

# 12FXS/12FXO FOR QX3440 & QX3440-S

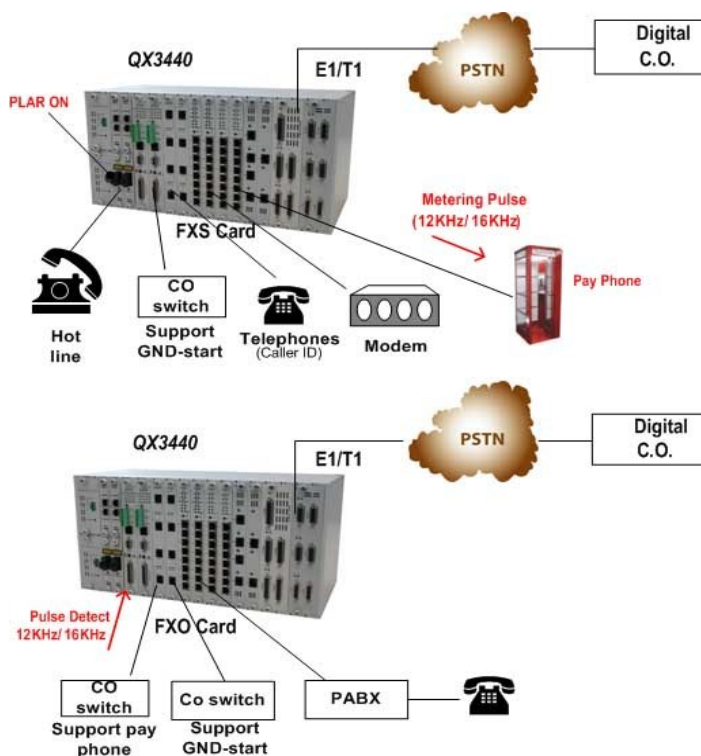
## Features

- 12 telephone connections for FXS
- 12 central office or PBX line connections for FXO
- PLAR supported
- Loop start or Loop start/ground start option
- Battery reverse supported
- DID supported
- 12KHz and 16KHz metering pulse option.
- A, B, C, D signaling bit software programmable
- A-law or m-law coding
- Most signaling conventions supported
- Multi-color LED indicators for each port
- Intended for use with -48Vdc powered main units

## DESCRIPTION

CXR's 12FXS/12FXO plug-in cards are a series of 1 plug-in cards designed for the QX3440. It allows voice frequency interfaces to be multiplexed as a 64 Kbps DS0 signal onto a digital network. 12 FXS provides 12 voice Interfaces connect to telephones. 12FXO provides connections from telephone lines, either from a central office or from a PBX in RJ11X12 connector

Coding is either A-law or m-law selectable by user. Most popular signaling conventions are supported, including PLAR.



## ORDERING INFORMATION

To specify options, choose from list below:

Model (RoHS compliant)	Description	Note
QX3440-12FXS-sn	12-channel FXS plug-in module with 600/ 900 Impedance, Battery Reverse, PLAR, without Ground Start and Metering Pulse	12FXS cards can only be used with -48 Vdc (SD and S5) power module and -125 Vdc (SD125) power module  12FXS-GMP includes all FXS card functions
QX3440-12FXS-P-sn	12-channel FXS plug-in module with 600/ 900 Impedance, Battery Reverse, PLAR, without Ground Start and Metering Pulse PLAR bit programmable function	
QX3440-12FXS-M	12-channel FXS plug-in module with 600/ 900 Impedance, Battery Reverse, PLAR, [Metering Pulse]	
QX3440-12FXS-MPP	12-channel FXS plug-in module with 600/ 900 Impedance, Battery Reverse, PLAR and PLAR bit programmable function, [Metering Pulse]	
QX3440-12FXS-GS	12-channel FXS plug-in module with 600/ 900 Impedance, Battery Reverse, PLAR, [Ground Start]	
QX3440-12FXS-GM-sn	12-channel FXS plug-in module with 600/ 900 Impedance, Battery Reverse, PLAR, [Ground Start, and Metering Pulse]	
QX3440-12FXS-GMP	12-channel FXS plug-in module with 600/ 900 Impedance, Battery Reverse, PLAR and PLAR bit programmable function, [Ground Start, and Metering Pulse]	
QX3440-12FXO	12-channel FXO plug-in module with 600/ 900 Impedance, Battery Reverse, without Ground Start and Metering Pulse	12FXO-GM includes all FXO card functions
QX3440-12FXO-M	12-channel FXO plug-in module with 600/ 900 Impedance, Battery Reverse, [ Metering Pulse ]	
QX3440-12FXO-GS	12-channel FXO plug-in module with 600/ 900 Impedance, Battery Reverse, [ Ground Start ]	
QX3440-12FXO-GM	12-channel FXO plug-in module with 600/ 900 Impedance, Battery Reverse, [ Ground Start, and Metering Pulse ]	

■ Where **sn** is used to select special function. If this option is not required, omit the **sn** field in the ordering code.

sn =	Description	Note
<b>S1</b>	FXS Loop Feed = -48 Vdc with 35 mA current limit	
<b>S4</b>	Remove alarm tone	
<b>S5</b>	Double ring tone transmit	

## SPECIFICATIONS

Voice Card QX3440-12FXS and  
QX3440-12FXO

Connector	RJ11 x 12
Alarm Conditioning	CGA busy after 2.5 seconds of LOS, LOF
Encoding	A-law or m-law, user selectable together for all
AC Impedance	Balanced 600 or 900 ohms (selectable together for all)
Longitudinal Conversion Loss	> 46dB
Cross talk measure	Max -70dBm0
Gain Adjustment	-21 to +10 dB / 0.1dB step transmit & receive
Signal/ Distortion	> 25dB with 1004 Hz, 0dBm input
Frequency Response	- 0.25 to -1 dB from 300 to 3400 Hz, coincide with ITU-T G.712
Idle Channel Noise	Max. -65 dBm0p
Variation of Gain	±0.5dB
FXO	<div> <div>Ringing REN</div> <div>Detectable Ringing</div> <div>Loop Resistance</div> <div>DC Impedance (ON-HOOK)</div> <div>DC Impedance (OFF-HOOK)</div> </div> <div> <div>0.5B (AC)</div> <div>25 Vrms</div> <div>≤ 1800 Ω</div> <div>&gt; 1M Ω</div> <div>235 Ω@ 25 mA feed, 90 Ω@ 100 mA feed</div> </div>
FXS Loop Feed	Normal - 48Vdc with 25mA current limit
FXS signaling	Normal / Automatic Ringdown
FXS Ringing	1 REN at 5K meters per port 16.5Hz, 20Hz, 25Hz, 50Hz, user selectable for all ports 38 to 85 Vrms (sine wave), 76 Vrms for default Ring Voltage 2 sec on 4 sec off, or 1 sec on 2 sec off optional for PLAR
Signaling	Loop Start, DTMF, pulse, PLAR, Battery Reverse
Optional Signaling (for special order)	Ground Start, Metering pulse (12KHz, 16KHz), and P( in PLAR mode, PLAR signalling bits are programmable.

Signaling Bit A,B,C,D

Programable bit

- All in-band signaling tones are carried transparently by the digitizing process.
- Customer is responsible for in-band signaling compatibility between a telephone and a switch, or between a PBX and a switch.



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