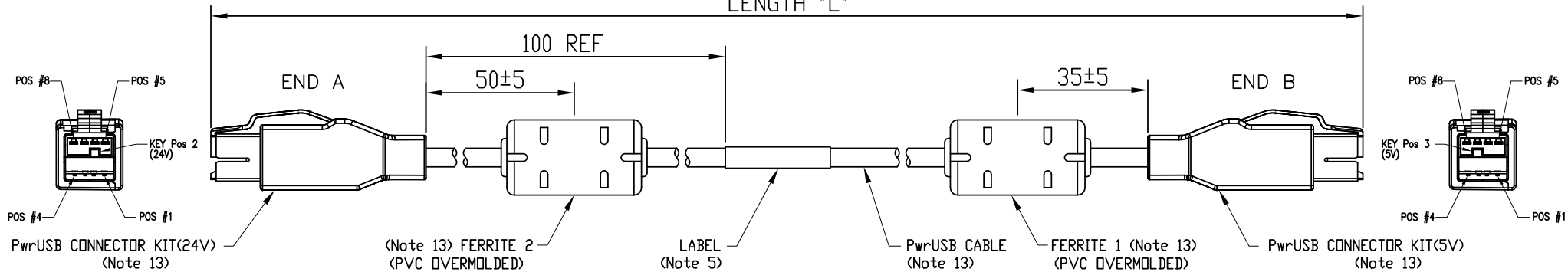


FCI PART NO.	CUSTOMER P/N	POWER TYPE	LENGTH "L"
10099431-Z0061YYLF	0012-00-1803-11	24V/5V	610±15 (2 Feet)
10099431-Z0183YYLF	0012-00-1803-12	24V/5V	1830±20 (6 Feet)
10099431-Z0366YYLF	0012-00-1803-13	24V/5V	3660±25 (12 Feet)
10099431-Z0092YYLF	0012-00-1803-14	24V/5V	915±15 (3 Feet)
10099431-Z0122YYLF	0012-00-1803-15	24V/5V	1220±20 (4 Feet)

LENGTH "L"



## PIN ASSIGNMENT

END A	SIGNAL NAME	WIRE COLOR	WIRE AWG	END B
1	VBUS (+5V)	RED	20	1
2	DATA -	WHITE	28	2
3	DATA +	GREEN	28	3
4	GND	BLACK	20	4
5	24/5V GND	BLUE	20	5
6	+24/5V	BROWN	20	6
7	+24/5V	ORANGE	20	7
8	24/5V GND	YELLOW	20	8
SHELL	FRAME GND	-	SHIELD	SHELL

Mark with  
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in area indicated  
by X....

Material				Spec ref		spec_ref			
Mat code				surface		tolerance		projection	
Heattreat				ISO 1302		ISO 406		ISO 1101	
Plating/Finish									
Dr		Sunny Tsai		3/10/09				size	
Eng		Sunny Tsai		3/10/09		Product family		CABLE ASS'Y	
Chr		Jackson Wang		3/10/09		Model Name		ECN	
Appr		Jackson Wang		3/10/09		Model Revision		REL Level	
FCI		title				DOUBLE END USB+P 24V/5V		dwg no	
						CABLE ASSEMBLY - BLACK		10099431	
Pro/E file		catalog no				CUSTOMER DWG		sheet 1 of 3	
								Rev.	
								F	

FCI PART NO. SEE SHEET 1

## NOTES:

- MATES WITH FCI PART NUMBER: 55917.
- UNLESS OTHERWISE SPECIFIED ASSEMBLED LENGTH TOLERANCE=
  - =< 1 METER=  $\pm 15.0\text{mm}$
  - > 1 METER TO 10 METER=  $\pm 2\%$  OF "L"
  - > 10 METER=  $+0\%/-4\%$  OF "L"

## 3. PART NUMBER SCHEME FOR CABLE ASSEMBLY:

10099431 - Z X X X X Y Y LF

LF: LEAD FREE

NOT APPLICABLE TO THIS ASSEMBLY

NOT APPLICABLE TO THIS ASSEMBLY

LENGTH (XX: METERS; XX: CENTIMETERS)  
EXAMPLE FOR LENGTH GIVEN BELOW:

0061: 0 METERS 61 CENTIMETERS  
 0183: 1 METERS 83 CENTIMETERS  
 0366: 3 METERS 66 CENTIMETERS  
 0092: 0 METERS 92 CENTIMETERS  
 0122: 1 METERS 22 CENTIMETERS

WIRE GAGE

Z: MULTIPLE WIRE GAGE

- UNLESS OTHERWISE SPECIFIED LABEL POSITION SHALL BE APPROXIMATELY 60mm FROM REAR OF CONNECTOR.
- UNLESS OTHERWISE SPECIFIED STANDARD LABEL SHALL BE BRADY LABEL P/N THT-10-427-30.

## LABEL DETAILS:

0012-00-1803-XX REV.3.0

---CUSTOMER P/N &amp; REVISION

10099431-ZXXXXYYLF

---FCI P/N

WWYY

---DATE CODE WWYY FORMAT

FCI CHINA

---MANUFACTURER NAME  
& COUNTRY ORIGIN

----- CSA Symbol

----- UL Symbol

- ALL CABLE ASSEMBLIES SHALL BE TESTED 100% FOR CONTINUITY AS DEFINED IN WIRING LIST.

TOLERANCES UNLESS OTHERWISE SPECIFIED

	LINEAR	ANGULAR	0°	±2°
rev	-	-	-	-
ecn no	-	-	-	-
dr	-	-	-	-
date	-	-	-	-

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in area indicated  
by X....

- UNLESS OTHERWISE SPECIFIED ALL CABLE ASSEMBLIES SHALL BE 100% HI-POT TESTED BY APPLYING 300V DC FOR MINIMUM OF 10ms, UNLESS ACTIVE COMPONENTS ARE USED IN THIS ASSEMBLY.
- OTHER TESTING PERFORMED AS REQUIRED:  
DIELECTRIC RESISTANCE: 50M Ohms MIN.  
CONNECTION RESISTANCE: 1.0 Ohms MAX. (-Z0061YYLF, 0.61 MR LENGTH)  
1.2 Ohms MAX. (-Z0183YYLF, 1.83 MR LENGTH)  
1.5 Ohms MAX. (-Z0366YYLF, 3.66 MR LENGTH)  
1.2 Ohms MAX. (-Z0092YYLF, 0.915 MR LENGTH)  
1.2 Ohms MAX. (-Z0122YYLF, 1.22 MR LENGTH)
- LEAD FREE PRODUCTS MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
- CONNECTOR ASSEMBLIES SHOWN ARE FOR REFERENCE ONLY AND MAY NOT SHOW ALL PART DETAIL, REFERENCE CONNECTOR ASSEMBLY DRAWINGS FOR COMPLETE DETAILS.
- PACKAGE: EACH CABLE ASSEMBLY IN CLEAR ZIP-LOCK POLY BAG, THEN BULK PACKED IN A BOX; ADD THE ORANGE UL LABEL ONTO THE BOX (EACH ORANGE UL LABEL CONTAINS 10PCS CABLE ASSEMBLY).
- CURRENT RATING EVALUATION:  
TEST PURPOSE: THE CABLE ASSEMBLY SHOULD BE SUBJECTED TO A CURRENT RATING EVALUATION USING CURRENT LEVELS SPECIFIED BY THE CUSTOMER.  
TEST CONCLUSION: THE SAMPLES TESTED WERE BELOW THE 30°C MAXIMUM CONTACT TEMPERATURE REQUIREMENT WITH 4.6 Amps APPLIED TO THE 4 POWER LINES, 500 Milliamps APPLIED TO SIGNAL LINES 1 AND 4, AND 28.6 Milliamps APPLIED TO SIGNAL LINES 2 AND 3.

THE TEST RESULTS DETAIL ARE SUMMARIZED IN TABEL 1:

Tabel 1. Current Vs. T-rise Test Results Summary							
	Test Circuit Amperages			Power Contact T-rise Values (°C over ambient)			
	S1 & S4	S2 & S3	P5 to P8	A-6	A-7	B-6	B-7
Level 1	350 ma	20 ma	4.0 amps	21.9	21.9	22.6	22.5
Level 2	500 ma	28.6 ma	4.5 amps	27.5	27.6	28.3	28.2
Level 3	500 ma	28.6 ma	4.6 amps	28.8	29.0	29.6	29.5

Material		Spec ref	spec_ref	projection		MM	
Mat code		surface	tolerance	ISO 406 ISO 1101			
Heattreat		ISO 1302	ISO 1101				
Plating/Finish		Dr Sunny Tsai 10/11/2007		Eng Sunny Tsai 10/11/2007		Chr Jackson Wang 10/11/2007	
Product family		CABLE ASS'Y		Model Name		ECN	
Model Revision		REL Level		size		A3	
Scale		-		dwg no		10099431	
Rev.		F		CUSTOMER DWG		sheet 2 of 3	



DOUBLE END USB+P 24V/5V  
CABLE ASSEMBLY - BLACK

Pro/E file

catalog no

PDS: Rev :F

STATUS:Released

Printed: Oct 24, 2012



FCI PART NO. SEE SHEET 1

NOTES:

13. COMPONENT DETAIL

A) Pwr USB CONNECTOR KIT:

P/N: 74233-2029LF (24V); 74233-3029LF (5V)

MATERIALS	SPECIFICATIONS
SHELLS	HIGH STRENGTH COPPER ALLOY
HOUSINGS	THERMOPLASTIC UL94V-0 RATED, COLOR: RED(24V), CREAM OFF WHITE(5V)
TERMINALS	HIGH STRENGTH COPPER ALLOY
COVERS	THERMOPLASTIC UL94V-0 RATED BLACK
PLATING	
SHELL	UNDERPLATE; 40 MICROINCHES NI 100 MICROINCHES MIN BRIGHT TIN
TERMINALS	UNDERPLATE; 40 MICROINCHES NI CONTACT AREA; 30 MICROINCHES GXT TAIL AREA; 100 MICROINCHES MATTED TIN
ELECTRICAL	
VOLTAGE RATING	USB: 5.25VDC; +POWER: 24VDC,5VDC
DIELECTRIC WITHSTANDING VOLTAGE	750 VAC
INSUL. RESISTANCE	1000 MEG OHMS AT 500 VDC
CURRENT RATING	SEE NOTE 12

B) FERRITE:

FERRITE 1	SPECIFICATIONS
SPEC	URITE: F5B RH 15.65*28.5*7.3
IMPEDANCE	75 Ohms@25MHz; 160 Ohms@100MHz
FERRITE 2	SPECIFICATIONS
SPEC	URITE: F5B RH 14.2*28.5*7.2-P.W
IMPEDANCE	75 Ohms@25MHz; 140 Ohms@100MHz

C) Pwr USB CABLE:

SPEC: 28AWG\*1P+20AWG\*6C+AL/MYLAR+DRAIN+BRAID

1) UL TYPE: CM

CSA TYPE: CMG

2) CONSTRUCTION:

ITEM	SPECIFICATIONS
CONDUCTOR	AWG 28AWG 20AWG
	MATERIAL TINNED COPPER TINNED COPPER
	COND.SIZE 7/0.127mm 19/0.20mm
INSULATION	MATERIAL HD-PE SR-PVC
	OD 0.80±0.05mm 1.5±0.05mm
	NO. 1PAIR 6C
AL/MYLAR	COVERAGE 100%
	OVERLAP 25% Min.
DRAIN	AWG 28AWG
	MATERIAL TINNED COPPER
	COND.SIZE 7/0.127mm
BRAID	MATERIAL TINNED COPPER
	SIZE 16/7/0.10mm
JACKET	MATERIAL PVC
	OD 6.50±0.25mm
	COLOR BLACK (OTHER COLORS AVAILABLE ON REQUEST)

ELECTRICAL CHARACTERISTICS

RATING	RATING: TEMP 80°C VOLTAGE 30V
Conductor Resistance at 20°C (MAX)	28AWG < 237.25 Ohm/KM 20AWG < 34.6 Ohm/KM
IMPEDANCE (Differential)	90 Ohm±15%; at TDR
DELAY	< 26ns/Cable; at TDR
SKEW	100ps MAX.
ATTENUATION	Refer to USB 2.0 Specification

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in area indicated  
by X....

rev	ecn no	dr	date
-	See Sheet 1	-	-

TOLERANCES UNLESS OTHERWISE  
SPECIFIED

LINER					
ANGULAR	0°	±2°			

Material	Spec ref	spec_ref	projection	MM
Mat code	surface	tolerance	ISO 406	
Heattreat	ISO 1302	ISO 1101	ISO 1101	
Plating/Finish	Dr Sunny Tsai 10/11/2007	Product family	CABLE ASS'Y	size A3
Eng Sunny Tsai 10/11/2007	Model Name	ECN		Scale -
Chr Jackson Wang 10/11/2007	Model Revision	REL Level		
Appr Jackson Wang 10/11/2007				
FCI	DOUBLE END USB+P 24V/5V + CABLE ASSEMBLY - BLACK	dwg no	10099431	Rev. F
Pro/E file	catalog no	CUSTOMER DWG	sheet 3 of 3	