

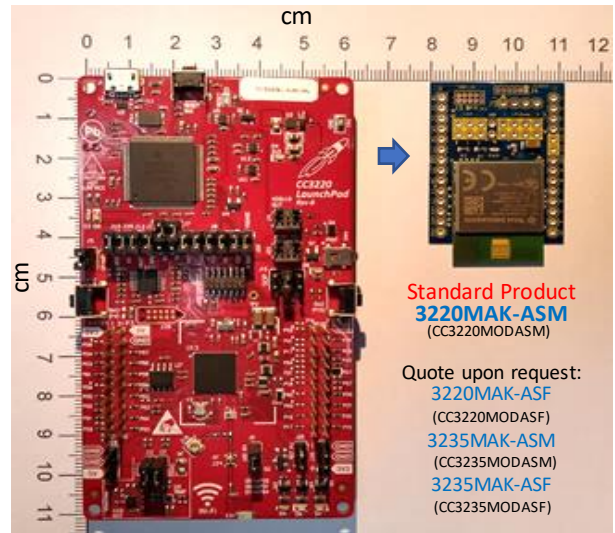
32xxMAK-ASx

Key Features

- Based on the TI CC32xxMODAxx WIFI modules
- Maker friendly small form factor version of LaunchPad (LP) ideal for prototype runs
- 0.1" pitch breadboard friendly
- Breaks out all GPIO, FLASH, JTAG and SOP pins

Description

This miniature WIFI board encompasses the TI CC32xxMODASx module (with PCB antenna) in its QFM package and breaks it out into a more maker friendly format using SIL connectors on a 0.1" pitch. A typical application can attach to these 'board to board' SIL connectors so realising a small form factor prototype solution.



Optimal Circuitry Solution

The 32xxMAK board removes all excess active circuitry leaving the developer with only what is necessary to realise their desired application.

Development

With its XDS IN connector (J3) the 32xxMAK allows in-circuit development by making use of the XDS110 JTAG debugger circuitry on the Launchpad(LP). Simply connect to the XDS OUT connector on the LP via a 10-way ribbon cable and remove the appropriate jumpers.

Programming FLASH

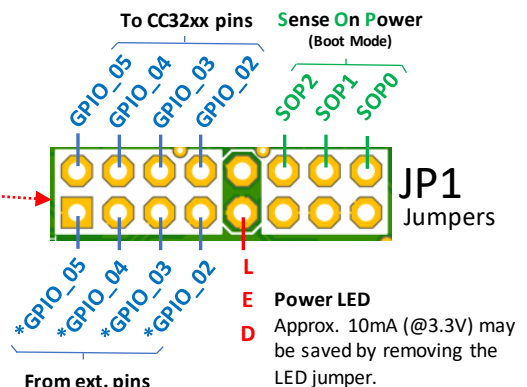
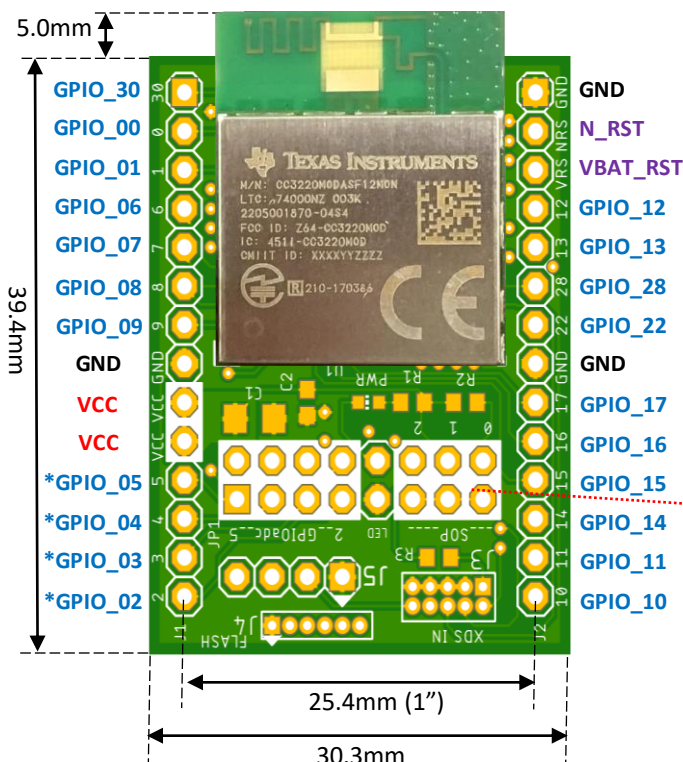
A BIN image file may be programmed into the 32xxMAK serial FLASH via J5 using the UARTLoad programming method and UNIFLASH s/w utility. Alternatively the image may be programmed directly into the serial FLASH via connector J4.

Increasing capacitive reservoir

A 100uF capacitor (C1) is included on the breakout module however this could be insufficient to accommodate peak power transmission. It is recommended therefore the application circuit determine and include the necessary additional capacitance.

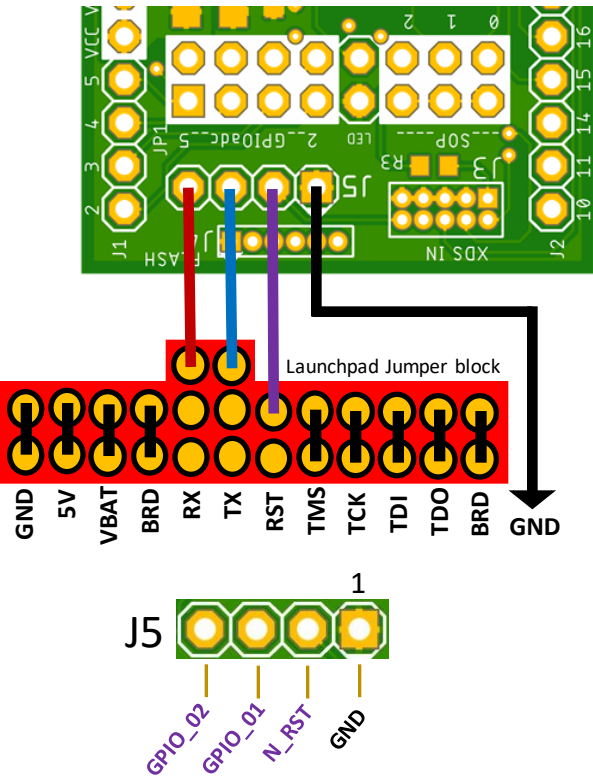
GPIO ADC inputs

GPIOs 2,3,4&5 can also be configured as ADC inputs. To avoid damaging the device analog input range for these inputs must not exceed 1.467V. Jumpers are incorporated to isolate the external inputs. Custom analog circuitry should be thoroughly checked for max voltage excursion ahead of jumper insertion.



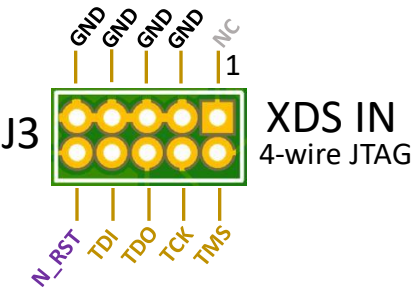
UARTLoad Programming Method

- > Remove LP jumpers: *RX*, *TX* & *RST* .
- > Connect 32XXMAK to LP jumper block as shown below.
- > For improved signal integrity add more GND connections between 32XXMAK and LP.
- > Ensure SOP lines select a UARTLoad programming mode (e.g. SOP 010)
- > Power up LP & 32XXMAK and start UNIFLASH utility.



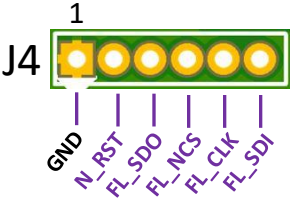
XDS Development Connection

- > Remove LP jumpers: *RST*, *TMS*, *TCK*, *TDI* & *TDO*.
- > Connect LP *XDS_OUT* conn. to 32XXMAK *XDS_IN* conn. (using 10-way ribbon cable: *FFSD-05-D-06.00-01-N* or equivalent)
- > Power up LP & 32XXMAK and start CCS or other.



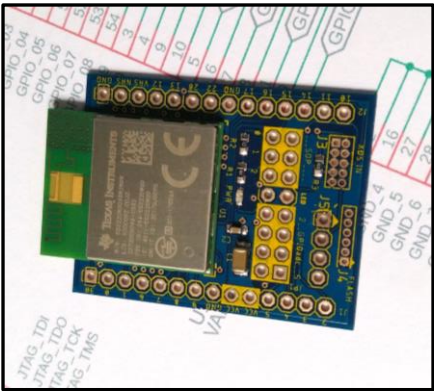
Directly programming the Serial FLASH

To directly program the serial FLASH it is important to assert *N_RST* (active low) during the entire programming procedure.



What ships in the box

As each customer's requirements will be different the unit ships in a baseline format with all SMD parts on board but without any of the thru-hole connectors or jumpers. Manufacturer and distributor part numbers for these are indicated below.



Connectors & Supplier Part Numbers

	Description	Digikey
J1, J2	14-pin SIL 0.1"	S1011EC-14-ND
J3	10-pin HDR 0.05"	SAM8909-ND
J4	6-pin SIL 0.05"	SAM10248-ND
J5	4-pin SIL 0.1"	S1011EC-04-ND
JP1	16-pin HDR 0.1"	S2011EC-08-ND
Misc	0.1" shunts	S9337-ND
XDS	10-way cable 6"	SAM8218-ND

Technical Support

Support is limited to issues pertaining to the 32xxMAK boards. For CC32xx issues please use the TI E2E platform.

Populated Board

