



ENGINEERING DEPT.	PRODUCT SPECIFICATION	SPEC. No.: SPFC001P
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1. SCOPE:

This specification is available for FFC manufactured by CviLux Corporation. about the material, quality, function and dimension

2. RATING: UL FILE No. : E208903

- 2.1 UL Style No. 2896 — Max. volt: 30V, Max. temp.: 80°C
- 2.2 UL Style No. 20696 — Max. volt: 30V, Max. temp.: 80°C
- 2.3 UL Style No. 20798 — Max. volt: 60V, Max. temp.: 80°C
- 2.4 UL Style No. 20624 — Max. volt: 60V, Max. temp.: 80°C
- 2.5 UL Style No. 20706 — Max. volt: 60V, Max. temp.: 105°C
- 2.6 UL Style No. 20861 — Max. volt: 60V, Max. temp.: 105°C
- 2.7 UL Style No. 20941 — Max. volt: 90V, Max. temp.: 105°C
- 2.8 UL Style No. 20960 — Max. volt: 300V, Max. temp.: 105°C



REVIEWED : David APPROVED : Eisley VERIFIED : Sun .



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3. ORDERING CODE:

FFC **C** **12** **04** **T1** **060** **0** **0** **-3** **00**
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Series No.

② Conductor Pitch:

Code	Pitch(mm)
A	2.54
B	1.25
C	1.00
D	0.80
E	0.50

③ Numbers for Conductor :

④ Conductor Size :

Code	Size(mm)		Applying Pitch (mm)
	Thickness	Width	
01	0.1	1.27	2.54
02	0.1	0.8	1.25
03	0.05		
04	0.1	0.7	1.00
05	0.05		
06	0.035		
07	0.1	0.5	0.80
08	0.05	0.3	0.50
09	0.035		
10	0.035	0.8	1.25
11	0.05	0.6	1.00
12	0.1	0.3	0.80
13	0.035	0.6	1.00
14	0.05	0.65	
15	0.1	0.65	



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⑤ Terminal Type:

Code	Type	Code	Type
T1(B1)		T7	
T2(B2)		T9	

Code	Type	Code	Type
G1		G2	

Note:

Plating code: T= Sn, B=Sn/Bi, G= Gold

⑥ Total Length :

060= 60mm

⑦ Strip Length: 0= Standard

When the conductor pitch is 0.5 and 0.8mm; Standard strip length = 4.0mm

When the conductor pitch is 1.0, 1.25 and 2.54mm; Standard strip length = 5.0mm

Other length options available

Max. Strip length: 10.0mm

⑧ Support Tape Length: 0=Standard

When the conductor pitch is 0.5 and 0.8mm; Standard support tape length = 8.0mm

When the conductor pitch is 1.0, 1.25 and 2.54mm; Standard support tape length = 10.0mm

Other length options available

Max. Support tape length: 20.0mm

⑨ UL Style No.:

-0= UL 2896(White); -2= UL 20798(White);

-1= UL 20624(White) ; -A= UL 20624(Black); -B= UL 20624(Black without print)

-3= UL 20706(White); -N= UL 20706(White without print) ; -H= UL 20706(White, Halogen-Free)

-8= UL 20706(Black); -7= UL 20706(Black without print) ; -G= UL 20706(Black, Halogen-Free)

-6= UL 20960(White); -9= UL 20960(White without print)

⑩ Other option: 00= Standard



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4. MATERIALS:

4.1 Conductor: See Ordering Code :

4.2 Insulation: Polyester (PET)

4.2.1 Adhesive layer: Flame retardant Polyester adhesive layer

4.2.2 Color: White or Black

4.3 Support Tape: Polyester (PET)

4.3.1 Adhesive layer: Polyester adhesive layer

4.3.2 Color: Blue or White

5. SHAPE, CONSTRUCTION AND DIMENSIONS:

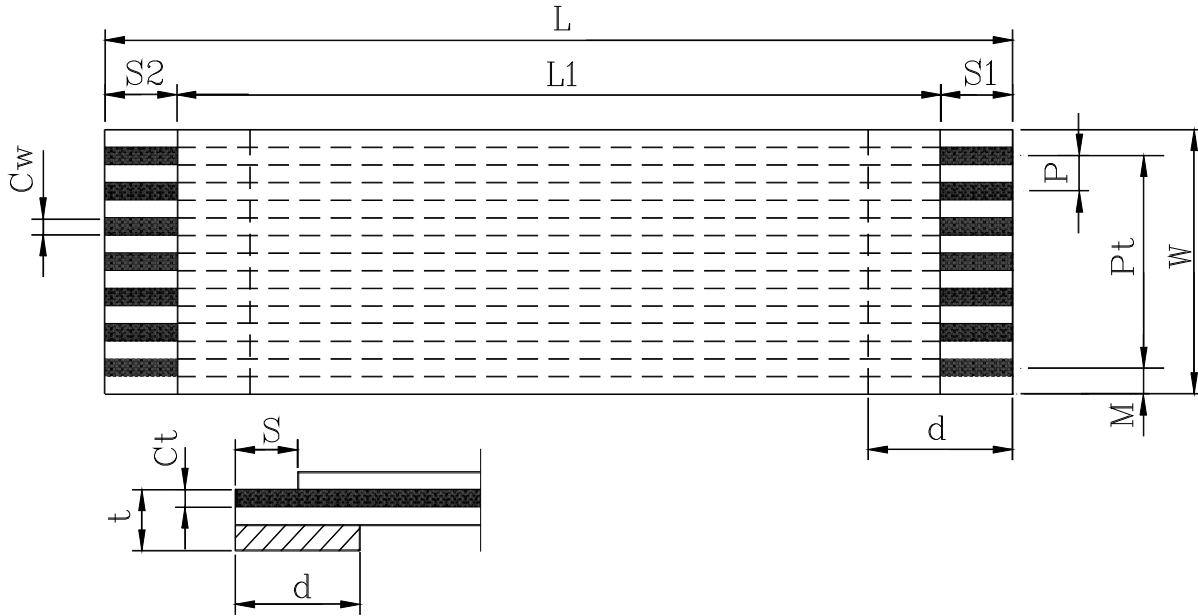
n: numbers of conductor

Unit: mm

No.	ITEM	Abbr.	FORMULATION	TOLERANCE				
				P= 0.5	P= 0.8	P= 1.00	P= 1.25	P= 2.54
5.1	Pitch	P	Typical	± 0.05	± 0.08	± 0.08	± 0.10	± 0.20
5.2	Total pitch	Pt	Pt= (n-1) x P	± 0.08	± 0.10	± 0.10	± 0.15	+0.2/-0.4
5.3	Width	W	W= (n+1) x P	± 0.08	± 0.10	± 0.10	± 0.20	+0.2/-0.4
5.4	Margin	M	M= (W-Pt) / 2	± 0.08	± 0.12	± 0.12	± 0.20	± 0.30
5.5	Insulation length	L1	L1 = L - (S1+S2)	(30-100) ± 3, (101-300) ± 5, (301-600) ± 10, (Length more than 601mm) ± 15				
5.6	Total (Cable) length	L	L = L1 + (S1+S2)					
5.7	Strip length	S	When the terminal type is T1、T2、T3 and T4 ; S1= S2	4 ± 1		5 ± 1		
5.8	Support tape length	d	d = S x 2	8 ± 2		10 ± 2		
5.9	Conductor width	Cw	Various	0.3 ± 0.02	0.3 ± 0.02	0.7 ± 0.03	0.8 ± 0.03	1.27 ± 0.04
					0.5 ± 0.03	0.6 ± 0.03		
5.10	Conductor thickness	Ct	Various	0.1 ± 0.01				
				0.05 ± 0.01				
				0.035 ± 0.01				
5.11	Terminal thickness	t	Typical	0.29~0.34				



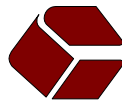
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ELECTRICAL PERFORMANCE:

ITEM	TEST CONDITION	REQUIREMENT			
		Conductor size	Resistance		
6.1 Conductor resistance	JIS C-3102 (at 20°C)	Ct	Cw	Resistance	
					0.1
		0.8	less than 0.26 Ω/m		
		0.7	less than 0.33 Ω/m		
		0.5	less than 0.42 Ω/m		
		0.65	less than 0.30 Ω/m		
		0.3	less than 0.70 Ω/m		
		0.05	0.8		less than 0.52 Ω/m
			0.7		less than 0.65 Ω/m
			0.65		less than 0.65 Ω/m
			0.6		less than 0.70 Ω/m
			0.3		less than 1.40 Ω/m
		0.035	0.8		less than 0.82 Ω/m
			0.7		less than 1.09 Ω/m
			0.6		less than 1.20 Ω/m
			0.3		less than 2.20 Ω/m
6.2	Dielectric strength	AC 500V 1 min	No breakdown		
6.3	Insulation resistance	DC 500V	More than 1000 MΩ/m		

7. MECHANICAL PERFORMANCE:



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	ITEM	TEST CONDITION	REQUIREMENT
7.1	Elongation of insulator	JIS K-6732	More than 60%
7.2	Tensile strength of insulation	JIS K-6732	More than 3.5 kg/mm ²
7.3	Abrasion test	φ 0.5mm, 600g, 60 cycles/min, 10mm	More than 10,000 times
7.4	Pull – out test	Using different Pitch LIF Type FFC/FPC Connectors	More than 20 times
7.5	Flexing test	180° folding test	More than 20 times
7.6	Reciprocating test	10mmR, 180 cycles/min, 25 mm/cycles	More than 100,000 times

8. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Operation temperature	UL Style No. 2896 UL Style No. 20624 UL Style No. 20696 UL Style No. 20798	-30°C ~ +80°C
		UL Style No. 20706 UL Style No. 20861 UL Style No. 20941 UL Style No. 20960	-30°C ~ +105°C
8.2	Heat resistance	85°C x 96 Hrs	6.2, 6.3 Pass
		110°C x 96 Hrs	
8.3	Solder iron method	Bit Temperature: 380±10°C Application time of soldering iron: 3±1 Sec.	Appearance no damage Electrical characteristics and mechanical characteristics shall be satisfied
8.4	Heat cycle test	-40°C → +25°C → +85°C → +25°C x 5 cycle	6.2, 6.3 Pass
8.5	Moisture resistance	40°C, 95% RH x 96 Hrs	
8.6	Flame test	UL Sub.758	VW-1 Pass

9. MARKING ON PRODUCT:

The UL file No., Rating temperature and voltage, and UL style No. Are printed.

10. PACKING:

Product shall be packed 50 pieces per bundle not to be damaged during transportation. And followings Will be indicated on the box.

1) **Part No.** 2) **Quantity** 3) **Shipping date** 4) **Manufacturer name** and 5) **UL label will be attached.**