

4-Port High Density FXO-M1 Analog Voice Interface Card for the Cisco ICS-7750

The Cisco Integrated Communications System (ICS) 7750 brings the benefits of converged IP services to midmarket businesses and enterprise branch offices. The ICS 7750 is a versatile IP telephony and services solution that helps businesses harness the power of the Internet through converged applications enabling them to anticipate and respond to customer needs more efficiently. Call processing, voice applications and multiservice IP routing are integrated within the system chassis to deliver true convergence while enhancing system manageability. The modular system architecture enables expansion of call processing, routing capacity, and IP services to deliver high availability and scalability. The ICS 7750 gives customers the flexibility to choose the optimal configuration for their business environment, and allows them to increase profitability through improved customer interactions.

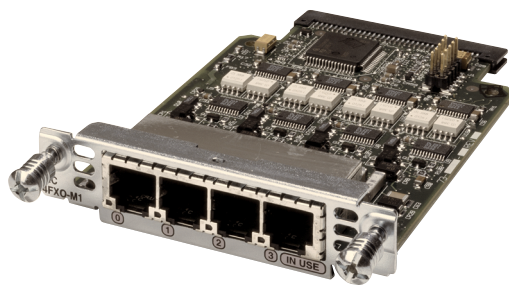
To keep up with the rapidly changing business environment in the Internet economy, businesses need cost effective yet scalable communication network solutions that plug into traditional voice networks as well as into the Internet. The Cisco Multiservice Route Processor for the ICS 7750 is flexible in that it can provide both connection to voice networks or to the Internet based on the type of interface card required by the customer. When combining the MRP with the high density analog Voice Interface Cards (VICs), the result is cost

effective yet scalable analog voice service solution that meets the demanding needs of today's customer.

Product Description:
Cisco VIC-4FXO-M1

The high density Cisco VIC-4FXO-M1 Voice Interface Card (VIC) supports up to four Foreign eXchange Office (FXO) M1 analog trunk ports. The VIC-4FXO-M1 is built from industry-proven Cisco hardware and uses industry-proven Cisco IOS[®] Software technology. Because the Cisco VIC-4FXO-M1 is the same size as the existing two port VICs, it can slide into either one of the two VWIC slots located on the MRP card. Thus, when installing two Cisco VIC-4FXO-M1 cards within a MRP, up to eight FXO-M1 trunk ports can be supported.

Figure 1
4 Port FXO-M1 VIC with
Battery Reversal
Detection and Caller ID
Support





DSP Requirements for the VIC-4FXO-M1

Within the ICS 7750 system, the Medium Complexity analog DSP image is the factory default for supporting the VIC-4FXO-M1. This DSP image provides support for four voice channels (of G.711, G.729 or G.726) for each DSP chip. For example, the PVDM-4 has one DSP chip and is therefore capable of supporting 4 voice channels on the VIC-4FXO-M1. The Medium Complexity analog DSP image supports 4 channels of G.711, G.729, G.726, fax relay, modem or fax pass through and provides support for 32 msec Echo Cancellation per DSP chip.

The VIC-4FXO-M1 also supports the High Complexity analog DSP image. This DSP image provides support for two voice channels (of G.711, G.729, G.723.1 or G.726) for each DSP chip. Therefore, a PVDM-8 (two DSP chips) is required to support 4 voice channels on the VIC-4FXO-M1. The High Complexity analog DSP image supports two channels of G.711, G.729, G.726, G.723.1 fax relay, modem or fax pass through and provides support for 32msec Echo Cancellation per DSP chip.

Service and Support Solutions

Cisco Service and Support Solutions are designed for one purpose—to ensure customer success by delivering a suite of proactive services. Delivered directly or through an ecosystem of best-of-breed service partners, Cisco Service and Support offerings provide presales network audit planning, design consulting, network implementation, operational support, and network optimization.

Cisco Advanced Services enable you to plan, design, build, implement, and optimize your solution for rapid deployment and increased system stability and availability.

Cisco Technical Support Services provide the maintenance and troubleshooting you need to keep your solution operational.

By purchasing service and support with the Cisco ICS 7750, customers can confidently deploy a converged network architecture using Cisco experience, expertise, and resources.



Technical Specifications and Benefits

Table 1 provides the specifications and benefits and Table 2 provides Electro Magnetic Compatibility (EMC) standards for the Cisco 4 port FXO-M1 VIC.

Table 1 Specifications and Benefits of the VIC-4FXO-M1

VIC-4FXO-M1	Four port FXO voice/fax trunk interface card with battery reversal detection and Caller ID (for US, Canada, Japan and other countries)
Interface Type	Foreign eXchange Office
Supported Platforms	ICS-7750
Call Manager Requirement	CCM 3.1(2c)
ICS System Manager Requirement	ICS System Manager Release 2.4
IOS Release on ICS 7750	IOS release 12.2(8)YM or higher
Safety	UL 1950, UL 60950 (USA), CSA C22.2 950, CSA C22.2 No. 60950-00 (Canada), EN 60950 (Europe), AS 3260 (Australia), TS 001 (Australia)
Homologation	USA (TIA/EIA-15-968), Canada (CS03 I), Japan (JATE Analog)
EMC	See table, below
Spare	VIC-4FXO-M1=
Signaling Formats	Ground Start and Loop Start
Address Signaling Formats	In-band DTMF Out-of-band pulse (10/20 pps)
Tone disconnect Supervision	Call disconnect supervisions and far-end answer supervision
Battery Polarity Disconnect	Call disconnects on power of < 600 msec
Physical Connector	RJ-11
Number of Connectors	Four
MTBF	1,702,418 hours

Table 2 EMC for the VIC-4FXO-M1

FCC Part 15 Class B	Emissions
EN55022: 1998, Class B	Emissions
EN61000-3-2: 1995	Harmonics
EN61000-3-3: 1995	Flicker
EN 50082-1: 1997)	Immunity
EN55024: 1998	Immunity
EN61000-3-2	Harmonics
EN61000-3-3	Flicker
EN61000-4-2	ESD
EN61000-4-3	RF Fields
EN61000-4-4	EFT
EN61000-4-5	Surge
EN61000-4-6	Conducted RF
EN61000-4-11	Voltage Dips/Sags/Interruptions



Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 317 7777
Fax: +65 317 7799

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(0208R) LW3795 10/02