

EncoderCAT PCB					
Component no	Description	Item	manufacturer	quant	Farnell #
U1	Processor	ATxmega192A3U-AU	Atmel	1	206-6303
	27.5.2020 G3VPX has 25. Farnell have 20 Mouser UK have 1500. Note that the 'U' in ATxmega192A3U is for USB interface on a serial port - we don't use this as USB.				
U2	parallel / USB interface	FT245RL	FTDI	1	114-6034
U3	3v3 LDO regulator	TLV1117-33CDCYR	Texas	1	300-7751
U4	Filter	STF202-22	ON Semiconductor	1	165-1958
U5	RS232 transceiver 3V0-5v5 supply	ADM3202ARNZ (narrow !)	Analog devices	1	133-3250
U6	512kbyte flash	AT45DB041E-SSH-N-T	Adesto	1	290-9996
U7	PCA9600D dual bidirectional buffer	PCA9600D	NXP	1	2400485
L1	USB power choke	ACM2520-102-2P	TDK	1	166-9299
J1, J2	10way header 2.54mm		Molex	2	275-1319
J3	8way header 2.54mm		Molex	1	973-1180
J4	JTAG connector 2x5 IDC boxed	2x5 IDC boxed	3M 30310-6002HB	1	211-2432
J5	Micro USB-B socket	FCI- 10103594 -0001LF	Amphenol FCI	1	229-3752
J6, J10	1x4way header 2.54mm	Molex 22-27-2041	Molex	2	973-1164
J7	D Sub 9pin Rt angled PCB connector	8LCM009P-30 1B-XX	Multicomp	1	984-6298
J8, J12	1x3 way header for jumper 2.54mm	Molex 90120-0763	Molex	2	973-3310
J9	1x2way header 2.54mm	Molex 22-11-2022	Molex	1	275-1315
J11	mono 3.5mm jack socket	Schurter 4832.222	Schurter	1	152.206
X1	crystal 16MHz	ABM8G-16.00 0MHZ-18-D2 Y-T	Abracon	1	246-7841
LED1	power indicator LED smd 2mA red	LED 0805 2mA red		1	852-9930
Q1	P enhancement Mosfet	FDN304P		1	235-2451
R1, R2, R22		resistor 0808 1k0		3	
R3, R4		resistor 0805 15k		2	
R6, R7, R8, R9, R10, R11, R12, R13		resistor 0805 330R		8	
R5, R14, R15, R16, R17, R18, R18, R20, R21		resistor 0805 22k		9	
R23, R24		resistor 0805 2k2		2	
R25, R26		resistor 0805 4k7		2	
C16, C20, C21, C22, C23, C24, C25, C26		capacitor 6.3v 10nF 0805		8	186-5556
C12, C13, C14, C15	capacitor 100nF 16v min 0805	capacitor 100nF 16v 0805		4	183-3888
C11, C12		capacitor ceramic 18pF 0805		2	
C1, C2, C4, C6, C7, C8, C9, C17, C19, C27, C28, C30, C31, C32	capacitor 1uF 0805 6.3v min	capacitor ceramic 1uF 16v		14	922-7792
C3, C5	capacitor 10uF 6v3 0805	capacitor 10uF 6v3 0805	15v - cheaper >	2	186-7958
C18, C29		capacitor ceramic 22uF 10v 1206		2	209-4045
<b>JTAG programmer items</b>	cables & connectors - alternatives				
JTAG 1	JTAG programmer	Atmel ICE-PCBA	Microchip	1	240-7171
IDC connector to ATAMET-ICE JTAG	2x5way 1.27mm IDC wire to board	M50-3300542	Harwin	1	228-9784
IDC connector to enCAT JTAG	2x5way 2.54mm IDC wire to board	0918 510 6813	Harting	1	110-6726
Ribbon cable	1.27mm pitch 10 way for IDC	3365-10	3M	1m	297-288
Ribbon cable (10cm with PCB)	0.635mm pitch 10 way for IDC	3756-10	3M		
	The 0.635 pitch ribbon cable is difficult buy in small quantities. G3VPX will supply with the PCB if required.				
	1.27mm connector - not stocked by Farnell.				
	RS Components: 909-4391 Harwin #M50-3300542. £7.50 for 5. stock 100. ? Buy and share with group if problem.				