



# 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)

# FELIOS LCP

Double-sided R-F705S

### 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  
@14GHz

Water absorption  
0.04%

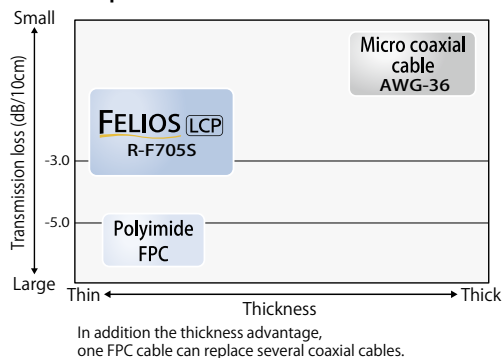
Peel strength  
0.8N/mm

### Line-up ラインアップ

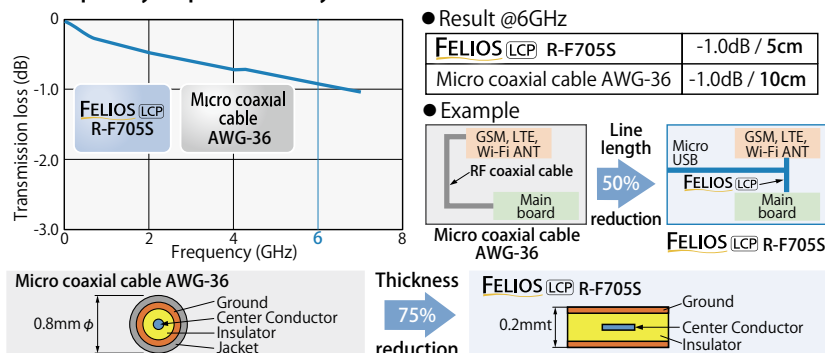
Roll-cut Type MAX 500mm(TD) Roll Type W=250mm, 500mm

Copper Foil Thickness		Film Thickness					Unit: mil (mm)
		1.0 (0.025)	2.0 (0.050)	3.0 (0.075)	4.0 (0.100)	5.0 (0.125)	
ED Copper Foil 電解銅箔	1/4oz (9μm)	●	●	●	●	●	●
	1/3oz (12μm)	●	●	●	●	●	●
	1/2oz (18μm)	●	●	●	●	●	●

### Concept コンセプト



### Frequency dependence by Transmission loss 伝送損失比較



### General properties 一般特性

Item	Test method	Condition	Unit	FELIOS LCP R-F705S	
Solder heat resistance	JIS C 6471	288°C solder float for 1min	—	No abnormality	
Dk / Df	14GHz	BCDR*	—	2.9 / 0.002	
Dk / Df	10GHz	Cavity resonance		A	3.3 / 0.002
Water absorption	Internal method	25°C 50h immersion	%	0.04	
Peel strength	ED:18 μm	IPC-TM-650 2.4.8	A	N/mm	0.8
Dimensional stability	IPC TM-650 2.2.4	After etching	%	MD 0.008 / TD 0.007	
		After E-0.5/150		MD 0.052 / TD 0.035	
Flammability	UL	A + E-168/70	—	94VTM-0	

The sample thickness is 0.1mm. \* BCDR: Balanced-type circular disk resonance

ED(TP4S) 18-100-18

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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