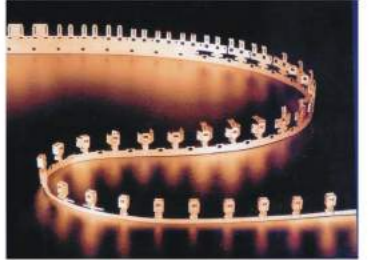




金属材料 Engineered Products

■ 铍铜带材 (Beryllium Copper Strip)

机械性质 Mechanical Properties														
合金 Alloy	标准 Specification				化学成分 Composition	热处理 Heat Treatment	密度 Density g/cm <sup>3</sup>	导电率 IACS %	硬度 Temper	抗拉强度 Tensile Strength kg/mm <sup>2</sup>	屈服强度 Yield Strength kg/mm <sup>2</sup>	伸长百分比 Elongation %	疲劳强度 Fatigue Strength kg/mm <sup>2</sup>	维氏硬度 Vickers Hardness HV
25	C17200	B194	H3130	17672	1.80-2.00% Be	Age Hardenable	8.25	22	A(TB00)	42-55	21-39	35-60	21-25	90-144
					0.20min. Co+Ni				1/4H(TD01)	52-62	42-57	20-45	22-25	145-185
					0.60max. Co+Ni+Fe				1/2H(TD02)	59-71	52-67	12-30	22-27	176-216
					Balance Cu				H(TD04)	70-85	63-81	2-18	25-27	216-287
									AT(TF00)	116-138	98-124	3-15	28-32	353-413
									1/4HT(TH01)	123-145	105-131	3-10	28-32	353-424
									1/2H(TH02)	130-152	112-138	1-8	30-33	373-435
190	C17200	B194	H3130	17672	1.80-2.00% Be	Mill Hardened	8.36	17	AM(TM00)	70-78	49-67	16-30	28-32	210-251
					0.20min. Co+Ni				1/4HM(TM01)	77-85	56-78	15-25	29-33	230-271
					0.60max. Co+Ni+Fe				1/2HM(TM02)	84-95	66-88	12-22	30-34	250-301
					Balance Cu				HM(TM04)	94-106	77-95	9-20	32-37	285-343
									SHM(TM05)	105-113	87-99	9-18	33-39	309-363
									XHM(TM06)	108-124	94-120	4-15	35-40	317-378
									XHMS(TM08)	123-134	105-127	3-12	35-42	325-413
290	C17200	B194	H3130	17672	1.80-2.00% Be	Mill Hardened	8.36	17-26	TM00	100 min.	75-95	19-35	40-45	225-309
					17-27			TM02	120 min.	95-115	14-30	42-48	255-339	
					0.20min. Co+Ni			17-28	TM04	140 min.	115-135	9-25	44-50	285-369
					0.60max. Co+Ni+Fe			17-29	TM06	155 min.	135-155	6-13	47-57	317-393
					Balance Cu			17-30	TM08	175 min.	155-175	3-15	50-60	345-429
Brush 60	C17460	B194	H3130	17672	0.16-0.50% Be	Mill Hardened	8.80	50	3/4HT	795-930	655-795	11	40-45	-
					1.00-1.40% Ni/Bal.Cu		8.80	50	HT	825-965	720-860	10	40-45	-
3	C17510	B534	---	---	0.20-0.60% Be	Age Hardenable	8.83	45	A	24-39	17-32	20-40	14-21	65-125
					1.40-2.20% Ni/Bal.Cu				H	49-60	38-57	2-10	18-25	144-176
174	C17410	B768	---	---	0.15-0.50% Be	Mill Hardened	8.80	50	AT	70-92	56-71	10-25	27-31	195-275
					0.35-0.60% Co/Bal.Cu				HT	77-95	66-85	8-20	30-33	216-287
390					0.15-0.50% Be		8.80	44	1/2HT	67-80	56-70	10-20	31-35	180-230
					1.00-1.40% Ni/Bal.Cu				HT	77-92	66-88	7-17	31-35	230-280
									HT	97-111	95-108	1 min.		



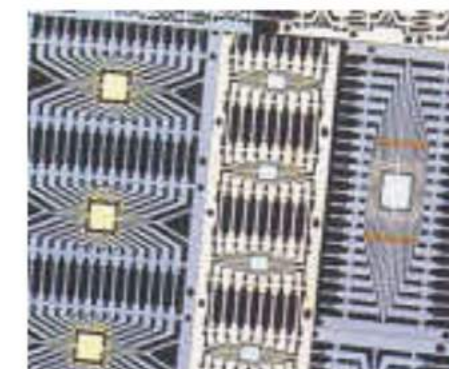
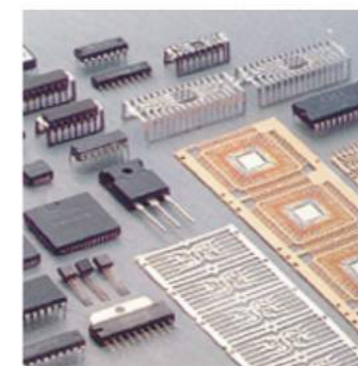
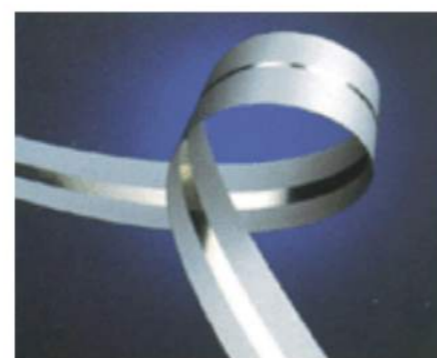
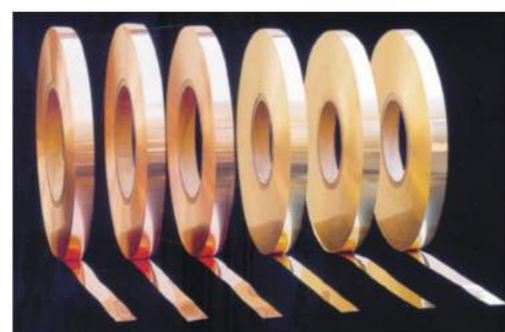
本公司可根据用户要求,提供符合UNS、ASTM、JIS、DIN标准的产品规格的带材。2. 产品具体规格及尺寸偏差以订货合同为准。

We can provide our customers with all kinds of copper strips according to the standards of UNS、ASTM、JIS & DIN. 2. The size and tolerance of products will be assured in accordance bimetal

## ■ 铜和铜合金 (Copper & Copper Alloy)

铜 COPPER						
合金 Alloy	物理性质		机械性质			
	Physical Properties		Mechanical Properties			
	密度	导电率	韧度	硬度	抗拉强度	延伸度
	Density lb/in <sup>3</sup>	Conductivity IACS%	Temper	Hardness (HV N/mm <sup>2</sup> )	Tensile Strength N/mm <sup>2</sup>	Elongation %
			A	-	205 min.	35 min.
			1/4H	-	235-275	25 min.
<b>Oxygen Free Cu:</b>			1/2H	-	250-315	15 min.
<b>OF-Cu (DIN)</b>	0.321	100	3/4H	-	270-335	15 min.
<b>C1020 (JIS)</b>			H	-	290-365	-
<b>C103 (BS)</b>			EH	-	340-415	-
			SH	-	-	-
			ESH	-	-	-
			A	35-55	205 min.	35 min.
			1/4H	55-86	235-275	25 min.
<b>Electro. Touch-Pitch Cu:</b>			1/2H	65-95	250-315	15 min.
<b>E-Cu 58 (DIN)</b>	0.321	100	3/4H	80-100	270-335	15 min.
<b>C1100 (JIS)</b>			H	90-105	290-365	-
<b>C101 (BS)</b>			EH	95-108	340-415	-
			SH	100-125	-	-
			ESH	-	-	-
			A	35-55	205 min.	35 min.
			1/4H	55-86	235-275	25 min.
<b>Phosphorus Deoxidized Cu:</b>			1/2H	65-95	250-315	15 min.
<b>SF-Cu (DIN)</b>			3/4H	80-100	270-335	15 min.
<b>C1220 (JIS)</b>	0.321	85	H	90-105	290-365	-
<b>C106 (BS)</b>			EH	95-108	340-415	-
			SH	100-125	-	-
			ESH	-	-	-

黄铜 BRASS						
合金 Alloy	物理性质		机械性质			
	Physical Properties		Mechanical Properties			
	密度	导电率	韧度	硬度	抗拉强度	延伸度
	Density lb/in <sup>3</sup>	Conductivity IACS%	Temper	Hardness (HV N/mm <sup>2</sup> )	Tensile Strength N/mm <sup>2</sup>	Elongation %
			A	-	290-375	50min.
			1/4H	90-115	350-415	35min.
<b>Cartridge Brass:</b>			1/2H	110-130	370-445	28min.
<b>Cu Zn 30 (DIN)</b>	0.306	28	3/4H	130-140	390-470	18min.
<b>C2600 (JIS)</b>			H	-	440-520	12min.
<b>C Z105 (BS)</b>			EH	160-180	515-600	-
			SH	180min.	625-690	-
			ESH	-	655-715	-
			A	-	290-375	50min.
			1/4H	90-115	350-415	35min.
<b>Yellow Brass:</b>			1/2H	110-130	370-445	28min.
<b>CuZn35 (DIN)</b>	0.304	27	3/4H	130-140	390-470	18 min.
<b>C2680 (JIS)</b>			H	140-160	440-520	12min.
<b>--- (BS)</b>			EH	160-180	515-600	-
			SH	180min.	625-690	-
			ESH	-	655-715	-
			A	-	320-440	25 min.
			1/4H	90-115	350-440	25 min.
<b>Muntz Metal Brass:</b>			1/2H	115-140	410-490	15 min.
<b>CuZn40 (DIN)</b>	0.304		3/4H	-	-	-
<b>C2801 (JIS)</b>			H	140min.	470-540	-
<b>C Z109 (BS)</b>			EH	-	-	-
			SH	-	-	-
			ESH	-	-	-



## ■ 铜和铜合金 (Copper & Copper Alloy)

磷青铜 Phosphor Bronze						
合金 Alloy	物理性质		机械性质			
	Physical Properties		Mechanical Properties			
	Density	导电率	韧度	硬度	抗拉强度	延伸度
		Conductivity				
lb/in <sup>3</sup>	IACS%	(HV N/mm <sup>2</sup> )	N/mm <sup>2</sup>	%		
			A	-	310-385	40 min.
			1/4H	90-160	390-460	28 min.
<b>Phosphor Bronze:</b>			1/2H	130-190	490-560	15 min.
<b>Cu Sn (DIN)</b>	0.318	15	3/4H	170-220	-	-
<b>C5102 (JIS)</b>			H	190 min.	585-660	7 min.
<b>P B102 (BS)</b>			EH	-	635-705	4 min.
			SH	-	-	-
			ESH	-	-	-
			A	120 min.	310-415	50 min.
			1/4H	120-150	390-480	42 min.
<b>Phosphor Bronze:</b>			1/2H	150-170	490-560	30 min.
<b>Cu Sn6 (DIN)</b>	0.318	15	3/4H	170-190	-	-
<b>C5191 (JIS)</b>			H	190-210	585-660	18 min.
<b>P B103 (BS)</b>			EH	210-240	665-735	5 min.
			SH	230-270	-	-
			ESH	-	-	-
			A	-	-	-
			1/4H	-	-	-
<b>Phosphor Bronze:</b>			1/2H	150-170	510-580	35 min.
<b>Cu Sn8 (DIN)</b>	0.316	13	3/4H	170-190	-	25 min.
<b>C5210 (JIS)</b>			H	190-210	585-660	20 min.
<b>P B104 (BS)</b>			EH	210-240	685-735	14 min.
			SH	230-270	745-815	9 min.
			ESH	-	-	-

洋白铜 Nickel Silver						
			A	-	370-445	20 min.
			1/4H	120 min.	-	-
<b>Nickel Silver:</b>			1/2H	120-180	440-550	5 min.
<b>Cu Ni18 Zn20 (DIN)</b>	0.313	6	3/4H	-	-	-
<b>C7521 (JIS)</b>			H	150 min.	535-610	3 min.
<b>N S106 (BS)</b>			EH	-	-	-
			SH	-	-	-
			ESH	-	-	-
			A	-	-	-
			1/4H	-	-	-
<b>Nickel Silver:</b>			1/2H	150-210	535-620	11 min.
<b>Cu Ni18 Zn27 (DIN)</b>	0.31	5.5	3/4H	-	-	-
<b>C7701 (JIS)</b>			H	180-240	625-705	6 min.
<b>N S107 (BS)</b>			EH	210-260	705-805	-
			SH	230-270	760-865	-
			ESH	-	-	-

## ■ 纯镍带 (Pure Nickel Strip)

纯镍带 Pure Nickel Strip						
合金 Alloy	物理性质		机械性质			
	Physical Properties		Mechanical Properties			
	密度	导电率	硬度	维氏硬度	抗拉强度	百分比
	Density	Conductivity	Temper	Hardness	Tensile Strength	Elongation
lb/in <sup>3</sup>	IACS%	(HV N/mm <sup>2</sup> )	N/mm <sup>2</sup>	N/mm <sup>2</sup>	%	
			A	90 max.	539	40-45
<b>Ni200</b>			1/4H	126-151	539-588	20-35
<b>(Pure Nickel)</b>	0.321	18	1/2H	148-171	588-686	15-25
			3/4H	167-193	686-784	5-10
<b>Ni99.5% min.</b>			H	193 min.	882	3-6
			SH	203 min.	-	1-2



## ■ 不锈钢 (Stainless Steel Strip)

不锈钢 Stainless Steel Strip							
合金 Alloy	物理性质		机械性质				
	Physical Properties		Mechanical Properties				
	密度	导电率	硬度	维氏硬度	抗拉强度	屈服强度	伸长百分比
	Density	Conductivity	Temper	Hardness	Tensile Strength	Yield Strength	Elongation
lb/in <sup>3</sup>	IACS%		HV	N/mm <sup>2</sup>	kg/mm <sup>2</sup>	%	
SUS 301 CSP	0.285	2.5	1/2H	310 min.	930 min.	510 min.	10 min.
			3/4H	370 min.	1130 min.	745 min.	5 min.
			H	430 min.	1320 min.	1030 min.	-
SUS 304 CSP	0.290	2.4	EH	490 min.	1570 min.	1275 min.	-
			1/2H	250 min.	780 min.	470 min.	6 min.
			3/4H	310 min.	930 min.	665 min.	3 min.
			H	370 min.	1130 min.	885 min.	-

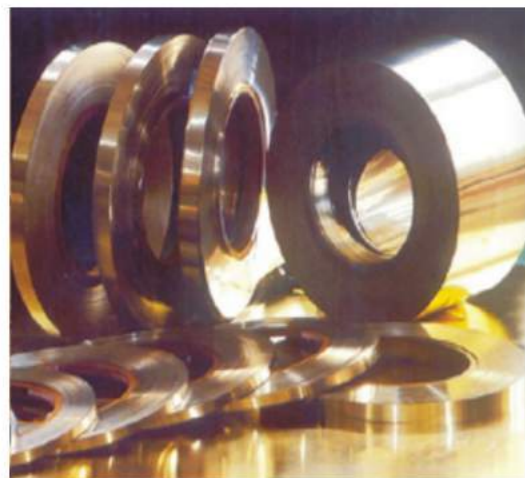
## ■ 特殊碳钢 (Special Steel)

合金 Alloy	化学成分 Chemical Composition (%)							
	C	Si	Mn	P	S	Cu	Ni	Cr
SK 3	1.00-1.10	0.35 max.	0.50 max.	0.3 max.	0.3 max.	0.25 max.	0.25 max.	0.3 max.
SK 4	0.90-1.00	0.35 max.	0.50 max.	0.3 max.	0.3 max.	0.25 max.	0.25 max.	0.3 max.
SK 5	0.80-0.90	0.35 max.	0.50 max.	0.3 max.	0.3 max.	0.25 max.	0.25 max.	0.3 max.
S60C	0.55-0.65	0.15-0.35	0.60-0.90	0.3 max.	0.35	0.25 max.	0.20 max.	0.20 max.
S75C	0.70-0.80	0.15-0.35	0.60-0.90	0.3 max.	0.35	0.25 max.	0.20 max.	0.20 max.

## ■ 不锈钢线材 (Stainless Steel Wire)

型号及硬度 Type & Hardness	抗拉强度 Tensile Strength (N/mm <sup>2</sup> )		
	A	B	C
线径 Wire Diameter(mm)	SUS302-WPA	SUS302-WPB	SUS631J1-WPC
	SUS304-WPA	SUS304-WPB	
	SUS316-WPA		
0.08 - 0.09			
0.10 - 0.12	1618 - 1863	2157 - 2403	
0.14 - 0.16			1961 - 2206
0.18 - 0.20			
0.23			
0.26 - 0.29		2059 - 2305	
0.32 - 0.35			1912 - 2157
0.40	1569 - 1814		
0.45 - 0.50			
0.55 - 0.60		1961 - 2206	
0.65 - 0.70			1814 - 2059
0.80 - 0.90	1471 - 1716	1863 - 2108	1765 - 2010
1.00			
1.20 - 1.40	1373 - 1618	1765 - 2010	
1.60 - 1.80	1324 - 1569	1667 - 1912	1500 - 1814
2.00			1471 - 1618
2.30 - 2.60	1275 - 1520	1569 - 1814	
2.90 - 3.20	1177 - 1422	1471 - 1716	1373 - 1618
3.30 - 4.00			
4.50 - 5.00	1079 - 1324	1373 - 1618	1275 - 1520
5.50 - 6.00			
6.50 - 7.00	981 - 1226	1275 - 1520	
8.00			
9.00 - 10.00		1128 - 1373	
12.00		981 - 1221	
		883 - 1128	

Remark : 1) Choose the wire diameter shown in the table slightly larger than the actual  
2) The spreading of the tensile strength readings measured for each wire shall be above 1/2 of the tensile Strength Range shown in Table 2



## 工业流程图

### 铝 (Aluminium & Aluminium Alloys)

机械性质							
合金 Alloy	抗拉强度	硬度	延伸率	合金 Alloy	抗拉强度	硬度	延伸率
	Tensile Strength	Hardness	Elongation		Tensile Strength	Hardness	Elongation
1050	120-145	H16	1min.	5052	235-285	H14	3min.
	88-127	H22	15min.		285min.	H19	-
	120-145	H24	8min.		230	H32	12
1100	120-145	H14	5min.	6061	310	T6, T651	12
	100-135	H22	15min.		-	-	-
	110-135	H24	8min.		70751	572	T6, T651
3003	135-175	H14	5min.	-	-	T73, T7315	-
	170-220	H16	1min.				

### 铜线 (Copper & Copper Alloys Wire)

Pre-Plated Wire	PLATED FINISHES	Copper Nickel Gold Palladium, Tin and Tin Lead
	ALLOYS	Copper and copper base alloys: Bronze, Beryllium Copper, Brass, Cupro Nickel, Nickel Silver, and High Performance Alloys
	SHAPES	Round, square, rectangular, flat or special
	SPOOLING	Layer winding long continuous lengths with no welds, controlled cast and offset.
Round Wire	MILL LIMITS	.0128"-.010"
	ALLOYS	Copper and copper base alloys: Bronze, Beryllium Copper, Brass, Cupro Nickel, Nickel Silver, and High Performance Alloys
	SPOOLING	Traverse winding with controlled cast and offset
Square Wire	MILL LIMITS	.075"-.010"
	ALLOYS	Copper and copper base alloys: Bronze, Beryllium Copper, Brass, Cupro Nickel, Nickel Silver, and High Performance Alloys
	CORNERS and DIAGONALS	To specification, rectangle and crown wire shapes available
	SPOOLING	Layer winding with Controlled cast and offset.

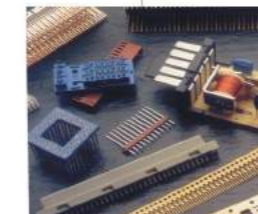
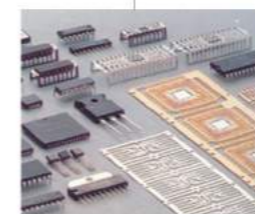
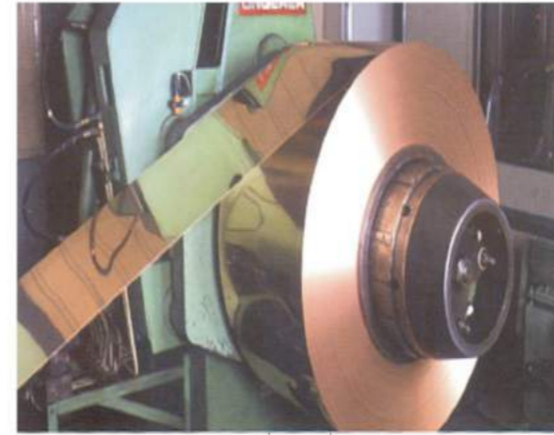
### 贵金属电镀工艺 (Precious Metal Plating Capability)

- 预镀各种卷片线材 (Can Pre-plate all kinds of strips & wires)
- 电镀/选择性电镀 (Plating/Selective Plating Technique)

1. 电镀 (Electro Plating)
2. 回流锡 (Reflow Tin)
3. 热浸锡 (Hot-dipped Tin)

#### — 贵金属 (Precious Metal)

1. Au
2. Au/Pd/Ni
3. Ag
4. Ni, etc.





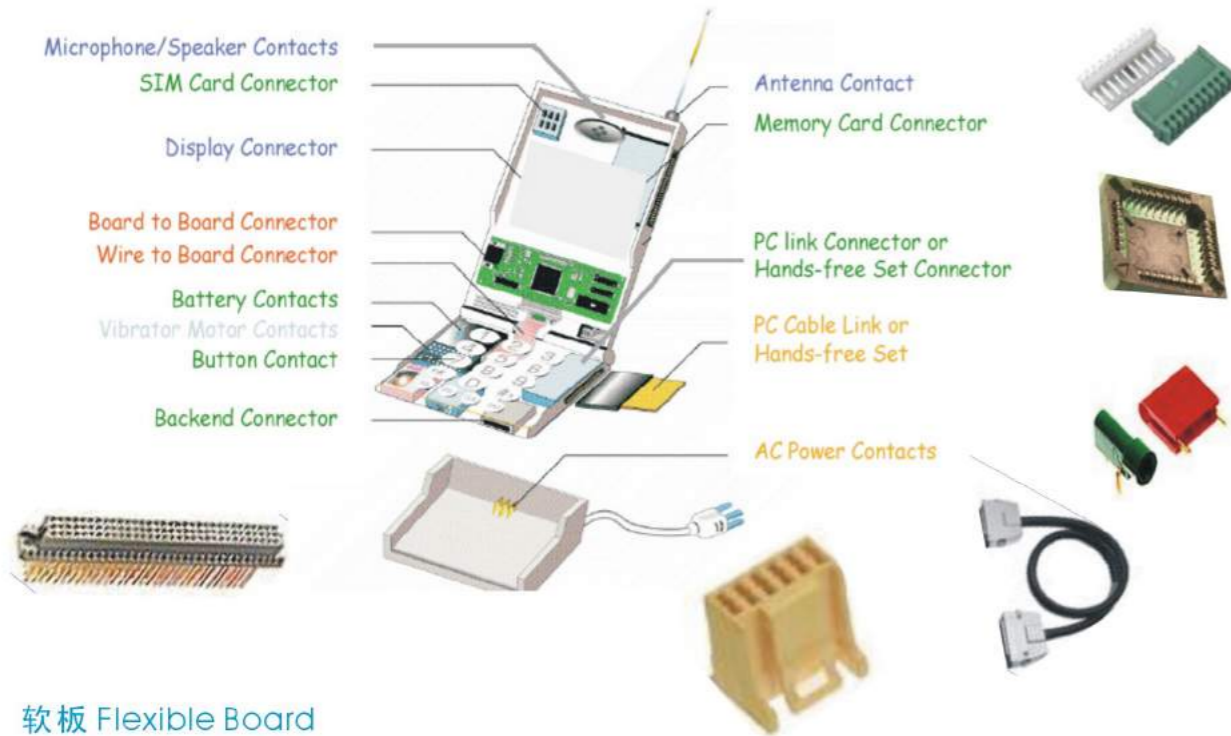
## 电子元器件 (Electronic Products)

### 连接器 (Connector)

JHT now distributes Tyco, Molex and JST's broad selection of electromechanical parts.

Tyco Electronics offers a broad range of high quality electronic component products. Tyco offers solutions for OEM applications, utility/energy, outside plant and premise networking installations and more.

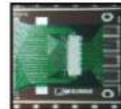
The AMP brand is recognized worldwide as the leading supplier of electrical and electronic connectors and interconnection systems.



### 软板 Flexible Board



**TAB**  
Driver IC package



**COF**  
Driver IC package



**Layer Inkjet Tape**  
Ink cartridge

### 导电胶 Conductive Pastes



PCB silver through hole plating  
Membrane switches  
Flexible PCBs

### TFT-LCD Modules



**Monitor Applications**



**LCD TV Applications**



**Notebook PC Applications**



**Mobile Phone Applications**