

# M-VIA Flex<sup>®</sup> FR4-Flex基板

## Semiflex PWB

### 特長 Features

- ✓ FR-4.0、4.1のプリント配線板材料で屈曲できる基板  
Bendable PWB with FR-4.0, 4.1 Material



#### コンセプト Concept

フレックスリジッド基板より簡素プロセス  
Simpler Process than Flex-Rigid

同一接続(コネクタレス)  
Single Board Connection (Connector Less)

ポリイミド材レス通常PWB材料  
Ordinary PWB Material (PI less)

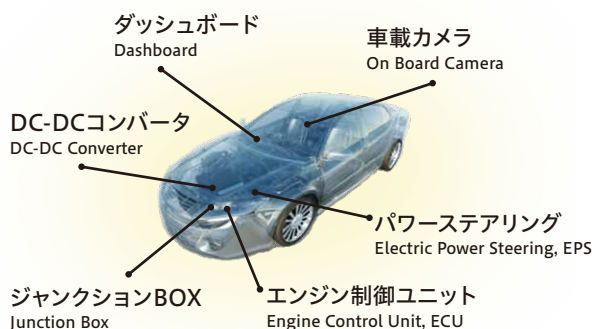
#### 製品メリット Merit

小型化 & 省スペース化  
Small & Space Saving

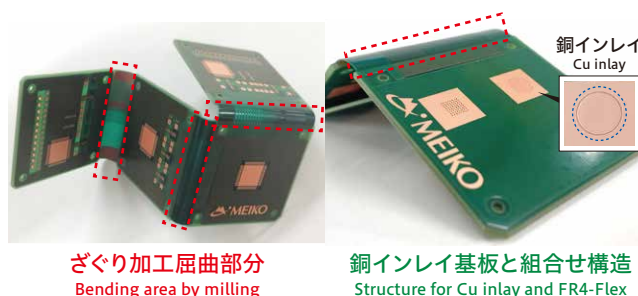
低コスト化  
Low Cost

回路信号の低損失化  
Transmission Loss Reduction

### 用途 Application



### 基板屈曲例 Examples of Bendable PWB

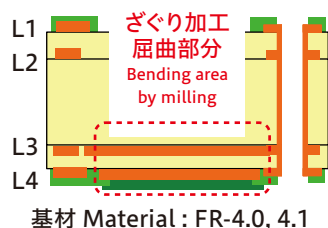


### 基板仕様 Board Specification

| 項目<br>Item                 | 仕様<br>Specification                                       |
|----------------------------|-----------------------------------------------------------|
| 層構成<br>Stack-up            | 2~8層<br>2~8 layers PWB                                    |
| Flex部 層構成<br>Flex stack-up | 1~3層(内層銅箔Max105μm)<br>1~3 layers (Inner Cu foil Max105μm) |
| 曲げ角度<br>Bending Angle      | ~90°、~180°<br>~90 degrees, ~180 degrees                   |
| 曲げ回数<br>Bending cycle      | Typ. 1~3回<br>Typical 1~3 times                            |

| 信頼性評価<br>Reliability Evaluation | 条件<br>Condition                  | 結果<br>Result      |
|---------------------------------|----------------------------------|-------------------|
| 熱衝撃試験<br>RTC                    | +150℃ 30min. / -55℃ 30min.       | 3,000 cycles pass |
| 耐電食試験<br>CAF                    | +85℃85% 100V                     | 1,000h pass       |
| 高温放置試験<br>HTST                  | +125℃                            | 1,000h pass       |
| ホットオイル試験<br>Hot Oil             | +260℃5sec. / 15sec. / +20℃20sec. | 100 cycles pass   |

#### ■断面図(4層基板、Flex部2層例) Cross Section (ex. 4-layer PWB, 2-layer flex)



#### ■高電流対応、高密度化 High current, High density

