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# QX3440-ABRA

V10

## ANALOG BRIDGE CARD FOR QX3440

## Features

- Mini-Slot plug-in module for QX3440-A/C/E
- Analog Bridge function
  - Data Bridge
    - Working with voice cards (**E&M**, **FXS**, and **Magneto**) on the QX3440
    - Downstream: two to many
    - Upstream: many to two
    - Master/Slave Architecture
      - Up to 2 Masters and 14 Slaves in one group
      - 2 Masters for 1+1 protection
    - Up to 8 bridge groups
- Voice Conference Hotline Mode with CAS Signaling
  - Any-to-Any architecture
  - Up to 16 members in one group
  - Up to 8 voice conference groups
- RS232 Data Bridge function
  - Working with **8RS232, 8BR-RS232** cards on the QX3440
  - Downstream: two to many
  - Upstream: many to two
  - Master/Slave Architecture
    - Up to 2 Masters and 14 Slaves in one group
    - 2 Masters for 1+1 protection
  - Up to 8 bridge groups
- Voice Protection Mode
  - One Master to two Slaves for 1+1 protection
  - Analog signals only
  - Up to 42 protection groups
- OCU-DP Data Bridge function
  - Downstream: one to many
  - Upstream: many to one
  - Data rate: 2.4, 4.8, 9.6, 19.2, 56, and 64K
  - Master/Slave Architecture
    - 1 Master to 14 Slaves in one group
  - Up to 4 bridge groups
- 1:1 Card Protection
  - Dual-card redundancy[Note]


**For QX3440-A / QX3440-C**


**For QX3440-E**

**Note:** Supported by QX3440-CCB controller FW V11.14.02, QX3440-CCPA controller FW V12.05.01, QX3440-2GE controller FW V23.02.01, QX3440-DCS controller FW V.13.05.01, QX3440-8GEHSW controller FW V33.01.01 and up

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## Description

The Analog Bridge Card (ABRA) is designed for the QX3440 series which is for analog bridging and digital bridging function. It works with E&M, FXS, and Magneto cards in analog data bridging and voice conferencing mode with CAS. It works with 8RS232 and 8BR-RS232 in digital data bridging mode. Digital bridging can be performed at either 64k bit/s or sub-rates (when MJU function is enabled) to support sub-rate signals from interface cards such as OCU-DP.
The ABRA Card supports up to eightNote independent analog or digital bridge groups. An analog group can be set to either the conference mode or Master/Slave mode; a digital group can be set only to Master/Slave mode.

In the conference mode, up to 16 members in one conference group are allowed to participate in a single any-to-any voice conference with hotline signaling. Voice traffic coming from E&M, FXS, and Magneto interfaces could be mapped to a member channel and broadcast to other member channels.

In the Master/Slave mode, data are bridged upstream and downstream in master/slave architecture. Upstream, the card checks all Rx data from slave ports in a master/slave group and sends the data from only one active slave to the master port. Downstream, it duplicates traffic coming from the master and then broadcasts the traffic to all slaves.

The ABRA card can be set to the Voice Protection mode to enable 1+1 protection for analog signals. Besides, the ABRA card supports 1:1 card protection for mission critical communication networks. That is when primary card is working, secondary card is used for backup to protect each other and vice versa.

Note: When MJU function is applied, four groups can be supported.

## Ordering Information

To specify options, choose from the list below.
**Note 1:** All units are RoHS compliant.
**Note 2:** Before purchasing, please check the QX3440 main brochure to see if the following models are supported by the controller to be used with.

| Model | Description | Notes |
|---|---|---|
| QX3440-ABRA | Analog voice bridging plug-in card | For QX3440-A/C |
| QX34DD-ABRA | Analog voice bridging plug-in card | For QX3440-E |

# Analog Bridge Card (ABRA) Specifications

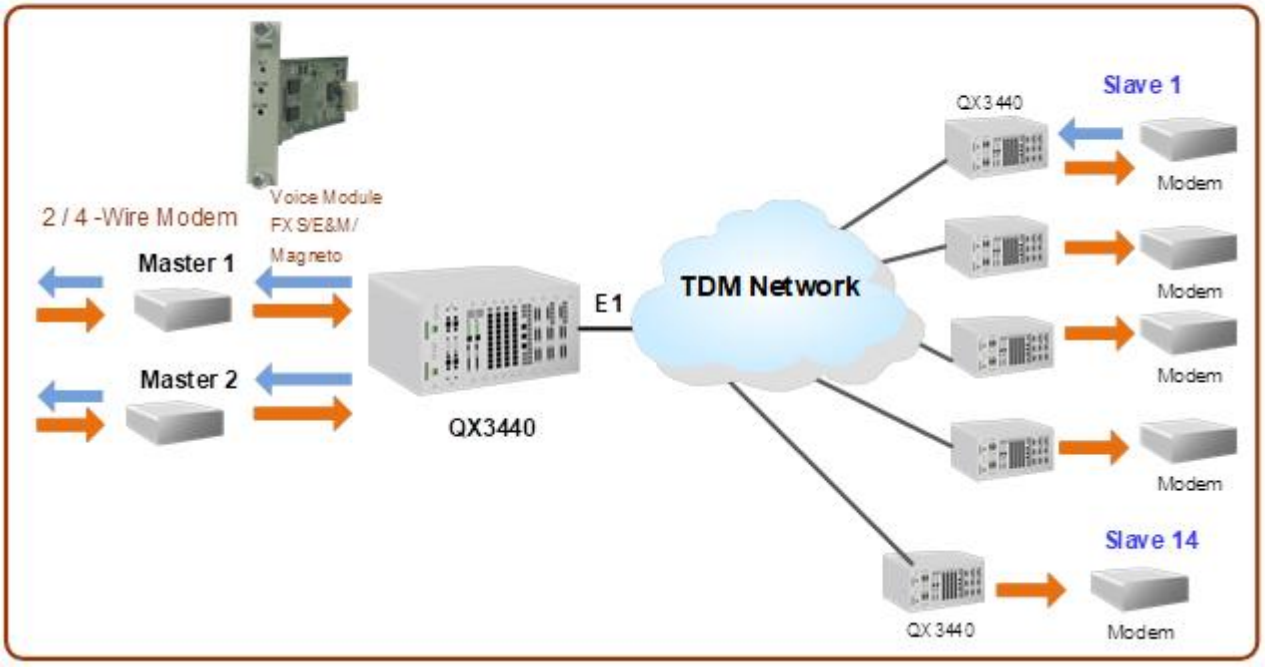
| | |
|---|---|
| **Analog Bridge Mode** | Group: up to 8 groups per card |
| | Master/Slave Architecture |
| | Downstream: 2 to many (up to 14 Slave units) |
| | Upstream: many to 2 |
| **Voice Conference Hotline Mode** | Group: up to 8 groups per card |
| **with CAS Signaling** | Any-to-any conference bridge |
| | Up to 16 members in one conference group |
| | Silence detection/suppression |
| **RS232 Data Bridge Mode** | Group: up to 8 groups per card |
| | Master/Slave Architecture |
| | Downstream : 2 to many (up to 14 Slave units) |
| | Upstream: many to 2 |
| **OCU-DP Data Bridge Mode** | Group: up to 4 groups per card |
| **(MJU)** | Master/Slave Architecture |
| | Downstream: 1 to many (up to 14 Slave units) |
| | Upstream: many to 1 |
| **Voice Protection Mode** | Group: up to 42 groups per card |
| | One Master to two Slaves for 1+1 protection |
| | Analog signals only |
| **PCM encoder/decoder** | Compatible with ITU-T G.711 A-law/Mu-law coding |
| **LED Indicator** | Multi-color indication |
| **1:1 Card Protection**[NOTE] | Dual-card redundancy |

**Note:** Supported by QX3440-CCB controller FW V11.14.02, QX3440-CCPA controller FW V12.05.01, QX3440-2GE controller FW V23.02.01, QX3440-DCS controller FW V.13.05.01, QX3440-8GEHSW controller FW V33.01.01 and up.

## Application Illustrations

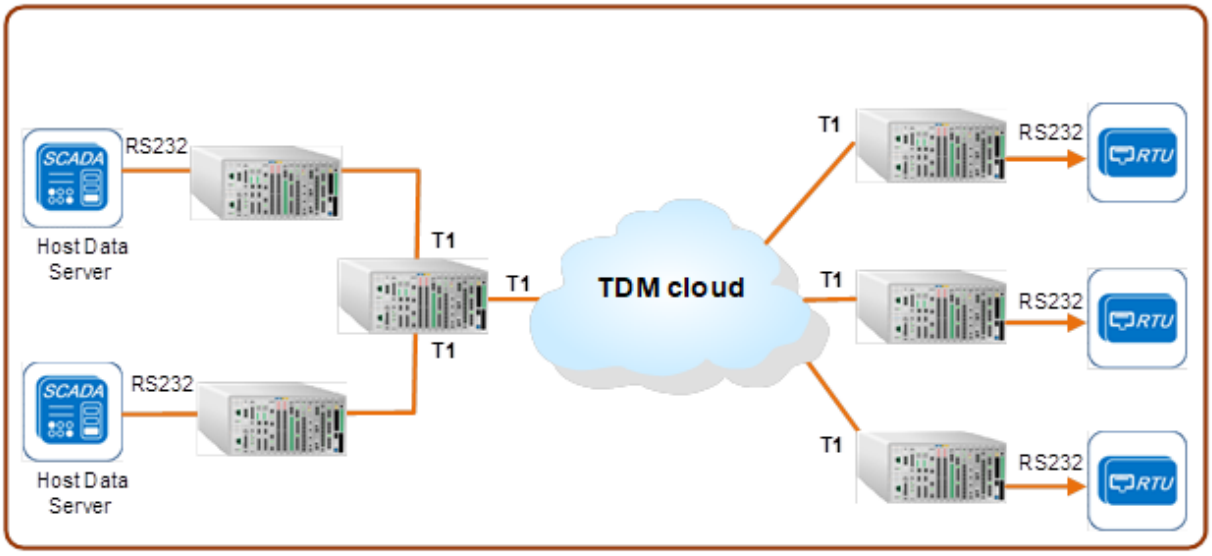
ABRA Card (Analog Bridge)

Point to specified point (1 to 14)

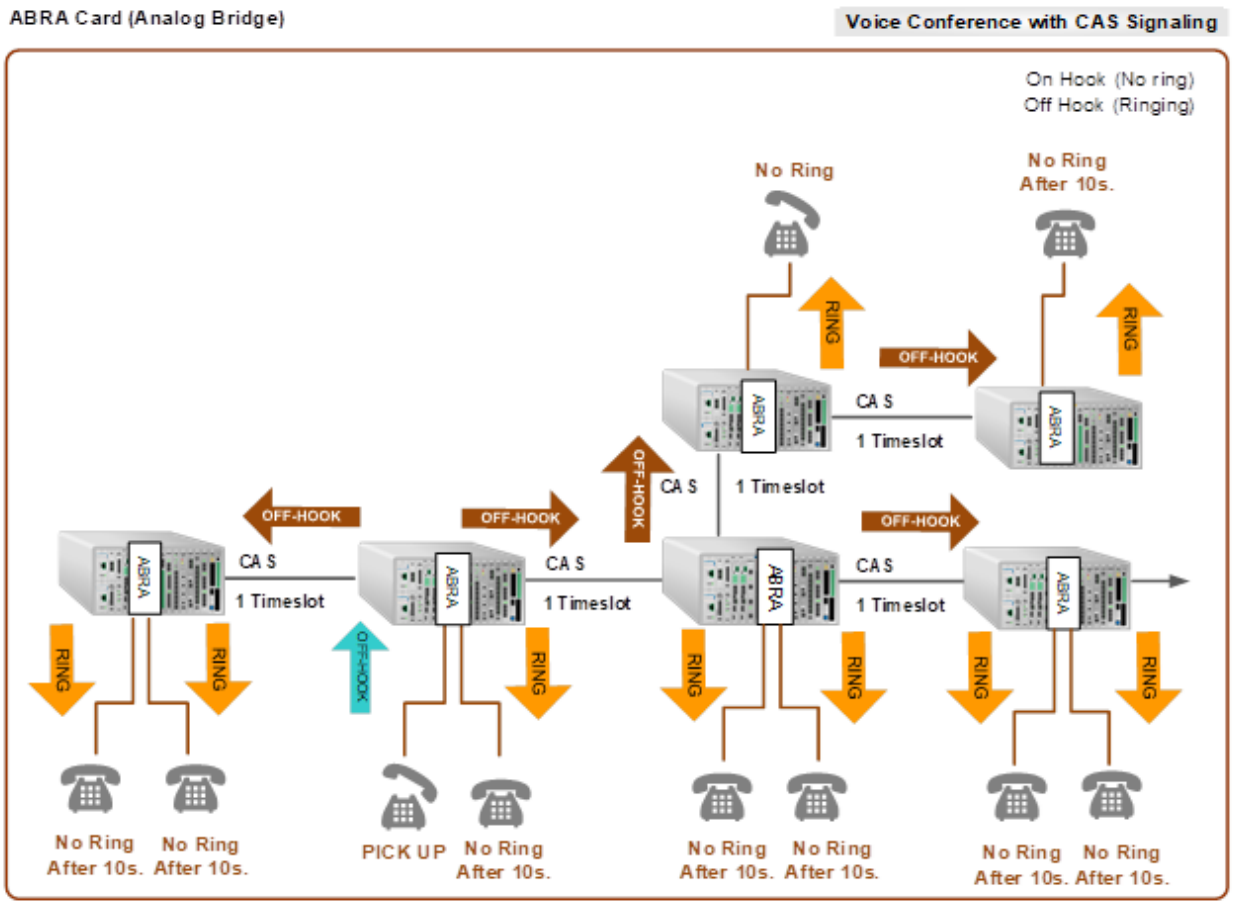



OCUDP Card (Data Bridge)

Upstream mapping through DS0



# Voice Conferencing with CAS Signaling

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