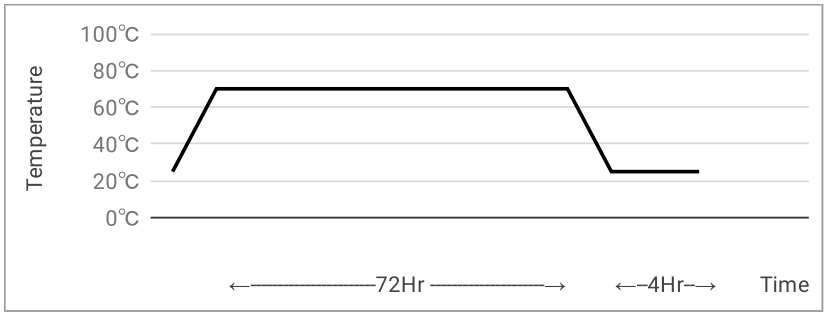
	Reliability specification		Revision	
Item	High Temperature Test (Storage)			
Applied Product Family	Cable		Testable	O
	First Review	Mockup Sample		Mold Sample
		O		O

Test condition

◎ Test room Condition
- Temperature : 25℃ ± 3℃
- Relative humidity : 25% ~ 75%
- Atmospheric pressure : 86kPa (860mbar) ~ 106kPa (1,060mbar)

◎ Test Condition
- Test Temperature : 70℃
- Test Time : 72 Hrs
- Left it under room temperature for 4 hours after test



Test equipment
- Temperature chamber

Sample Quantity
- At least 3 pcs

Test time(day)
- 3 days

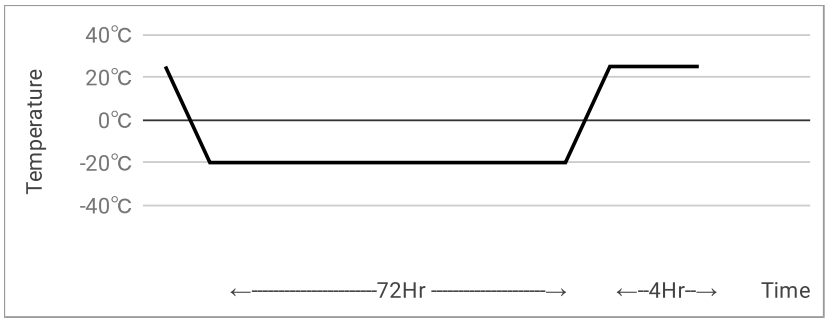
Criteria standard
- Not allowed any loss of function or degradation of performance (Normal performance within limits)
- Not allowed any deformation, descoloration, crack or corrosion

	Reliability specification		Revision	
Item	Low Temperature Test (Storage)			
Applied Product Family	Cable		Testable	O
	First Review	Mockup Sample		Mold Sample
		O		O

Test condition

◎ Test room Condition
- Temperature : 25℃ ± 3℃
- Relative humidity : 25% ~ 75%
- Atmospheric pressure : 86kPa (860mbar) ~ 106kPa (1,060mbar)

◎ Test Condition
- Test Temperature : -20℃ ± 2℃
- Test Time : 72 Hrs
- Left it under room temperature for 4 hours after test



Test equipment
- Temperature chamber

Sample Quantity
- At least 3 pcs

Test time(day)
- 3 days

Criteria standard
- Not allowed any loss of function or degradation of performance (Normal performance within limits)
- Not allowed any deformation, descoloration, crack or corrosion

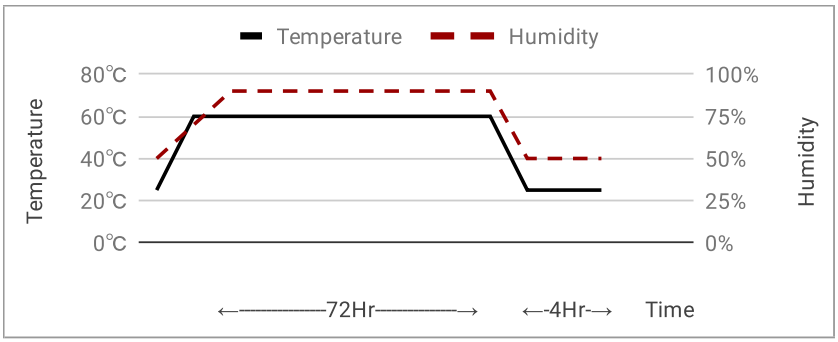
Item	Reliability specification	Revision	
	High Temperature & High Humidity Test (Storage)		
Applied Product Family	Cable	Testable	X

	First Review	Mockup Sample	Mold Sample
		O	O

Test condition

◎ Test room Condition
- Temperature : 25℃ ± 3℃
- Relative humidity : 25% ~ 75%
- Atmospheric pressure : 86kPa (860mbar) ~ 106kPa (1,060mbar)

◎ Test Condition
- Test Temperature : 60℃ ± 2℃
- Humidity : 90% ± 3%
- Test Time : 72 Hrs
- Left it under room temperature for 4 hours after test
  To avoid condensation, adjust the humidity after the product reaches target temperature (within 2Hr)



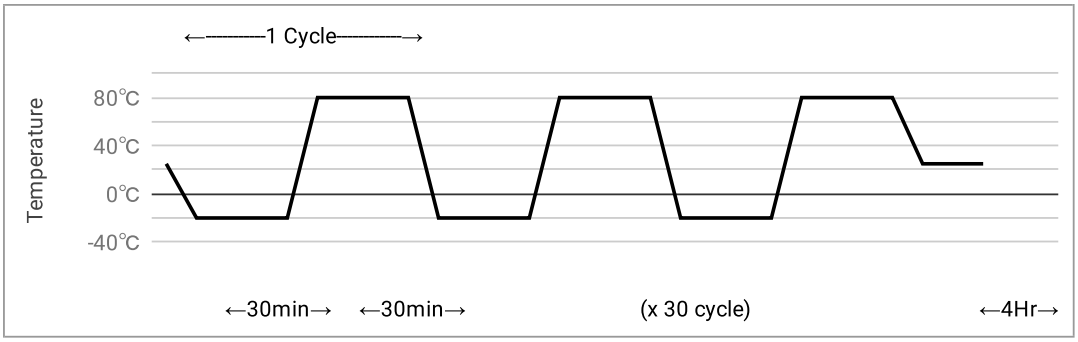
Test equipment	● Temperature & Humidity chamber
Sample Quantity	● At least 3 pcs
Test time(day)	● 3 days
Criteria standard	● Not allowed any loss of function or degradation of performance (Normal performance within limits) ● Not allowed any deformation, descoloration, crack or corrosion

	Reliability specification		Revision	
Item	Thermal Shock Test (Storage)			
Applied Product Family	Cable		Testable	X
	First Review	Mockup Sample		Mold Sample
				O

Test condition

◎ Test room Condition
- Temperature : 25℃ ± 3℃
- Relative humidity : 25% ~ 75%
- Atmospheric pressure : 86kPa (860mbar) ~ 106kPa (1,060mbar)

◎ Test Condition
- Test Temperature : -20℃ ± 2℃ / 30 min, 70℃ ± 2℃ / 30 min
- Cycle : 30 Cycle
- Temperature changing time : within 5 min
- Left it under room temperature for 4 hours after test



Test equipment
- Temperature shock chamber

Sample Quantity
- At least 3 pcs

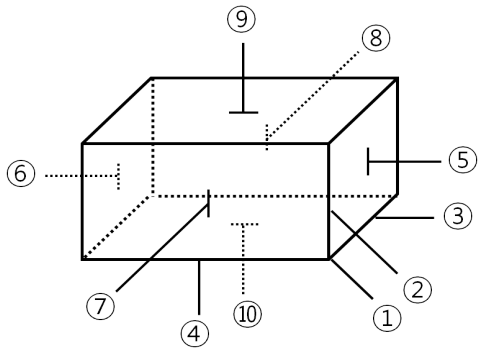
Test time(day)
- 2 days

Criteria standard
- Not allowed any loss of function or degradation of performance (Normal performance within limits)
- Not allowed any deformation, descoloration, crack or corrosion

<table>
<tr><td>Item</td><td>Reliability specification</td><td>Revision</td><td></td></tr>
<tr><td></td><td colspan="3">Drop Test (Carton box)</td></tr>
<tr><td>Applied Product Family</td><td>Cable</td><td>Testable</td><td>X</td></tr>
<tr><td></td><td>First Review</td><td>Mockup Sample</td><td>Mold Sample</td></tr>
<tr><td></td><td></td><td></td><td>O</td></tr>
<tr><td>Test condition</td><td colspan="3">
◎ Test room Condition
● Temperature : 25℃ ± 3℃
● Relative humidity : 25% ~ 75%
● Atmospheric pressure : 86kPa (860mbar) ~ 106kPa (1,060mbar)

◎ Test Condition
● Drop height : According to reference table (± 10%)
● Test Count : 1 times for each point (check the detail procedure)
● Box Condition : Box inside full state

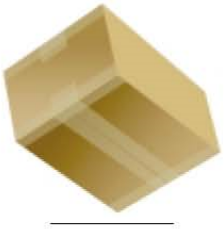
<table>
<tr><th colspan="2">Carton box weight [kg]</th><th rowspan="2">Drop height[mm]</th></tr>
<tr><th>over</th><th>under</th></tr>
<tr><td>0</td><td>10</td><td>760</td></tr>
<tr><td>10</td><td>19</td><td>610</td></tr>
<tr><td>19</td><td>28</td><td>460</td></tr>
<tr><td>28</td><td>45</td><td>310</td></tr>
<tr><td>45</td><td>68</td><td>200</td></tr>
<tr><td>68</td><td>-</td><td>150</td></tr>
</table>
< Drop height reference table>



<table>
<tr><th>Count</th><th>Point</th><th>Detail</th></tr>
<tr><td>1</td><td>Corner</td><td>Most fragile corner</td></tr>
<tr><td>2</td><td>Edge</td><td>Shortest edge radiating from drop corner</td></tr>
<tr><td>3</td><td>Edge</td><td>Medium edge radiating from drop corner</td></tr>
<tr><td>4</td><td>Edge</td><td>Longest edge radiating from drop corner</td></tr>
<tr><td>5</td><td>Face</td><td>Smallest flat face</td></tr>
<tr><td>6</td><td>Face</td><td>Opposite smallest flat face</td></tr>
<tr><td>7</td><td>Face</td><td>Medium flat face</td></tr>
<tr><td>8</td><td>Face</td><td>Opposite medium flat face</td></tr>
<tr><td>9</td><td>Face</td><td>Largest flat face</td></tr>
<tr><td>10</td><td>Face</td><td>Opposite largest flat face</td></tr>
</table>
< Test Count >
</td></tr>
<tr><td>Test equipment</td><td colspan="3">● Floor
- Material : Cement
- Flatness : 0º ± 2º</td></tr>
<tr><td>Sample Quantity</td><td colspan="3">● At least 3ea</td></tr>
<tr><td>Test time(day)</td><td colspan="3">● 1 day</td></tr>
<tr><td>Criteria standard</td><td colspan="3">◎ Device
● Not allowed any loss of function or degradation of performance
(Normal performance within limits)
● Not allowed any crack or mechanical damage
◎ Package
● Not allowed any apprearance damage</td></tr>
</table>

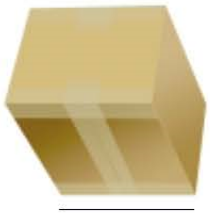
※ Detail procedure

DROP 1.
Most fragile corner.



DROP 2.
Shortest edge radiating from drop corner.

DROP 3.
Medium edge radiating from drop corner.

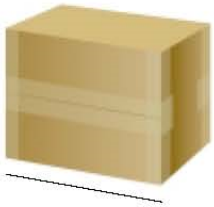


DROP 4.
Longest edge radiating from drop corner.

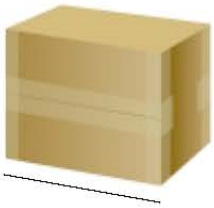
DROP 5.
Smallest flat face.

DROP 6.
Opposite smallest flat face.

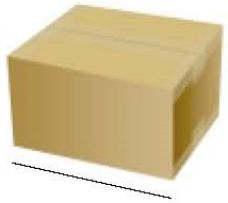
DROP 7.
Medium flat face.



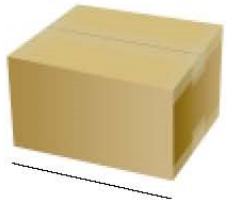
DROP 8.
Opposite medium flat face.



DROP 9.
Largest flat face.



DROP 10.
Opposite largest flat face.



Item	Reliability specification		Revision	
	Salt Spray Test (Metal part)			
Applied Product Family	Cable		Testable	X
	First Review	Mockup Sample		Mold Sample
				O
Test condition	◎ Test room Condition ● Temperature : 25℃ ± 3℃ ● Relative humidity : 25% ~ 75% ● Atmospheric pressure : 86kPa (860mbar) ~ 106kPa (1,060mbar) ◎ Test Condition ● Salt water concentration : 5% ± 1% ● Test zone temperature : 35℃ ± 2℃ ● Salt water pH : 6.5 ~ 7.2 ● Salt water specific gravity : 1.02 ~ 1.04 ● Test Time : 24 hours			
Test equipment	● Salt spray tester			
Sample Quantity	● At least 3EA			
Test time(day)	● 1day			
Criteria standard	● Not allowed any deformation, discoloration, crack or corrosion			

	Reliability specification		Revision	
Item	Tensile Test			
Applied Product Family	Cable		Testable	X
	First Review	Mockup Sample		Mold Sample
				O
Test condition	◎ Test Condition ● Grabbing position : Connector ● Pull out force : 40N ● Test time : 1 min ● Sample quantity : 3 pcs			
Test equipment	● Tensile tester			
Sample Quantity	● At least 3ea			
Test time(day)	● 1 day			
Criteria standard	● Not allowed any loss of function or degradation of performance (Normal performance within limits) ● Not allowed any deformation, descoloration, crack or corrosion during test			

Item	Reliability specification		Revision	
	Bending Test (Connector)			
Applied Product Family	Cable		Testable	O
	First Review	Mockup Sample		Mold Sample
				O

Test condition

◎ Test Condition
- Swing angle : 180degrees (Left > Right > Left = 1Cycle)
- Bending radius : 20mm ~ 30mm
- Rate : 15 time / min
- Weight : 200g
- Test Cycle : 5,000 Cycle
- Test area : Connector

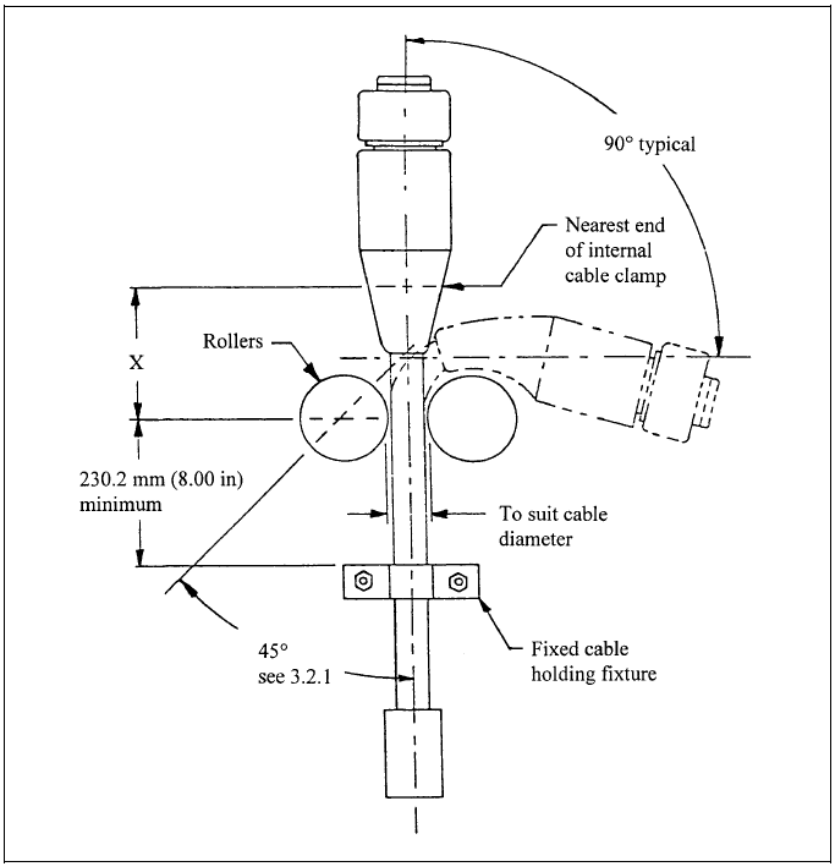


Figure 1 - Circular cable flexing test setup

Test equipment

- Connector bending tester

Sample Quantity

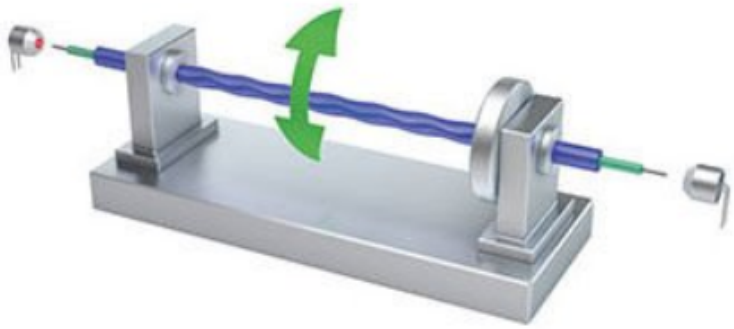
- At least 3ea

Test time(day)

- 1 day

Criteria standard

- Not allowed any loss of function or degradation of performance (Normal performance within limits)
- Not allowed any deformation, descoloration, crack or corrosion

	Reliability specification		Revision	
Item	Twist Test			
Applied Product Family	Cable		Testable	X
	First Review	Mockup Sample		Mold Sample
				O
Test condition	◎ Test Condition ● Swing angle : 360 degrees (Left > Right > Left = 1Cycle) ● Rate : 30 time / min ● Test Cycle : 5000 Cycle ● Test area : Cable ● Sample quantity : 3 pcs 			
Test equipment	● Connector bending tester			
Sample Quantity	● At least 3ea			
Test time(day)	● 1 day			
Criteria standard	● Not allowed any loss of function or degradation of performance (Normal performance within limits) ● Not allowed any deformation, descoloration, crack or corrosion			