Simula Pogo Solution

2018/04/11
Our Strength

- Precise and Comprehensive simulation before fabricate
- Wide range from component to system level
- Total solution study and compare on the market
- Rigorous measurement for each sample build

Strength simulation
Magnetic simulation
High frequency simulation
<table>
<thead>
<tr>
<th>Current Product</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal-Fixed Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic-Fixed Type[Clip/Box/Double Injection Type]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnetic Type[Custom magnetic force/High Frequency]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Magnetic Solution

Friendly to “blind-mate” conditions

The attraction characteristics of magnet is that uncertain directionality occurs when plug connect to the receptacle. With this feature, we recommend to use POGO design to correspond with customer’s need. POGO could deliver data (up to 5Gbps) or power, therefore, it could be applied widely.
Example 1

**Simulation Condition:**

**Magnet Material:** NdFeB (N52)
**Magnet size:** 24.1(L) x 7.2(W) x 1(H) mm

**Metal Plate Material:** Stainless steel
**Metal Plate Size:** 24.1(L) x 7.2(W) x 0.20(H) mm

**Analysis Gap:** 0 To 5mm

**Target:** Effect of Metal plate on the magnetic force

**Real Sample Test Results:** 17N
Analysis capability of magnets

Example 1

Actual Sample

Model A

Model B

Model C

Model D

Model E

Metal plate

Magnet

Magnet

Magnet

Magnet

Magnet

Magnet

Metal plate

Magnet

Metal plate

Metal plate

Metal plate

Metal plate

Metal plate
## Analysis capability of magnets - Force Result

### Example 1

Compare the real sample & model A simulation result SIMULA have over 85% accuracy on magnetic force analysis.

<table>
<thead>
<tr>
<th></th>
<th>Real Sample</th>
<th>Model A</th>
<th>Model B</th>
<th>Model C</th>
<th>Model D</th>
<th>Model E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetic Force</td>
<td>25N</td>
<td>21N</td>
<td>23N</td>
<td>18N</td>
<td>3.5N</td>
<td>4N</td>
</tr>
</tbody>
</table>

![Graph showing magnetic force vs. gap for different models](image)
Analysis capability of magnets

Example: Pxxxle

Simulation Condition:

Magnet Material: NdFeB (N52)
Magnet size: 3.5(D) * 4.5(H) mm

Metal Plate Material: Stainless steel
Metal Plate Size: as illustrated

Analysis Gap: 0.10 To 1mm

Target: Effect of Metal plate on the magnetic force
Analysis capability of magnets - Force Result

Example: Pxxxle

![Graph showing force vs. gap for magnets with different remanent flux densities. The graph includes two lines: one for Br=1420mT and another for Br=1480mT. The force decreases as the gap increases.]
Pogo to HDMI 2.0 with Magnets

- Material of Magnet: NdFeB N52.
- Magnetic Force: 1.5kg (Reference).
- Power delivery (12V/5A).
- Support to HDMI 2.0.
- EVT Sample phase.
For Smart home devices

Pogo Magnetic Cable

- Magnetic Spec: Material: NdFeB N52
- Magnetic holding force: 1.5 kg
- Deliver 10V/1A power for charging

Magnets in the inside

For Handheld Medical devices

- Magnetic Spec: Material: NdFeB N48
- Magnetic holding force: 2.0kg.f Min
- Deliver power (4.3~5.5V / 0.5A) and data at the same time

Magnets in the inside
Pogo Magnetic Cable

**For Handheld devices**

- Magnetic Spec: Material: NdFeB N52
- Magnetic holding force: 1.84 kg Min
- Deliver power (30V/1A) and data at the same time

**For Wearable devices**

- Magnetic Spec: Material: NdFeB N52
- Magnetic holding force: 500g
- Deliver power (5V/1.5A) and data at the same time
Multi Pogo Pin Product connector

Waterproof 16pin pogo connector
- IP65
- Staggered pin design
- Smaller pitch
- Anti-ponding design

2 Pin pogo for wearable device
- Reversible / Latch design

Waterproof 2 Pin pogo receptacle
Pogo Power Charge Cable in healthcare

Power Charging Cable

Different Dock Structure Design
- Box Type
- Covered Type
- Clip Type

Cable Application
Charger Cable for Smartwatch

Feature

- Custom ID/ Magnetic force
- System integration
- Custom magnetic force: Min. 350g
- Product life: 5,000 cycle
- Rating: 5V, 0.5A
Thank you.

Contact sales for more product information