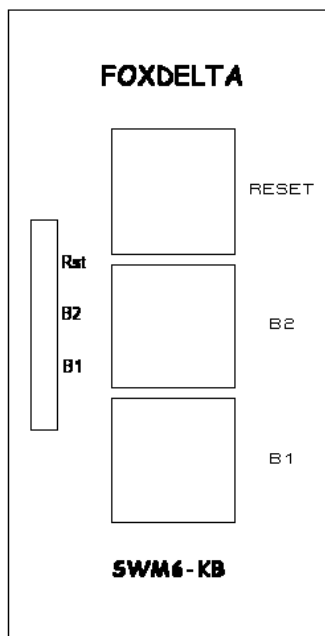# Fox Delta

Amateur Radio Projects & Kits

FD- SWM6

SWM6 KIT PARTS LIST: PIC18F4550 Dual Channel HF/VHF SWR Meter with USB
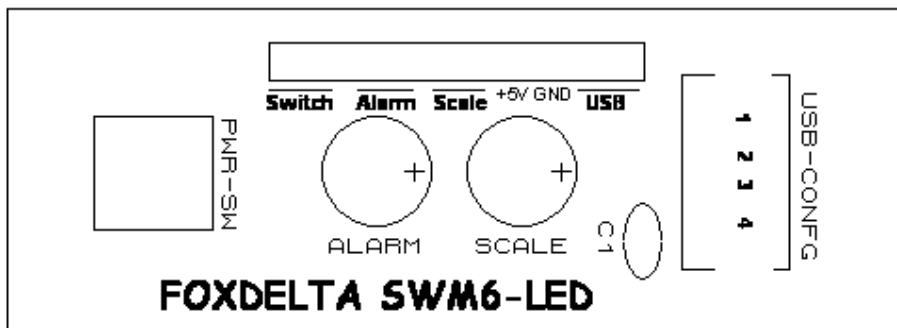
Keyboard:

Keyboard has three keys:

1. **CPU Reset**

2. **B2: Main Menu/Mode button**

3. **B1: Backlight control**

Reset button is provided to reset CPU in case where RF enters into SWM6 and hangs CPU. (Possibility in high power stations where RF shielding is poor)
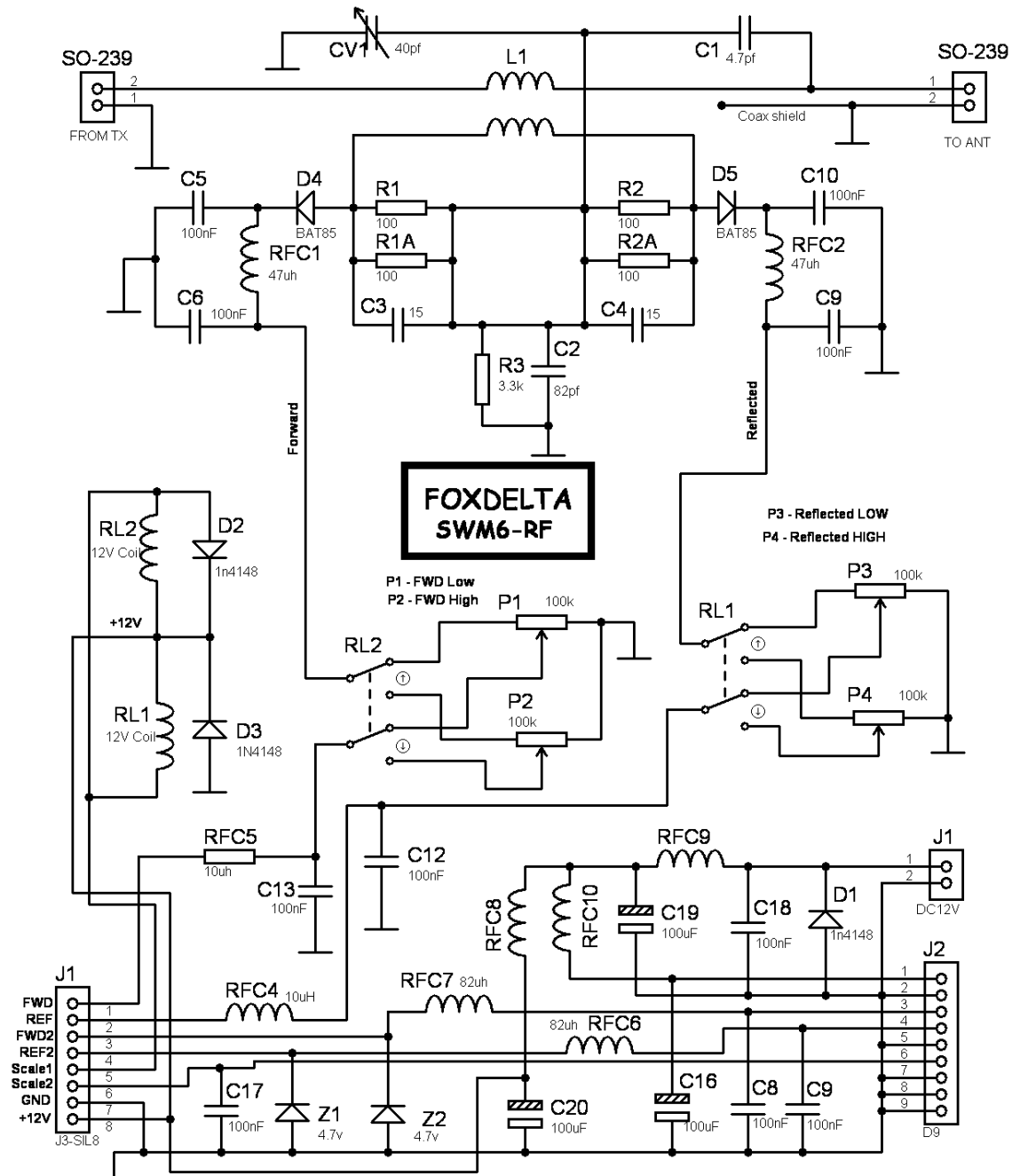
USB/LED Board:

This board has a power ON/OFF switch, USB connector and two Dual LEDs for Scaling indication and "Alarm"

SWM6 RF BOARD SILK:

SWM6-RF
FOXDELTA

Project & Design:
Frank / K7SFN
Tony / I2TZK
Dinesh / VU2FD
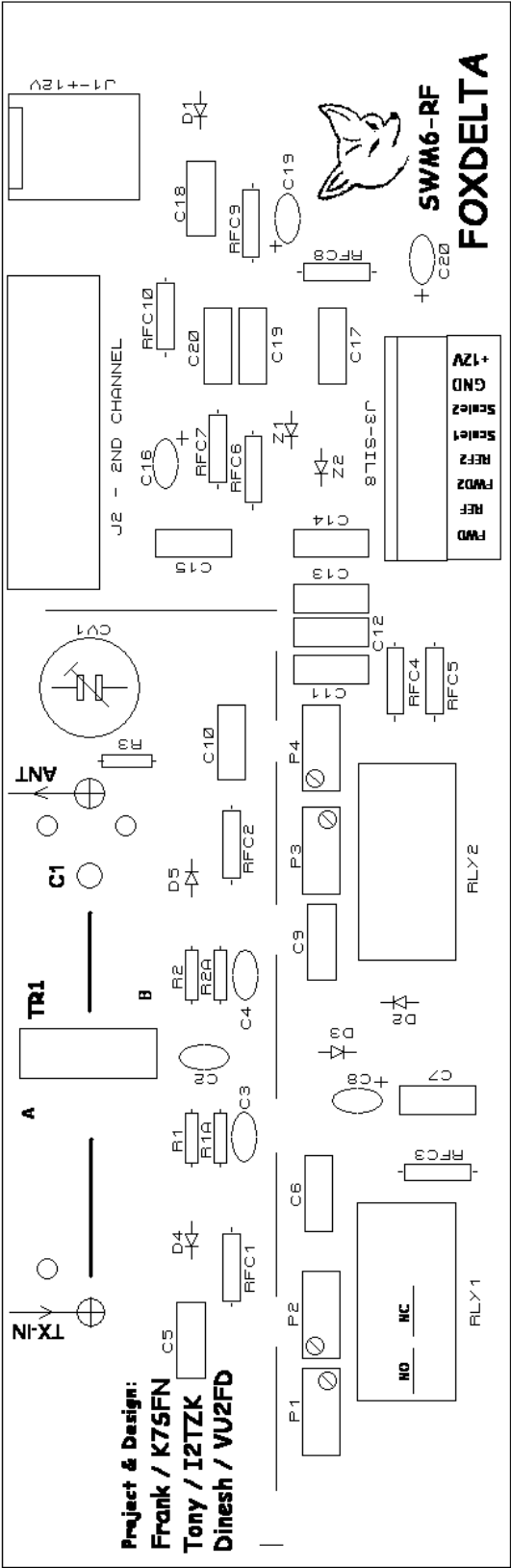
RF BOARD SCHEMATIC:

Fox Delta FD-HFB6 Dual Scale Internal HF BRIDGE 3 - 30MHZ

SWM6 CPU Silk:

FOXDELTA SWM6

LED BOARD

FOXDELTA SWM6

4x20 LCD

KEY BOARD

LCD CONTRAST

Project & Design by:
Tony / I2TZK
Dinesh / VU2FD
Frank / K7SFN

CPU Schematic:

FOXDELTA SWM6 HF DUAL CHANNEL 100W/1KW SWR METER
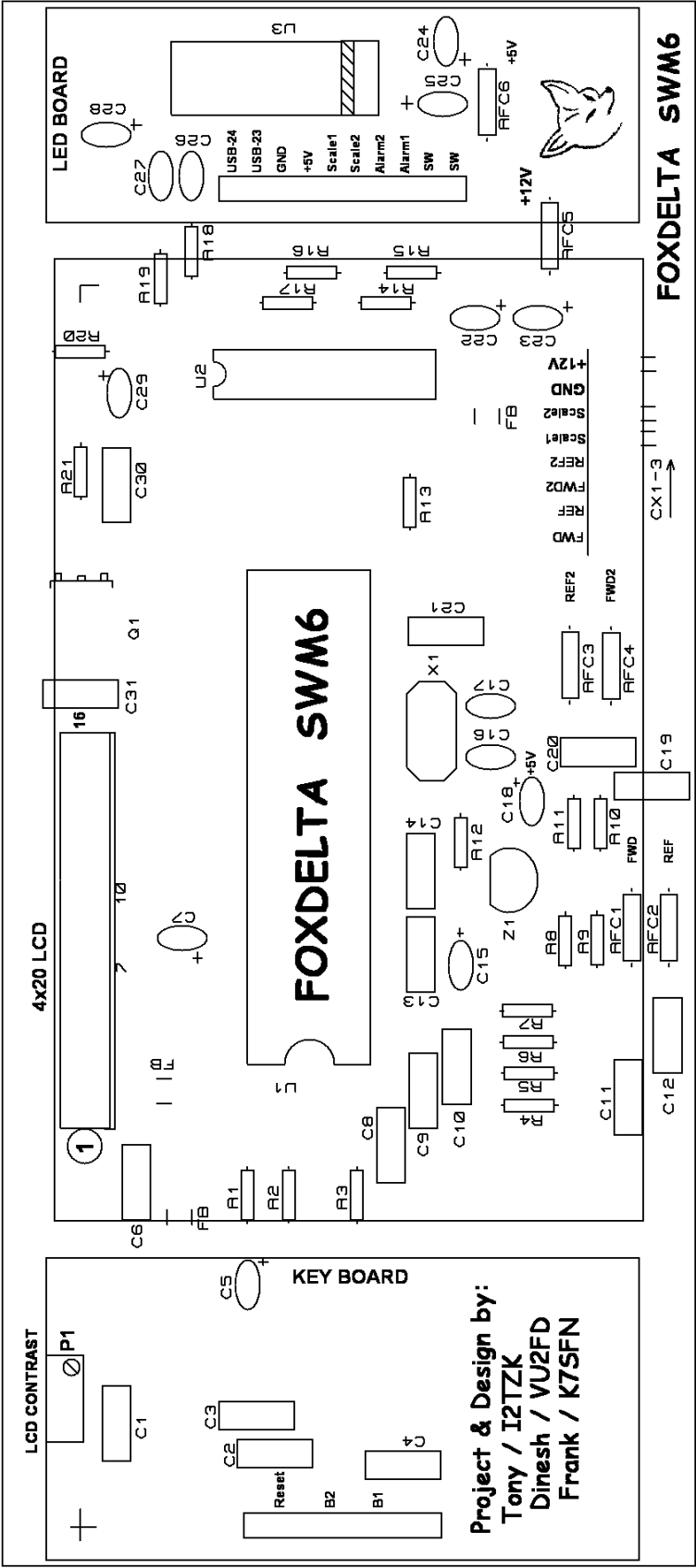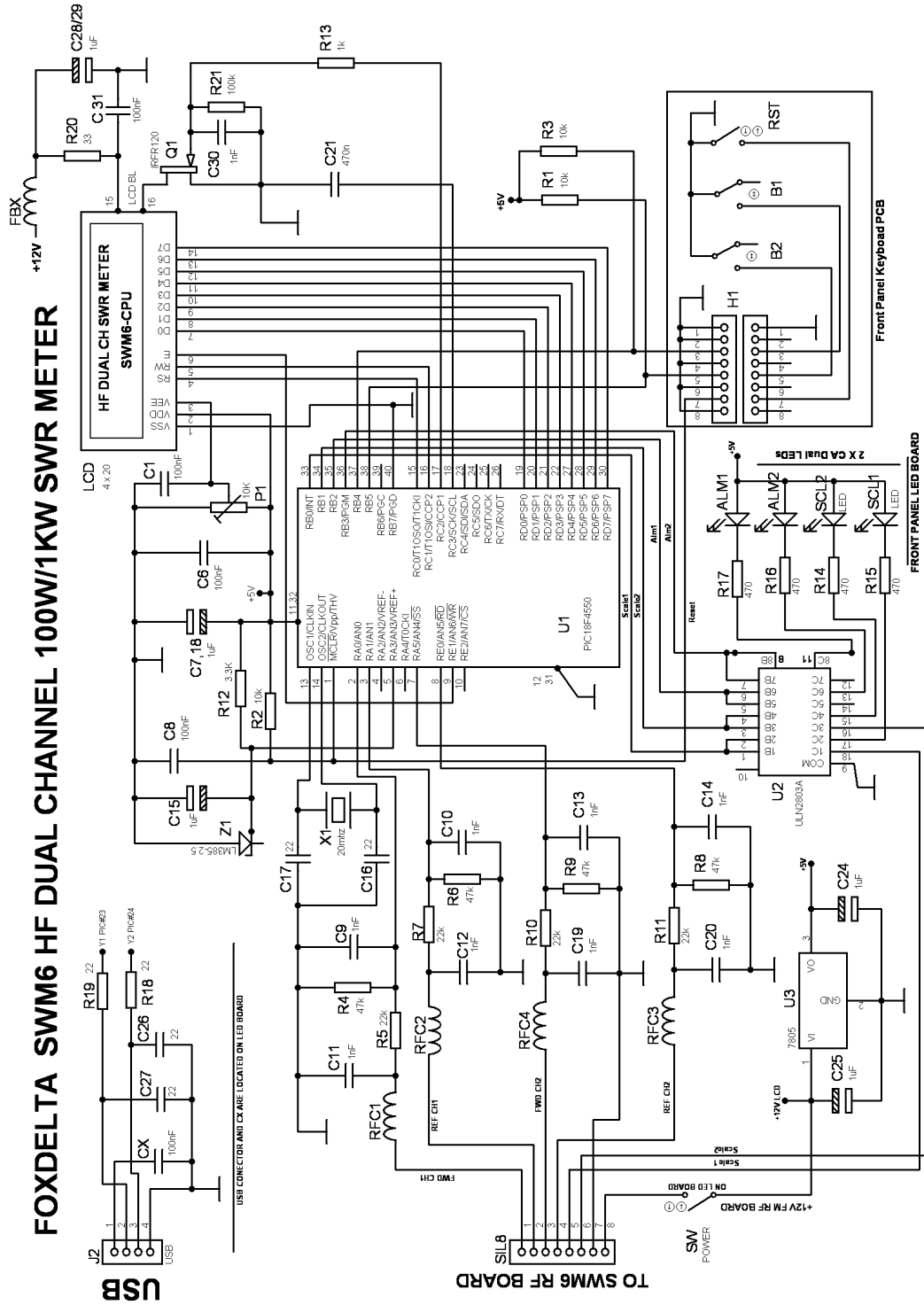
Project & Design by: Dinesh Gajjar / VU2FD, Antonio Alfinito (Tony) / I2TZK, Frank Dziurda / K7SFN

SWM6 CPU KIT Parts List:

Qtty	Part ID	Part Details
1	U1	PIC18F4550 DIP40: FW-V301, SW-103
1	U2	ULN2803A DIP18
1	Q1	IRFD120 (SMT)
1	Z1	LM385-2.5V TO92
1	PCB	SWM6 DSPTH PCB
1	SIL8	SIL8 Male PCB Connector+ Ribbon Cable
1	USB	USB PCB Connector Vertical
2	LED	Dual LED Common Anode (LED)
3	SW1, 2, 3	12MM Push Buttons (KB)
1	SWM6-KB-PCB	Double Sided PTH PCB "KB"
1	SWM6-PCB	Double Sided PTH PCB SWM6
1	SWM6-LED-PCB	Double sided PTH PCB "LED"
1	Pair	16PIN SIL M/F For 4x20 LCD
1	Pair	8PIN SIL M/F For Keyboard
1	Pair	10PIN SIL M/F for LED Board
1	LCD	2x16 LCD with Backlight
1	P1	10K Preset: LCD CONTRAST
1	X1	20MHZ Crystal in HC49U
1	U3	7805
1	18DIP	IC Socket
1	40DIP	IC Socket
3	FB	1210 Ferrite Bead
6	RFC1, 2, 3, 4,	RFC 82uH
2	RFC5, 6	RFC 0.47uH
1	Set	Nuts / Bolts for LCD and KB Mounting
1	Case	Free Alum Metal Case
1	SW	Power ON/OFF Switch (LED BOARD)
3	FB	1206 Ferrit Beads
	All Resistors ¼ W 5%	
4	47K	R4. 6. 8. 9
6	1K	R13
4	22K	R5, 7, 10, 11,
6	10K	R1. 2, 3,
1	3.3K	R12
1	33 ohms	R20
2	100k	R21
4	470 Ohms	R14, 15, 16, 17
2	22 ohms	R18, 19
	Capacitors	
10	1uf Tantalum/35V	C5, 7, 15, 18, 22, 23, 24, 25, 28, 29
4	22pf	C16, 17, 26, 27
1	0.47uf Ploy	C21
8	0.1uf Poly	C1, 2, 3, 4, 8, 6, 30, 31
8	0.001uF Poly	C9, 10, 11, 12, 13, 14, 19, 20

Above includes parts for Keyboard

RF BOARD PARTS LIST:

Qtty	Part ID	Part Details
1	J3	SIL8 Connector + Ribbon Cable
1	J2	D9 Male PCB
1	J1	DC12V PCB CONNECTOR
2	SO239	RF CONNECTORS
1	TR1	Fair-rite 59 4300 1101
1	TR1: Copper Wire	#26 35CM Long
1	L1: RG316	8CM LONG
1	C1	4.7pf 1kv
1	CV	40pf Air Variable
2	D4, D5	BAT 85 Diodes
2	RFC1, 2	82uH Inductors
2	RLY1,2	OEN42 12V 2CO Relays
4	P1, 2, 3, 4	20K Pesets 10T
2	Z1, 2	4.7V Zener Diodes
3	D1, 2, 3	1N4148 Diodes
8	RFC3, 4, 5, 6, 7, 8, 9, 10	RFCs 0.47uH
1	SWM6-RF	PCB
1	Copper Shield	10cm x 2.5cm
1	Set	Mounting Hardware PCB + SO239
	All Resistors ¼ W 5%	
4	R1,1A, 2, 2A	100 ohms 1 %
1	R3	3.3K
	Capacitors	
14	C5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20,	0.1uf Poly
4	C8, 18, 19, 20	1uF Tant of 100uF Electro
2	C3, 4	15pf Ceramic
1	C2	82pf Ceramic

73s
Dinesh Gajjar / VU2FD
02nd June 2025

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