



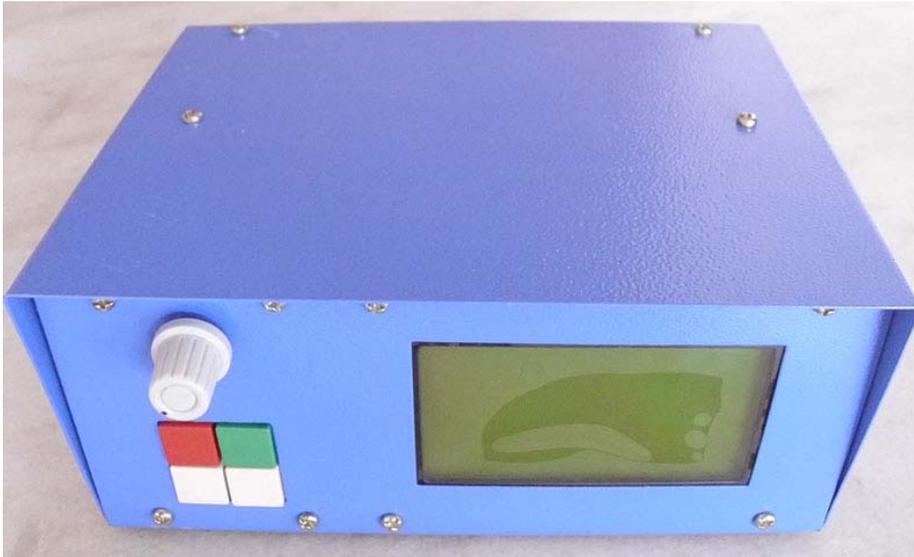
**Fox Delta**

Amateur Radio Projects & Kits

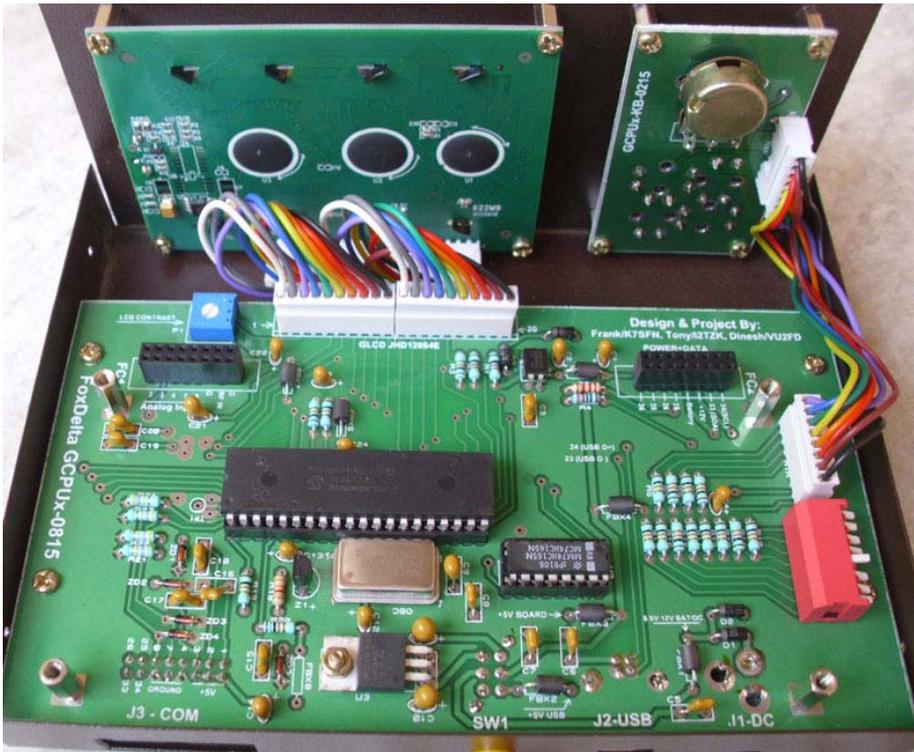
FD – PM5 - 0815

## PM5-0815: Dual Channel RF POWER Meter Board For GCPuX CPU

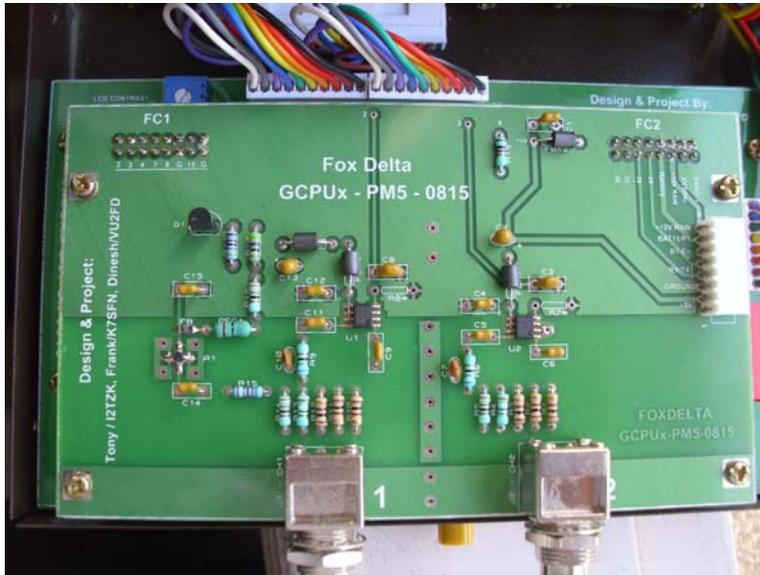
### PM5-0815 Add-on board kit for GCPuX: Technical Information Document



Completed GCPuX in metal case.



## Completed PM5 board: (Installed over GCPuX board)



PM5 board is supplied with AD8307 and A1 (ERA3SM) pre-soldered on board. Assembly is simple and only few components to solder.

1. FC1 and FC2 are board inter-connect FRC connectors.
2. BX1 is provided for battery board (future option) connection and connects to battery board which is located on case roof.

Back side view of assembly:



Back of unit has:

1. Roof side contain Bluetooth FRC16 socket and a battery power ON/OFF switch.
2. Lower case has an FRC16 socket for COMMUNICATION to external devices, an USB socket, USB/DC selector switch and a DC12V socket.



**TOP Connectors:**



**Bluetooth Connector**

**Battery Power ON/OFF Switch**

Refer to GCPU documents for more assembly details of GCPUx board.

**PM5 Screen shots:**

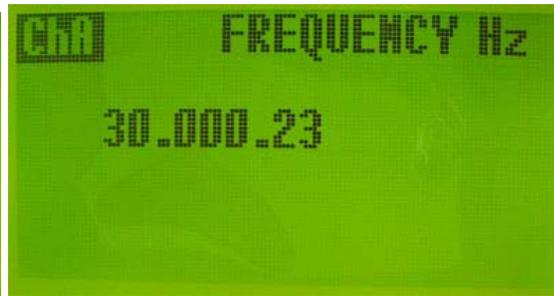
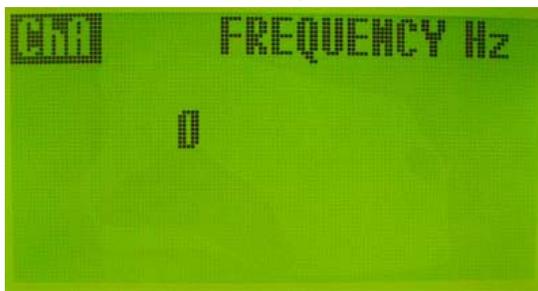
**Channel A RF Measurement:**



**Channel A VRMS and VPP**



Channel A Frequency measurement:



Channel A HF or VHF calibration



Channel 2:

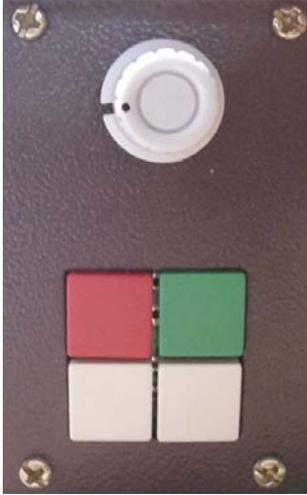


Calibration Menu:



This menu activates when you keep pressed Red Button for few seconds.

## Front Panel Controls:



### Front panel controls:

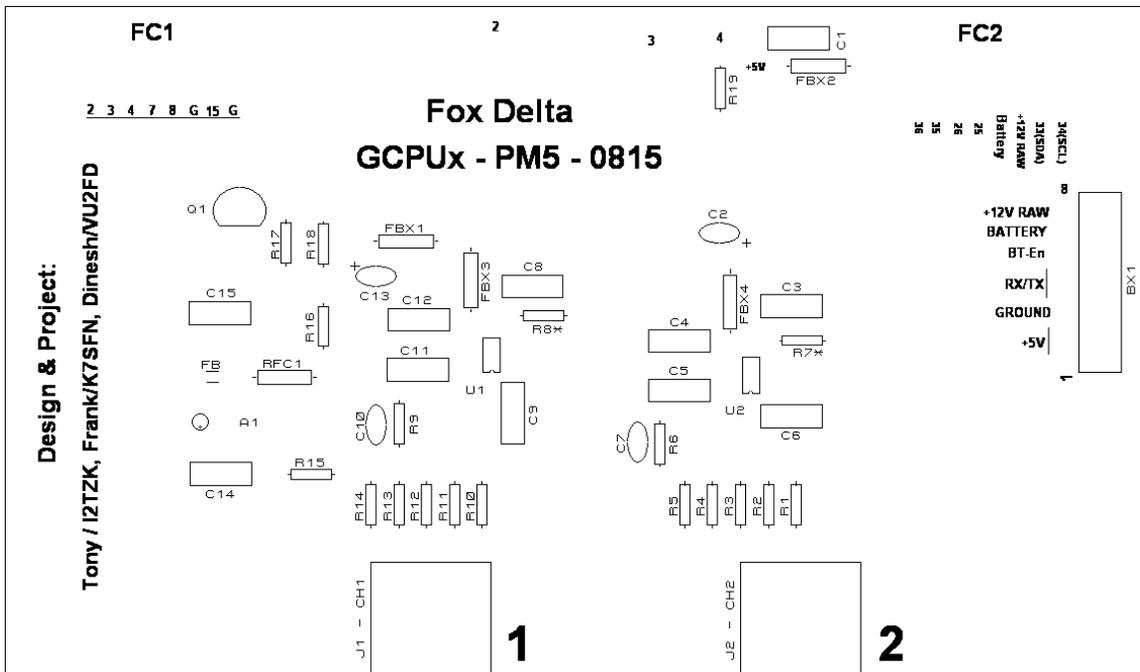
One pot and four buttons are placed on front panel.

POT controls the LCD backlight.

### Buttons:

RED: Select  
 Green: Menu Items  
 White: Left and Right (depending on FW)

## PM5 board SILK:



## PM5-0815 KIT PARTS LIST:

Quantity	Part No.	Part ID
1	PCB	PM5 -0815 DSPTH PCB
2	FC1, FC2	FRC16 Male Connectors (Board Interconnect)
1	BX1	SIL8 PCB Connector (Battery Board Expansion)
2	J1, J2	BNC R/A PCB
1	A1	ERA3SM / SGA3464
2	U1, U2	AD8307 (Pre-Soldered)
1	Q1	2N3553
4	FBX1 – FBX4	Ferrite Bead Inductors
1	RFC1	82-100uH RFC
1	FB	1206 Ferrite Bead (Pre-soldered)
<b>Capacitors</b>		
2	C2, 13	1uF Tantalum
2	C7, 10	10pf Ceramic
9	C1, 6, 4, 5, 9, 11, 12, 14, 15,	0.1uF
2	C3, C8	0.001uF
<b>Resistors</b>		
1	R1	1K
6	R1, 2, 3, 10, 11, 12	100 Ohms
3	R16, 14, 5	33 Ohms
2	R4, 13	39 Ohms
0	R7, 8	470K (not used with GCPUx main board)
2	R6, 9	68 Ohms
1	R17	47K
1	R18	470 Ohms
1	R15	51 Ohms

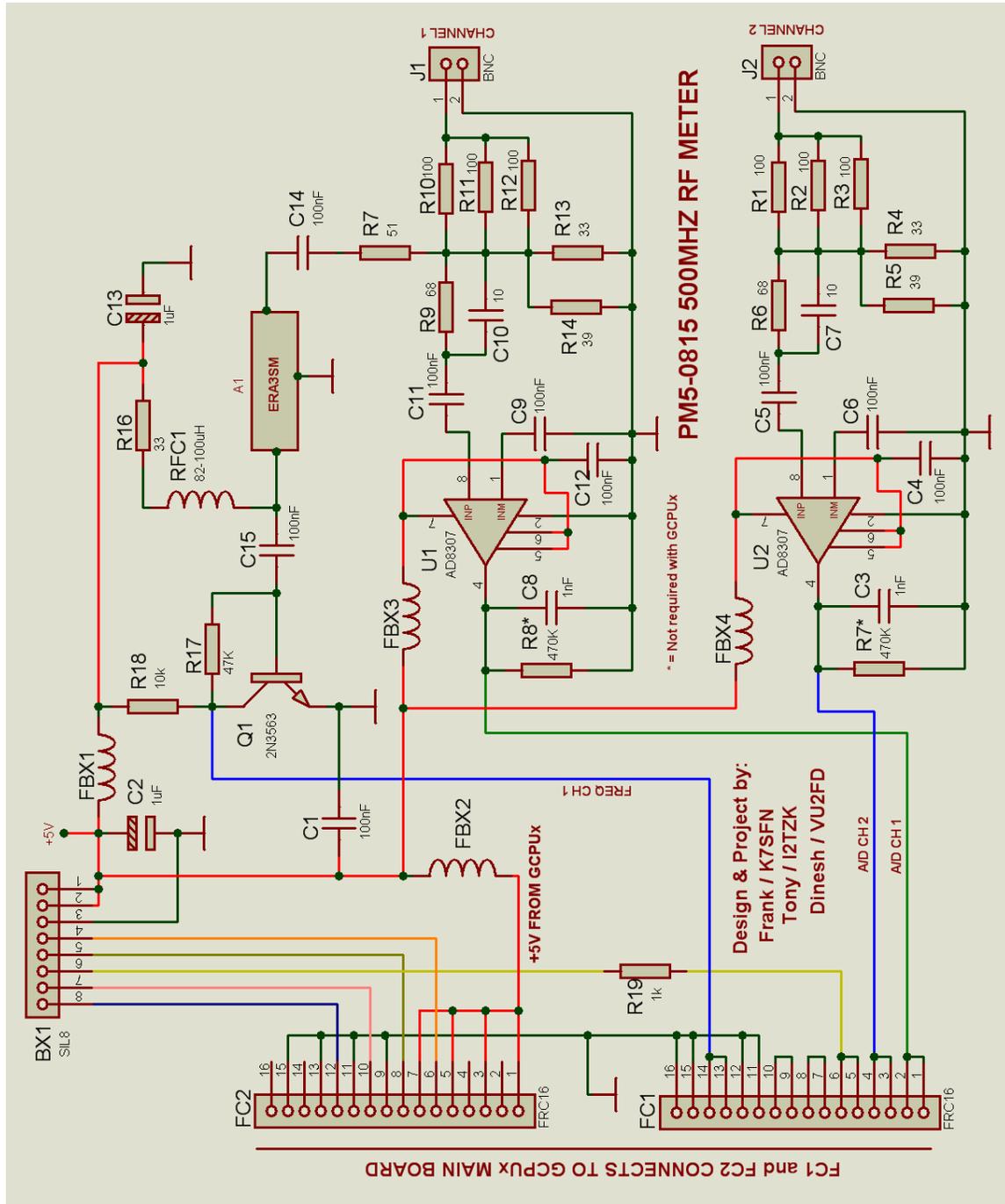
- Note: 1. PM5 is an add-on board for GCPUx-0815.  
2. SMT Parts are Pre-Soldered on board (A1, U1, U2, FB)

### Special Note for R7 and R8:

Since GCPUx already has these resistors on GCPUx main board, these resistors are not required on PM5 board.

They are only required if you intend to use PM5 board for your own project.

**PM5 - 0815 Schematic:**



73s  
Dinesh Gajjar,  
9<sup>th</sup> November 2015

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