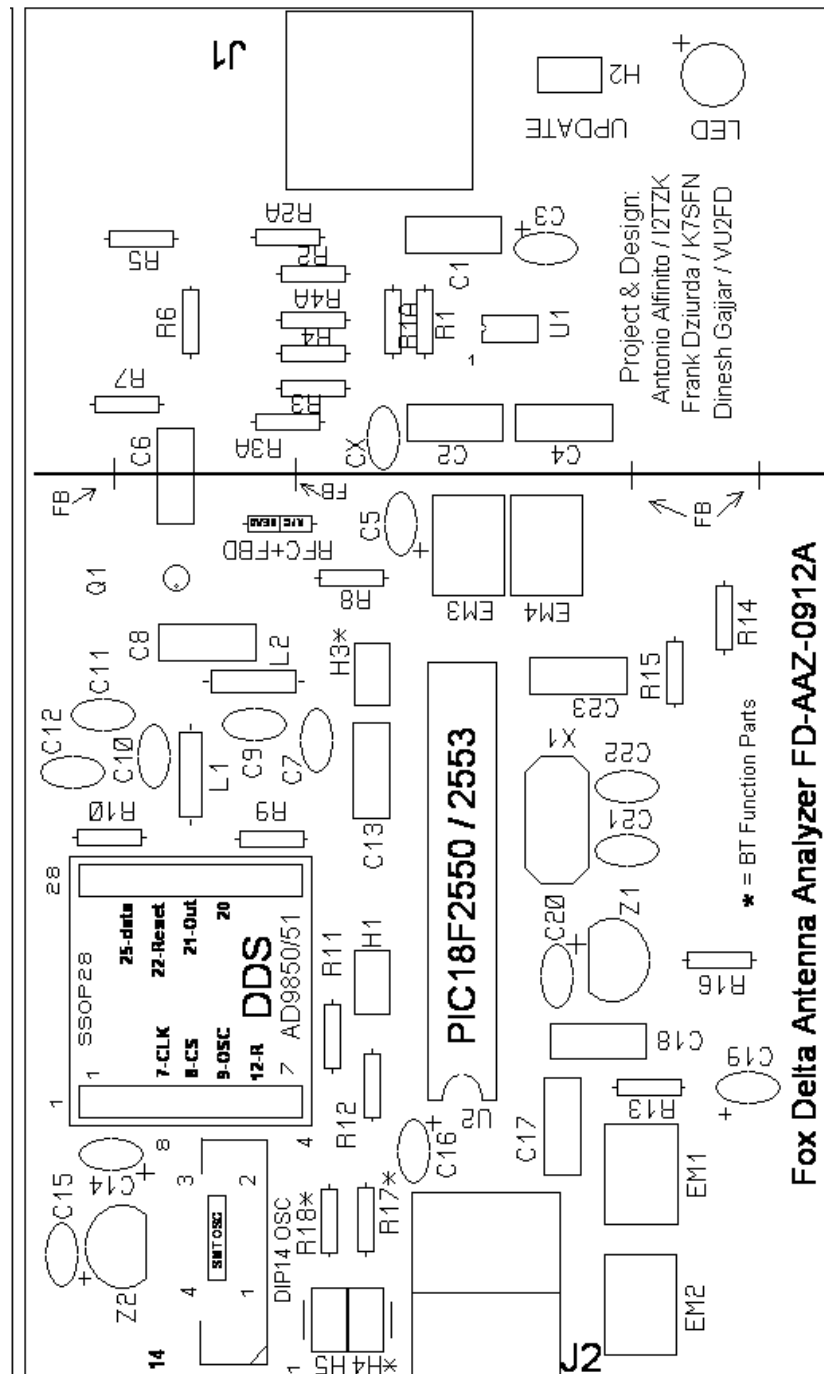
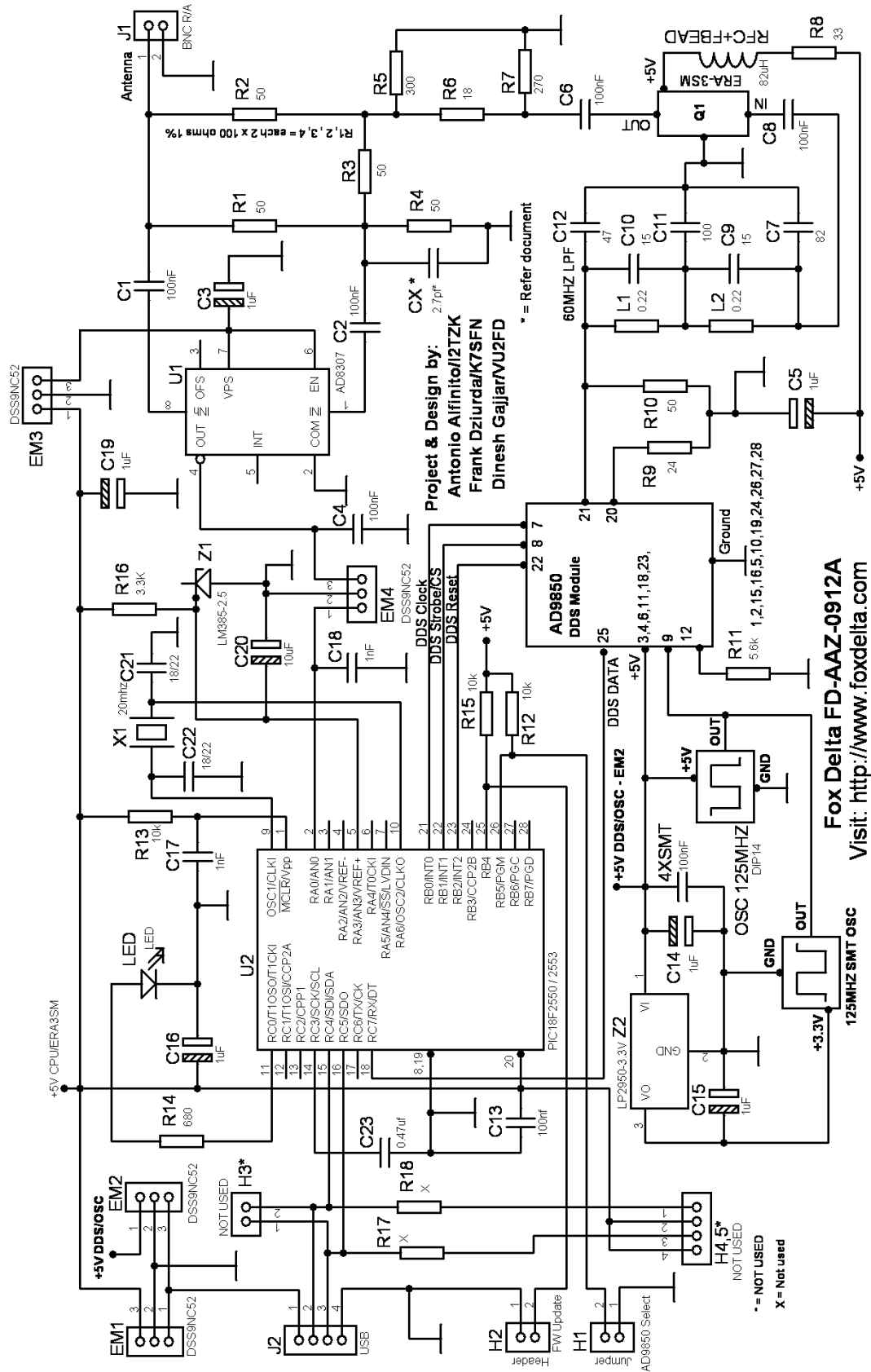




FD- AAZ-0912A



## AAZ-0912A Schematic:



## AAZ – 0912A KIT Parts List:

Quantity	Part ID	Part Details
1	U2	PIC18F2550 Pre-Programmed V5.00
1	AD9850 Adapter	AD9850 & SMT Caps are Pre-soldered
1	U1	AD8307 SO8 Pre-Soldered on Board
1	OSC	125MHZ SMT OSC 3.3V
1	X1	20MHZ Crystal HC49
1	LED	3mm LED
1	Q1	ERA3SM
1	IC Socket	28PIN DIP
1	PCB	FD-AAZ-0912 DSPTH PCB
1	Z1	LM-385-2.5V
1	Z2	LP2950-3.3V (only when SMT Osc is used)
4	EM1, 2, 3, 4,	DSS9NC
2	L1, 2	HF LPF Inductors / RFCs
1+1	RFC + Bead	82uH RFC+ 1 Ferrite Bead
1	J2	USB Socket, R/A, PCB Type
4	FB	4 X Ferrite Beads (Board Isolator)
1	J1	BNC R/A PCB
1	H2	2PIN Header (for FW Update)
NA	H1	Jumper (Short for AD9850)
X	H3, 4, 5	NOT USED
All Resistors 1/4 W 5%		
1	R5	300 Ohms
1	R6	18 Ohms
1	R7	270 Ohms
8	R1/A, R2/A, R3/A, R4/A	100 Ohms
1	R8	33 Ohms
1	R9	24 Ohms
1	R10	50 Ohms
3	R12, 13, 15	10K
1	R11	5.6K
1	R14	680 Ohms
X	R17, R18	(Not part of this kit)
1	R16	3.3K
Capacitors		
2	C23	0.47uf Poly
2	C17, 18	.001uf Poly
6	C1, 2, 4, 6, 8, 13,	.1uf Poly
6	C3, 5, 14, 15, 16, 19	1uf Tantalum
2	C21, 22	18/22pf Ceramic
2	C20	10uF Tantalum
1	C7,	82pf Ceramic
2	C10, 9	15pf Ceramic
1	C12	47pf Ceramic
1	C11	100pf Ceramic

H1= Short for AD9850. Open for AD9851

## **Assembly Note: HF PIC18F4550/4553 USB Antenna Analyzer**

Inspect PCB visually for any track shorts or broken traces.

Install all Resistors, IC socket and capacitors first.

Apply power (USB) and measure +5V at:

PIN 1 of USB socket

+Ve lead of C16, C19, C5 and C3

PIN 2 of DDS Module (or C14)

Check 3.3V at OSC PIN marked "14"

Short header H1 for AD9850

If all +5V are good, remove USB cable and Install PIC18F2550

Connect a frequency counter at J1 and see if 10MHZ is present without software running on PC. LED lights

Connecting to USB, if LED do not come up, refer to notes #1, 2 and 3 below. With some PC and OS, LED will come up after system boots up or software started.

Install and run PC Software and see if LED starts blinking.

### **Ensure:**

R17, R18, H3, H4 and H5 are not populated by any components. These parts are neither supplied in kits nor used in design

### **Warning:**

Antenna Static may damage AD8307. Ensure that you have discharged antenna before connecting AAZ.

73s

Dinesh Gajjar

1<sup>st</sup> November 2013

---

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