

# RTAX Prototyping

To prototype the Actel's RTAX4000D on our design we use three solutions, one home made and two made by [Ironwood Electronics](#) . We used the first home made solution for our engineering model because this solution is cheap and allow us to use only one A3PE3000 fpga and is compatible with RTAX4000D pinout. The second solution is an improved version of the first one. This second solution is easier to remove if we want to solder a RTAX4000D-proto on the same board. The third solution allow us to test a RTAX4000D in tie-bar without soldering for tests such as **Post Programming Burn In** (PPBI).

## First solution (home made)

You can easily get source files of this socket here: [RTAX To A3PE Converter](#).  
The main drawback of this solution is that this socket isn't easy to solder.

<a href="#">SocketLPPTop.jpg</a>	<a href="#">SocketLPPSide.jpg</a>	<a href="#">SocketLPPonEM.JPG</a>
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## Second solution (Ironwood)

This solution has the same pinout than previous one.

<a href="#">SocketManudaxTop.JPG</a>	<a href="#">SocketManudaxSide.JPG</a>	<a href="#">LFR_EQM.JPG</a>
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## Third solution (Ironwood)

[\\*Ironwood product page\\*](#)

This solution allow solderless testing of your FPGA in **tie-bar**. This also allows you check your flight model board with a cheaper proto FPGA before doing anything with flight FPGA. Note that this socket needs holes on your PCB and takes some space on your PCB.

<a href="#">EQM2_TOP.jpg</a>	<a href="#">EQM2_SIDE.jpg</a>	<a href="#">EQM2_SOCKET_OPENED.jpg</a>
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Files			
SocketLPPonEM.JPG	3.45 MB	26/03/2015	Alexis Jeandet
SocketLPPSide.jpg	1.46 MB	26/03/2015	Alexis Jeandet
LFR_EQM.JPG	5.2 MB	26/03/2015	Alexis Jeandet
SocketLPPTop.jpg	1.5 MB	26/03/2015	Alexis Jeandet
SocketManudaxSide.JPG	4.55 MB	26/03/2015	Alexis Jeandet
SocketManudaxTop.JPG	4.66 MB	26/03/2015	Alexis Jeandet
EQM2_SIDE.jpg	613 KB	29/03/2016	Alexis Jeandet
EQM2_SOCKET_OPENED.jpg	871 KB	29/03/2016	Alexis Jeandet
EQM2_TOP.jpg	851 KB	29/03/2016	Alexis Jeandet