StationMaster™ Series

MT4x12   PC-PBX switching board
data sheet

TELEPHONY APPLICATIONS

- PC Based PBX
- Call Center/Help Desk
- Inbound and Outbound Telemarketing
- Communications Servers
- Operator Services
- Automatic Call Distribution (ACD)
- Teleconferencing

FEATURES AND BENEFITS

- 4 Analog POTS trunk (CO) lines
- 12 Analog POTS station lines
- 16 Voice/Tone resources - one per for each port (trunks and stations)
- Stations and trunks both use common API
- On-board ring generation
- Caller ID transmit/receive
- On board conferencing, trunk-to-trunk, trunk-to-station, station-to-station switching capabilities
- MVIP expansion bus
- RJ-21x Telco connector
- On board battery voltage supply
- ADSI FSK Transmit capability (available on Release 2)

SOFTWARE SUPPORT

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

AVAILABLE OPTIONS

- MTSA24:   RJ-21x to RJ-11 adapter with cable

MUSIC Telecom

DEFINING NETWORK TELEPHONY INTEGRATION (NTI™)

The MUSIC Telecom StationMasterä Series **MT4x12** PC-PBX telephony board is a feature-rich, ISA-based analog interface hardware platform, delivering a comprehensive 4-trunk x 12-station PBX telephone switch in a single slot solution. The MT4x12 is a cost-affordable, scalable product built to run mission-critical office applications such as a PC-based PBX switching system for a small business, or a Call Center communication server for an enterprise account.

All 16 ports on the MT4x12 have a dedicated digital signal processing (DSP) voice resource running state-of-the-art algorithms that deliver world-class call progressing, tone processing, and audio compression. Supported audio encoding includes OKI ADPCM, A-law/μ-law, WAV, and GSM compression that offers as low as a 13.3 Kb per second storage rate. All trunk or station ports use a common API, simplifying development. Each MT4x12 board is equipped with a built-in extra audio jack and included adapter cable to support headset record/playback, uploading/downloading of voice prompts, or music-on-hold input. Industry-standard MVIP switching is built-in. Software options include North American & International Caller ID, on-board Conferencing, and OEMkey™ registration. The 12 station/extension interfaces deliver on-board ringing and talk battery generation.

MT4x12 application development is facilitated using comprehensive MUSIC Telecom library development toolkits supporting Microsoft TAPI, ActiveX, and Windows NT Native, C/C++. All Microsoft Windows operating systems are supported. Powerful developer/installer enablers include: DSPView - a manual test tool utility; Profiler - an automatic call progress setup utility; and DiagISA - a diagnostic tool.

MT4x12

The MT4x12 is scalable (up to 64 x 192) and uses MUSIC Telecom's brand-new Modular Interface Technology™, delivering enhanced voice/station switching performance, enhanced configuration/installation, and low cost of ownership.

The optional **MTSA16** is a RJ-21x to RJ-11 station adapter and cable for use with the RJ-21x equipped MT4x12 board.

TECHNICAL SPECIFICATIONS

General

- Minimum system: IBM Pentium or greater
- Host interface: ISA - IBM PC AT compatible
- Form factor: PC AT, 13.34in x 0.79in x 4.8in
- Host interface speed: 8MHz with 0 wait states
- Interface mode: 16 bit transfer mode I/O mapped
- Host interrupt: Software selectable
                                       IRQ 3,4,5,7,10,11,12,15
- Number voice ports: 4
- Number ports: 12
- Max. boards/system: 16 (64x192)
- Digital signal processor: 4x Texas Instruments TMS320C50
                                        40 Mhz
- Connector(s):   RJ-21X female

Conferencing

- Group sizes: 2 to 8 ports
- Maximum groups: 8 (3 party maximum)

Trunk Interface

- Interface type: Two-wire loop start, terminate
- Loop current range: 20 to 55mA, Current limited
- Impedance: 600 Ohms +/- 5% (off-hook)
                                       Greater then 10K Ohms (on-hook)
- Echo return loss: Greater then 20 dBm (2-wire)
- Signal/noise ratio: 35dB referenced to -15dBm
                                       (-15dBm, 1004Hz reference)
- Idle channel noise: Less then 20 dBrnc
- Cross talk coupling: Less then -70dB (0 dBm, 1004Hz)
- Freq. response: 350Hz to 3400Hz ±3dB
                                       (transmit and receive)
- Ring detection: 30Vrms min, 13 to 68Hz

Station Interface

- Interface type: Two-wire loop start, balanced
                                       battery feed
- Loop current: 25mA +2mA
- Open loop voltage: -21 VDC +/-2 VDC
- Closed loop current: Current limited to -30mA max.
- Loop length: 2500 feet, typical (24 gauge)

- Impedance: 600 Ohms ±5%
- Echo return loss: Greater 24.0dB (2-wire)
- Signal/noise ratio: 35dB +/-3dB (15 dBm, 1004Hz reference)
- Idle channel noise: Less then 20 dBrnc
- Cross talk coupling: Less then -70dB max. (0 dBm, 1004Hz)
- Freq. response: 300Hz to 3400Hz ±3dB
                                        (transmit and receive)
- Ring voltage: 65 Vrms typical
- Ring frequency: Software selectable
- Ring equivalency: 1 REN per line
                                        all lines ringing simultaneously
- ADSI generation: FSK generation per Telcordia
                                        TR-NWT-000030

Power Requirements

- +5 VDC   5.5 A max. (All stations off-hook)
- +12 VDC   150 mA max.
- -12 VDC   150 mA max.
- Operating temperature: 0°C to +50°C
- Storage temperature: -20°C to +70°C
- Humidity: 8% to 80% noncondensing

Warranty

- 3 years standard

CERTIFICATIONS

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

ORDERING INFORMATION

Model	Ports	Software Options		
		Caller ID	Conferencing	GSM
MT4x12	4 trunk and 12 station	✓	✓	✓

http://www.musictelecom.com
Email: mtinfo@musictelecom.com
Technical Support: tech@musictelecom.com
Sales: cti@musictelecom.com

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