Flexible circuit board materials
Resin coated copper foil
フレキシブル基板材料 樹脂付銅箔

FELIOS FRCC
R-FR10

Applications 用途

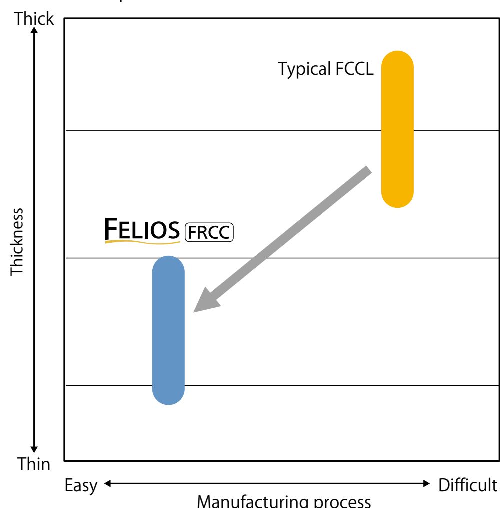
Smartphone(Main/Sub board, Module board), Etc.
スマートフォン (メイン基板、サブ基板、モジュール基板) など

Possible to make board thinner and simplify the build-up process.
Contribute to thinner and smaller of mobile product and module.
薄型多層化、ビルドアップ工程の簡略化を可能とし、モバイル機器やモジュールの薄型化・小型化に貢献

Thinned multi-layer | **Simplify the build-up process** | **Good coplanarity**

Concept コンセプト

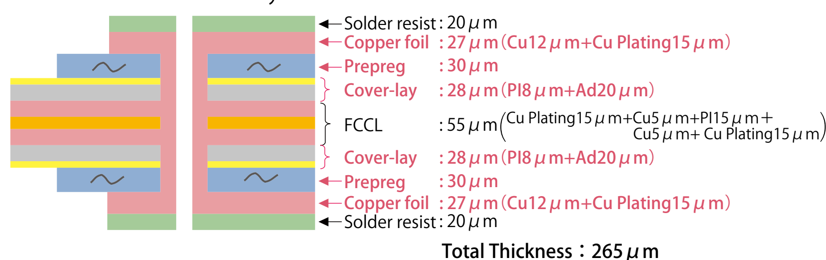
Thickness of 4 layer Rigid-Flex Board and Manufacture process



Thin multi-layer 薄型多層化

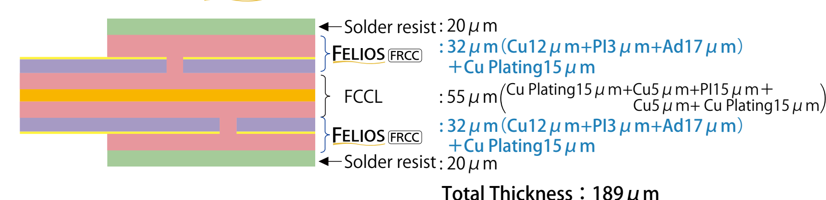
<Example> Multi-layer board 200μm

● In case that used cover-lay



Total Thickness：265μm

● In case that used FELIOS FRCC



Total Thickness：189μm

General properties 一般特性

Item		Test method	Condition	Unit	FELIOS FRCC R-FR10
Dielectric constant(Dk)	1GHz	IPC-TM-650 2.5.5.9	A	—	3.0(Ad) / 3.3(PI)
Dissipation factor(Df)	1GHz	IPC-TM-650 2.5.5.9	A	—	0.019(Ad) / 0.010(PI)
Solder heat resistance		JIS C 6481	A 260℃ solder float for 1min.	—	No abnormality
Peel strength	Copper:0.012mm(12μm)	JIS C 6481	A	N/mm	0.8
Flammability		UL	A+E-168/70	—	94VTM-0*1
Bending property		MIT*2 method	0.5kgφ0.38, 175cpm, 135°	times	>150

The sample thickness is Copper12μm, PI3μm, Ad17μm.
*1 Measured by R-FR10/R-F775 25μm/R-FR10 construction
*2 Measured 18μm ED copper on R-F775 25μm covered by R-FR10 for both side

Our Halogen-free materials are based on JPCA-ES-01-2003 standard and others. 当社ハロゲンフリー材料は、JPCA-ES-01-2003 などの定義によるものです。
The above data are typical values and not guaranteed values. 上記データは当社測定による代表値であり、保証値ではありません。

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