

### U.FL External RF Inputs and Outputs

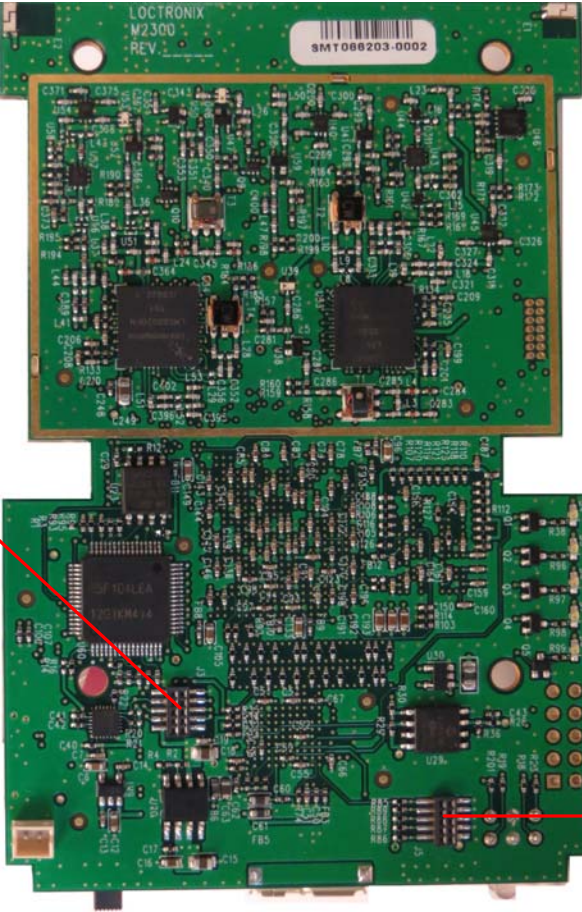
- J11 – RF0 External Wideband RF TX/RX
- J12 – RF0 External Wideband RF RX
- J13 – RF0 External PCS Band RF RX
- J15 – RF0 External GPS L1 RF RX w/3.3V DC Bias Option
- J16 – RF1 External Wideband RF TX/RX
- J17 – RF1 External Wideband RF RX
- J18 – RF1 External ISM Band RF RX/TX
- J19 – RF1 External UHF Band RF RX

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Michael B Mathews			
Approved:			

RL-78 Programmer Orientation

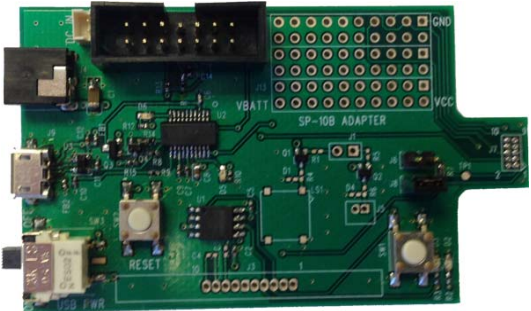
Make sure the orientation of the programmer is as shown before attempting to program the device.

ASR-2300 Top View



**J3**  
RL-78 JTAG  
External  
Interface

**J5**  
FX-3 JTAG  
Interface

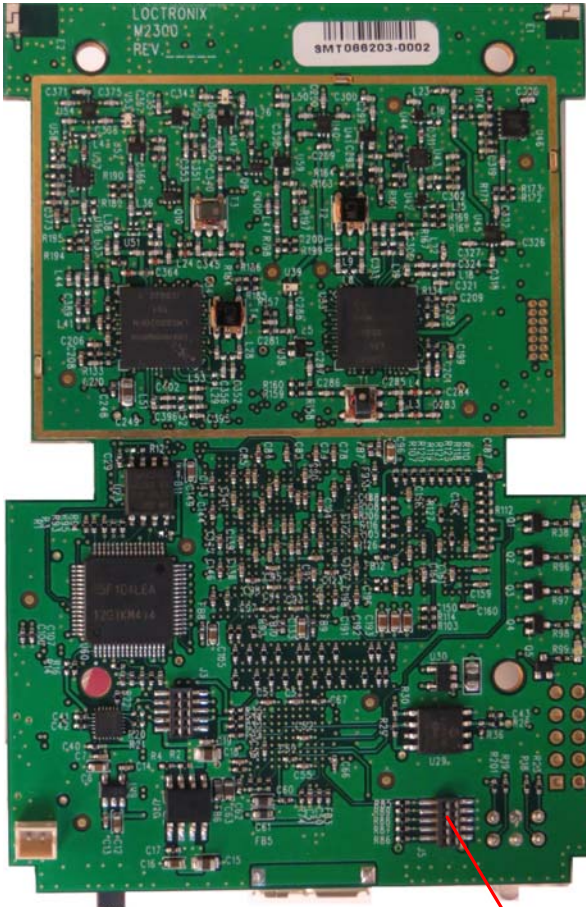


RL-78 Serial Interface / Flash  
Programmer / Debugger

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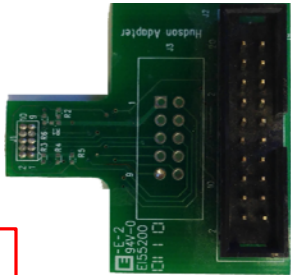
ASR-2300 Top View



J5  
FX-3 JTAG  
Interface

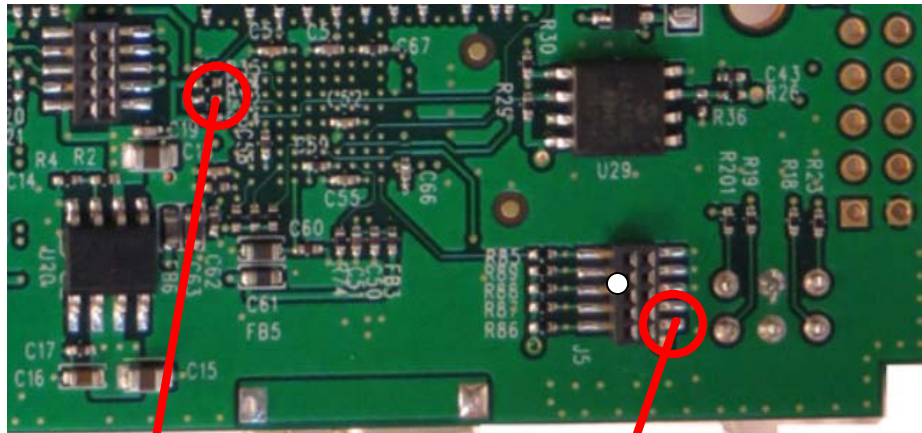
Make sure the orientation  
of the JTAG Debugger  
adaptor is as shown before  
attempting to debug the  
FX-3.

Segger JTAG Debugger  
Adaptor for Cypress  
ARM 9 FX-3



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FIG. 1



G4 side of R32  
Connect to 3.3V  
To Load  
BootLoader

Attach Wire  
to 3.3V

FIG. 2



15 cm wire tacked to 3.3V source.  
Opposite end has 3 mm insulation  
removed. Alternatively, push wire into  
Pin #1 slot of the J5 Connector.  
Requires 30 gauge wire.

Rev. A boards do not have a provision for enabling FX-3 boot loader once flash is programmed. To load the boot loader perform the following:

- 1) Power Down Board
- 2) Solder 15 cm wire (> 28 gauge) to 3.3V source as shown in Fig. 2. or push 30 gauge wire into Pin #1 slot of the J5 connector
- 3) Remove 3 mm insulation from other end of wire
- 4) Temporarily connect exposed wire end to G4 side of R32 in Fig.1
- 5) Power device.
- 6) Boot Loader should run (LED D4 will glow once loaded)
- 7) Disconnect wire from R32
- 8) To make the boot loader the default, program the FLASH using *"fx3-bad\_eei2c(clears flash).img"* file, which corrupts the flash so boot loader will always run.
- 9) Once done, remove wire to prevent a short-circuit

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