Schematic & Parts List: PIC 16F84A DTMF Repeater/Remote Controller
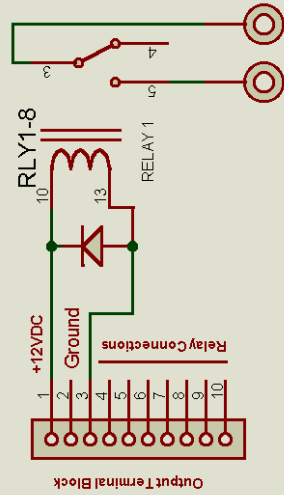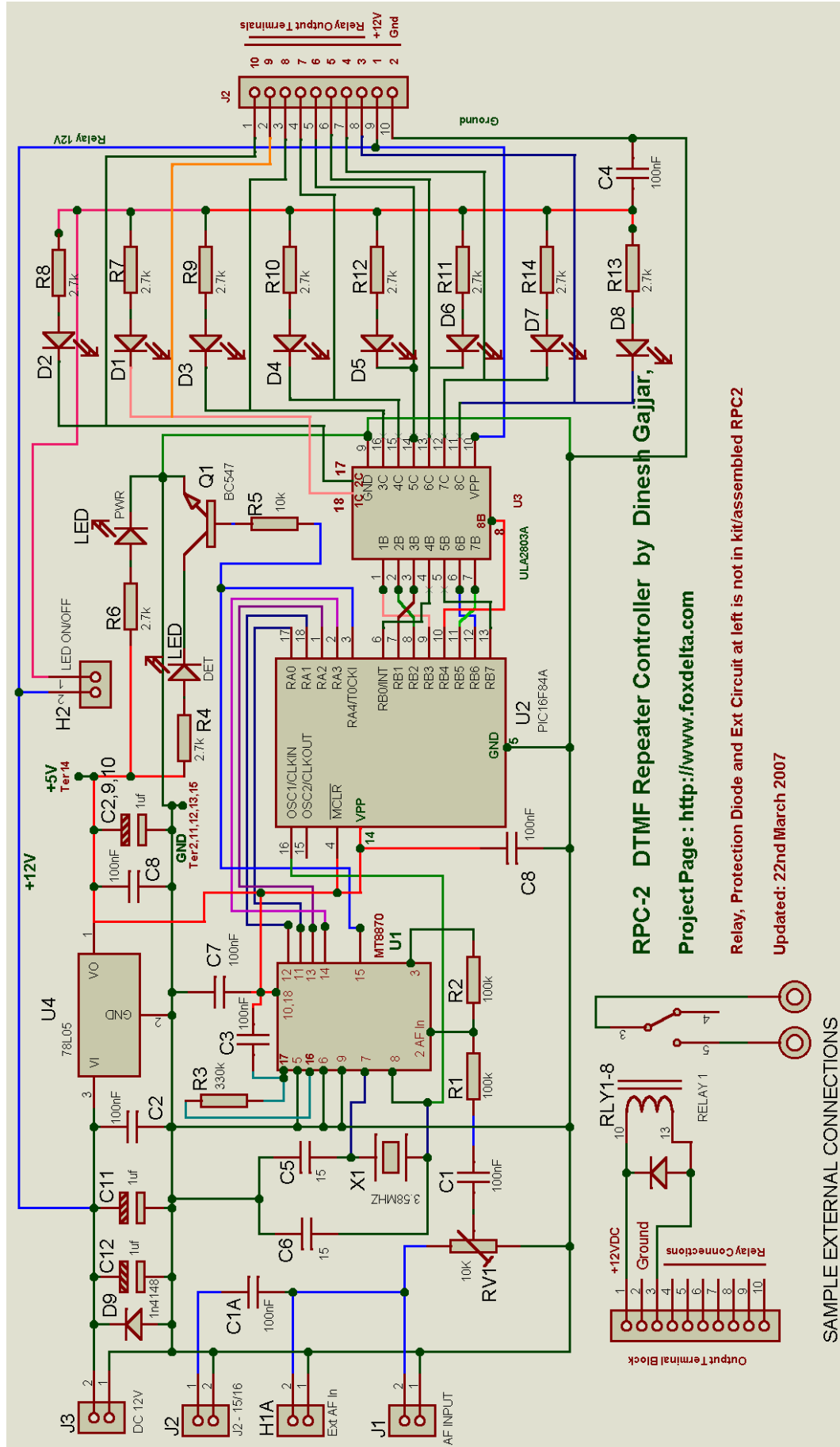
RPC2A: PIC 16F84A DTMF Repeater Controller Parts List:

U2	PIC 16F84A with Firmware: foxrc.hex PW=1234
U1	MT8870 (DTMF Receiver DIP)
U3	ULA 2803A (8 X OC Relay Driver)
U4	78L05 in TO-92
D1-D8, Det, Pwr	LED 3MM, Red/Green
D9	1N4148
Q1	BC547 NPN GP TO92
R1, 2	100k
R3	330k
R4, 6	2.7k
R5	10k
R7 - 14	2.7k
RV1	10K Preset Bourns
X1	3.58MHZ Crystal
C2, 9, 10, 11, 12	1uf 35V Tantalum/Electro
C3, 4, 7, 8	0.1uf
C5, 6	15pf (may not be necessary)
C1 (C1A)	0.1uf Poly
Terminals	5x2 block –1, 2x2 block - 2
PCB	RPC2A Double Sided PTH 10CM X 6CM
J3	12VDC Input
J1	Standard Stereo Jack
H1	.1inch 12pin Output Header Female (Option)
H2	LED ON/OFF Header
IC Sockets	18DIP X 3

Schematic of the DTMF Controller:

RPC-2 DTMF Repeater Controller by Dinesh Gajjar,

Project Page : http://www.foxdelta.com

Relay, Protection Diode and Ext Circuit at left is not in kit/assembled RPC2

Updated: 22nd March 2007

SAMPLE EXTERNAL CONNECTIONS
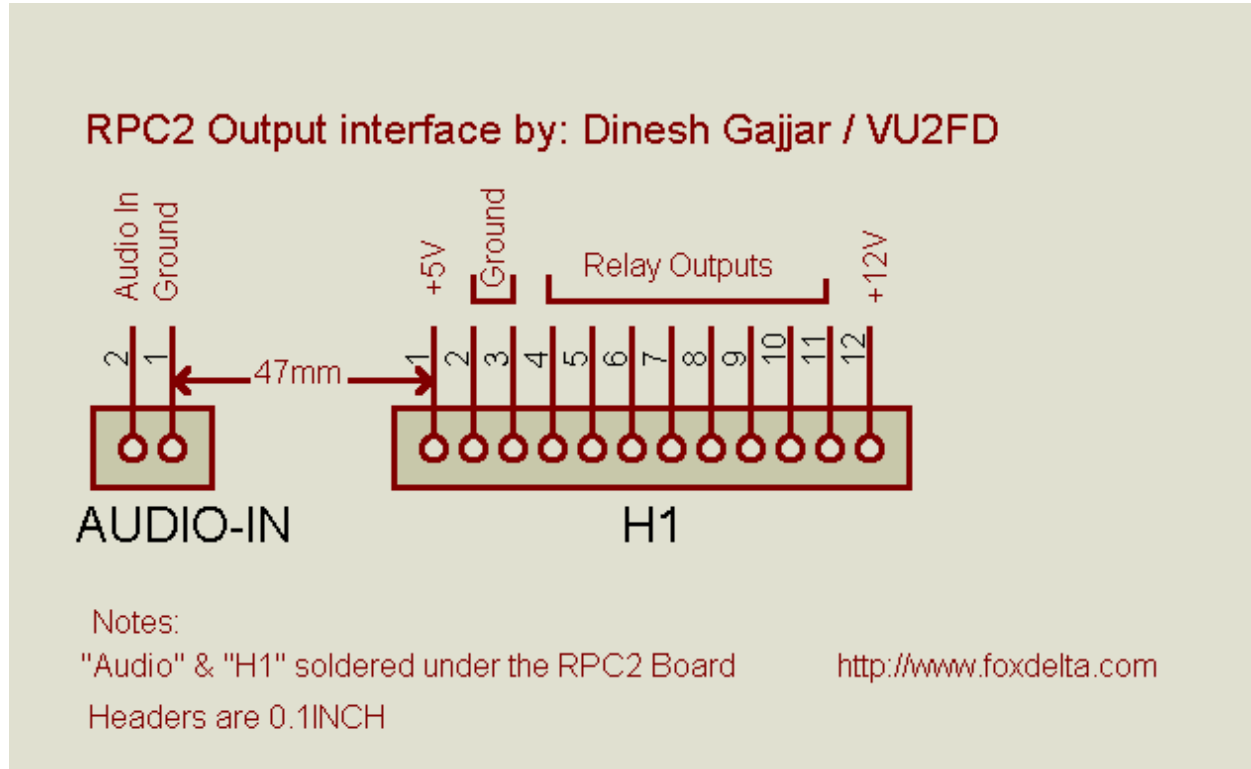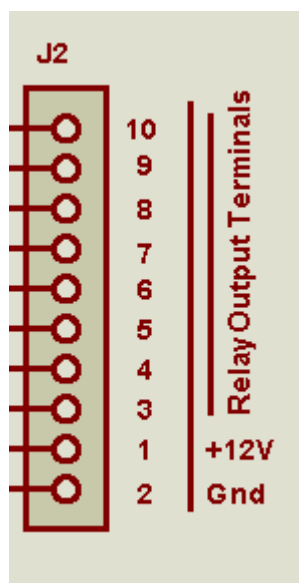
RPC2 Extension Header installation:

Headers "Audio" and "H1" may be mounted on the Bottom of the RPC2 board for "Plug-in" use of RPC2 with other equipment.

Details of this arrangement is given in schematic below:

Usual connections for relays are taken from Screw Terminals:

Screw-in terminals are available on board for external connections of relay or other control circuits. Outputs are "OC".

No. 1 terminal is +12V followed by No.2 Terminal, which is a ground.

Terminals 3 –10 are 8 outputs for relay control.

Updated: 29th April 2007

Designed By Dinesh Gajjar, VU2FD

Project page: http://www.foxdelta.com