

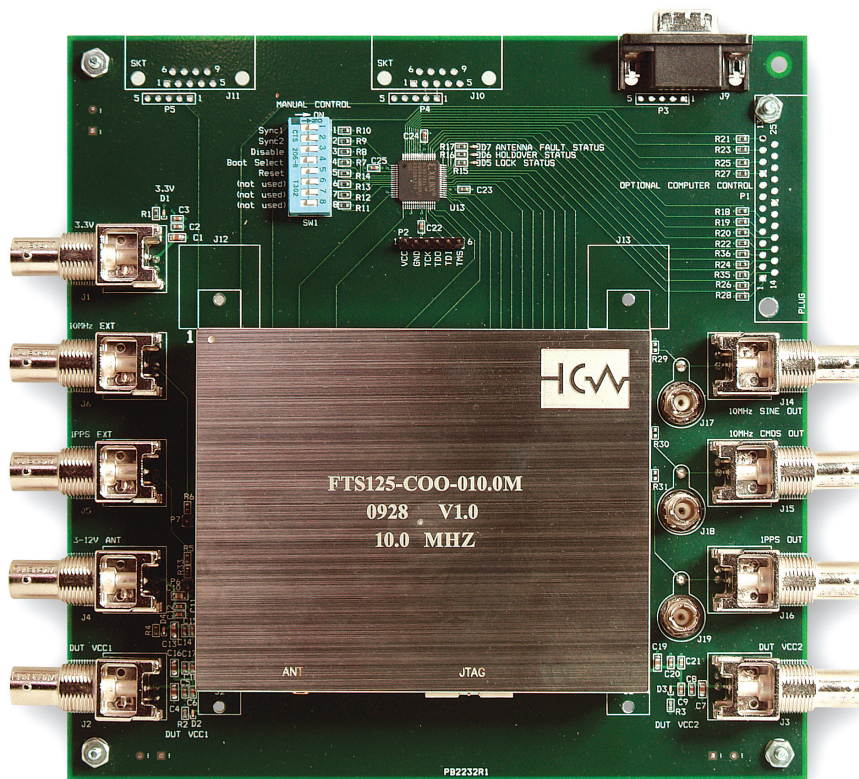
FTS/FR125

Eval Board Quick Start Guide



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Q U I C K S T A R T G U I D E



General Instructions

- 1) Insert the unit into the eval board LIF sockets
 - Pin 1 of the unit will be placed in the topmost position of LIF receptacle J12.
 - Pin 1 is indicated on the evaluation board with a large silkscreen "1".
 - Press the unit down firmly- there should be no metal pins exposed.
- 2) DIP Switch Manual Control Using SW1
 - Verify that all the DIP switches are turned "On" (rightmost position).
 - "Off" position applies a logic low to the unit, "On" position applies a logic high.

Switch Label	Function
Sync1	Controls DUT pin 19 "SYNC1 control"
Sync2	Controls DUT pin 20 "SYNC2 control"
Disable	Controls DUT pin 21 (/Disable)
Boot Select	Controls DUT pin 8 (/BootSel) - Only used for Wi125 software updates/revisions
Reset	Controls DUT pin 10 (/Reset)

- 3) Connect the BNCs (center positive)
 - Do not apply voltages higher than indicated or the DUT and/or test board could be damaged.
 - Connect 3.3V to J1 to power the test board.
 - Connect 3.3V to both J2 and J3 to power the FTS125. Use separate supplies for J2 "DUT Vcc1" and J3 "DUT Vcc2" otherwise phase noise performance will be degraded.
 - Connect 3-12V to J4 to power an active antenna through the FTS125's MCX antenna connector. If a different antenna is used other than that supplied with the FTS125 Eval Board, consult that antenna's documentation for the required voltage.

General Instructions continued

Designator/Label	Input / Output	Voltage / Logic Type	Function
J1: "3.3V"	Input	3.3V +/- 5%	Eval board power
J6: "10MHz Ext"	Input	LVC MOS/LVTTL	External 10MHz reference signal to DUT Pin 9
J5: "1PPS Ext"	Input	LVC MOS/LVTTL	External 1PPS reference signal to DUT Pin 12
J4: "3-12V ANT"	Input	Between 3-12V	Antenna supply voltage for DUT Pin 14
J2: "DUT VCC1"	Input	3.3V +/- 5%	Supply voltage for DUT Pin 16
J3: "DUT VCC2"	Input	3.3V +/- 5%	Supply voltage for DUT Pin 17
J16: "1PPS Out" or Probe Jack J19	Output	LVC MOS	1PPS signal from DUT Pin 26
J15: "10MHz CMOS Out" or Probe Jack J18	Output	LVC MOS	10MHz CMOS signal from DUT Pin 28
J14: "10MHz SINE Out" or Probe Jack J17	Output	SINE	10MHz SINE signal from DUT Pin 32

- 4) Connect the female DB9 connector "P3" to a computer serial port (optional).
 - Used to monitor NMEA 0183 data stream.
 - NS3KView software is recommended for use and can be provided per request.
 - Baud Rate: 38400.
 - Refer to the Wi125 GPS Receiver User Manual for more information on NMEA and the proprietary messages and commands.
- 5) Connect a full sky view GPS antenna to the DUT's female MCX connector.
- 6) Power the unit on.
- 7) LED Function
 - **Antenna Fault Status** (D7) Red LED turns on if a fault condition is indicated on DUT Pin 25. An antenna fault condition is defined as an overcurrent on DUT Pin 14 (Antenna Supply Voltage). This fault status is self-clearing once the fault condition goes away.
 - **Holdover Status** (D6) Amber LED turns on if the unit is in automatic or forced holdover as indicated by DUT Pin 23 "Holdover Status".
 - **Lock Status** (D5) Green LED turns on if the unit is tightly locked to the selected input as indicated by DUT Pin 24 "Lock Status".



Available at Digi-Key
www.digikey.com

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