



3071200003



高品質的射頻/視頻纜線 依照阻抗特性分為75Ω與50Ω兩大類!  
75Ω主要提供CATV CCTV兩大類使用 50Ω則提供無線電系統天線饋線連接用  
均具有良好的品質與傳輸效果。

High quality RF / Video cable.As per impedance characteristics, it's divided into 75Ω and 50Ω two major categories to use. 75Ω mainly provides CATV CCTV two major categories to use. 50Ω is providing radio system antenna feeder as connecting. All have good quality and transmission effect.



3071200001



衍生產品:SVC-4001-1008CU  
Derivative product: SVC-4001-1008CU

# 50Ω

TYPE	75 OHM			50 OHM		
	ITEM NO 型號	3071200002	3071200003	3071200014	3071200001	3071200013
RG/IS TYPE	RG-59/U	RG-59B/U	3C-2V	RG-58C/U	RG-58A/U	RG-58A/U
JACKET COLOR 顏色	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK
CONDUCTOR 導體	1/0.643	1/0.584CCS	1/0.50	19/0.18TC	19/0.18TC	19/0.18TC
JACKET OD 外徑	6.2 mm	6.2 mm	5.1 mm	5.0mm	5.0mm	5.0mm
WIRE INFORMATION 線材資訊	1/0.643+PE3.71 +BD 16°/7.016 +PVC	1/0.584CCS+ PE3.71 +AL-FOIL+ BD 16°/7.012 +PVC	1/0.50+PE3.0+AL- FOIL+BD16°/5.010 +AL-FOIL +BD 16°/2.010	19/0.18TC+PE2.95 +BD 16°/7.0128C +PVC	19/0.18TC+PE2.95 +AL-FOIL+ BD 16°/2.010TC +PVC	19/0.18TC+PE2.95 +AL-FOIL+ BD 16°/2.010TC +PVC
MAIN CONDUCTOR AWG 主要導體直徑	22 AWG 0.324mm <sup>2</sup>	23 AWG 0.268mm <sup>2</sup>	25 AWG 0.196mm <sup>2</sup>	21 AWG 0.483mm <sup>2</sup>	21 AWG 0.483mm <sup>2</sup>	21 AWG 0.483mm <sup>2</sup>
ELECTRICAL PERFORMANCE 電氣性能						
Cond.D.C.R. ohm/1km 導體電阻/1km	58.5	Less than 305	78 +/- 1%	Less than 36.2	41.2	41.2
Shield D.C.R. ohm/1km 屏蔽層電阻/1km	11.5	Less than 15.9	Less than 29	Less than 14.59	71.6	71.6
Nom.Cap.(pF/m)between conductors/shield 導體/屏蔽層電容量	69.8	Less than 130	Less than 89	Less than 107.8	101.3	101.3
Voltage Breakdown 絕緣承受電壓	300V	300V	300V	300V	300V	300V
MECHANICAL PERFORMANCE 機械性能						
Flex Life times load 50g +/-30° 線纜壽命次數 負載 500g 角度 +/-30°	---	Better than 1230	Better than 1250	Better than 2100	---	---
Tensile Strength (26°C.65%RH) 拉伸斷裂力量	---	better than 45kgf	Better than 32kgf	Better than 43.8kgf	---	---
Applicable Temperature 建議工作溫度	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)
Peak Temperature 極限工作溫度	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)
COLOR & ORDER INFORMATION 色彩與訂購資訊						
100Mweight/100M 重量(kg)	5.6	4.9	3.3	3.8	3	3

\*CCS 為銅包鋼,為滿足 F 鍍製作而進行中間芯材的改善,因為使用於高頻率,因此不影響其性能,是一被認可的標準製作方式

## WARNING!!

如果要用於CATV 可以選用CCS內芯之 RG-59B/U  
如果用於CCTV 監控或視頻傳輸,請選用銅芯之 RG-59/U  
以免頻率過低,造成集膚效應無法發生,而損耗監控或視頻訊號!

RG-59B/U DESIGN FOR CATV RF SINGAL  
RG-59/U DESIGN FOR CCTV CAMERA/VIDEO SINGAL



供應EFP多機作業系統使用的HD-SDI線纜。  
經過視訊設備製造廠測試,此線纜可於100M 滿足 1.5G HD-SDI之傳輸  
此一線纜提供了兩通道的HD-SDI,兩通道音頻信號 四條DATA控制線(可做Tally/DC power)  
請搭配標準75ohm的專用連接器使用

\*1.5G HD-SDI之傳輸狀況會依各廠輸出入設備之強度與靈敏度而有所不同,  
致可不擔保此一線纜能適用於所有設備

Supplying EFP multi-machine operating system usage of HD-SDI cable, through the test of  
video equipment manufacturer, this cable can meet 1.5G HD-SDI transmission in 100M.  
This cable provides two channels of HD-SDI, two channels of audio signal,  
four DATA control wires (can make Tally/DC power).

Please match with specific connector of standard 75ohm for usage.  
\*1.5G HD-SDI transfer position is subject to the strength and sensitivity of each manufacturer's  
output with input on equipment. We don't guarantee this cable suitable to all the equipments.



Digital  
SREXACT VIDEO  
SD

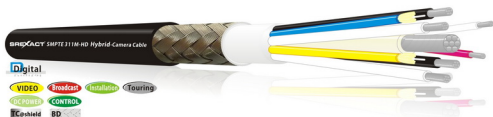
經過視訊設備製造廠測試,此線纜可於100M 滿足 1.5G HD-SDI之傳輸  
請搭配標準75ohm的專用連接器使用

\*1.5G HD-SDI之傳輸狀況會依各廠輸出入設備之強度與靈敏度而有所不同,  
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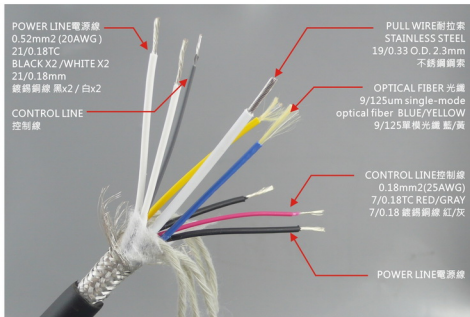
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\*1.5G HD-SDI transfer position is subject to the strength and sensitivity of each manufacturer's  
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ITEM NO 型號	3071200032	3071500120			
TYPE	HD-SDI	HD-SDI EFP (HD-SDI*2+ AUDIO*2+DATAWIRE*4)			
RG/ISS TYPE	3CFB-HD	HD-SDI	AUDIO	DATA WIRE	TOTAL
JACKET COLOR	BLACK	BLA CK	GRAY	(BLACK,RED)	BLACK
CONDUCTOR 導體	1/0.64	1,0.64	1.6/0.12	26,0.16	---
JACKET OD 外徑	5.1	5.1	32	1.8	12.5
WIRE INFORMATDN 線材資料	1/0.64+FPPE3.1 +BD 16*6/0.16 +PVC	1/0.64+FPPE3.1 +BD 16*6/0.16 +PVC	2*(1.6/0.12+XLPE +NYLON FIBER+ DW/7.0/1.8T C+AL- FOIL+PVC	26,0.16+PVC (BLACK/RED/YE LL OW/BLUE)	---
MAIN CONDUCTOR AWG 主要導體直徑	22 AWG 0.324mm <sup>2</sup>	22 AWG 0.324mm <sup>2</sup>	25AWG 0.184mm <sup>2</sup>	20AWG 0.523mm <sup>2</sup>	---
ELECTRICAL PERFORMANCE 電氣性能					
Cord D.C.R. ohm/1Km 導體電阻/1km	58.5	58.5	105.04	36.36	---
Shield D.C.R. ohm/1Km 屏蔽電阻/1km	12.8	12.8	112.05	---	---
Nom.Cap.(pF/m)between conductors, shield 導體/屏蔽電容	56.5	56.5	210	---	---
Voltage Breakdown 絕緣承受電壓	300V	300V	300V	300V	---
MECHANICAL PERFORMANCE 機械性能					
Flex Life times load 500g +/-30°搖晃壽命次數 負載 500g 角度 +/-30°	---	---	---	---	---
Tensile Strength (26°C,65%RH) 拉伸斷裂力量	---	---	---	---	---
Applicable Temperature 建議工作溫度	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)	-20°C~ +60°C (-4°F~ +140°F)	---
Peak Temperature 極限工作溫度	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)	-40°C~ +70°C (-40°F~ +158°F)	---
COLOR & ORDER INFORMATION 色彩與訂購資訊					
100Mweight/100M 重量(kg)	4.5	---	---	22.3	---



符合 SMPTE 311M 標準的高畫質電視台攝影機連接用轉播光纖  
 內含兩芯單模光纖,並提供了電源與控制用的銅絲,有鋼索加強抗拉力!  
 是您邁向高畫質不可或缺的連接方案

Meet the standard of SMPTE311 Broadcast fiber optic for connecting  
 High definition TV station camera.  
 Containing two cores single-mode fiber optical and providing copper wire used  
 for electric power and control.  
 There have steel cable to strong then the stretching resistance.  
 It's an indispensable connection solution for you choose to high definition.



ITEM NO 型號	3071500130			
TYPE 類型	SFS-SMPTE311M			
JACKET COLOR 顏色	BLACK			
JACKET OD 外徑	9.2mm			
TOTAL SHIELD 總屏蔽	16x8 / 0.12TC			
CONDUCTOR TYPE 導體分類	POWER LINE 電源線	CONTROL LINE 控制線	FIBER 光纖	PULL WIRE 抗拉力索
CONDUCTOR NUMBER 導體數	4	2	2	1
JACKET COLOR 顏色	BLACK X2 WHITE X2	RED GRAY	BLUE YELLOW	TRANS
CONDUCTOR 導體	21/0.18TC	7/0.18TC	9/125um Single-mode optical fiber	19/0.33 STAINLESS STEEL
JACKET OD 外徑	17mm	13mm		23mm
CONDUCTOR AWG 要導體直徑	20AWG 0.52mm <sup>2</sup>	25AWG 0.18mm <sup>2</sup>	---	---
ELECTRICAL PERFORMANCE 電氣性能				
Cond.D.C.R ohm/1Km 導體電阻/1km	37.35	112.05	@1310nm loss 0.4dB or less ;	---
Shield D.C.R. ohm/1Km 屏蔽層電阻/1km	---	---	@1550nm loss 0.3dB or less	---
Nom.Cap. pF/mj/between conductors 導體間電容量	---	---	---	---
Voltage Breakdown 絕緣承受電壓	300V	300V	---	---
MECHANICAL PERFORMANCE 機械性能				
Flex Life times load 500g +/- 30° 搖晃壽命負載 500g 角度 +/- 30°	---			
Tensile Strength (26° C. 65%RH) 拉伸斷裂力量	---			
Applicable Temperature 建議工作溫度	-20°C ~ +60°C (-4°F ~ +140°F)			
Peak Temperature 極限工作溫度	-40°C ~ +70°C (-40°F ~ +158°F)			
COLOR & ORDER INFORMATION 色彩與訂購資訊				
100Mweight/100M 重量(kg)	14.8			

## 如何快篩你的線纜是不是純銅？

### 鹽酸法:

可檢測:銅包鋁線 鎂鋁合金

取一定程度的銅絲,置於盤上,滴入鹽酸以覆蓋整個銅絲面  
銅包鋁線會發生以下化學反應: $2AL+6HCL==2ALCL_3+3H_2$

其中鋁:AL 鹽酸(氯化氫)HCL ALCL3是氯化鋁 H2是氫氣  
意即鋁被鹽酸(氯化氫)給侵蝕,得到氫氣,因此銅包鋁線表面會冒泡!這種氣體就是氫氣

如果銅包鋁線較粗,則包層鋁材較厚,則表面會大部冒泡,  
如果銅包鋁線較粗則頭端會冒泡,銅包鋁線後再彎碼,亦可同樣會頭端冒泡

鎂鋁合金絲 會冒泡且於一段時間後全部溶解於鹽酸當中!  
因為鎂是一種比鋁更不穩定的金屬,氧化更快!

### 硫酸銅置換法

可檢測:銅包鋁線

這方式也很簡單,拿一定程度的銅絲放進滴了硫酸銅的水溶液中,

銅包鋁線會發生以下化學反應



其中鋁:AL 硫酸銅CUSO4 硫酸鋁AL2(SO4)3 銅CU  
但是由於鋁被內包於銅絲內,因此反應時間較長具體觀察指標:

- 1.硫酸銅的水溶液由藍變白,因為部份變為硫酸鋁水溶液
- 2.水溶液有銅顆粒或是銅絲頭端發黑,是被代換出來之氧化銅與雜質

由於這個反應很複雜,有銅、有鋁、鋁在硫酸銅中起反應,置換出銅,由於鋁被氧化  
還有單質銅被氧化,溶液問題,造成反應不完全,還有紅色銅在藍色溶液中呈黑色,

表面包的銅阻礙反應不完全,是綜合原因,使產物呈黑色!  
但是:重點是純銅就不反應!

### 硫酸銅電鍍法

可檢測:銅包鋁線 銅包銅

在負極掛被鍍件,在正極掛一定程度的銅絲一起放進硫酸銅的水溶液中,然後對其通上直流電,  
電流量與電壓不用過高,維持在DC 12V 1A以下,你會看到非純銅線會發生以下化學反應

- 1.被鍍件上面有銅鍍出現 表示銅絲表面的銅被電鍍至被鍍件上面
- 2.銅絲會變細,而且因為包層材料不均,會不規則的斷裂,露出銀白色
- 3.銅包鋁會將硫酸銅水溶液由藍變白,因為部份變為“硫酸鋁”水溶液

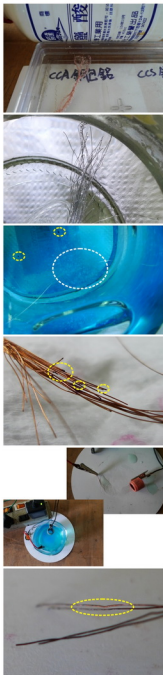
### 火烤法:

可檢測:銅包鋁線 鎂鋁合金 銅包銅

銅包鋁線: 鎂線會被燒熔

鎂鋁合金: 鎂線會被燒熔

銅包 鋼: 鎂線會被燒熔



## Quickly check copper or not?

### Hydrochloric acid method:

It can detect: 1. copper clad aluminum wire 2. magnesium aluminum alloy wire.

Take a certain degree of copper wire, placed on the plate, and dropping some hydrochloric acid to cover the entire copper surface.

Copper clad aluminum wire will occur the following chemical reaction:



Which aluminum: AL. hydrochloric acid (HCl): HCL. ALCL3: aluminum chloride, H2: hydrogen  
It means aluminum is eroded by hydrochloric acid (Hcl),

by obtaining hydrogen, to cause copper clad aluminum wire surface have bubble.

Such gas is hydrogen. Supposed copper clad aluminum wire is thin, coated aluminum being poor,  
then the surface will most part being bubbling.

If the copper clad aluminum wire is thicker, then tip-end will be bubbling.

Copper clad aluminum and then timed, the same bubbling happened on the tip-end.

The magnesium alloy wire will bubbling and dissolved in hydrochloric acid after a certain period of time!  
Because magnesium is the metal not so stable than aluminum, oxidized faster!

### Copper Sulfate displacement method

It can detect: 1. Copper Clad Aluminum wire.

This method is also very simple, take a certain degree of copper wire into aqueous solution with dissolved  
copper sulfate. Copper clad aluminum wire will occur the following chemical reaction:



Within aluminum: AL. copper sulfate: CuSO4, aluminum sulfate: AL2(SO4)3 and copper: Cu.

However, due to aluminum wrapped within copper wire, so the reaction time is longer.

Specific observed indicators:

1. The aqueous solution of copper sulfate changed from blue into white, because portion of it becomes  
aluminum sulfate aqueous solution

2. Aqueous solution has copper particles or copper wire tip blacked, is a substituted copper oxide and  
impurities.

Since this reaction is very complex, with copper & aluminum, aluminum reacts in copper sulfate, the  
displacement of copper, since aluminum oxidized, resulting the response not complete, as well as elemental  
copper oxidized, and solution problem, resulting the response not complete, also copper in the blue solution  
presented black, the reaction on surface coated with copper barrier not complete, are the comprehensive  
reasons to make product black.

But: the key point is pure copper will not react!

### Copper sulfate plating method

It can detect: 1. Copper Clad Aluminum. 2. Copper Clad Steel.

The plating part hanged in negative pole, a certain degree of copper wire hanged in positive pole, all put into  
the aqueous solution of copper sulfate. Then connecting with DC, current and voltage no need too high,  
keeping under DC 12V 1A, you will see the non-pure copper wire occurred the following chemical reaction:

1. The plated part has aserugo appeared, which means the copper on the surface of copper wire is plated onto  
the plating product.

2. Copper wire becomes thin, also due to coated material is uneven, it will have irregular fracture, exposing  
the silvery surface.

3. Copper clad aluminum makes aqueous solution of copper sulfate changed from blue into white, because  
portion of it becomes aluminum sulfate aqueous solution.

### Fire-baking method:

For testing: copper clad aluminum, magnesium aluminum alloy, copper clad steel

Copper clad aluminum: the thin wire will be burned and melt.

Magnesium aluminum alloy: the thin wire will be burned and melt.

Copper clad steel: the thin wire will be burned and melt.