

```
=====
!  
! Configuring Cisco EHWIC and 880G for 3.7G (HSPA+)/3.5G (HSPA)  
!   - Cisco 1921  
!   - 3G EHWIC-QuadBand HSPA+R7/HSPA/UMTS QuadBand EDGE/GPRS and GPS  
!   - Test send SMS: cellular 0/0/0 gsm sms send <mobile numer> "Test Message  
from Cisco Router"  
!  
!  
=====
```

```
Router#sh ver  
Cisco IOS Software, C1900 Software (C1900-UNIVERSALK9-M), Version 15.3(1)T1,  
RELEASE SOFTWARE (fc1)  
Technical Support: http://www.cisco.com/techsupport  
Copyright (c) 1986-2013 by Cisco Systems, Inc.  
Compiled Mon 25-Mar-13 08:15 by prod_rel_team
```

```
ROM: System Bootstrap, Version 15.0(1r)M16, RELEASE SOFTWARE (fc1)
```

```
Router uptime is 25 minutes  
System returned to ROM by reload at 12:46:13 UTC Thu Aug 15 2013  
System image file is "usbflash0:c1900-universalk9-mz.SPA.153-1.T1.bin"  
Last reload type: Normal Reload  
Last reload reason: Reload Command
```

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wvl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).

```
Cisco CISCO1921/K9 (revision 1.0) with 487424K/36864K bytes of memory.  
Processor board ID FGL171922UM  
2 Gigabit Ethernet interfaces  
3 terminal lines  
1 Virtual Private Network (VPN) Module  
2 Cellular interfaces  
DRAM configuration is 64 bits wide with parity disabled.  
255K bytes of non-volatile configuration memory.  
249840K bytes of USB Flash usbflash0 (Read/Write)
```

License Info:

License UDI:

```
-----  
Device#      PID          SN  
-----  
*0          CISCO1921/K9  FGL171922UM
```

Technology Package License Information for Module:'c1900'

```
-----  
Technology      Technology-package      Technology-package  
                Current      Type      Next reboot  
-----  
ibase          ipbasek9      Permanent ipbasek9  
security      securityk9    Permanent securityk9  
data          datak9        Permanent datak9
```

Configuration register is 0x2102

```
=====  
!  
! Configuration Guide  
!  
!  
=====
```

Router#sh run  
Building configuration...

```
Current configuration : 2105 bytes  
!  
! Last configuration change at 13:06:00 UTC Thu Aug 15 2013 by admin  
version 15.3  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
service internal  
!  
hostname Router  
!  
boot-start-marker  
boot-end-marker  
!  
!  
no logging console  
enable password admin  
!  
no aaa new-model  
!  
ip cef  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
ip name-server 8.8.8.8  
ip inspect WAAS flush-timeout 10  
no ipv6 cef
```

```
!
multilink bundle-name authenticated
!
chat-script hspa-R7 "" "AT!SCACT=1,1" TIMEOUT 60 "OK"
chat-script 3G "" "AT!SCACT=1,1" TIMEOUT 120 "OK"
!
!
license udi pid CISCO1921/K9 sn XXXXXXXXXXXXX
!
!
username admin password 0 admin
!
redundancy
  notification-timer 60000
!
!
!
!
!
controller Cellular 0/0
!
!
!
!
!
!
!
!
!
interface Embedded-Service-Engine0/0
  no ip address
  shutdown
!
interface GigabitEthernet0/0
  no ip address
  shutdown
  duplex auto
  speed auto
!
interface GigabitEthernet0/1
  no ip address
  shutdown
  duplex auto
  speed auto
!
interface Cellular0/0/0
  ip address negotiated
  ip virtual-reassembly in
  encapsulation slip
  dialer in-band
  dialer idle-timeout 0
  dialer string hspa-R7
  dialer string 3G
  dialer-group 1
  async mode interactive
!
interface Cellular0/0/1
  no ip address
  encapsulation slip
!
interface Dialer1
  no ip address
  encapsulation ppp
```

www.boornsee.net

```
!
ip forward-protocol nd
!
no ip http server
no ip http secure-server
!
ip route 0.0.0.0 0.0.0.0 Cellular0/0/0
!
dialer-list 1 protocol ip permit
!
!
!
control-plane
!
!
!
line con 0
line aux 0
line 2
  no activation-character
  no exec
  transport preferred none
  transport input all
  transport output lat pad telnet rlogin lapb-ta mop udptn v120 ssh
  stopbits 1
line 0/0/0
  exec-timeout 0 0
  script dialer 3G
  login
  modem always-on
  modem InOut
  no exec
  transport input all
  rxspeed 21600000
  txspeed 5760000
line 0/0/1
  no exec
line vty 0 4
  login local
  transport input all
!
scheduler allocate 20000 1000
!
end
```

```
!
=====
! Create profile number 1 (relate chat-script AT!SCACT=1,<PROFILE NO.>)
! APN: internet
! Username: true
! Password: true
```

```
Router#cellular 0/0/0 gsm profile create 1 internet chap true true
Router#sh cellular 0/0/0 profile
Profile 1 = INACTIVE*
-----
PDP Type = IPv4
Access Point Name (APN) = internet
Authentication = CHAP
Username: true
Password: true
```

```
* - Default profile
```

```
Router#ping 8.8.8.8
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
....!
Success rate is 20 percent (1/5), round-trip min/avg/max = 212/212/212 ms
```

```
=====
!
!   Verify
!
!
=====
```

```
Router#sh int cellular 0/0/0
Cellular0/0/0 is up, line protocol is up
  Hardware is QuadBand HSPA+R7/HSPA/UMTS QuadBand EDGE/GPRS and GPS
  Internet address is 10.195.161.249/32
  MTU 1500 bytes, BW 5760 Kbit/sec, DLY 100000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation SLIP, loopback not set
  Keepalive not supported
  Last input 00:02:36, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 1
  Queueing strategy: fifo
  Output queue: 0/10 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    145 packets input, 14657 bytes, 0 no buffer
    Received 0 broadcasts (0 IP multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    457 packets output, 35996 bytes, 0 underruns
    0 output errors, 0 collisions, 5 interface resets
    0 unknown protocol drops
    0 output buffer failures, 0 output buffers swapped out
    0 carrier transitions
  DCD=up DSR=up DTR=up RTS=up CTS=up
```

```
Router#sh cellular 0/0/0 profile
Profile 1 = ACTIVE*
-----
PDP Type = IPv4
PDP address = 10.195.161.249
Access Point Name (APN) = internet
Authentication = CHAP
Username: true
Password: true
    Primary DNS address = 61.91.211.78
    Secondary DNS address = 119.46.78.98
```

```
* - Default profile
```

```
Router#sh cellular 0/0/0 all
Hardware Information
=====
Modem Firmware Version = T1_0_3_2AP R361 CNSZ
Modem Firmware built = 04/15/11
Hardware Version = 1.0
International Mobile Subscriber Identity (IMSI) = 520002002965633
International Mobile Equipment Identity (IMEI) = 357115040626256
Integrated Circuit Card ID (ICCID) = 8966004011909750439
Mobile Subscriber International Subscriber
```

IDentity Number (MSISDN) =  
Factory Serial Number (FSN) = CC3001302091007  
Modem Status = Online  
Current Modem Temperature = 44 deg C, State = Normal  
PRI SKU ID = 9900198, SKU Rev. = 1.2

Profile Information  
=====

Profile 1 = ACTIVE\*  
-----  
PDP Type = IPv4  
PDP address = 10.195.161.249  
Access Point Name (APN) = internet  
Authentication = CHAP  
Username: true  
Password: true  
    Primary DNS address = 61.91.211.78  
    Secondary DNS address = 119.46.78.98

\* - Default profile

Data Connection Information  
=====

Data Transmitted = 16564 bytes, Received = 11684 bytes  
Profile 1, Packet Session Status = ACTIVE  
    IP address = 10.195.161.249  
    Primary DNS address = 61.91.211.78  
    Secondary DNS address = 119.46.78.98  
    Negotiated QOS Parameters:  
    Precedence = High Priority, Delay = Class 1  
    Reliability = Unack GTP, LLC, Ack RLC, Protected data  
    Peak = 256 kB/sec, Mean = 50000 kB/hr  
    Traffic Class = Interactive  
    Uplink Max = 11.5Mbps, Guaranteed = Subscribed  
    Downlink Max = 42Mbps, Guaranteed = Subscribed  
    Max SDU size = 1500 bytes  
    SDU error ratio = 1E-4, BER = 4E-3  
Profile 2, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 3, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 4, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 5, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 6, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 7, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 8, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 9, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 10, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 11, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 12, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 13, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 14, Packet Session Status = INACTIVE  
    Inactivity Reason = Normal inactivate state  
Profile 15, Packet Session Status = INACTIVE

Inactivity Reason = Normal inactivate state  
Profile 16, Packet Session Status = INACTIVE  
Inactivity Reason = Normal inactivate state

Network Information  
=====

Current Service Status = Normal, Service Error = None  
Current Service = Combined  
Packet Service = HSPA+ (Attached)  
Packet Session Status = Active  
Current Roaming Status = Home  
Network Selection Mode = Automatic  
Country = THA, Network =  
Mobile Country Code (MCC) = 520  
Mobile Network Code (MNC) = 0  
Location Area Code (LAC) = 17  
Routing Area Code (RAC) = 35  
Cell ID = 26470  
Primary Scrambling Code = 441  
PLMN Selection = Automatic  
Registered PLMN = , Abbreviated =  
Service Provider = TRUE-H

Radio Information  
=====

Radio power mode = ON  
Current Band = WCDMA 850, Channel Number = 4408  
Current RSSI = -100 dBm  
Band Selected = Auto  
Number of nearby cells = 1  
Cell 1  
    Primary Scrambling Code = 0x1B9  
    RSCP = -99 dBm, ECIO = -6 dBm

Modem Security Information  
=====

Card Holder Verification (CHV1) = Disabled  
SIM Status = OK  
SIM User Operation Required = None  
Number of CHV1 Retries remaining = 3

GPS Information  
=====

GPS Info

-----  
GPS State: GPS disabled

SMS Information  
=====

Incoming Message Information

-----  
SMS stored in modem = 2  
SMS archived since booting up = 0  
Total SMS deleted since booting up = 0  
Storage records allocated = 30  
Storage records used = 3  
Number of callbacks triggered by SMS = 0  
Number of successful archive since booting up = 0  
Number of failed archive since booting up = 0

Outgoing Message Information  
-----

Total SMS sent successfully = 0  
Total SMS send failure = 0  
Number of outgoing SMS pending = 0  
Number of successful archive since booting up = 0  
Number of failed archive since booting up = 0  
Last Outgoing SMS Status = SUCCESS  
Copy-to-SIM Status = 0x0  
Send-to-Network Status = 0x0  
Report-Outgoing-Message-Number:  
  Reference Number = 0  
  Result Code = 0x0  
  Diag Code = 0x0 0x0 0x0 0x0 0x0

SMS Archive URL =

Error Information  
=====

  Cached info is displayed

at!err

QDSP6			ARM9 (not saved)		
00	22	uim	08480	00	01 hsu_conf_sel_nv 00572
01	3A	gsnvif	00245	01	01 hsu_conf_sel_nv 00616
02	FF	cmtask	01162	02	01 timer 03552
03	22	mmglbl	00392		
04	22	gsnvif	00478		
05	22	rr_init	01597		
06	22	rr_init	01601		
07	22	rrcdata	08026		
08	01	gmmutil	01099		
09	01	gmmutil	01118		
10	01	gmmutil	01141		
11	01	gmmutil	01156		
12	01	gmmutil	01174		
13	01	gmmutil	01198		
14	1A	rrcllcp	16550		
15	02	rrccspf	02198		
16	41	rrccsp	20686		
17	11	gsdi	09787		
18	01	gsdi_co	01538		
19	22	cnlbs	03307		

OK

at!gcdump

No crash data available

OK

Modem Crashdump Information  
=====  
Modem crashdump logging: off

=====  
!  
! Troubleshooting



!  
!

```
=====
debug chat
debug dialer
Router(config)#no logging console
Router(config)#logging buffer
Router(config)#service internal
Router#test cellular 0/0/0 modem-power-cycle
Router#show log
```

```
Router#sh diag 0
Slot 0:
```

```
  C1921 Mother board 2GE, integrated VPN and 2W Port adapter, 3 ports
  Port adapter is analyzed
```

```
  Port adapter insertion time 00:38:13 ago
```

```
  EEPROM contents at hardware discovery:
```

```
  PCB Serial Number       : FOC17168M58
  Hardware Revision       : 1.0
  Part Number             : 73-12850-08
  Top Assy. Part Number   : 800-33408-04
  Board Revision         : A0
  Deviation Number       : 130603
  Fab Version            : 02
  Product (FRU) Number   : CISCO1921/K9
  Version Identifier     : V05
  CLEI Code              : CMMHF10ARA
  Processor type         : C8
  Chassis Serial Number  : FGL171922UM
  Chassis MAC Address    : bc16.653f.65e0
  MAC Address block size : 32
  Manufacturing Test Data : 00 00 00 00 00 00 00 00
```

```
  EEPROM format version 4
```

```
  EEPROM contents (hex):
```

```
  0x00: 04 FF C1 8B 46 4F 43 31 37 31 36 38 4D 35 38 40
  0x10: 06 AC 41 01 00 82 49 32 32 08 C0 46 03 20 00 82
  0x20: 80 04 42 41 30 88 00 01 FE 2B 02 02 CB 8C 43 49
  0x30: 53 43 4F 31 39 32 31 2F 4B 39 89 56 30 35 20 D9
  0x40: 04 40 C1 CB C2 C6 8A 43 4D 4D 48 46 31 30 41 52
  0x50: 41 09 C8 C2 8B 46 47 4C 31 37 31 39 32 32 55 4D
  0x60: C3 06 BC 16 65 3F 65 E0 43 00 20 C4 08 00 00 00
  0x70: 00 00 00 00 00 00 F3 00 51 40 00 8B 41 00 3C 42 00
  0x80: 00 F8 00 24 03 E8 1B 11 07 D0 1E A2 09 C4 1F A9
  0x90: 0B B8 20 0F 0F A0 20 D3 13 88 21 6A 1B 58 21 A9
  0xA0: 1F 40 21 B8 27 10 21 3E 41 00 50 42 00 00 F8 00
  0xB0: 18 02 71 1D B0 04 E2 20 08 07 53 21 02 0E A6 22
  0xC0: 60 1D 4C 22 C4 27 10 22 C4 FF FF FF FF FF FF FF
  0xD0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
  0xE0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
  0xF0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
```

```
WIC Slot 0:
```

```
3G EHWIC-QuadBand HSPA+R7/HSPA/UMTS QuadBand EDGE/GPRS and GPS
```

```
  PCB Serial Number       : FOC171048EC
  Hardware Revision       : 1.0
  Part Number             : 73-12970-01
  Top Assy. Part Number   : 800-33679-01
  Board Revision         : A0
  Deviation Number       : 0
  Fab Version            : 01
  Product (FRU) Number   : EHWIC-3G-HSPA+7
  Version Identifier     : V01
  CLEI Code              : COUIA9ACAA
```

```
Manufacturing Test Data : 00 00 00 00 00 00 00 00
Field Diagnostics Data : 00 00 00 00 00 00 00 00
EEPROM format version 4
EEPROM contents (hex):
 0x00: 04 FF C1 8B 46 4F 43 31 37 31 30 34 38 45 43 40
 0x10: 06 C3 41 01 00 82 49 32 AA 01 C0 46 03 20 00 83
 0x20: 8F 01 42 41 30 88 00 00 00 00 02 01 CB 8F 45 48
 0x30: 57 49 43 2D 33 47 2D 48 53 50 41 2B 37 89 56 30
 0x40: 31 20 D9 03 40 C1 CB C6 8A 43 4F 55 49 41 39 41
 0x50: 43 41 41 C4 08 00 00 00 00 00 00 00 00 C5 08 00
 0x60: 00 00 00 00 00 00 00 00 FF FF FF FF FF FF FF FF
 0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
```

```
Embedded Service Engine 0/0 :
  Total platform memory : 524288K bytes
  Total 2nd core memory : 0K bytes
  Start of physical address for 2nd core : 0x80000000
  Virtual address start of 2nd core memory : 0x0 - 0x0
  2nd core configured disabled
  L2 cache ways for 2nd core : 0
```

```
Router#sh controllers cellular 0/0/0
```

```
Interface Cellular0/0/0
QuadBand HSPA+R7/HSPA/UMTS QuadBand EDGE/GPRS and GPS unit 0,
HWIC cellular modem configuration:
-----
```

```
Modem is recognized as valid for this HWIC
manufacture id: 0x00001199      product id: 0x000068A3
Sierra Wireless MC8705 HSPA+R7 modem.
Modem Uplink Speed = 5760 kbit.
Modem Downlink Speed = 21600 kbit.
```

```
GPS State: GPS disabled
```

```
Modem Management Statistics
-----
```

```
Modem resets = 4
Last known modem state = 'application' mode
Packets sent = 467, Packets received = 2478, Packets pending = 0
DIP MDM link status retry count = 0 pdp context = 0
DIP MDM link up pending = 0 pdp context = 0
DIP MDM link status retry count = 0 pdp context = 1
DIP MDM link up pending = 0 pdp context = 1
IDB Cellular0/0/0: DIP profile id = 1
IDB Cellular0/0/1: DIP profile id = 255
RSSI LED = OFF
UMTS/HSPA LED = ON
HSPA+R7 LED = ON
GPS LED = OFF
GPS NMEA port = Disabled (Stream OFF)
DM port = Disabled
```

```
Nios registers:
-----
```

```
Nios reset register = 0x9454B
Nios PC Trace Buffer Pointer register = 0x22B8
PLL1 = Locked          PLL2 = Locked          PLL3 = Locked
```

```
HWIC Register Base: 0x10000000
```

-----  
HWIC Common Registers:  
-----

id(0x00): 0x00000001 rev(0x01): 0x00000002 status(0x02): 0x00000000  
tx\_crc(0x01): 0x00000000 ctrl(0x06): 0x00008000

HWIC Cell Common Registers:  
-----

hwic\_cell\_rev(0x1000): 0x10122010  
intr1\_enable(0x1020): 0x00000038 intr2\_enable(0x1022): 0x0000007F  
intr1\_event(0x1020): 0x00000000 intr2\_event(0x1022): 0x00000000

HWIC Cell SCC Registers:  
-----

dma channel # = 0  
ch\_mode\_cfg: 0x10019006 ch\_flag\_cfg: 0x00000000 ch\_floctrl\_cfg: 0x00000000  
ch\_int\_enable: 0x0000EBFF ch\_cmd\_stat: 0x00000050 ch\_int\_stat: 0x001C (shadow)

dma channel # = 1  
ch\_mode\_cfg: 0x10019005 ch\_flag\_cfg: 0x00001311 ch\_floctrl\_cfg: 0x00002200  
ch\_int\_enable: 0x0000EBFF ch\_cmd\_stat: 0x00000050 ch\_int\_stat: 0x0001 (shadow)

dma channel # = 4  
ch\_mode\_cfg: 0x10019034 ch\_flag\_cfg: 0x00000000 ch\_floctrl\_cfg: 0x00000000  
ch\_int\_enable: 0x0000EBFF ch\_cmd\_stat: 0x00000050 ch\_int\_stat: 0x0001 (shadow)

HWIC Cell DMA Registers:  
-----

dma channel # = 0  
Rx ring\_start\_ptr: 0x0E95AC00 Rx ring\_mask\_index: 0x01F80088  
internal\_desc\_stat: 0x0800060C internal\_buff\_addr: 0x0EC38558  
internal\_context: 0x00000013 internal\_fifo\_data: 0x0EC38CC8

dma channel # = 1  
Rx ring\_start\_ptr: 0x0E95EC00 Rx ring\_mask\_index: 0x01F80050  
internal\_desc\_stat: 0x08000C00 internal\_buff\_addr: 0x0ED1B858  
internal\_context: 0x00000013 internal\_fifo\_data: 0x0ED19170

dma channel # = 4  
Rx ring\_start\_ptr: 0x0E95CD80 Rx ring\_mask\_index: 0x00F80050  
internal\_desc\_stat: 0x0800060C internal\_buff\_addr: 0x0ED76F58  
internal\_context: 0x00000013 internal\_fifo\_data: 0x0EECAE58

dma channel # = 0  
Tx ring\_start\_ptr: 0x0E95CC00 Tx ring\_mask\_index: 0x00F80020  
internal\_desc\_stat: 0x0CC00000 internal\_buff\_addr: 0x0DDB4990  
internal\_context: 0x00000401 internal\_fifo\_data: 0x006D355F

dma channel # = 1  
Tx ring\_start\_ptr: 0x0E960880 Tx ring\_mask\_index: 0x03F80298  
internal\_desc\_stat: 0x0CC00000 internal\_buff\_addr: 0x0DDB4990  
internal\_context: 0x00000181 internal\_fifo\_data: 0x006D355F

dma channel # = 4  
Tx ring\_start\_ptr: 0x0E960D00 Tx ring\_mask\_index: 0x00F80000  
internal\_desc\_stat: 0x0CC00000 internal\_buff\_addr: 0x0DDB4990  
internal\_context: 0x00000001 internal\_fifo\_data: 0x006D355F

idb at 0x2B2F5E00, driver data structure at 0x322A811C  
0 input aborts on receiving flag sequence  
0 throttles, 0 enables  
0 overruns, 0 CRC errors  
0 resource errors, 0 incomp frame errors  
0 input drops

0 transmitter underruns  
0 tx\_abort 0 tx\_reset  
Framer Mode: Async-HDLC  
Polling: Enabled

dma channel = 0

dma channel initialized.

Receive Ring  
rxr head (17) (0x0E95AC88), rxr tail (17) (0x0E95AC88)  
Transmit Ring  
txr head (4) (0x0E95CC20), txr tail (4) (0x0E95CC20)

dma channel = 1

dma channel initialized.

Receive Ring  
rxr head (10) (0x0E95EC50), rxr tail (10) (0x0E95EC50)  
throttle flag = 0, throttle val = (0x00000000)  
rx outstanding count = 12  
2506 packet inputs  
0 input aborts on receiving flag sequence  
0 throttles  
0 input errors, 0 overruns  
0 input resource errors, 0 input drops  
0 input frame errors  
467 packet outputs  
0 transmitter underruns  
0 transmitter output drops  
3 transmitter max tx outstanding packets  
Transmit Ring  
txr head (83) (0x0E960B18), txr tail (83) (0x0E960B18)

dma channel = 4

dma channel initialized.

Receive Ring  
rxr head (10) (0x0E95CDD0), rxr tail (10) (0x0E95CDD0)  
42 packet inputs  
0 input aborts on receiving flag sequence  
0 throttles  
0 input errors, 0 overruns  
0 input resource errors, 0 input drops  
0 input frame errors  
25 packet outputs  
0 transmitter underruns  
0 transmitter output drops  
1 transmitter max tx outstanding packets  
Transmit Ring  
txr head (0) (0x0E960D00), txr tail (0) (0x0E960D00)

Firmware buffer pools

Egress buf pool 0x2048E3C size 16 alloc 11 redzone 0x204D888  
0 no buffer 7 bad buffers refcount  
Ingress buf pool 0x20493F4 size 16 alloc 12  
0 no buffer

FIFO Queue Statistics

ch0: egress enabled	484	throttles 484	enables0	ingress overrun
ch1: egress enabled	467	throttles 467	enables0	ingress overrun
ch2: egress enabled	0	throttles 0	enables0	ingress overrun
ch3: egress enabled	0	throttles 0	enables0	ingress overrun
ch4: egress enabled	25	throttles 25	enables0	ingress overrun
ch5: egress enabled	0	throttles 0	enables0	ingress overrun

EHCI USB Controller Registers

Command 0x00010031  
Status 0x0000E008  
Interrupt Enable 0x00000035  
Frame Index 0x000014BA  
Control DS segment 0x00000000  
Periodic List Base 0x0205F000  
Async List Base 0x02064E60  
Config Flag 0x00000001  
Port Status 0x0000100D

Transfer Completion Codes

Success	: 3696	CRC	: 0	Bit Stuff:	0
Stall	: 0	No Response:	0	Overrun	:0
Underrun	: 0	Other	: 0		
Buffer Overrun:	0	Buf Underun:	0		

Transfer Errors

Control Timeout : 0 Canceled Transfers : 0

Transfer Failures

Bulk Transfer : 0 Interrupt Transfer : 0  
Control Transfer: 0 Isochronous Transfer: 0

Transfer Successes

Bulk Transfer : 3661 Interrupt Transfer : 35  
Control Transfer: 0 Isochronous Transfer: 0

www.bornsee.net