



Fox Delta

Amateur Radio Projects & Kits

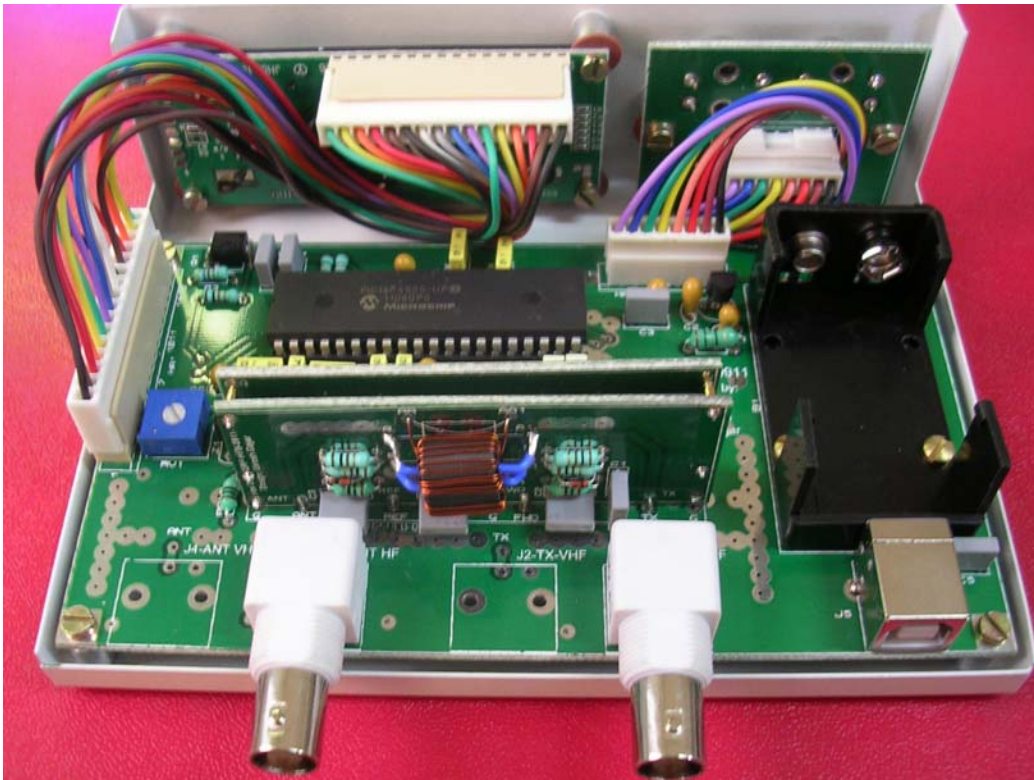
FD-SWM3-QRP

Schematic & Parts list: PIC18F4550 Dual Channel LCD QRP HF/VHF SWR Meter

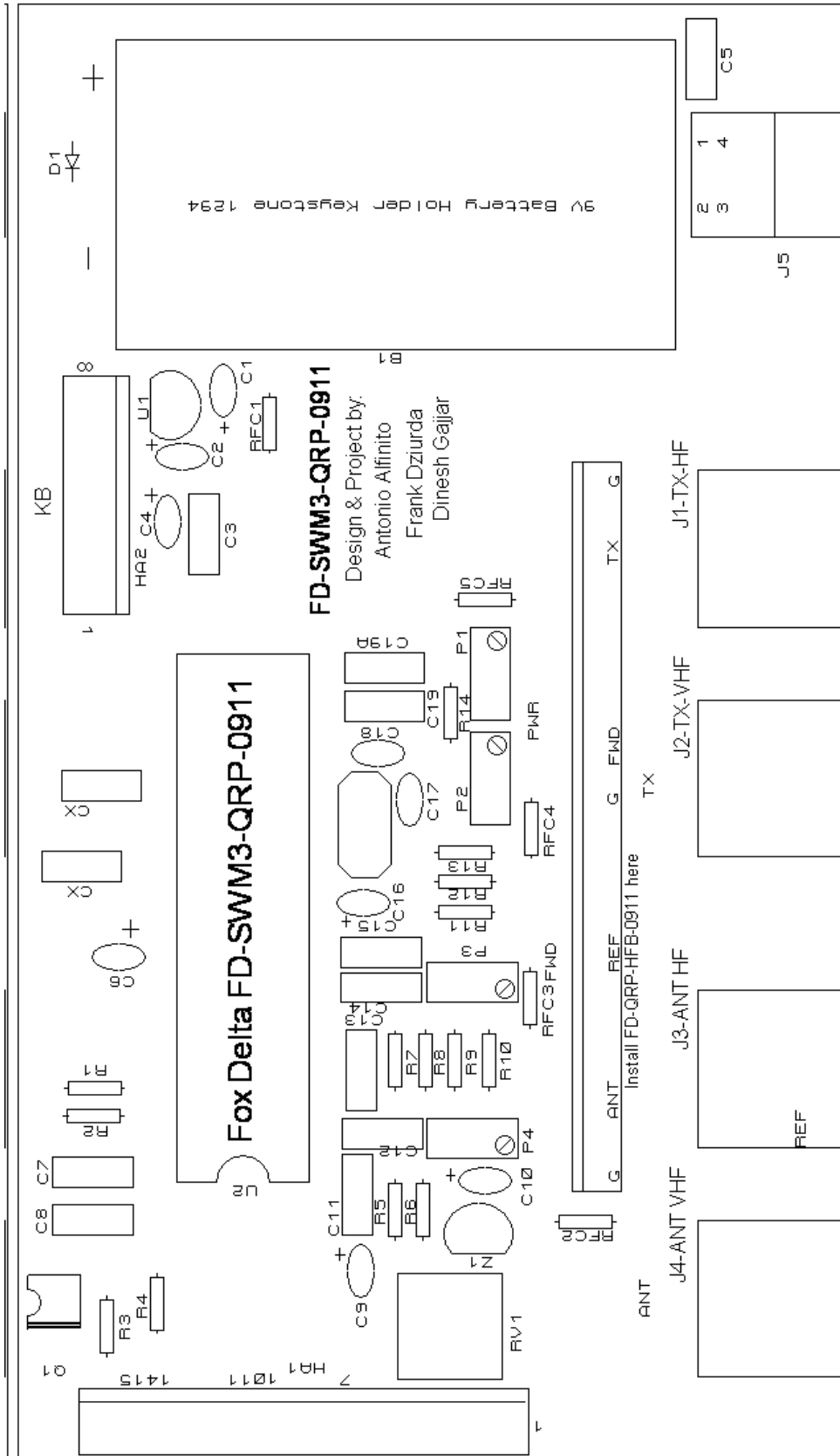
HF (VHF) 10W LCD DUAL Channel SWR / POWER METER: SWM3-QRP
With Built-in HF Bridge: Firmware FD-QRP-V1.00



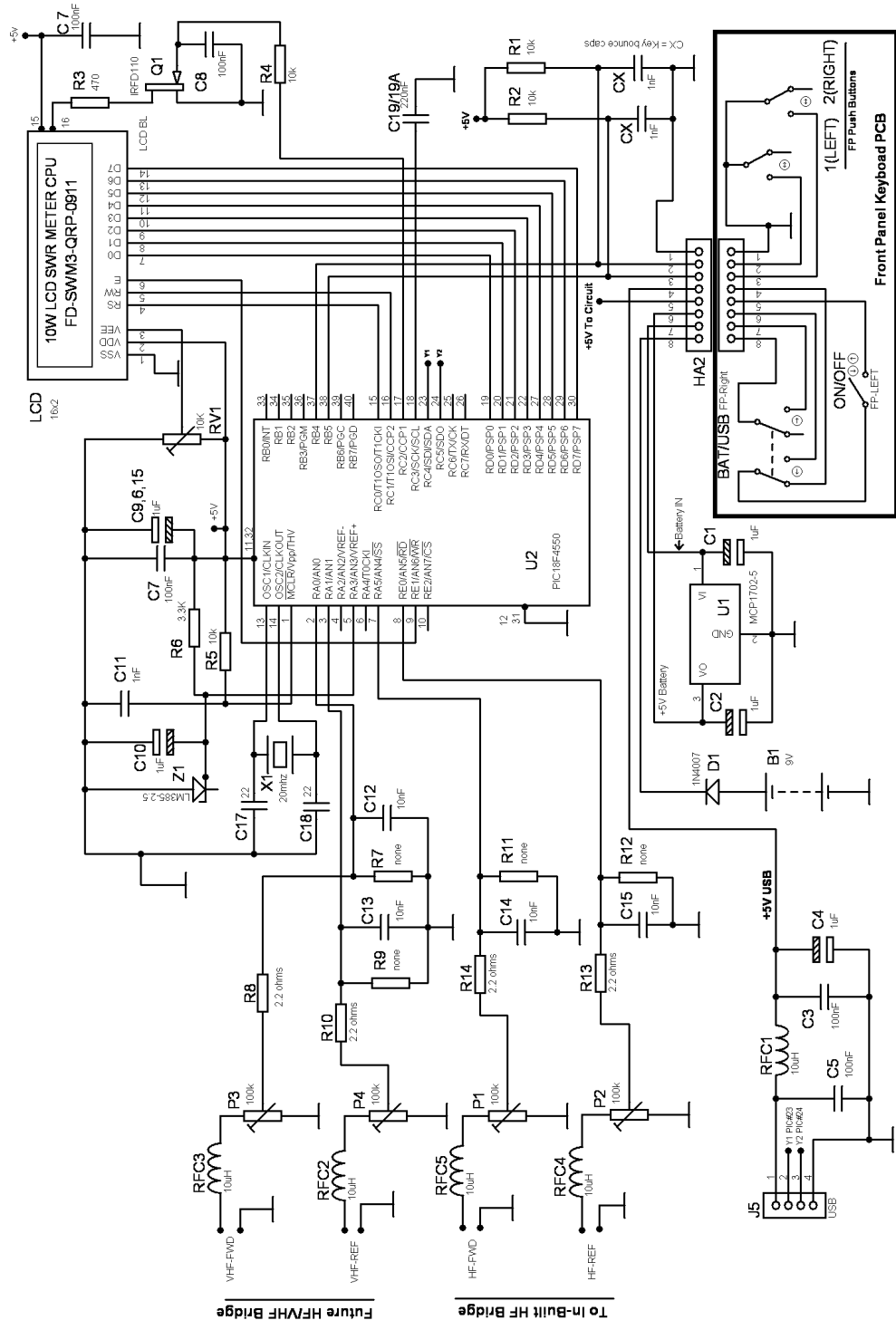
SWM3-QRP Dual Channel SWR Meter: With Installed HF 10W Bridge:



SWM3-QRP Main Board Silk:



Schematic: SWM3-QRP: PART-1



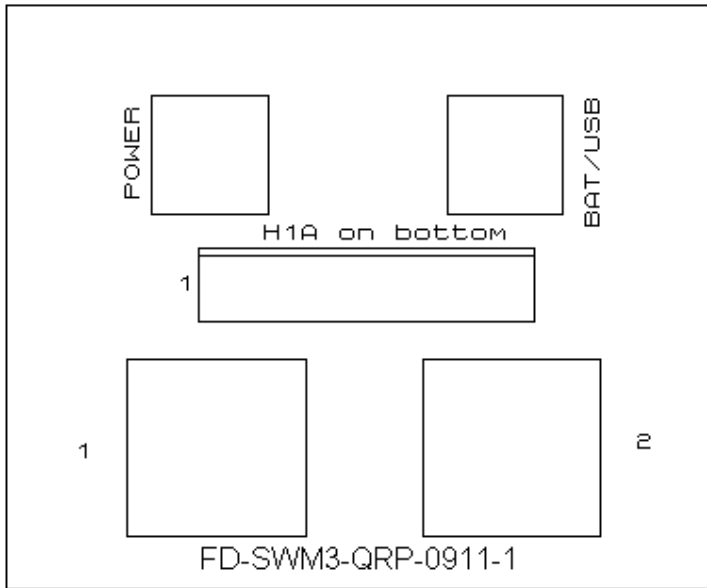
Project & Design by: Antonio Alfinito (Tony) / I2TZK, Dinesh Gajjar / VU2FD, Frank Dziurda / K7SFN
 Fox Delta SWM3-QRP-0911 PART-1 <http://www.foxdelta.com>

SWM3-QRP Parts List:

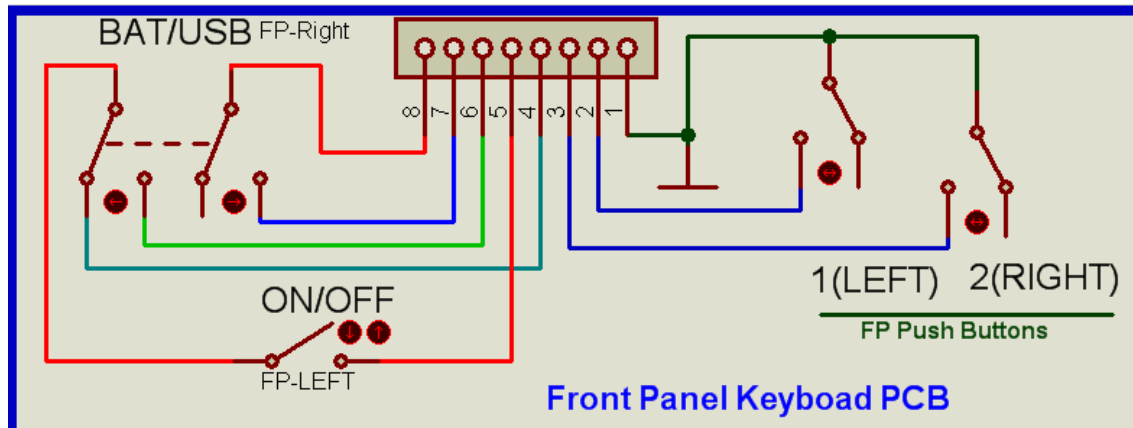
Quantity	Part ID	Part Details
1	U2	PIC18F4550 Pre-Programmed DIP40 QRP V1.0
1	U1	MCP1702/5V TO92
1	Q1	IRFD110
1	Z1	LM385-2.5V
2	FP-Push Switch	ON/OFF Switches Front Panel
2	FP-Push Buttons	12mm Push Buttons for Front Panel KB
1	J5	USB R/A Socket
2	J1, 3	BNC R/A MX416
1	PCB-KB	Double Sided PTH PCB LED-KB-0911-1
1	PCB	Double Sided PTH PCB SWM3-QRP-0911
1	B1	Battery Case 9V Keystone 1294 (Option)
1	HA1	16PIN SIL Male and Ribbon for LCD
1	HA2	8PIN SIL Male and Ribbon for Keyboard
1	LCD	2x16 LCD with Backlight
1	RV1	10K Preset
1	X1	20MHZ Crystal in HC49U
1	D1	1N4007 Diode
1	40DIP	IC Socket
4	RFC2 - 5	10-33uH
1	RFC1	10uH
4	P1, 2, 3, 4	100K Bourns 3296 10T Presets
1	Set	Nut / Bolts for LCD and KB Mounting
1	Case	Free Powder Coated Metal Case
All Resistors ¼ W 5%		
0	Not Used	R7, 9, 11, 12,
4	10K	R1, 2, 4, 5
1	3.3K	R6
1	470	R3
4	2.2 ohms	R8, 10, 13, 14
Capacitors		
5	1uf Tantalum/35V	C1, 2, 4, 6, 9, 10, 15
2	22pf	Ceramic – R17, 18
2	0.22uf Ploy	C19, 19A
8	0.1uf Poly	C5, 3, 7, 8, 12, 13, 14, 15
3	0.001uf Poly	CX, CX, C11
4	0.01uf Poly	C12, 13, 14, 15

HF Balanced Bridge KIT (detailed below) is included with this KIT or Assembled

Front Panel Keyboard PCB Silk:



Keyboard Schematic:

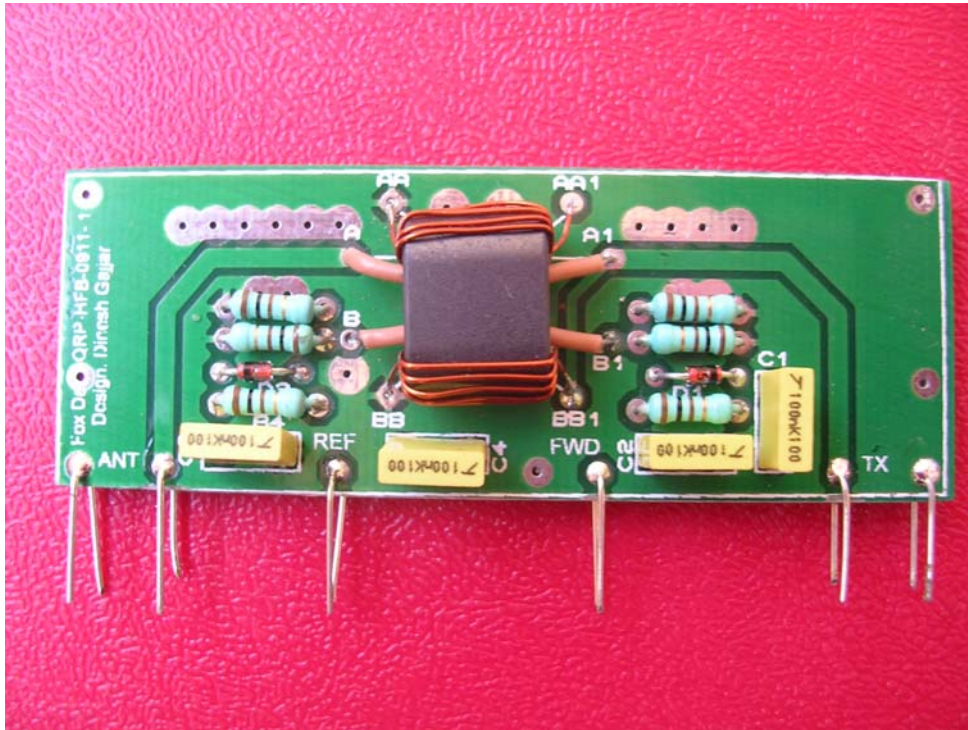


Keyboard Parts List:

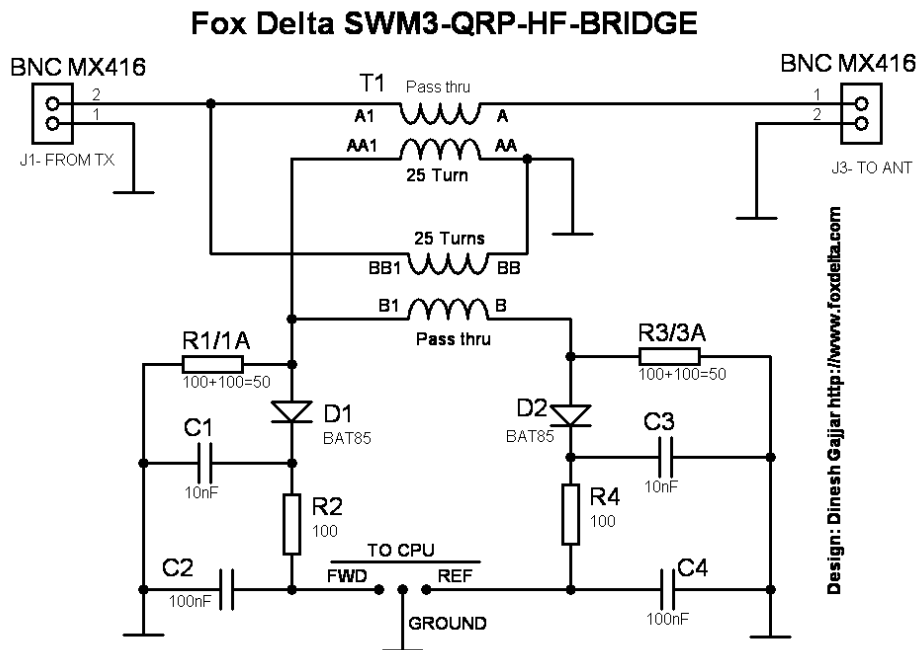
Quantity	Part ID	Part Details
2	1, 2	12mm Push Buttons
2	DPDT	Switches Double pole push type
1	HA1	SIL8 connector
1	Set	PCB Mounting Hardware

QRP-HF Balanced Bridge: Included with SWM3-QRP Kits

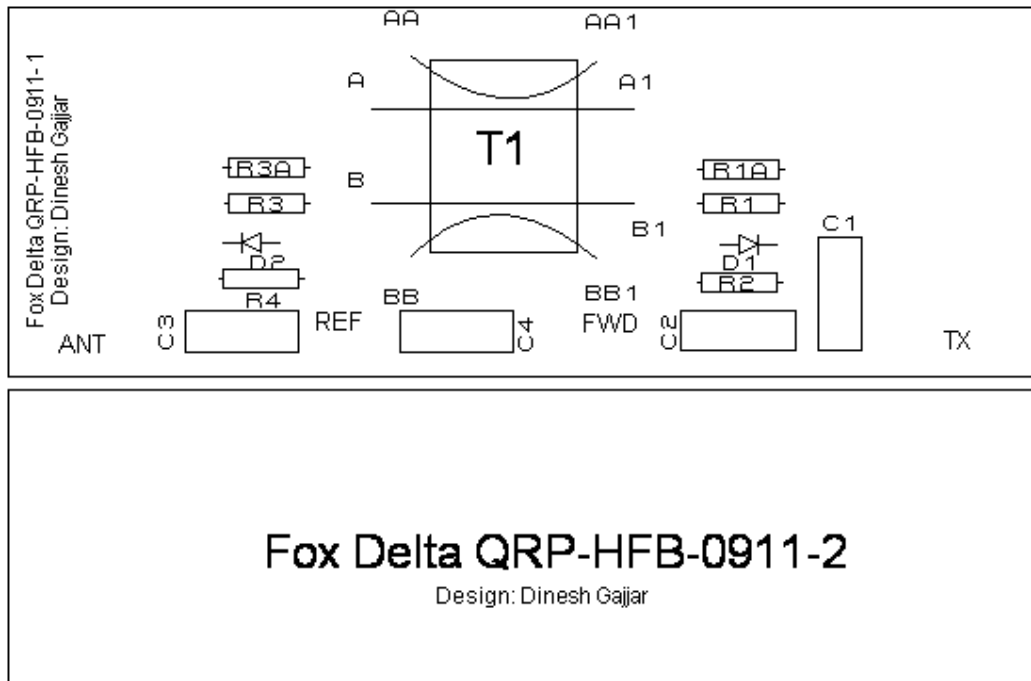
Main Board on top with shield cover at bottom



HF Balanced Bridge Schematic:



HF-Balanced Bridge Silk:



Note: Bottom section of PCB is back cover for this bridge

HF Balanced Bridge Parts List

Quantity	Part ID	Part Details
1	PCB	FD-QRP-HFB-0911 DSPTH Board
1	T1	Binocular #43 Core with #27 wire 1M
2	D1, 2	BAT85
2	R2, R4	RFC 33uH
4	100	1/4w Resistors 5% R1, R1A, R3, R3A
4	0.1uf Poly	C1 to C4

73s

Dinesh Gajjar

27th December 2011

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