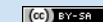


Chordata K-Ceptor R2.3 BOM



Item #	Ref Des	Qty	Manufacturer	Manufacturer Part #	Description / Value	Package	Type	Notes
1	U1	1	ST microelectronics	LSM9DS1TR	TFLGA 3.5X3X1 24LINEMO inertial module, 3D magnetometer, 3D accelerometer, 3D gyroscope, I2C,	TFLGA 3.5X3X1 24L	SMD	Critical to pcb design, Cannot be substituted without changes on the PCB.
2	U2	1	Linear Technology	LTC4316CMS#PBF	Single I2C/SMBus Address Translator	10-Lead Plastic MSOP	SMD	Critical to pcb design, Cannot be substituted without changes on the PCB. Other accepted part # are: LTC4316CMS#TRPBF,
3	C1, C2, C3	3	MULTICOMP	MC1206B104K201CT	SMD Multilayer Ceramic Capacitor, 0.1 µF, 200 V, 1206 [3216 Metric], ± 10%, X7R, MC Series	1206 [3216 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability. Minimal Voltage is 16V. Minimal tolerance is 10%
4	C4	1	VISHAY	VJ1206Y106KXWTW1BC	SMD Multilayer Ceramic Capacitor, 10 µF, 25 V, 1206 [3216 Metric], ± 10%, X7R, VJ...W1BC Series	1206 [3216 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability. Minimal Voltage is 16V. Minimal tolerance is 10%
5	C5	1	MULTICOMP	MCU1206R103KCT	SMD Multilayer Ceramic Capacitor, 10000 pF, 50 V, 1206 [3216 Metric], ± 10%, X7R, MCU Series	1206 [3216 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability. Minimal Voltage is 16V. Minimal tolerance is 10%
6	U3	1	ST microelectronics	M24C02-WMN6P	EEPROM, Serial I2C (2-Wire), 2 Kbit, 256 x 8bit, 400 kHz, SOIC, 8 Pin	8pin SOIC	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
7	R1, R2, R3, R11, R12	5	MULTICOMP	MCMR08X1002FTL	SMD Chip Resistor, Ceramic, 0805 [2012 Metric], 10 kohm 1%, MCMR Series, 150 V, Thick Film, 125 mW	0805 [2012 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
8	R4	1	VISHAY	CRCW08051K00FKEA	SMD Chip Resistor, 0805 [2012 Metric], 1 kohm, CRCW e3 Series, 150 V, Thick Film, 125 mW	0805 [2012 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
9	J1, J2	2	reference manufacturer:MOLEX	reference part #: 95501-2661	Modular Connector, RJ12, Jack, 6 Contacts, 6 Ways, 95501 Series, Cat3	(see Attachment C)	THT	Non critical component. Vendor and P/N can be determined by cost and local availability.
11	D1	1	KINGBRIGHT	KPTD-3216LVQBC-D	LED, Blue, SMD, 1206 (3216 Metric), 2 mA, 2.65 V, 465 nm	1206 [3216 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
12	R5, R7	2	MULTICOMP	MCMR08X9763FTL	SMD Chip Resistor, Ceramic, 0805 [2012 Metric], 976 kohm 1%, MCMR Series, 150 V, Thick Film, 125 mW	0805 [2012 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
13	R6	1	VISHAY	CRCW0805102KFKEA	SMD Chip Resistor, 0805 [2012 Metric], 102 kohm 1%, CRCW e3 Series, 150 V, Thick Film, 125 mW	0805 [2012 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
14	R8	1	MULTICOMP	MCMR08X1823FTL	SMD Chip Resistor, Ceramic, 0805 [2012 Metric], 182 kohm 1%, MCMR Series, 150 V, Thick Film, 125 mW	0805 [2012 Metric]	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
15	J5	1	MULTICOMP	2213SM-06G-TB	Board-To-Board Connector, 2.54 mm, 6 Contacts, Header, Surface Mount, 2 Rows		SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
16	U4	1	TEXAS INSTRUMENTS	TCA9517DGKR	Specialized Interface, I2C, SMBus, I2C Bus & SMBus Systems Applications, Servers, Telecom, 900 mV	VSSOP-8 3x3mm pitch 0.65	SMD	Critical to pcb design, Cannot be substituted without changes on the PCB.



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Chordata Hub R1.2 BOM



Item #	Ref Des	Qty	Manufacturer	Manufacturer Part #	Description / Value	Package	Type	Notes
1	U1	1	NXP	PCA9548AD,112	Translating Switch, Bidirectional, 8 Inputs, 2.3V to 5.5V Supply, 25mA Out, 0.3ns Delay	SOIC-24	SMD	Critical to pcb design. Cannot be substituted without changes on the PCB.
2	U2	1	MCP1603T-330I/OS	MICROCHIP	Synchronous Buck Step Down, Switching Regulator, Fixed, 2.7V-5.5V In, 3.30V/0.5A Out, 2.8 MHz	TSOT-5	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
3	L1	1	WURTH ELEKTRONIK	744031004	744031004 - Power Inductor (SMD), 4.7 µH, 1.2 A, Shielded, 900 mA, WE-TPC Series, 3.8mm x 3.8mm x 1.65mm	3.8mm x 3.8mm x 1.65mm	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
4	J12	1	----		USB Connector, Micro USB Type B, USB 2.0, Receptacle, 5 Ways	Surface Mount, Right Angle (see Attachment B)	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
5	U4	1	WORLDSEMI	WS2812B	LED; SMD; 5050, PLCC4; RGB; 5x5x1.6mm; 3-3.4V	5050, PLCC4	SMD	The controller for this component is still not implemented on software, so it won't work with the current release (0.1.1b of May 2019)
6	J11	1	CONNFLY	DS1095-WNR0	Socket; USB A; THT; angled 90°	angled 90° (See Attachment A)	THT	Non critical component. Vendor and P/N can be determined by cost and local availability.
7	D1	1	KINGBRIGHT	L-964QBDL-D	KINGBRIGHT LED, Blu, Foro Passante, T-1 (3mm), 20 mA, 3.3 V, 465 nm	Radial Leaded	THT	Non critical component. Vendor and P/N can be determined by cost and local availability.
8	R6	1	----	--	SMD resistor 1Kohm	1206	SMD	Non critical component. Vendor and P/N can be determined by cost and local availability.
9	J9 JP1	1	CONNFLY	DS1021-1*40SF11	Pin header; pin strips; male; PIN:40; straight; 2.54 mm; THT; 1x40	--	THT	Non critical component. Vendor and P/N can be determined by cost and local availability.
10	R1-R3 R5-R16	15	TT ELECTRONICS / WELWYN	WCR1206-10KFI	SMD Chip Resistor, Thick Film, AEC-Q200 WCR Series, 10 kohm, 200 V, 1206 [3216 Metric], 250 mW	1206	THT	Non critical component. Vendor and P/N can be determined by cost and local availability.
11	C1, C2	2	MULTICOMP	MC1206B475K250CT	SMD Multilayer Ceramic Capacitor, 4.7 µF, 25 V, 1206 [3216 Metric], ± 10%, X7R, MC Series	1206	THT	Non critical component. Vendor and P/N can be determined by cost and local availability.
12	J1 - J6	6	MOLEX	95501-2661	Modular Connector, RJ12, Jack, 6 Contacts, 6 Ways, 95501 Series, Cat3	(See attachment C)	THT	Non critical component. Vendor and P/N can be determined by cost and local availability.
13	JP1	1			Shunt Connector, 2 position, 2.54 mm pitch		--	Non critical component.



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Chordata Extras BOM



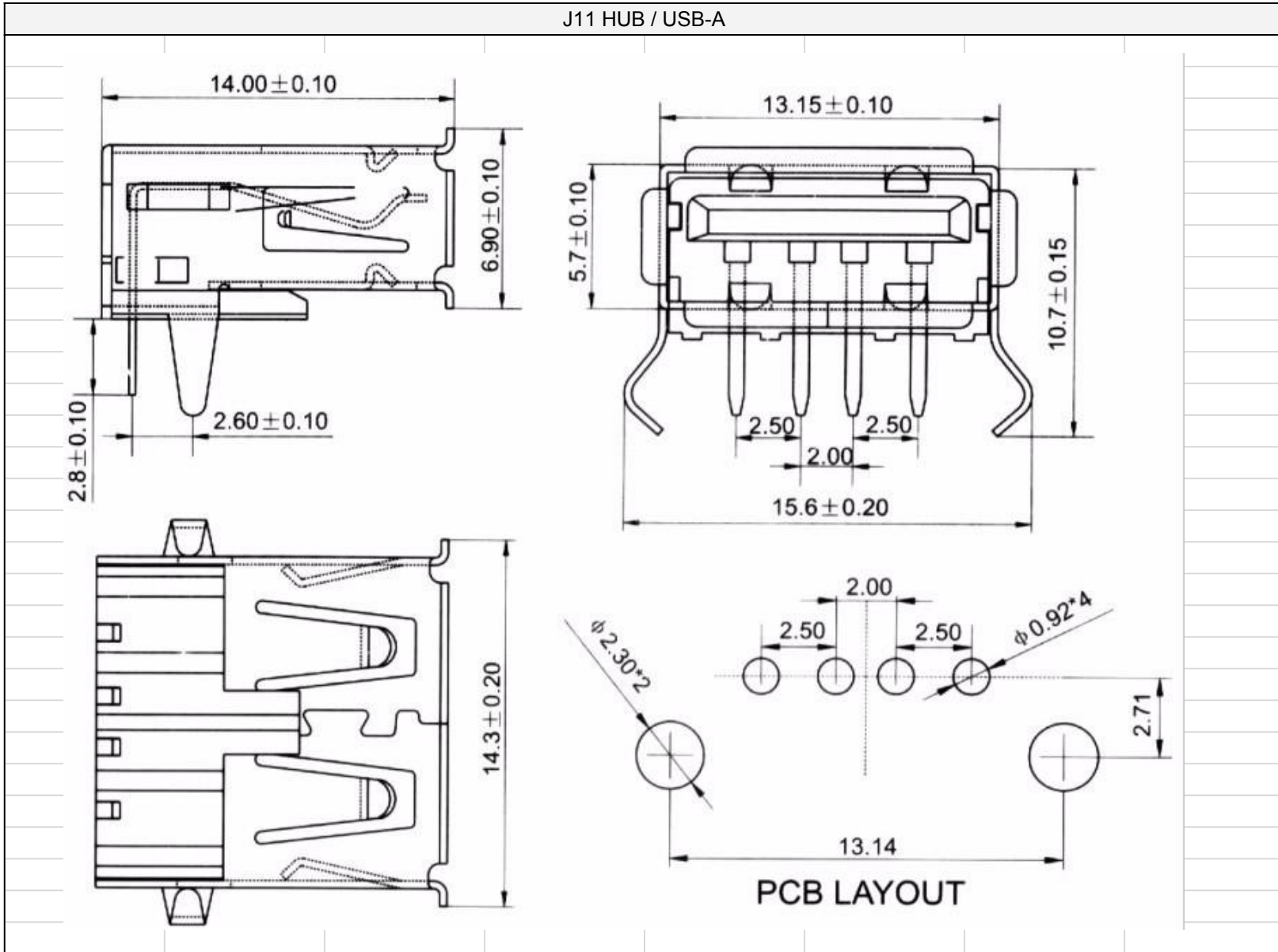
Item #	Ref Des	Qty	Manufacturer	Manufacturer Part #	Description / Value	Notes									
1	N/N	30	LUMBERG	P 128	Modular Connector, RJ12 Plug, 1 x 1 Port, 6P6C, Cable Mount	Non critical component. Vendor and P/N can be determined by cost and local availability. Indicated quantity is orientative. It can be used to make 15 cables.									
2	N/N	10m	--	--	Multi-Paired or parallel multi core Cables 24 or 26 AWG. Stranded cores	If using twisted cables: 3 twisted pair are needed to make Chordata compatible cables. It is normally cheaper and easier to buy 4 pairs Network cable and strip the jacket. It is important to get Stranded cores, since the solid ones are too rigid. Indicated quantity is orientative. It can be used to make 15 cables. Non critical component. Vendor and P/N can be determined by cost and local availability									
3	N/N	1	Raspberry pi	3B +	Single Board Computer	Non critical component. Vendor and P/N can be changed, but minimal refactoring of the code base should be made to adapt it to a different SBC.									
4	N/N	1	--	--	Micro SD card	Non critical component. Vendor and P/N can be determined by cost and local availability. Minimal capacity is 2Gb, recommended >=8Gb.									
5	N/N	1	--	--	Powebank. Output: DC 5V, >=2A Capacity: >= 10000 mA/h	Non critical component. Vendor and P/N can be determined by cost and local availability. A lower capacity might work but it is not tested.									
6	N/N	2	--	--	USB-A to micro USB-B cable	Non critical component. Vendor and P/N can be determined by cost and local availability.									
The following parts are alternatives to designate the value of the K-Ceptors on R9(RLT) and R10(RLB). See the table on the link to choose the amount and value of resistors to get [https://wiki.chordata.cc/wiki/ID_Module#Soldering_the_translation_value_resistors]															
						<table border="1"> <thead> <tr> <th>Package</th> <th>Type</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>1206</td> <td>SMD</td> <td>Optional and Non critical component. Vendor and P/N can be determined by cost and local availability</td> </tr> <tr> <td>1206</td> <td>SMD</td> <td>Optional and Non critical component. Vendor and P/N can be determined by cost and local availability</td> </tr> </tbody> </table>	Package	Type	Notes	1206	SMD	Optional and Non critical component. Vendor and P/N can be determined by cost and local availability	1206	SMD	Optional and Non critical component. Vendor and P/N can be determined by cost and local availability
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1	R10 (RLB)	--	--	--	Through Hole Resistor, (102 komh - 1Momh) 250 mW, ± 1%	Optional and Non critical component. Vendor and P/N can be determined by cost and local availability									
1	R9 (RLT)	--	--	--	Through Hole Resistor, (102 komh - 1Momh) 250 mW, ± 1%	Optional and Non critical component. Vendor and P/N can be determined by cost and local availability									



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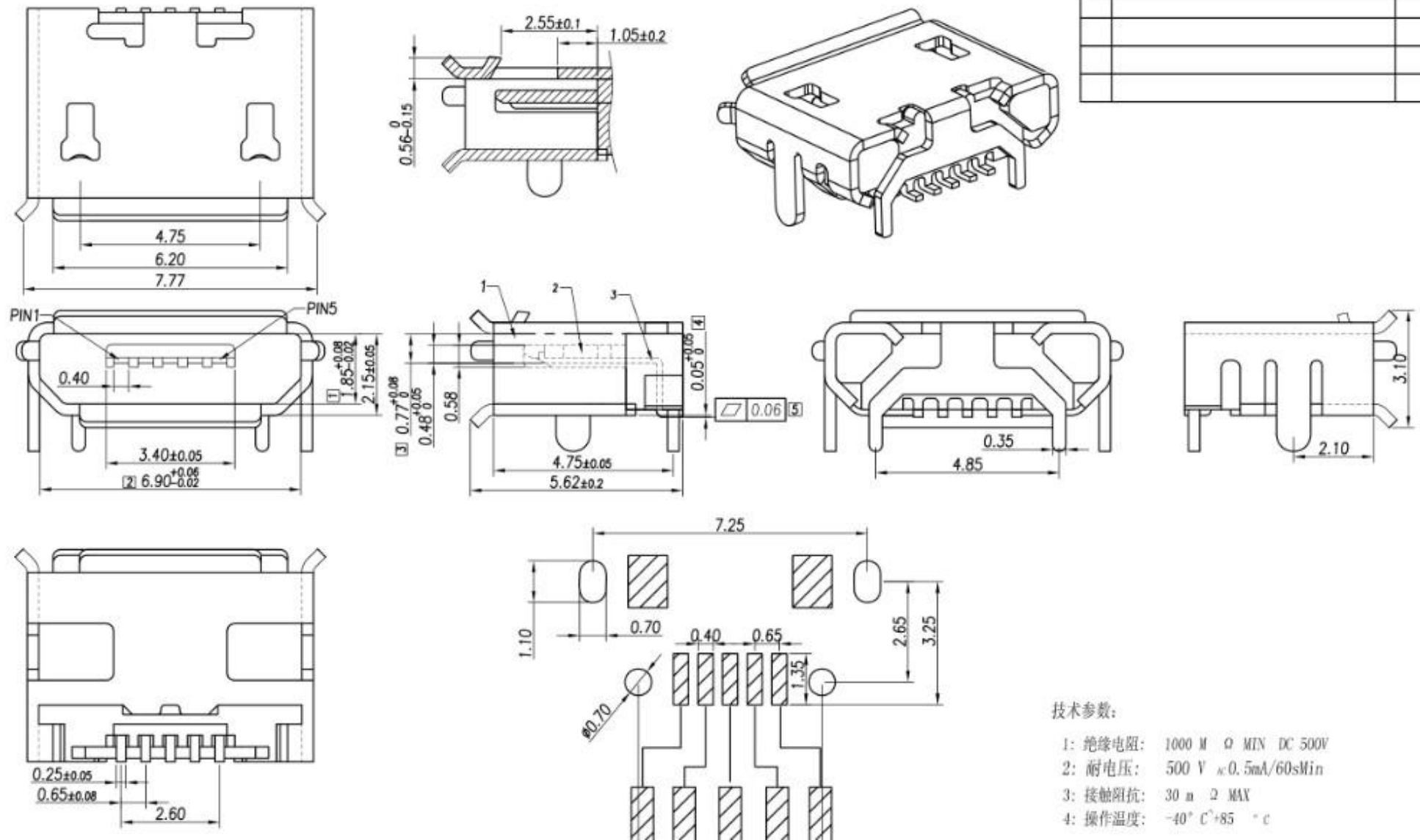
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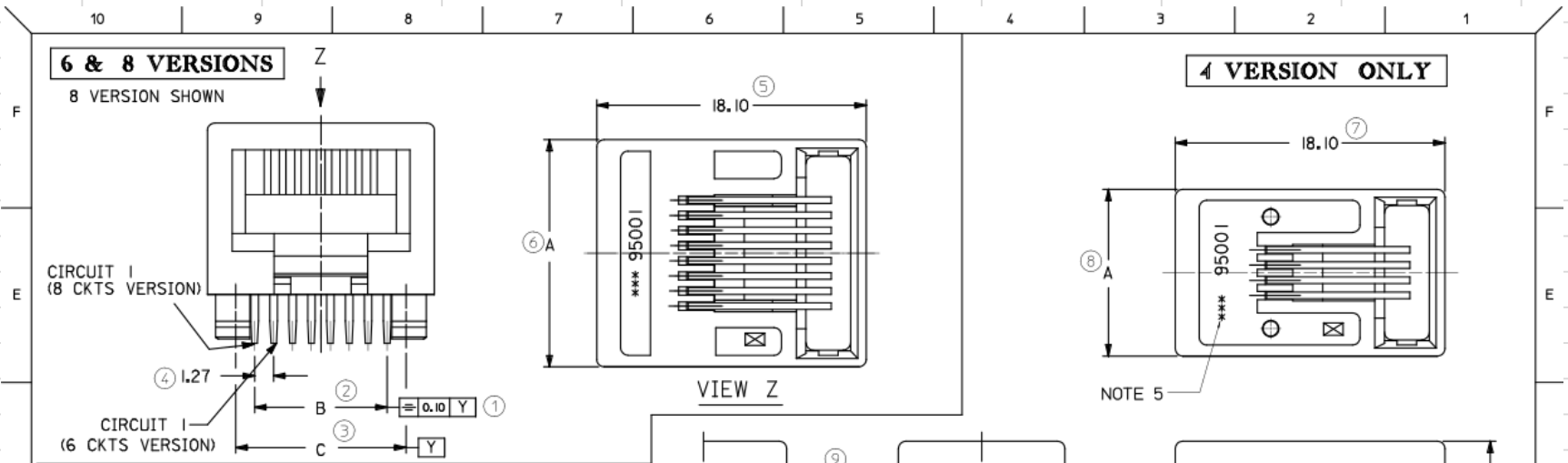


J12 HUB / micro UBS-B

序号	变更内容 (REVISIONS)	DATE	DESIGNER



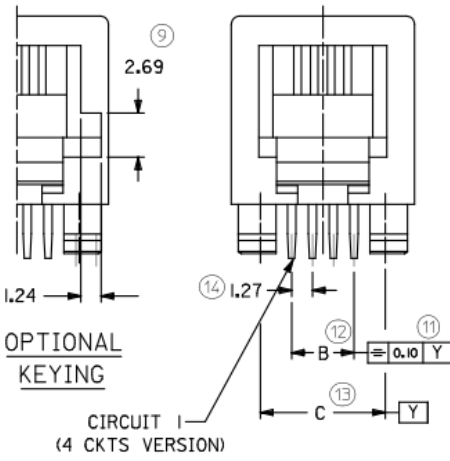
J1, J2 K-Ceptor / J1 -J6 Hub / RJ12



NOTES :

- 1- MATERIAL:**
 -HOUSING: LCP GLASS FILLED UL 94V-0, COLOUR BLACK.
 -TERMINAL: COPPER ALLOY
 - BASE FINISH: NICKEL
 - CONTACT SURFACE FINISH:
 GOLD
 OR
 GOLD FLASH OVER PALLADIUM NICKEL.
 EXCEEDS PRODUCT REQUIREMENTS BASED ON PS-95501
- 2- JACK FOR MATING WITH F.C.C. 68 PLUGS 90075 MOLEX SERIES.**
- 3- PRODUCT SPECIFICATION PS-95501.**
- 4- PACKAGING SPECIFICATION PK-95001; STANDARD PACKAGING SHEET 1. SPECIAL PACKAGING SHEET 2. TUBE PACKAGING SHEET 3.**
- 5- MANUFACTURING I.D. CAN BE EITHER MXF, MG OR MXI.**
- 6- RECOMMENDED PCB THICKNESS: 1.57mm
 INSPECTION NUMBERS USED: 1 - 50
 LAST INSPECTION NUMBER: 21**

OPTIONAL KEYING



DIM.	TYPE	POS. 4	POS. 6	POS. 8	
		4 CKTS.	4 CKTS.	6 CKTS.	8 CKTS.
A		11.18	13.21	13.21	15.24
C		7.62	10.16	10.16	11.43
B		3.81	3.81	6.35	8.89

MODIFIED NOTES. EC NO: IPG2012-0602 DRAWN BY: DBYRNES 2012/03/30 CHECKED BY: CHKDRSHAMHAN 2012/03/30 APPR: EFDLAN 2012/06/26	QUALITY SYMBOLS ▽ = 0 ▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.15 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± ---°	DIMENSION STYLE MM ONLY	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	DRAWN BY: DBYRNES 2006/08/02 CHECKED BY: EOMAHONY 2006/08/12 APPROVED BY: EOMAHONY 2006/08/12	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART, SHEETS 4 & 5	TITLE R/A LOW PROFILE PC JACK 4,6,8 CKTS SIZE THROUGH HOLE VERSION	MOLEX INCORPORATED	SHEET NO. 1 OF 5
	MATERIAL NO.	DOCUMENT NO. SD-95501-001		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
	SIZE: A3						

1b_frame_A3_P_ME_1
 Rev. D 2004/04/02