TOTAL CONTROL™

Quad V.34 Modem Card

Version 3.0

RELEASE NOTES

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ANI and DNIS Users: If you are performing a software upgrade to version 3.0 from version 1.5, you need to reset the *Digits in Incoming ANI based calls* (Register S62) and *Digits in Incoming DNIS based calls* (Register S63). The software upgrade program resets these values to 0.

New Features as of Release 3.0

PRI Support

Primary Rate ISDN (PRI) support is for chassis with T1/PRI cards. A new setting in the modems allows analog calls coming in through the PRI card to be channeled to a gateway card or out the Quad Analog NIC RS-232 port. Modems support PRI in answer mode only. They can not originate calls across PRI lines.

Setting Line Source for PRI

AT Command: %D2

MIB Extension: mdmLiSrc

TCM: Line Interface Source from the Line Interface Options Configuration Group

For PRI based chassis, change the modems' line source to ISDN PRI using one of the above methods. You must then store settings to the modem's NVRAM and reset the modem for it to take effect.

Inquiry Screen Changes

The following inquiry screen changes have been made:

i4 Screen

```
USRobotics Analog/Digital Quad HST Dual Standard V.34+ Fax Settings...

 B0 C1 E1 F1 Q0 V1 X7
 BAUD=19200 PARITY=N WORDLEN=8 DTE=RS-232
 DIAL=HUNT  ON HOOK  TIMER  LINE=STANDARD ANALOG

 &A3 &B1 &C1 &D2 &G0 &H1 &I0 &K1 &L0 &M4 &N0
 &P0 &R2 &S0 &T4 &X0 &Y1 %N6

 S00=001 S01=000 S02=043 S03=013 S04=010 S05=008 S06=002 S07=060
 S08=002 S09=006 S10=007 S11=070 S12=050 S13=000 S14=000 S15=000
 S16=000 S17=000 S18=000 S19=000 S20=000 S21=010 S22=017 S23=019
 S24=150 S25=005 S26=001 S27=000 S28=008 S29=020 S30=000 S31=000
 S32=009 S33=000 S34=032 S35=000 S36=000 S37=000 S38=000 S39=011
 S40=000 S41=000 S42=126 S43=200 S44=015 S45=000 S46=255 S47=000
 S48=000 S49=016 S50=100 S51=000 S52=005 S53=000 S54=064 S55=000
 S56=000 S57=000 S58=000 S59=000 S60=000 S61=000 S62=000 S63=000
 S64=000 S65=000 S66=000

 LAST DIALED #:

  LAST DNIS #:                LAST ANI #:
```

Reports the following line source settings:

%D0: Standard Analog
%D1: T1 (DS0)
%D2: ISDN PRI

i7 Screen

```
Configuration Profile...

Product type          US/Canada Rackmount
Slot/Channel          13/4
Options               HST,V32bis,Terbo,V.FC,V34+
Fax Options           Class 1/Class 2.0
Clock Freq            20.16Mhz
Flash Rom             512K
Ram                   384K

Supervisor date       12/01/95
DSP date              10/20/95

Supervisor rev        3.0.1
DSP rev               3.0.1
```

Reports the slot and channel number of the modem being inquiried.

Features as of Release 2.0

Transmitter Level Adjustment

AT Command: S39

MIB Object: mdmLiTransmitLevel

TCM: Line Interface Options modem parameter group

Transmitter level has a possible range of -9 to -20 dBm for analog line sources and -3 to -30 dBm for digital T1 line sources. The default setting of -11 dBm (S39=11) provides optimal performance for most analog line sources. A setting of -13 dBm (S39=13) is recommended for calls over digital T1 or PRI lines.

V.34 Extended Link Rates

Enhanced V.34 software offers two new link rates: 31.2 Kbps and 33.6 Kbps. While line conditions may not always allow for 33.6 connections, the new V.34 software can improve your average connection rate, making it more likely to achieve and maintain 28.8 connections.

Requirements

33.6 Kbps connections are only possible with other 33.6 Kbps-compatible U.S. Robotics modems.

New Parameters for V.34 Extended Link Rates

Link Rate Speed Select

Added 31.2 Kbps and 33.6 Kbps settings (&N15 and &N16) for fixed connection rates.

V.34 Extended Link Rates Disable

AT Command: S56.5=1

MIB Object: mdmScV34pModeEnable

TCM: Signal Converter Settings modem parameter group

Disables the modems' capability to connect at 31.2 Kbps and 33.6 Kbps.

Result Codes

If you have enabled result codes, 31.2 and 33.6 Kbps connections report the following verbal connect messages and numeric result codes to the DTE.

Verbal	Numeric
CONNECT 31200	151
CONNECT 31200/ARQ	152
CONNECT 31200/V34	153
CONNECT 31200/ARQ/V34	154
CONNECT 33600	155
CONNECT 33600/ARQ	156
CONNECT 33600/V34	157
CONNECT 33600/ARQ/V34	158

Inquiry Displays

The ATI6 diagnostic screen has an extended protocol field that displays the actual block and window sizes, and indicates when selective reject has been negotiated. The I11 screen displays "V34+" for connections with other U.S. Robotics modems using the new V.34 software.

Selective Reject

This feature works under V.42 error control and offers significant throughput improvements over noisy lines. Selective reject reduces the number of retransmitted blocks due to block errors (blers).

Selective Reject Disable

AT Command: S51.6=1

NOTE: *Not currently configurable through SNMP.*

Cellular

Cellular support is an added cost feature for Quad Modem Cards. Modems with cellular support can negotiate for either of two cellular protocols: ETC and MNP10. These protocols are designed to combat a variety of link establishment and data transfer problems specific to cellular calls.

For those who purchased cellular support, a booklet was included with the modem card that explains how to use the ETC and MNP10 protocols. If you did *not* purchase cellular support with the modems, but wish to add this feature to your Quad 2.0 modem cards, it is possible to enable cellular through the chassis NMC in managed racks. For unmanaged racks, the modems must be returned to the factory. For more information on the purchase of cellular support, please contact your distributor or U.S. Robotics sales representative.