

## OsmocomBB - Support #2704

### set up FCDEV1B board so it can be remotely accessed remotely

12/03/2017 07:36 PM - laforge

<b>Status:</b> Feedback	<b>Start date:</b> 12/03/2017
<b>Priority:</b> Normal	<b>Due date:</b>
<b>Assignee:</b> roh	<b>% Done:</b> 80%
<b>Category:</b>	
<b>Target version:</b>	
<b>Resolution:</b>	<b>Spec Reference:</b>
<b>Description</b> We have one FCDEV1B FreeCalypso board. It would make sense to connect this to a remotely switchable power supply and a computer which has access to its serial console so a developer (particularly in this case, vadim/fixeria) can access it and do some testing/development with it.	
<b>Related issues:</b>	
Related to OsmocomBB - Feature #3581: Merge FCDEV3B board support	<b>New</b> <b>09/21/2018</b>
Related to OsmocomBB - Feature #3582: Merge reading of factory RF calibration...	<b>New</b> <b>09/21/2018</b>

#### History

##### #1 - 05/15/2018 01:55 PM - laforge

ping?

##### #2 - 05/25/2018 10:39 AM - laforge

ping?

##### #3 - 07/24/2018 02:35 PM - roh

- File P7240895.jpg added

- Status changed from New to In Progress

- % Done changed from 0 to 70

i mounted the board on a carrierboard together with a mv-uart board.

2 diodes in series with the vcc-in reduce the 5V from the psu to 3.5-4.2V

i installed the whole thing on powersocket [#4](#) of osmo-gsm-tester-prod.

the mv-uart got ttyUSB13 and ttyUSB14 (this time)

##### #4 - 07/24/2018 02:36 PM - roh

the rf is connected like the c123 - via a 30dB attenuator to the base-unit

##### #5 - 07/24/2018 02:45 PM - roh

i just added simcards and put those into the ressources.conf of the production tester (still commented out)

**#6 - 07/25/2018 07:56 AM - laforge**

On Tue, Jul 24, 2018 at 02:35:49PM +0000, roh [REDMINE] wrote:

the mv-uart got ttyUSB13 and ttyUSB14 (this time)

please specify the /dev/serial/by-serial/ path, as that one is long-time stable.

**#7 - 08/08/2018 05:32 PM - roh**

- Assignee changed from roh to pespin

- % Done changed from 70 to 80

ttyUSB13 is /dev/serial/by-path/pci-0000:00:12.2-usb-0:5.1:1.0-port0

ttyUSB14 is /dev/serial/by-path/pci-0000:00:12.2-usb-0:5.1:1.1-port0

**#8 - 08/17/2018 09:17 AM - pespin**

- Status changed from In Progress to Feedback

- Assignee changed from pespin to laforge

I'm not sure why is this task assign to me, and it's really not clear what I am expected to do regarding this task. Can you please provide some more information?

**#9 - 09/15/2018 09:13 AM - laforge**

- Assignee changed from laforge to roh

I'm als not sure why this was assigned to @pespin.

As per the original description, the FCDEV1B shall be set up in a way that it can be remotely accessed by @fixeria. This means that there also must be a suitable BTS next to it, so it can be used. I'm sorry to say that 10 months later I don't recall at this point what exactly was the original reason for this :(

I'm not sure whether the osmo-gsm-tester setup is the right place for it, as it would mean that the automatic osmo-gsm-tester runs would have to be stopped/blocked whenever the board is used manually.

**#10 - 09/15/2018 11:21 AM - fixeria**

Hi Harald!

I'm sorry to say that 10 months later I don't recall at this point what exactly was the original reason for this :(

AFAIR, the idea was to test some calibration related changes on FCDEV1B, which would run OsmocomBB. This is not urgent, so no need to rush :)

**#11 - 09/15/2018 11:17 PM - falconia**

It needs to be noted that the Calypso chip on the FCDEV3B has non-standard baud rates of 203125, 406250 and 812500 bps, and these are the only baud rates available above 115200 - no 230400 or 460800 or 921600. It also needs to be noted that the CP2105 adapter in the mv-uart only supports such non-standard baud rates on its ECI UART channel but not on the SCI channel, i.e., only one out of the two UARTs. Which FCDEV3B UART is the better ECI UART connected to? Furthermore, the cp210x driver in the Linux kernel had a bug until very recently that caused it to not allow non-standard baud rates on newer-than-CP2102 adapters such as CP2105; the fix has made it into mainline as of 4.19-rc1, but there is no fully released kernel as of yet with this fix included, and it will be even longer before the fix makes its way into distro kernels. Longer description here:

<https://www.freecalypso.org/pipermail/community/2018-September/000603.html>

Therefore, if anyone is going to need to talk to the FCDEV3B at a higher baud rate than 115200, you will probably need to apply a local patch to the cp210x driver in the kernel on whichever machine the mv-uart is connected to - or replace the mv-uart with an FT2232x adapter as explained in the linked post.

**#12 - 09/16/2018 06:00 AM - laforge**

@falconia: Thanks for your very useful input regarding the FCDEV baudrates.

**#13 - 09/19/2018 10:41 AM - roh**

the serials moved:

its on

pci-0000:00:12.2-usb-0:5.3:1.0-port0 - ttyUSB2  
pci-0000:00:12.2-usb-0:5.3:1.1-port0 - ttyUSB3

now

as for the original ticket: should this stay connected to the osmo-gsm-tester-prod or move to another machine? (with another bts?)

**#14 - 09/20/2018 01:32 PM - laforge**

roh wrote:

as for the original ticket: should this stay connected to the osmo-gsm-tester-prod or move to another machine? (with another bts?)

that's up to [fixeria](#) and [pespin](#) to state. My thinking is that a separate/independent setup (e.g. using one of the many old nanoBTS we have?) might make more sense as it is less likely to interfere with osmo-gsm-tester-prod.

**#15 - 09/20/2018 02:07 PM - pespin**

I'd say I don't really mind whether same machine is used or not, but in case same machine is used, then one must disable following two jobs to avoid colliding with them:

[https://jenkins.osmocom.org/jenkins/view/osmo-gsm-tester/job/osmo-gsm-tester\\_run-prod/](https://jenkins.osmocom.org/jenkins/view/osmo-gsm-tester/job/osmo-gsm-tester_run-prod/)

[https://jenkins.osmocom.org/jenkins/view/osmo-gsm-tester/job/osmo-gsm-tester\\_ttcn3/](https://jenkins.osmocom.org/jenkins/view/osmo-gsm-tester/job/osmo-gsm-tester_ttcn3/)

Once it's disabled, if there's a job in process you need to wait until they are done, since cancelling them may be dangerous unless you really know what you are doing (leaving several processes dangling, and a corrupt reserved\_resources.conf file). And nowadays a full run of osmo-gsm-tester\_run-prod takes around 4h iirc, so that can mean a long wait time if not scheduled in advance.

So all in all, using it or not depends more on how much it takes to set up another system so h can test, and whether is worth it doing it or re-use the same system.

**#16 - 09/20/2018 04:35 PM - fixeria**

- *Priority changed from Normal to Low*

My thinking is that a separate/independent setup (e.g. using one of the many old nanoBTS we have?) might make more sense as it is less likely to interfere with osmo-gsm-tester-prod.

I am agree, I don't really need to interact with the osmo-gsm-tester setup.

In any case, this task is not urgent since I am working on 'SMS over GSUP' ATM. Having the working setup would be important as soon as I am back to the RF-calibration related patches in OsmocomBB.

**#17 - 09/20/2018 05:06 PM - fixeria**

Some reminder, why do we need this setup: <http://lists.osmocom.org/pipermail/baseband-devel/2017-November/005417.html>

**#18 - 09/20/2018 05:51 PM - fixeria**

- *Related to Feature #3581: Merge FCDEV3B board support added*

**#19 - 09/20/2018 05:57 PM - fixeria**

- *Related to Feature #3582: Merge reading of factory RF calibration values added*

**#20 - 10/09/2018 05:45 PM - laforge**

- *Priority changed from Low to Normal*

it should be a separate setup with a nanoBTS, preferably one of the old rugby-sized units. Some RF parts might be recycled from the defunct eSeal tester.

**Files**

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P7240895.jpg

421 KB

07/24/2018

roh