



Fox Delta

Amateur Radio Projects & Kits

FD- ST2-USB

ST2-USB- 0426 KIT: PIC16F876A LCD Computer Interface for Yaesu Controller

ST2-0426 Kit Parts List:

Quantity	Part ID	Details
1	U1*	CH340G SO16*
1	U2	PIC16F876A DIP28 / SO28 on adapter
1	U3	ULN2803A DIP18
1	U4	7805 5V Regulator
7	D1, 2, 3, 4, 5, 6, 7,	1N4148
4/1	TR1	2pin Screw terminals X 4 or 8pin R/A
1	P1	10K Preset
1	X1	12MHZ HC49U Crystal
1	X2	4MHZ HC49U Crystal
6	FBX	RFC / Ferrite Beads in 1206
1	LCD	2x16 with backlight
4	LED	3MM LED
1	J1	USB Socket R/A PCB
2	TR2	SIL10 Male + Ribbon
4	TR3	SIL16 Male 16 x Ribbon
1	Case	Powder Coated Metal case
1	Set	Hardware Keyboard
1	Set	Hardware for Case
1	Set	Hardware + LCD 2x16
4	KB Push Buttons	KB buttons 12MM
1+1	PCB	ST2-0426 & FP DSPTH PCB & KB PCB
1	IC Socket	18PIN DIP
1	IC Socket	28PIN DIP / SO28 Adapter
1	Headers	3pin with shorting pin: Power Selection
0#	Z1, Z2	Zener 4.7v (Option)

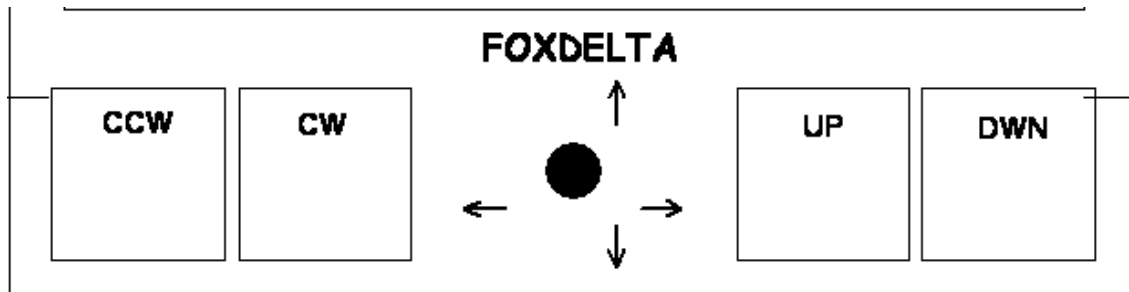
Not included in kit or assembled (User to add if required)

Quantity	Part ID	Details
6	R1, 2, 3, 4, 11, 12	1K
3	R5, 14, 15	22 ohms
4	R6, 7, 8, 9,	100K
2	R13, 10	4.7K
2	C8, 9	0.01uF Poly
8	C3, 14, 15, 17, 16,10, CX, 7	0.1uF Poly
6	C1, 2, 4, 13,	1uF Tantalum / 10uf Electro
2	18, 19	22pf Ceramic
2	C5, 6	27/33pf Ceramic
2	C11, 12	15pf Ceramic

Notes:

1. U1 is SMT part and is supplied pre-soldered for kits
2. P1 is LCD Contrast Preset.
3. U2 is supplied pre-programmed
4. TR1 is for connections to your Yaesu Rotor Controller. User is required to make a suitable cable.
5. 3PIN Header is Power selection for selecting board power from USB (5V) or Rotor (12V)

Silk View of LCD / Key Board:



AZ: CCW = LEFT, CW = RIGHT
EL: UP = UP, DOWN = DN

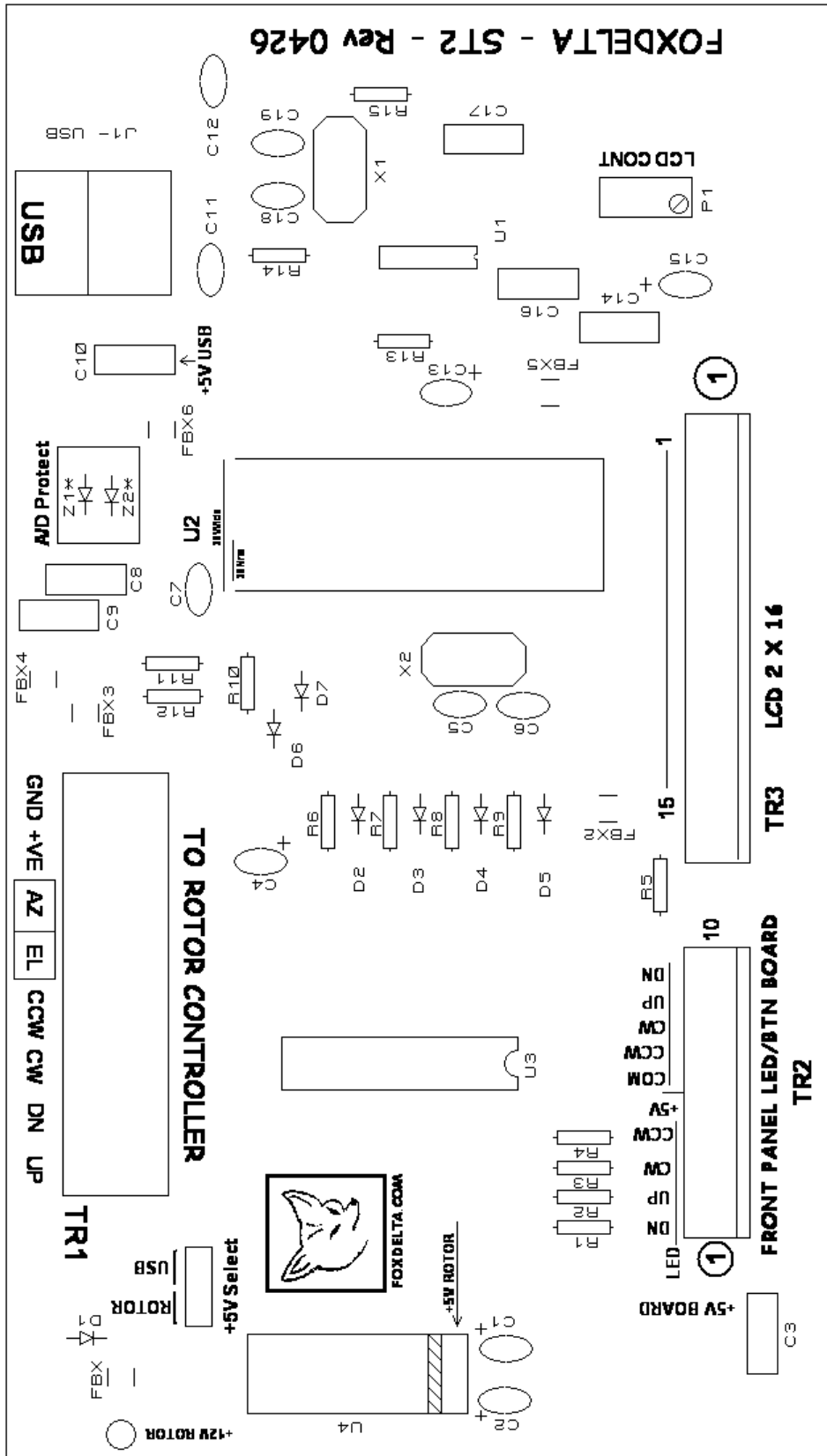
ST2 to Yaesu Controller Connections:



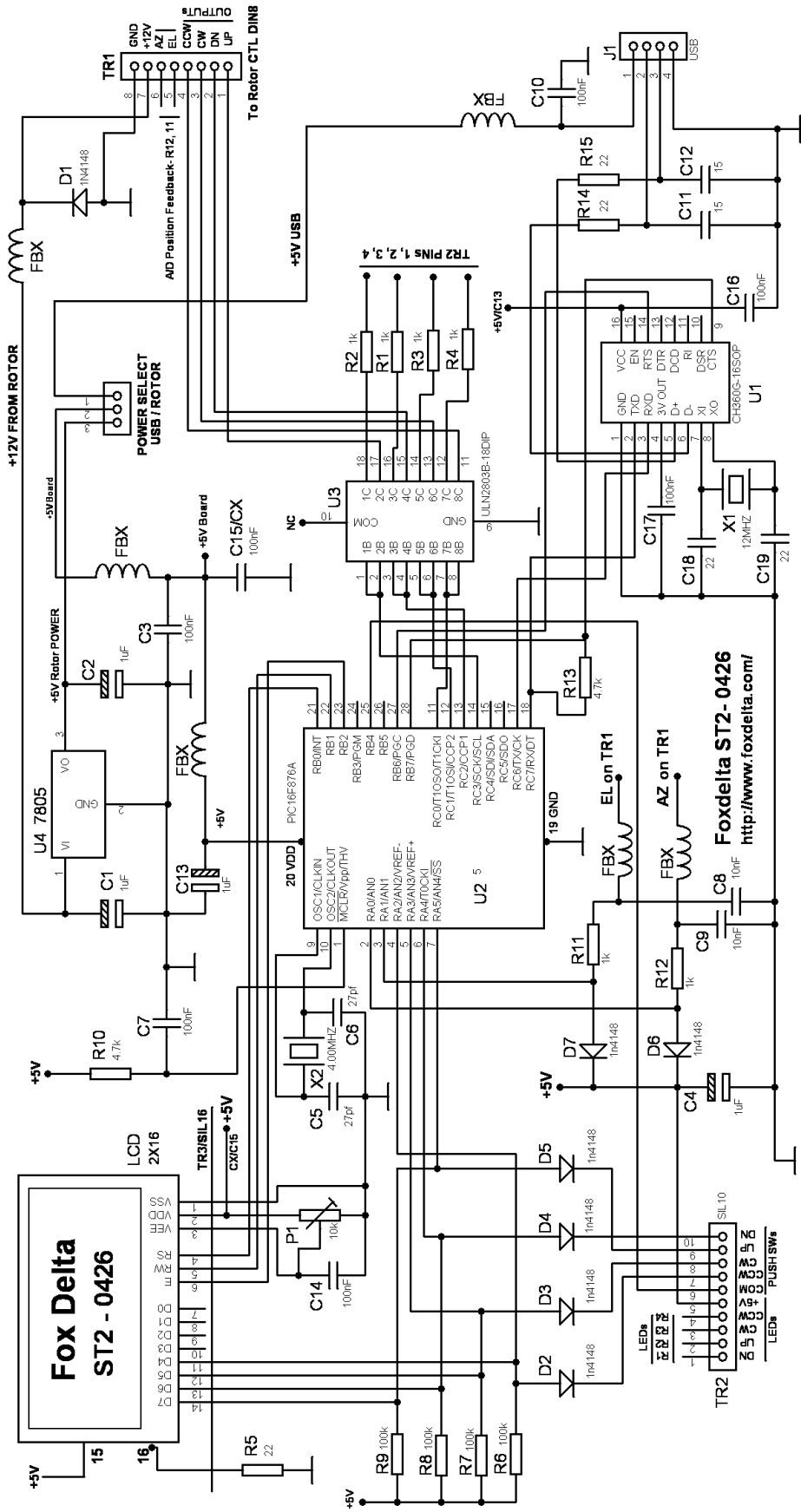
Terminal Name Purpose

GND	Ground	
+VE	12V from Rotor Controller	
AZ	INPUT: Azimuth A/D from Rotor	(0 – 5V Max)
EL	INPUT: Elevation A/D from Rotor	(0 – 5V Max)
L	OUTPUT: LEFT (AZ) (CCW)	
R	OUTPUT: Right (AZ) (CW)	
DN	OUTPUT: DOWN (EL)	
UP	OUTPUT: UP (EL)	

ST2-0426 Main PCB SILK:

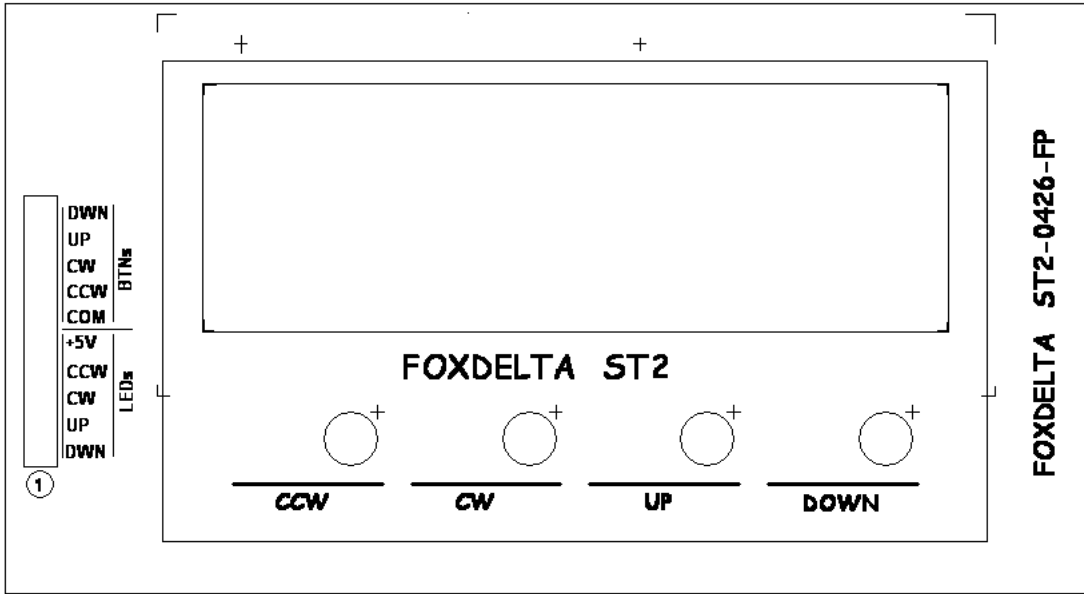


ST2- 0426 Schematic:

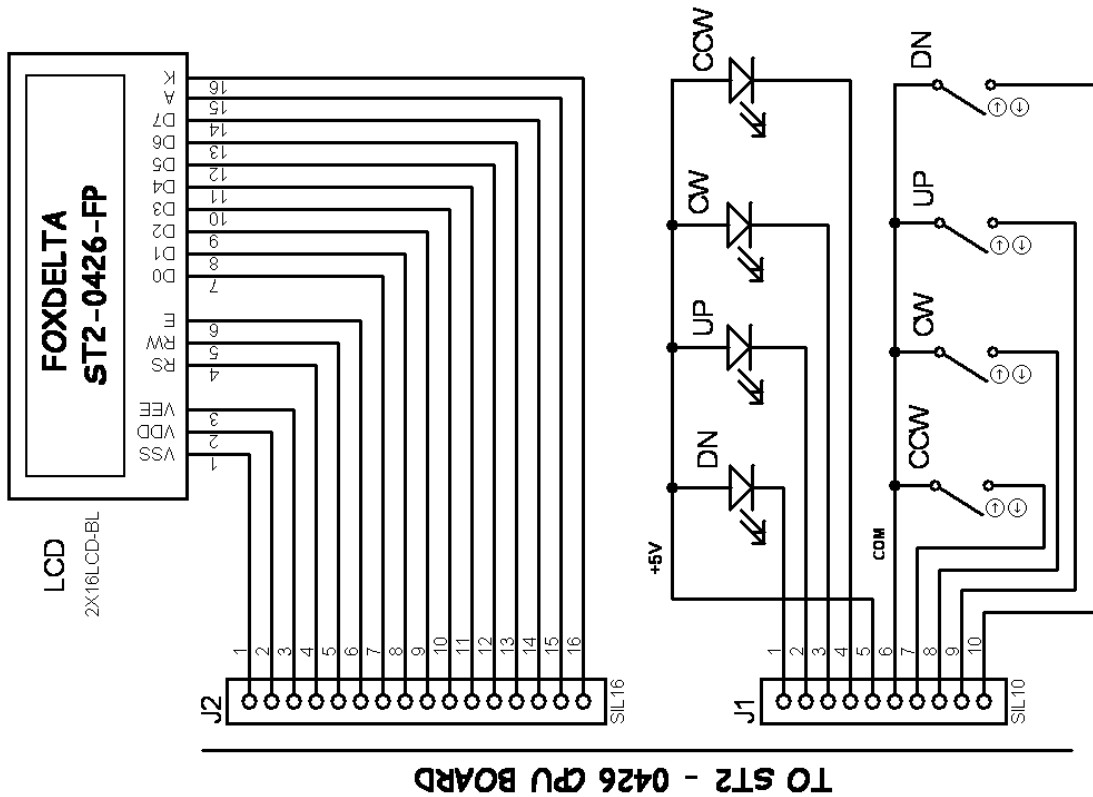


Foxdelta ST2-0426
<http://www.foxdelta.com/>

Front Panel PCB:



Front Panel Schematic:



73s / Dinesh Gajjar / 26th June 2026

For more details, please visit Project Page: <http://www.foxdelta.com>