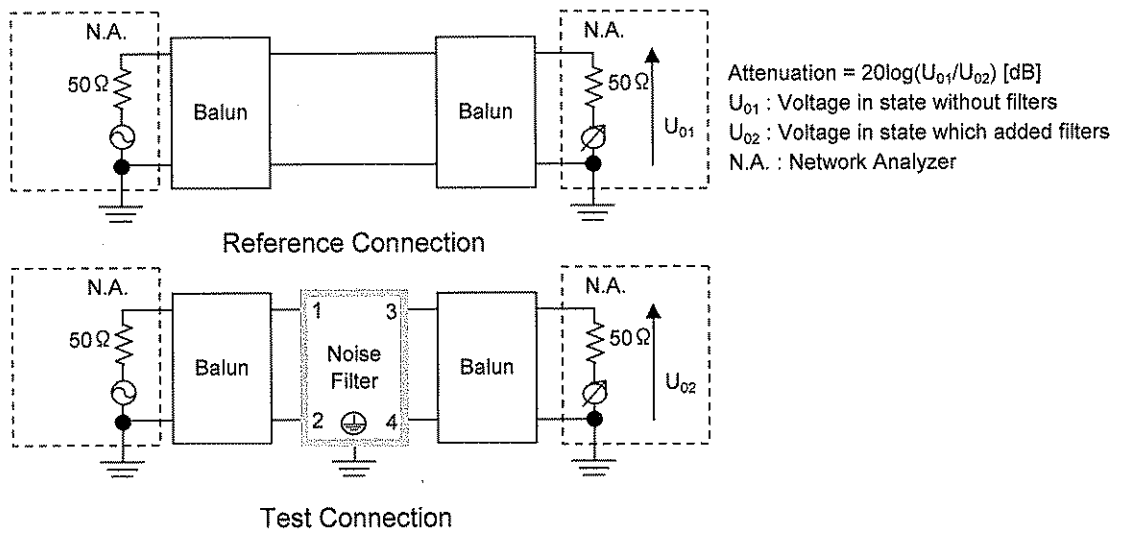


Figure A - 1 Differential mode attenuation measurement

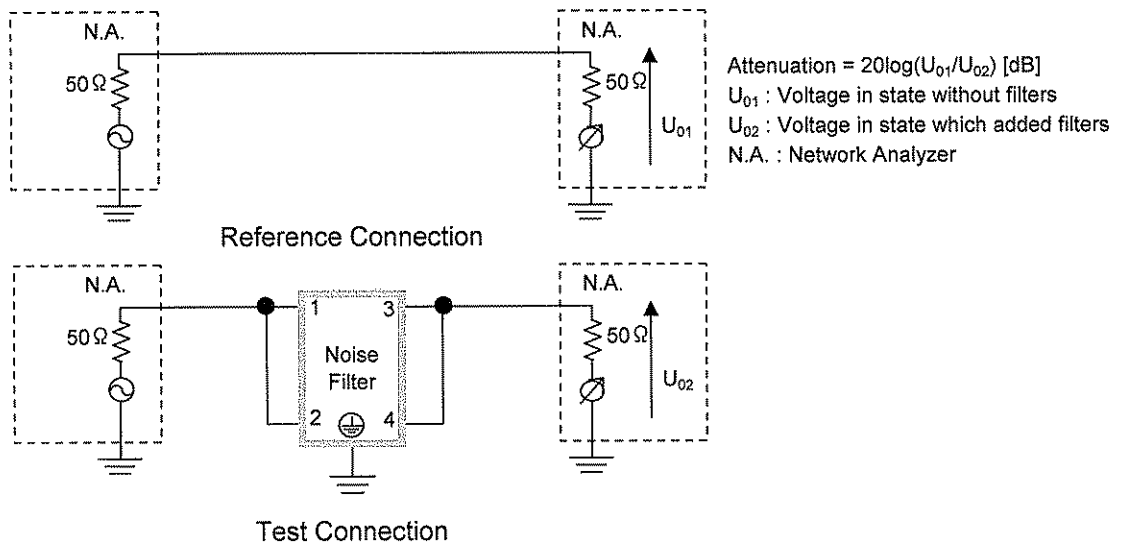
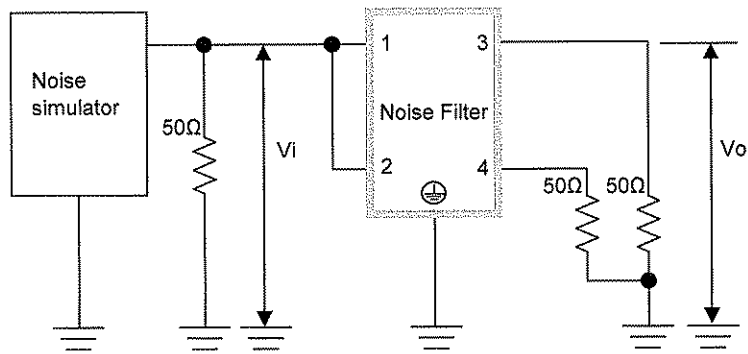


Figure A - 2 Common mode attenuation measurement



Pulse attenuation measurement

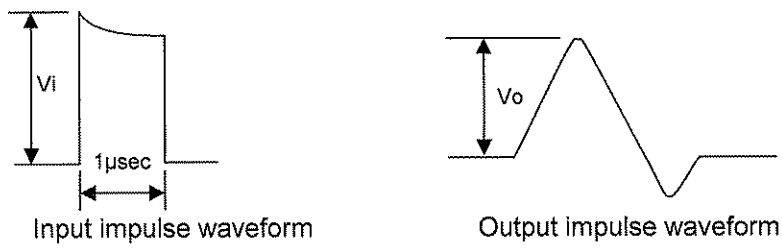


Figure B Pulse attenuation measurement

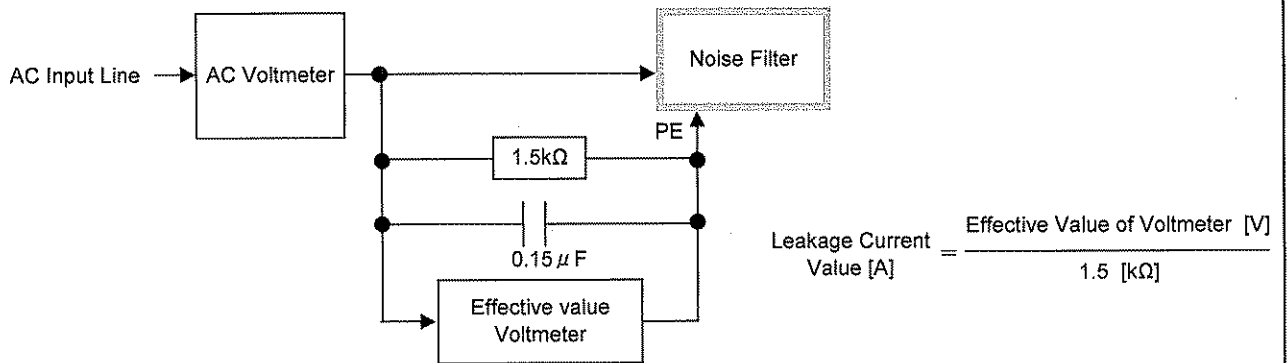


Figure C Leakage current measurement (UL1283)