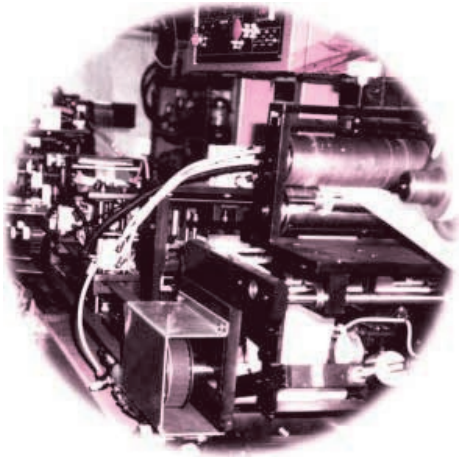
FLAT FLEXIBLE CABLE

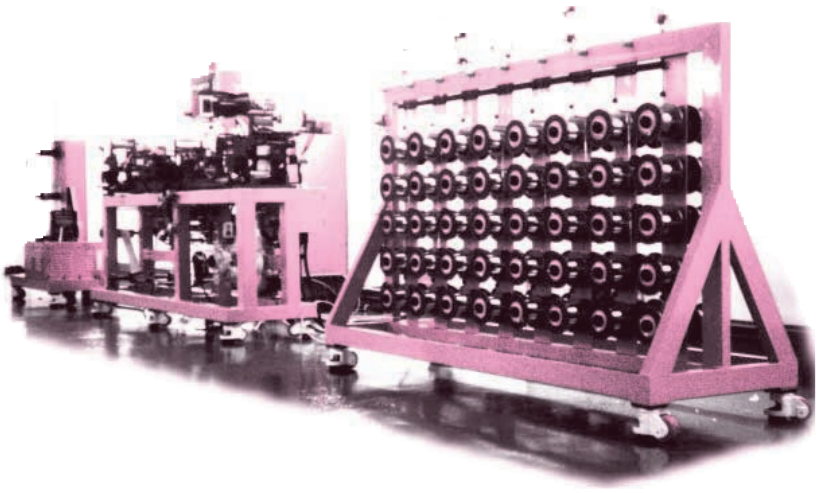
Introduction

To meet the demands of miniaturizing electronic products, to solve critical Size requirement problem, CviLux is able to produce low cost multiple pitches flat flexible cables in 0.5mm, 0.8mm, 1.0mm, 1.25mm and 2.54mm per your applications requirements.

The insulation of flat flexible cables made of PET, they are options with Variety of terminal types in both cable ends per your requirement. They are small, light weight, thin, flexible and easy to connect with CviLux CF series FFC connectors.

Our Flat Flexible cable can be used Several laminated copper wire, Please refer to our product specification for detail iformation.
Custom made FFC available by Consult Factory.





FLAT FLEXIBLE CABLE

Features & Advantages

- Light weight and flexible
- Compactness of electronic products
- Easy assembling and low production cost
- Simple and clean internal design

Materials

- Conductor : See ordering code
- Insulation : Polyester (PET)
  - ◎ Adhesive layer : Flame retardant Polyvinyl chloride (PVC) or Polyester adhesive layer
  - ◎ Color : White
- Support Tape : Polyester (PET)
  - ◎ Adhesive layer : Polyester adhesive layer
  - ◎ Color : Blue , Sky Blue or Clear

Rating

- UL File No. : E208903

UL Style	Temp.	Volt.
2896	80°C	30V
20624	80°C	60V
20798	80°C	60V
20706	105°C	60V
2643	105°C	300V
2742	105°C	300V
20960	105°C	300V

Applications

- Super Flex Type : DVD Driver, CD ROM Driver, ETC.
- General Type : Audio, Video, Scanner, Printer, Cordless Phone, Fax M/C, Note Book P.C., PDA, Car Audio, Home Equipment, ETC.
- Shield Type : EMI Application

Computer

Notebook P.C

Printer

Scanner

Digital Camera

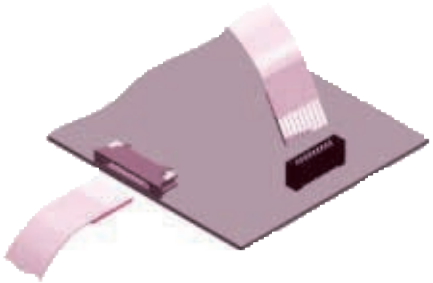
H.D

Cellular phone

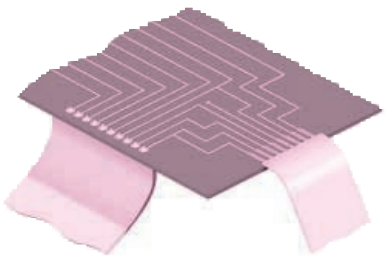
P.D.A

Connection

- PLUG IN



- SOLDERING



FLAT FLEXIBLE CABLE

Ordering Code

❶	❷	❸	❹	❺	❻	❼	❽
FFC	C	12	04	T1	060	0	0

❶ Series No.

❷ Conductor Pitch:

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

❸ Numbers for Conductor
Conductor Size

Code	Size		Applying Pitch(mm)
	Thickness	Width	
01	0.1	1.27	2.54
02	0.1	0.8	1.25
03	0.05	0.8	
04	0.1	0.7	1.00
05	0.05	0.7	
06	0.035	0.7	
07	0.1	0.5	0.80
08	0.05	0.3	0.50
09	0.035	0.3	

Material : Tinned copper
Tinned thickness : More than 1μm

❺ Terminal Type: See below Terminal Type table

❻ Overall Length

❼ 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

❽ Support Tape Length: 0 = Standard
- When the conductor pitch is 0.5 and 0.8mm; Standard Strip length = 8.0mm
- When the conductor pitch is 1.0, 1.25 and 2.54mm; Standard Strip length = 10.0mm
- Other length options available
- Max. Support Tape length: 20.0mm

Terminal Type

Code	Type		Type
T1			
T2			
T3			

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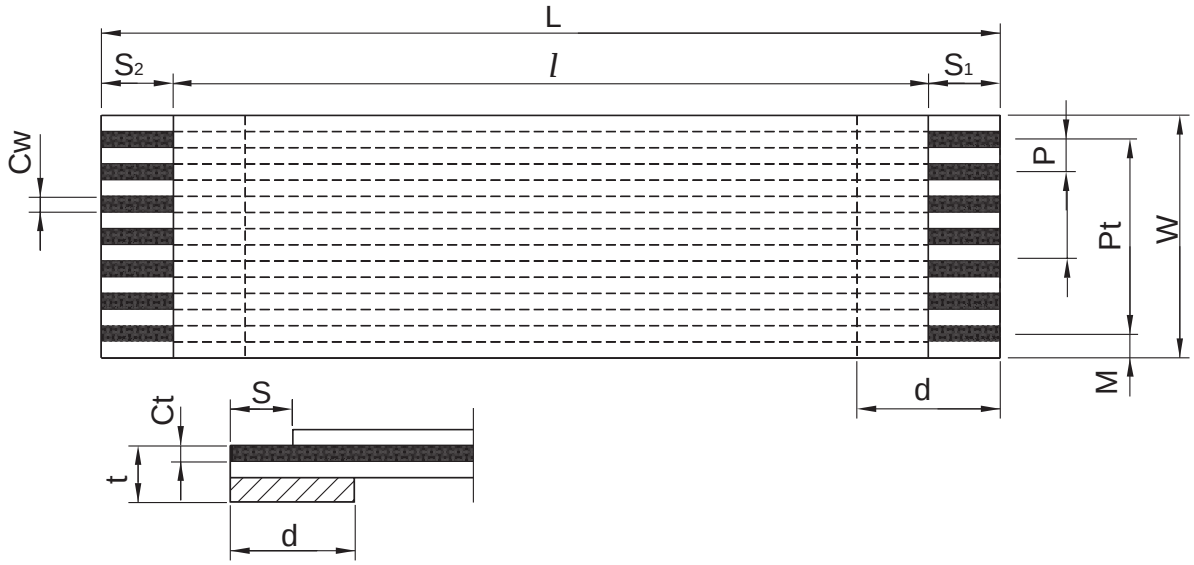
Shape, Construction and Dimensions

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
1.	Pitch	P	Typical	±0.05	±0.08	±0.08	±0.10	±0.20
2.	Total pitch	Pt	Pt=(n-1)xP	±0.08	±0.10	±0.10	±0.15	+0.2/-0.4
3.	Width	W	W=(n+1)xP	±0.08	±0.10	±0.10	±0.20	+0.2/-0.4
4.	Margin	M	M=(W-Pt)/2	±0.08	±0.15	±0.15	±0.20	±0.30
5.	Insulation length	*l*	*l* =L-(S1+S2)	(30-100)±3, (101-300)±5,(301-600)±10, (Length more than 601mm)±15mm				
6.	Total (Cable) length	L	L= *l* +(S1+S2)					
7.	Strip length	S	When the terminal type is T1, T2 ,T3 and T4, ; S1=S2	4±1		5±1		
8.	Support tape length	d	d=Sx2	8±2		10±2		
9.	Conductor width	Cw	Various	0.3±0.02	0.5±0.03	0.7±0.03	0.8±0.03	1.27±0.04
10.	Conductor thickness	Ct	Various	N/A	0.1±0.01			
				0.05±0.01				
				0.035±0.01				
11.	Terminal thickness	t	Typical	0.3±0.05				



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Electrical Performance

	ITEM	TEST CONDITION	REQUIREMENT			
1.	Conductor resistance	JIS C-3102 (at 20°C)	Conductor size		Resistance	Remarks
			Ct	Cw		
			0.1	1.27	less than 0.2 Ω/m	Tinned copper
				0.8	less than 0.26 Ω/m	
				0.7	less than 0.33 Ω/m	
				0.5	less than 0.42 Ω/m	
			0.05	0.8	less than 0.52 Ω/m	
				0.7	less than 0.65 Ω/m	
				0.3	less than 1.4 Ω/m	
			0.035	0.7	less than 1.09 Ω/m	
				0.3	less than 2.2 Ω/m	
2.	Dielectric strength	AC 500V 1 min	NO breakdown			
3.	Insulation resistance	DC 500V	More than 1000MΩ/m			

Mechanical Performance

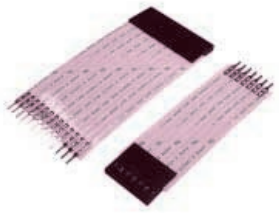
	ITEM	TEST CONDITION	REQUIREMENT
1.	Elongation of insulator	JIS K-6732	More than 60%
2.	Tensile strength of insulation	JIS K-6732	More than 3.5kg/mm^2
3.	Abrasion test	ø0.5mm, 600g, 60 cycles/min.	More than 10,000 times
4.	Pull-out test	–	More than 20 times

Environmental Performance

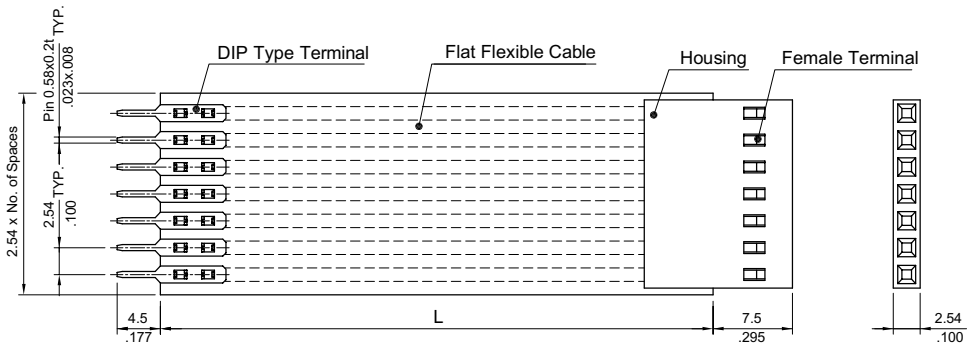
	ITEM	TEST CONDITION	REQUIREMENT
1.	Operation temperature	–	-30°C~+80°C
2.	Heat resistance	85°C x 95 Hrs	6.2, 6.3 Pass
3.	Heat cycle test	-40°C→+25°C→+85°C→+25°C 12 Hrs x 2 cycle	
4.	Moisture resistance	40°C, 95% RH x 96Hrs	
5.	Flame test	UL Sub.758	VW-1 Pass
6.	Flexing test	180°C folding test	More than 20 times

FLAT FLEXIBLE CABLE

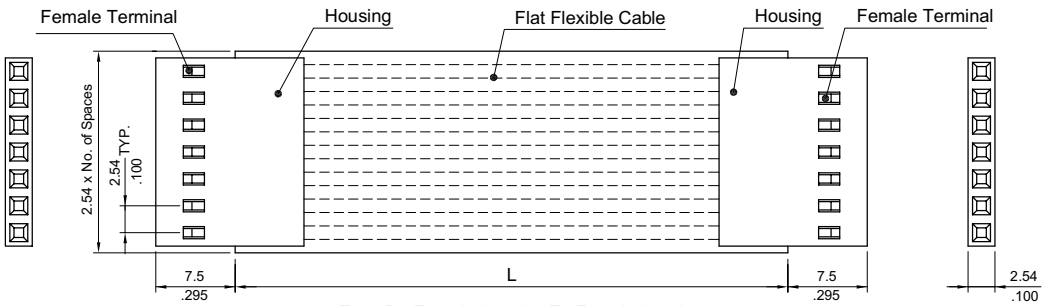
2.54mm(.100") Flat Flexible Cable Assembly



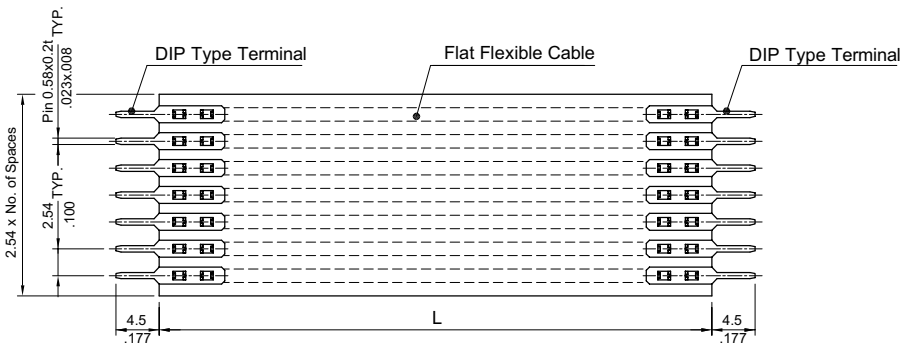
◎ Designed for flat flexible cable assembly
◎ Available receptacle and board in pierce contact
◎ Can be mated standard 2.54mm(.100") Pin header
◎ Stackable end to end side by side
◎ Piercing termination provide reliable connection
◎ Low cost and high reliability



Type A : Dip type terminal To Female housing



Type B : Female housing To Female housing



Type C : Dip type terminal To Dip type terminal

Ordering Code

❶	❷	❸	❹	❺	❻	❼
FFC	AS	A	07	01	063	00

❶ Series No.
❷ AS= Assembly
❸ Type:
A= DIP type terminal to Female housing
B= Female housingl to Female housing
C= DIP type terminal to DIP type terminal
❹ No. of Circuits: 02 to 13 for A and B Type
❺ FFC Conductor Size(ThicknessxWidth) :
01= 0.1x1.27mm
❻ FFC Overall length:
063= 63mm (Custom length option)
❼ Other options: 00= Standard
*Special option Consult manufacturer