Halogen -free

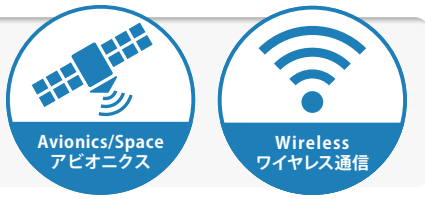
Flexible circuit board materials LCP(Liquid Crystal Polymer)

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

Avionics/Space applications, Smartphone(Antenna module), Laptop, Tablet PC,4K/8K display(High-speed FPC cable), Automotive component, Etc.
航空・宇宙機器、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



Good high-frequency properties make this material suitable for high-speed large-volume data transmission by mobile devices. R-F705S may be used as a 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

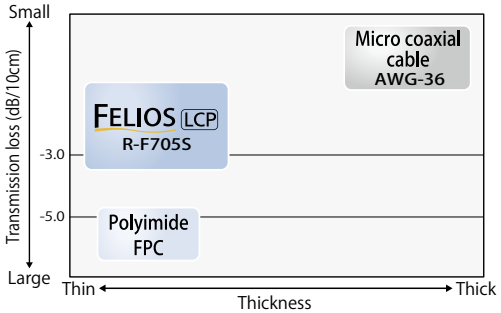
Line-up ラインアップ

Supports thick plate specifications due to high board thickness accuracy

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

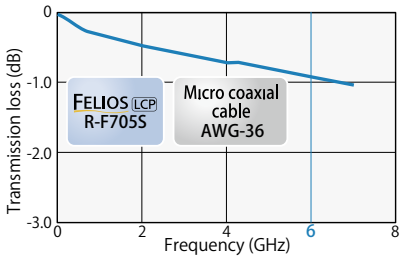
Copper Foil Thickness		Film Thickness 1.0 (0.025)	2.0 (0.050)	3.0 (0.075)	4.0 (0.100)	5.0 (0.125)	6.0 (0.150)
		Unit: mil (mm)					
ED Copper Foil 電解銅箔	1/4oz (9μm)	●	●	●	●	●	●
	1/3oz (12μm)	●	●	●	●	●	●
	1/2oz (18μm)	●	●	●	●	●	●

Concept コンセプト



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

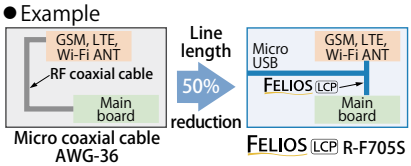
Frequency dependence by Transmission loss 伝送損失比較

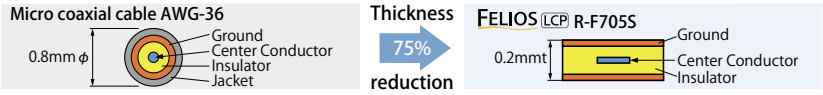


● Result @6GHz

FELIOS LCP R-F705S	-1.0dB / 5cm
Micro coaxial cable AWG-36	-1.0dB / 10cm

● Example





General properties 一般特性

Item		Test method	Condition	Unit	FELIOS LCP R-F705S
Solder heat resistance		JIS C 6471	288℃ solder float for 1min	—	No abnormality
Dk / Df	14GHz	BCDR*	A	—	2.9 / 0.002
Dk / Df	10GHz	Cavity resonance	A		3.3 / 0.002
Water absorption		Internal method	25℃ 50h immersion	%	0.04
Peel strength	ED:18μm	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。

Please see the page for "Notes before you use" 商品のご採用に当たっての注意事項は こちら