

QUICK START GUIDE \mathbf{EVB} - \mathbf{MPCI} - \mathbf{GFF}

A GLYN LTD. EVB TO EVALUATE BOTH GFF, MPCI AND XBEE INTERFACE BOARDS DESIGNED BY GLYN



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Revision 1.2

Revision	Date	Notes
1.0	28/09/2017	Initial hardware reference manual
1.1	14/11/2017	Update documentation wording
1.2	27/07/2018	Update layout, change introduction, additional
		wording changes
1.3	18/10/2018	Added section for XBee carrier boards

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1 Board Overview



For detailed information on the numbering shown, please see - "Glyn EVB - Hardware Reference Manual".

2 Evaluating using the Glyn EVB

2.1 Evaluating a module via USB

USB-Mini cable to your PC is required.

1. Plug in MPCI, GFF(80-Way) or XBEE module Connect to appropriate socket for module. Also connect any u.FL connectors for ANT or GPS as required. Plug in SIM if required for cellular connection.

2. Plug in USB cable

USB - Connect between board and PC. (If P1 is bridged, it will also work as power source).

PWR - Connect between board and 5V power source. (PC or plug pack will work).

3. On/Off

GFF - Hold ONOFF button for 5 seconds to power on module. MPCI - Not required, power on is automatic.

4. Confirm power on

Confirm LEDs are lighting up. 3V3, 3V8, and VAUX LED should be lit. Confirm that the USB has enumerated by checking the VCP(Virtual COM Port) is showing up in "Device Manager" on Windows or "/dev" on Linux. Please contact Glyn for any USB drivers that you may require.

Note-

The Glyn EVB also has STAT_LED which may require some commands to enable.

The default xE910 modem doesn't have STAT_LED set to output. To enable, follow the commands listed:

AT#GPIO=1,1,2 AT#SLED=4 AT#SLEDSAV

5. Connect to modem Open your preferred terminal software(such as Putty, Teraterm, MiniCOM, etc.). Settings for Telit modules: Baud Rate: 115200 Stop Bit: 1 Flow Control: None Data Bit: 8

For other module settings, please refer to the module datasheet that is appropriate.

6. Confirm communication with module For most modules, type "AT" in the terminal then press "ENTER". Expected response from modem is "OK".

For other module settings, please refer to the module datasheet that is appropriate.

For more information on specific MPCI, GFF or XBEE modules, please refer to the appropriate user manual and data sheet for the module required. If you require more information or assistance, please contact: sales@glyn.com.au.

2.2 Evaluating a module via UART

Note - To connect to the Glyn EVB via UART, we suggest using the FTDI TTL-232R-3V3 cable.

It can be found on the Glyn Store - FTDI-TTL-232R-3V3

1. A 6-pin header will be required on UART(6). If this is something you need done, please let Glyn know when ordering.

Plug in MPCI, GFF(80-Way) or XBEE module
 Connect to appropriate socket for module.
 Also connect any u.FL connectors for ANT or GPS as required.
 Plug in SIM if required for cellular connection.

3. Plug in UART cable Pin 1 is indicated by the square pad, this corresponds to ground(black) on the FTDI cable. Connect USB end to PC.

4. On/Off GFF - Hold ONOFF button for 5 seconds to power on module. MPCI - Not required, power on is automatic.

5. Confirm power on Confirm LEDs are lighting up. 3V3, 3V8, and VAUX LED should be lit. Confirm that the FTDI COM port is showing up in "Device Manager" on Windows or "/dev" on Linux. Please check FTDI website if any driver is required.

Note-

The Glyn EVB also has STAT_LED which may require some commands to enable.

The default xE910 modem doesn't have STAT_LED set to output. To enable, follow the commands listed:

AT#GPIO=1,1,2 AT#SLED=4 AT#SLEDSAV 6. Connect to modem
Open your preferred terminal software(such as Putty, Teraterm, MiniCOM, etc.).
Settings for Telit modules:
Baud Rate: 115200
Stop Bit: 1
Flow Control: None
Data Bit: 8

For other module settings, please refer to the module datasheet that is appropriate.

7. Confirm communication with module For most modules, type "AT" in the terminal then press "ENTER". Expected response from modem is "OK".

For other module settings, please refer to the module datasheet that is appropriate.

For more information on specific MPCI, GFF or XBEE modules, please refer to the appropriate user manual and data sheet for the module required. If you require more information or assistance, please contact: sales@glyn.com.au.

3 XBee Adaptor Board



To allow for interfacing of the XBee footprint on the existing carrier board, an adaptor board from XBee to MPCI is available. Part number - XBEE-EVB-ADAPTOR.

For XBEE910 carrier boards, ONOFF-Pin 20 is required to be pulled to GND to power on the module. This can be done using the on board header - P1. Connecting pins 2 & 3 will pull to GND.

For any module that requires, ONOFF-Pin 20 to be pulled high, this can be done using the on board header - P1. Connecting pins 1 & 2 will pull to 3V3.

Otherwise it is recommended to leave pin 20 floating.

It is recommended to check with the module user guide for best practice for all modules.