

# MTFX™ Series

**MTFX44** voice/FAX combo board  
data sheet

## TELEPHONY APPLICATIONS

- Integrated voice/FAX messaging
- Unified Messaging
- FAX server
- Internet FAX applications
- LAN FAX gateways
- Interactive voice response (IVR)
- FAX back/On-demand

## FEATURES AND BENEFITS

- DSP (digital signal processing) provides powerful and efficient performance and facilitates feature enhancements
- Integrated FAX resources for dynamic and comprehensive FAX integration
- T-30 compliance for connection with most FAX machines in operation
- Enhanced DTMF provides reliable detection during voice playback
- Adaptive echo cancellation enhances cut-through based on line quality
- GSM encoding for enhanced compression and storage
- Extra audio jack allows headset connectivity, prompt recording/message playback
- WAV/FAX combination ideal for unified messaging solutions

## SOFTWARE SUPPORT

- **Available API**
  - Microsoft TAPI™ Support
  - WIN NT Native™
  - Active-X™
  - C/C++
- **Operating Systems**
  - Windows 2000™
  - Windows NT™ V4.0
  - Windows 98™
  - DOS
- **Software Utilities**
  - DSPView™
  - Profiler™
  - DiagISA™

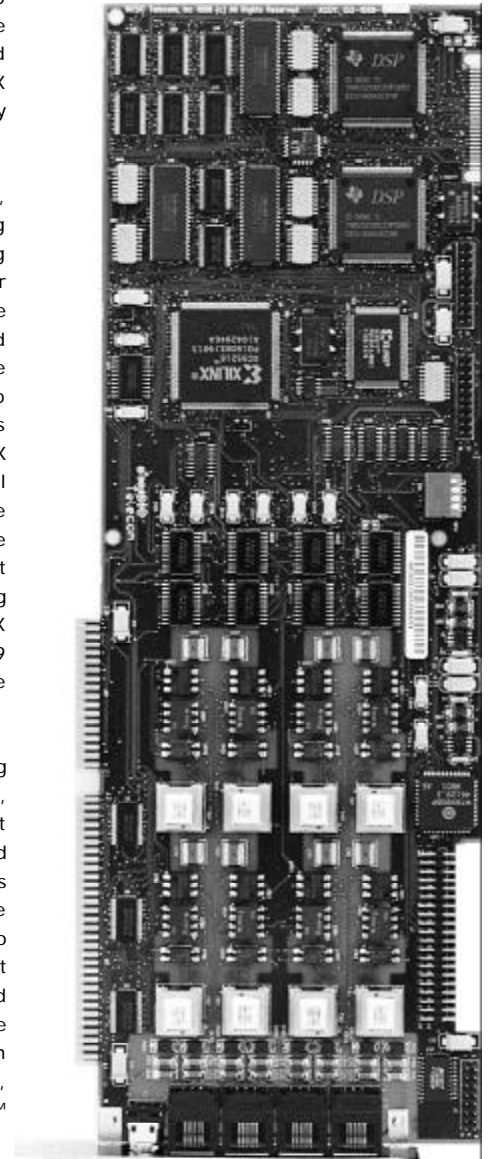
The MUSIC Telecom MTFX™ Series **MTFX44** voice/FAX multifunctional telephony board is a feature-rich, ISA-based analog interface hardware platform capable of supporting 4 ports of enhanced voice processing and 4 ports of FAX processing in a single slot solution. Voice and FAX features are available on every port. The MTFX44 is an ideal product for applications developers who require efficient on-demand voice and FAX image capabilities, and unrestricted use of voice and FAX processing on the same call, at very affordable prices.

The MTFX44 uses a unique, shared digital signal processing (DSP) architecture running state-of-the-art algorithms to deliver world-class DTMF call progress, tone detection, audio compression and FAX processing. FAX functions are seamlessly incorporated into standard voice drivers, thus alternating between voice and FAX is transparent, with each channel independently controlled by the application. FAX channels can be dedicated or shared, and support automatic FAX detection, TIFF (Tag Image File Format), T.30 FAX handshake protocol, and V.29 Group 3 FAX modulation image transfer standards.

Supported voice port audio encoding includes OKI ADPCM,  $\mu$ -law/A-law, WAV, and GSM compression that offers as low as a 13.3 KB per second storage rate. Each MTFX44 board is equipped with a high impedance interface, as well as an extra audio jack that allows support for headset record/playback. Industry-standard MVIP switching is built-in. Software options include North American and International Caller ID, on-board conferencing, and OEMkey™ registration.

MTFX44 application development is facilitated using comprehensive MUSIC Telecom library development toolkits supporting Microsoft TAPI, Active-X, Windows NT Native, and C/C++. All Microsoft operating systems are also supported. Powerful developer/installer enablers include: DSPView - a manual test tool utility; Profiler - an automatic call progress setup utility; and DiagISA - a diagnostic tool.

The MTFX44 is scalable and supports both 16-bit AT or 8-bit XT expansion slots. The MTFX44 delivers multifunctional voice/FAX performance per port, enhanced configuration/installation, and low cost of ownership.



MTFX44

**MUSIC  
Telecom**

DEFINING NETWORK TELEPHONY INTEGRATION (NTI™)

**TECHNICAL SPECIFICATIONS**

**Telephony Interface**

- Connection: RJ-14 modular telephone jacks  
3.5mm Local Audio I/O Jack  
MVIP connection  
20-pin UAI connector
- MUX capability: 64 port digital channels  
No audio degradation
- Impedance: Line matching technology
- Ring Detection: 20–60Hz 25 VRMS min,  
150 VRMS max, 90 VRMS nominal
- DTMF reception: 16 digits: 0–9, \*, #ABCD standard  
DTMF -39 dBm min/tone, duration  
software selectable
- Call progress monitoring: Standard and custom  
frequency based

**Audio Encoding**

- Encoding algorithms: ADPCM,  $\mu$ -Law/A-Law, WAV, GSM
- Storage requirement: 14MB/hour typical
- Sample rate: Software selectable,  
300–360Hz typical at 24 kbps
- Channel crosstalk: -70 dB at 1 kHz
- On-hook recording for call logging

**Host Interface**

- Bus structure: 8-bit or 16-bit PC, ISA compatible
- System requirements: Pentium typical
- Number of boards: Max 16
- Interrupts: IRQ 3, 4, 5, 7, 10, 11, 12, 15  
(software selectable)
- I/O Address: Switch selectable among  
16 different addresses

**FAX**

- T.30 with V.29 Modem capability FAX service
- Remote ID
- Automatic Voice/FAX/Answering machine detection
- Option for 2 or 4 channels of FAX

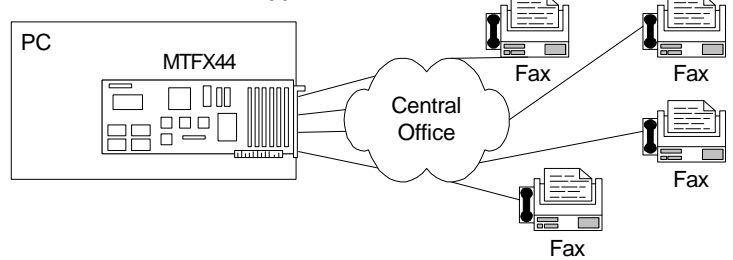
**Power Consumption**

- 1.1 Amps max @ +5VDC
- 70 milliAmps max @ +12VDC
- 70 milliAmps max @ -12VDC

**Physical**

- Size: 13.3" L x 4.5" H x .69" W
- Single AT 16-bit slot compatible
- Comprehensive 3 year warranty

**Broadcast/Server FAX Application**



**CERTIFICATIONS**

- FCC Part 15 class A - USA
- FCC Part 68 (trunk interfaces only) - USA
- CSA - Canada
- CTR-21 (pending) - Europe

**ORDERING INFORMATION**

Model	Fax Channels	Software Options			
		Caller ID	Call Logging	Conferencing	GSM
MTFX44	4				



<http://www.musictelecom.com>  
 Email: [mtinfo@musictelecom.com](mailto:mtinfo@musictelecom.com)  
 Technical Support: [tech@musictelecom.com](mailto:tech@musictelecom.com)  
 Sales: [cti@musictelecom.com](mailto:cti@musictelecom.com)

MUSIC Telecom reserves the right to make changes to its products and specifications at any time in order to improve on performance, manufacturability, or reliability. Information furnished by MUSIC Telecom is believed to be accurate, but no responsibility is assumed by MUSIC Telecom for the use of said information, nor for any infringement of patents or of other third party rights which may result from said use. No license is granted by implication or otherwise under any patent or patent rights of any MUSIC company. MTFX, Profiler, DSPView, DiagISA, OEMkey, and TeleWare are Trademarks of MUSIC Telecom. Windows 2000, Windows 98, WIN NT Native, Active-X, and TAPI are registered trademarks of their respective company. ©Copyright 1999, MUSIC Telecom

**USA Sales Headquarters**

MUSIC Telecom, Inc.  
 254 B Mountain Avenue  
 Hackettstown, New Jersey 07840  
 USA  
 Tel: 908-684-1300  
 Fax: 908-684-0426  
 USA Sales: 800-648-3647

**Asian Sales Office**

MUSIC Telecom, Inc.  
 Special Export Processing Zone 1  
 Carmelray Industrial Park  
 Canlubang, Calamba, Laguna,  
 Philippines  
 Tel: +63 49 549 1480  
 Fax: +63 49 549 1024

**European Sales Office**

MUSIC Telecom, Inc.  
 Raafstraat 60  
 2406 ED ALPHEN A/D RIJN  
 The Netherlands  
 Tel: +31 (0)172-425133  
 Fax: +31 (0)172-425032