

Flexible circuit board materials **LCP(Liquid Crystal Polymer)**

フレキシブル基板材料 LCP(液晶ポリマー)



Applications 用途

Smartphone(Antenna module), Laptop, Tablet PC, 4K/8K display(High-speed FPC cable), Automotive component, Etc. スマートフォン (アンテナモジュール)、ノート PC・タブレット PC・ 4K/8K ディスプレイ (高速 FPC ケーブル)、車載機器など





Suitable for high-speed large-volume data transmission of mobile devices with good high frequency property. It is suitable for replacement of micro coaxial cable and millimeter-wave radar antenna.

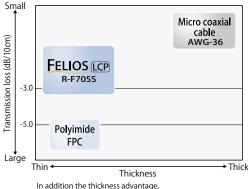
優れた高周波特性により、モバイル機器の大容量・高速伝送に貢献、同軸ケーブル置換え。ミリ波レーダー用アンテナ基板に対応

Dk 2.9 Df 0.002 @19GHz

Water absorption 0.04%

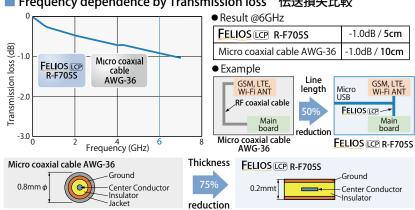
Peel strength 0.8N/mm

■ Concept コンセプト



In addition the thickness advantage, one FPC cable can replace several coaxial cables.

■ Frequency dependence by Transmission loss 伝送損失比較



■ General properties 一般特性

| ltem | | Test method | Condition | Unit | FELIOS CO R-F705S |
|-------------------------|-----------|--|-----------------------------|------|----------------------|
| Solder heat resistance | | JIS C 6471 | 288°C solder float for 1min | _ | No abnormality |
| Dielectric constant(Dk) | 19GHz | Balanced-type circular disk resonance | А | _ | 2.9 |
| Dissipation factor(Df) | | | | | 0.002 |
| Dielectric constant(Dk) | 10GHz | Cavity resonance | А | _ | 3.3 |
| Dissipation factor(Df) | | | | | 0.002 |
| Water absorption | | Internal method | 25°C 50h immersion | % | 0.04 |
| Peel strength | ED:18 μ m | IPC-TM-650 2.4.9 | А | N/mm | 0.8 |
| Dimensional stability | | IPC-TM-650 2.2.4 | After etching MD | % | 0.008 |
| | | | After etching TD | | 0.007 |
| | | | After E-0.5/150 MD | | 0.052 |
| | | | After E-0.5/150 TD | | 0.035 |
| Flammability | | UL | A + E-168/70 | _ | 94VTM-0 |

ED (TP4S) 18-100-18 The sample thickness is 0.1mm.

> 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。