

Re: ADDI-DATA: built apci1710.ko for both rhel6-x86_64 and buildroot-2015.02-x86_64

Ford, Christopher

Thu 2/18/2016 6:02 PM

To: Ford, Christopher <caf@slac.stanford.edu>;

(tested insmod and rmmod on industrial PC)

```
# ls
apci1710.ko
# insmod apci1710.ko
#
# /sbin/lsmod
Module                Size Used by Tainted: G
apci1710               70687 0
ec_generic             3453 1
ec_master             240382 3 ec_generic
ipv6                  362178 30 [permanent]
igb                   136345 0
i2c_algo_bit          5232 1 igb
i2c_core               20606 2 igb,i2c_algo_bit
ptp                   10764 1 igb
pps_core              6713 1 ptp
# dmesg
.
.
.
[ 5656.285769] apci1710: loaded
[ 5656.288868] apci1710: board 0000:05:04.0 managed (minor number will be 0)
[ 5656.295653] module 0: ID is 0x53433237 (functionality: INCREMENTAL_COUNTER, version: 0x3237)
[ 5656.304080] module 1: ID is 0x53433237 (functionality: INCREMENTAL_COUNTER, version: 0x3237)
[ 5656.312504] module 2: ID is 0x53433237 (functionality: INCREMENTAL_COUNTER, version: 0x3237)
[ 5656.320928] module 3: ID is 0x53433237 (functionality: INCREMENTAL_COUNTER, version: 0x3237)
# /sbin/rmmod apci1710.ko
# dmesg
.
.
.
[ 5875.483275] apci1710: board 0000:05:04.0 unloaded
```

From: Ford, Christopher

Sent: Thursday, February 18, 2016 5:36 PM

To: Ford, Christopher

Subject: ADDI-DATA: built apci1710.ko for both rhel6-x86_64 and buildroot-2015.02-x86_64

```
lcls-dev3 bash:/afs/slac/g/lcls/package/linuxKernel_Modules>pwd
/afs/slac/g/lcls/package/linuxKernel_Modules
lcls-dev3 bash:/afs/slac/g/lcls/package/linuxKernel_Modules>
lcls-dev3 bash:/afs/slac/g/lcls/package/linuxKernel_Modules>find apci1710drv -name '*.ko' -ls
1531377408 5474 -rw-rw-r-- 1 caf ey 5605031 Feb 18 17:29 apci1710drv/trunk/rhel6-x86_64
/apci1710.ko
1531377618 119 -rw-rw-r-- 1 caf ey 120991 Feb 18 17:28 apci1710drv/trunk/buildroot-2015.02-x86_64
/apci1710.ko
lcls-dev3 bash:/afs/slac/g/lcls/package/linuxKernel_Modules>
lcls-dev3 bash:/afs/slac/g/lcls/package/linuxKernel_Modules>cat apci1710drv/trunk/buildroot-2015.02-x86_64
/Makefile
# Location of BuildRoot home:
BUILDDROOT_HOME=/afs/slac/package/linuxRT/buildroot-2015.02

# Location CrossCompiler HOME:
XCROSS_HOME=$(BUILDDROOT_HOME)/host/linux-x86_64/x86_64/usr/bin/x86_64-buildroot-linux-gnu-

# Location of Kernel source:
KERNELDIR := $(BUILDDROOT_HOME)/buildroot-2015.02-x86_64/output/build/linux-3.18.11
#KERNELDIR := $(BUILDDROOT_HOME)/buildroot-2015.02-x86_64-debug/output/build/linux-3.18.11

obj-m := apci1710.o

apci1710-objs := Endat_1711-kapi.o
apci1710-objs += Endat_1711.o
apci1710-objs += biss.o
apci1710-objs += biss_1711-kapi.o
apci1710-objs += chronos-kapi.o
apci1710-objs += chronos.o
apci1710-objs += dig_io-kapi.o
apci1710-objs += dig_io.o
apci1710-objs += etm-kapi.o
apci1710-objs += fs.o
apci1710-objs += imp_cpt-kapi.o
apci1710-objs += imp_cpt.o
apci1710-objs += inc_cpt-kapi.o
apci1710-objs += inc_cpt.o
apci1710-objs += interrupt.o
apci1710-objs += ioctl.o
apci1710-objs += irq-kapi.o
apci1710-objs += irq.o
apci1710-objs += knowndev.o
apci1710-objs += main.o
apci1710-objs += procfs.o
apci1710-objs += reset_board-kapi.o
apci1710-objs += ssi-kapi.o
```

```
apci1710-objs += ttl-kapi.o
apci1710-objs += ttl.o
apci1710-objs += utils-kapi.o
apci1710-objs += utils.o
apci1710-objs += vtable.o
```

all:

Copy source code for compiling

```
cp -r ../src/*.{c,h,ids} .
```

```
make ARCH=x86_64 CROSS_COMPILE=$(XCROSS_HOME) -C $(KERNELDIR) M=$(PWD) modules
```

clean:

Erase all files but Makefile

```
find . ! -name 'Makefile' -type f -exec rm -f {} +
```

Erase all directory but the root one

```
find . ! -name '.' -type d -exec rm -rf {} +
```

```
lcls-dev3 bash:/afs/slac/g/lcls/package/linuxKernel_Modules>
```