DCC RF-Booster

Interface-Beschreibung

Für den DCC-RF Booster gibt es eine aktuelle Firmware (Link im OpenDCC-Wiki unter http://forum.opendcc.de/wiki/doku.php?id=ocs:rfmbasis#dcc-rf-booster).
Diese macht den RF-Booster kompatibel zur aktuellen Cardecoder V3 Firmware. Damit werden die Rückmeldungen von den Cardecoder eingelesen und an der "Debug" Schnittstelle ausgeben.
Diese ist (GND/RX/TX) zunächst nicht bestückt und links neben der grünen Status LED auf der DCC-RF-Booster Platine zu finden. Hier kann man mit 19200 Baud 8N1 eine Debug-Verbindung (TTL Pegel) aufbauen und den RF-Booster darüber steuern (incl. POM Decoder lesen) und auch alle Rückmeldungen mitlesen.

Eine Übersicht der Debug-Befehle ist mit h<CR> abrufbar.

Damit kann der RF-Booster gleichzeitig als Zentrale für das Opencar-System eingesetzt werden.

Befehlsübersicht:

Car drive control Commands:

set actual car address (1-10239) and speedstep (0-127)
send: **A <addr>,<speedstep><CR>**
receive: **->Car:<addr> FS:<speedstep> Fkt:<function> <valute><CR><LF>**
example:
send: **A 3,10**
receive: **->Car:3 FS:10 Fkt:0 off**

show actual car address
send: **A<CR>**
receive: **actual car address: <addr> with speedstep: <speedstep><CR><LF>**
example:
send: **A**
receive: **actual car address: 3 with speedstep: 10**

set or clear actual car function (0-27), valute (on/off)
send: **F <function>,<valute><CR>**
receive: **->Car:<addr> FS:<speedstep> Fkt:<function> <off/on><CR><LF>**
example:
send: **F 8,1**
receive: **->Car:3 FS:10 Fkt:8 on**

set or clear all actual car function (255), valute (on/off)
send: **F <function>,<valute><CR>**
receive: **->Car:<addr> FS:<speedstep> Fkt:all <off/on><CR><LF>**
example:
send: **F 255,1**
receive: **->Car:3 FS:10 Fkt:all on**

set actual car speedstep (0-127)
send: V **<speedstep><CR>**
receive: **->Car:<addr> FS:<speedstep> Fkt:<function> <off/on><CR><LF>**
example:
send: **V 100**
receive: **->Car:3 FS:100 Fkt:8 on**

show actual car speedstep (0-127)
send: **V<CR>**
receive: **actual speedstep: <speedstep><CR><LF>**
example:
send: **V 100**
receive: **actual speedstep: 100**

Car POM Commands:

set CV on actual car
send: **CV <addr>,<data><CR>**
receive: **->Car:<addr> POM CV:<addr> write:<data><CR><LF>**
Car->:<addr> Msg_Nr:<0-255> POM:CV<addr>=<data><CR><LF>
example:
send: **CV 1,3**
receive: **->Car:3 POM CV:1 read<CR><LF>**
Car->:3 Msg_Nr:88 POM:CV1=3

show CV on actual car
send: **CV <addr><CR>**
receive: **->Car:<addr> POM CV:<addr> read<CR><LF>**
Car->:<addr> Msg_Nr:<0-255> POM:CV<addr>=<value><CR><LF>
example:
send: **CV 1**
receive: **->Car:3 POM CV:1 read<CR><LF>**
Car->:3 Msg_Nr:89 POM:CV1=3

Car Status Informations:

Car Speed cyclic dependend on CA <valute>
receive: **Car->:3 Msg_Nr:155 speed=21km/h<CR><LF>**
Car->:4 Msg_Nr:156 speed=30km/h<CR><LF>

Car Akku-Power cyclic dependend on CS <valute>
receive: **Car->:3 Msg_Nr:157 battery=79%<CR><LF>**
Car->:4 Msg_Nr:158 battery=92%<CR><LF>

General Commands:

```
?, H or HELP<CR>          : this helptext, H 1 -> CV show summary
INFO<CR>                  : show device type, software version, API version
REBOOT<CR>                : restart rf-basis
```

Configuration Commands:

```
BCV <addr>,<data><CR>     : show or set CV on rf-basis
S <state><CR>             : show or change state (0->stop, 1->go)
BB <baud><CR>             : change baudrate (192/384/576)
BC <channel><CR>          : show or change rf channel (1-83 / 255->jumper)
BP <power><CR>            : show or change rf power (0-3 / 255->jumper)
BS <size><CR>             : show or set air buffer size (10-32)
BN <number><CR>           : show or set basis number (0-6)
CA <valute><CR>           : show or set car akku interval *100ms
CS <valute><CR>           : show or set car dyn speed interval *100ms
```

Help Text:

```
OpenCarSystem DCC-RF-Basis V0.37
<C> 2015 T.Wilhelm
RF-ch:8
RF-size:32
RF-power:100%
system runs as Singelbasis
General Commands:
   ?, H or HELP          : this helptext, H 1 -> CV show summary
   INFO                  : show device type, software version, API version
   REBOOT                : restart rf-basis
Configuration:
   BCV <addr>,<data>     : show or set CV on rf-basis
   S <state>             : show or change state (0->stop, 1->go)
   BB <baud>             : change baudrate (192/384/576)
   BC <channel>          : show or change rf channel (1-83 / 255->jumper)
   BP <power>            : show or change rf power (0-3 / 255->jumper)
   BS <size>             : show or set air buffer size (10-32)
   BN <number>           : show or set basis number (0-6)
   CA <valute>           : show or set car akku interval *100ms
   CS <valute>           : show or set car dyn speed interval *100ms
Car drive control Commands:
   A <addr>,<speedstep> : show or set actual car address (1-10239)
                          and speedstep (0-127)
   V <speedstep>         : show or set actual car speed step (0-127)
   F <funct>,<valute>    : set (val=1) or clear (val=0) actual car function
   F <255>,<valute>      : set or clear all actual car fkt
Car POM Commands:
   CV <addr>,<data>      : show or set CV on actual Car
```