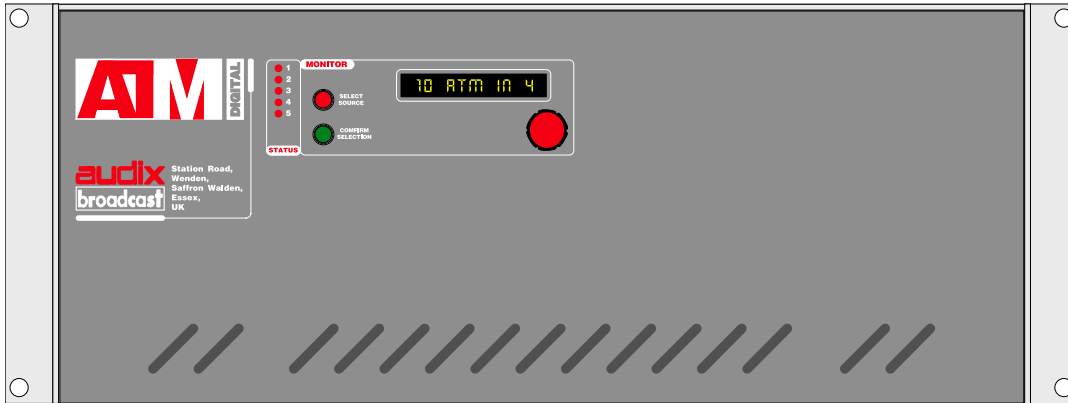


## BROADBAND NETWORKS

ATM 2223



### Outline Facilities

- Conforms to AES47
- Input Assignment Routing
- Output Assignment Routing
- Input signal decoding systems
- Peak level or silence detectors
- Audio Mixing
- Audio level manipulation
- Audio fading/crossfading
- 2 Assignable 3 stage Equalisers with High and Low pass filters
- 2 assignable soft peak limiters
- Remote Controlled Microphone Amplifiers
- Analogue or Digital Inputs, digital inputs with switched sample rate converter
- Analogue or Digital Outputs
- Local PC serial interface to allow local control of the frame
- IP based PPM meters for remote metering

### ATM System

Audix Broadcast has developed a single wide area network system for use in broadcasting. The system allows Real Time No Compromise Linear audio and remote control interfaces to be passed over the network. The carrier infrastructure uses known, tested and now standard telecom technologies to provide very robust wide area networks.

There are NO restrictions on sampling frequencies or word sizes, mono and stereo, surround sound or even MADI may be passed over the same networks.

The gateway interfaces can be stand alone or integrated into our digital audio mixers, and provide a simple and elegant method of implementing a wide area audio routing and control system. The system is infinitely expandable and

includes the capability of linking studios on different sites through standard telecom network connections.

The ATM series of Broadband interface units allow the customer to choose the model most suited to the application. All the series are compatible and conform to the recently published (AES47) standard for ATM based audio transport products.

The more comprehensive units offer the choice of analogue or digital audio ports.

Each ATM frame has local status outputs which are supplied as "closing contacts" for feeding to other systems and include DC Power "OK", Software Status "OK", Polling "OK", Broadband Link "OK" and AES Sync "OK".

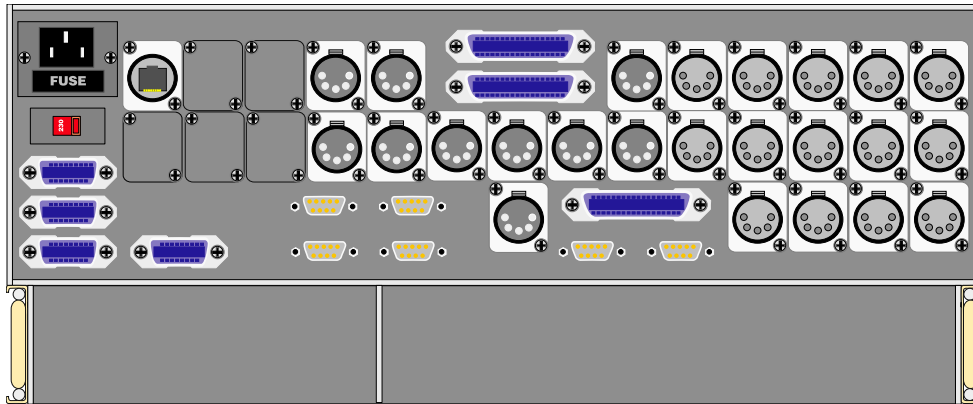
- Common network carrying audio control and computer data
- Linear 24bit real time audio transmission system
- Copper and fibre connections
- Simple and low cost installation
- No restrictions on size of network
- Open structures to AES47 standard
- Analogue or digital inputs
- Analogue or digital outputs
- Remote controlled microphone amplifiers
- Logic control of inputs and outputs
- Audio confidence monitor of all inputs and outputs
- IP based serial control interface



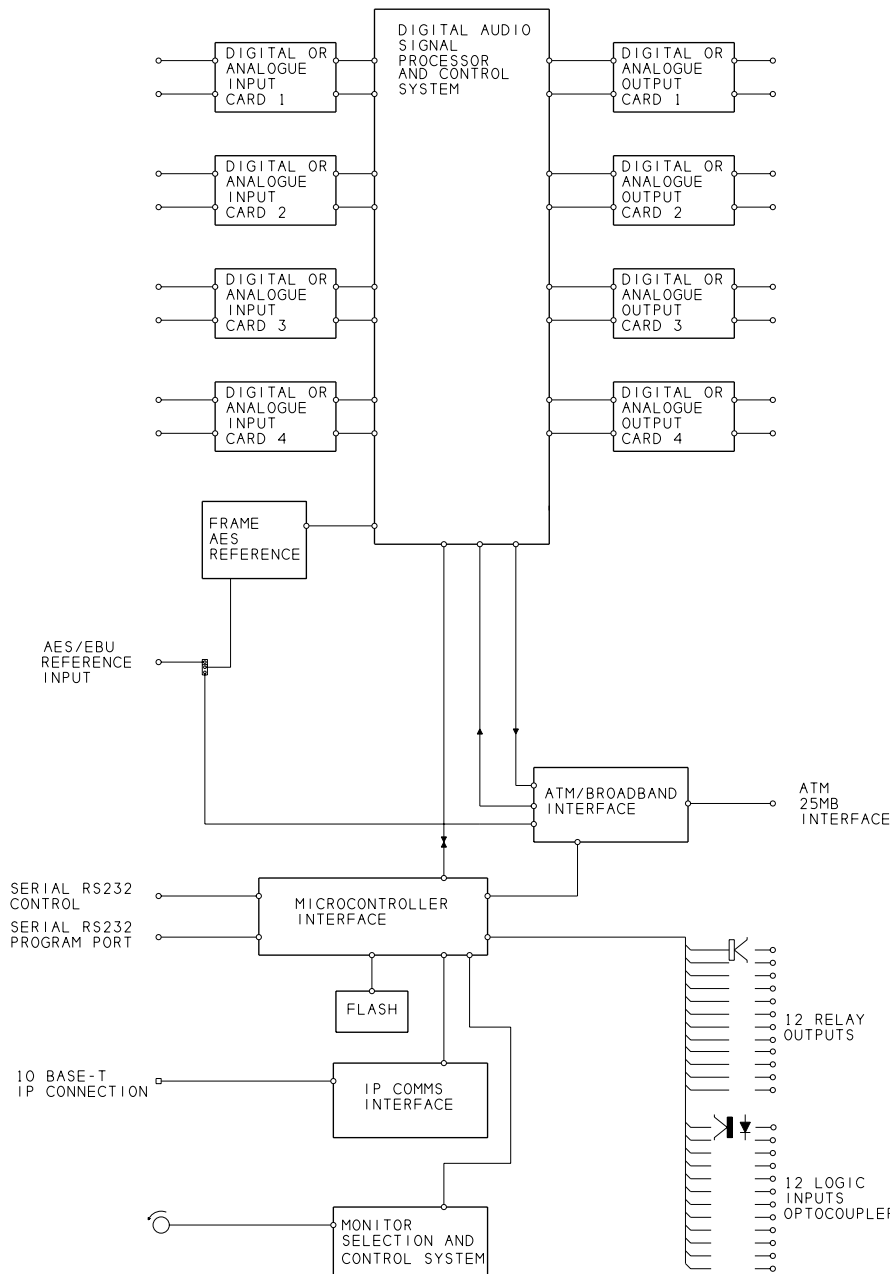
Each ATM frame has a number of static logic interfaces which may be programmed for either local or remote cues over the network. The local controller is also accessed by a "higher authority" through the ATM network which allows each ATM frame to operate as part of a

wide area system without the need of any additional cabling/interfaces.

The ATM frames may be linked and controlled with our ANTS computer system providing customers with a totally integrated Broadcast Solution.



Simplified System Diagram



**WHAT IS ATM**

ATM is a world-wide Telecom standard for the transfer of any digital data, ATM networks are scalable and offer different levels of service for different types of service. Where ATM technology is used in a local area networks at present the most common data rates are 25,155 and 622Mbits/sec.

ATM is a cell based transmission structure and is the only infrastructure where users can request and receive different qualities of service over the network. The common network is capable of carrying signals/data for audio, video and standard IP traffic.

Constant bit rate ATM network circuits are used in real time linear audio applications and can be set-up for either one to one or one to many "multicasting" for distribution/monitoring, ATM networks have very low latency and are ideal for live audio use, typical delays of less than 8mS end to end for a 600KM distance.

Audix Broadcast's current Gateway interface runs on the 25Mbit/sec rate and provides users with access ports for up to 8 individual stereo 48Hz 24bit linear audio circuits in both directions as well as parallel and serial control ports.

## BROADBAND NETWORKS

ATM 2223

The comprehensive ATM 2223 frame includes a very powerful DSP processing system between all of the audio circuits and ATM broadband ports. This allows the customer to undertake any form of audio processing.

Audio configuration is achieved using a versatile scripting language that enables the unit to derive any clean feeds. Cue feeds within the system alleviates the need of either stretching the audio mixer facilities or providing additional "fix it boxes".

See Detailed Diagram on Page 4

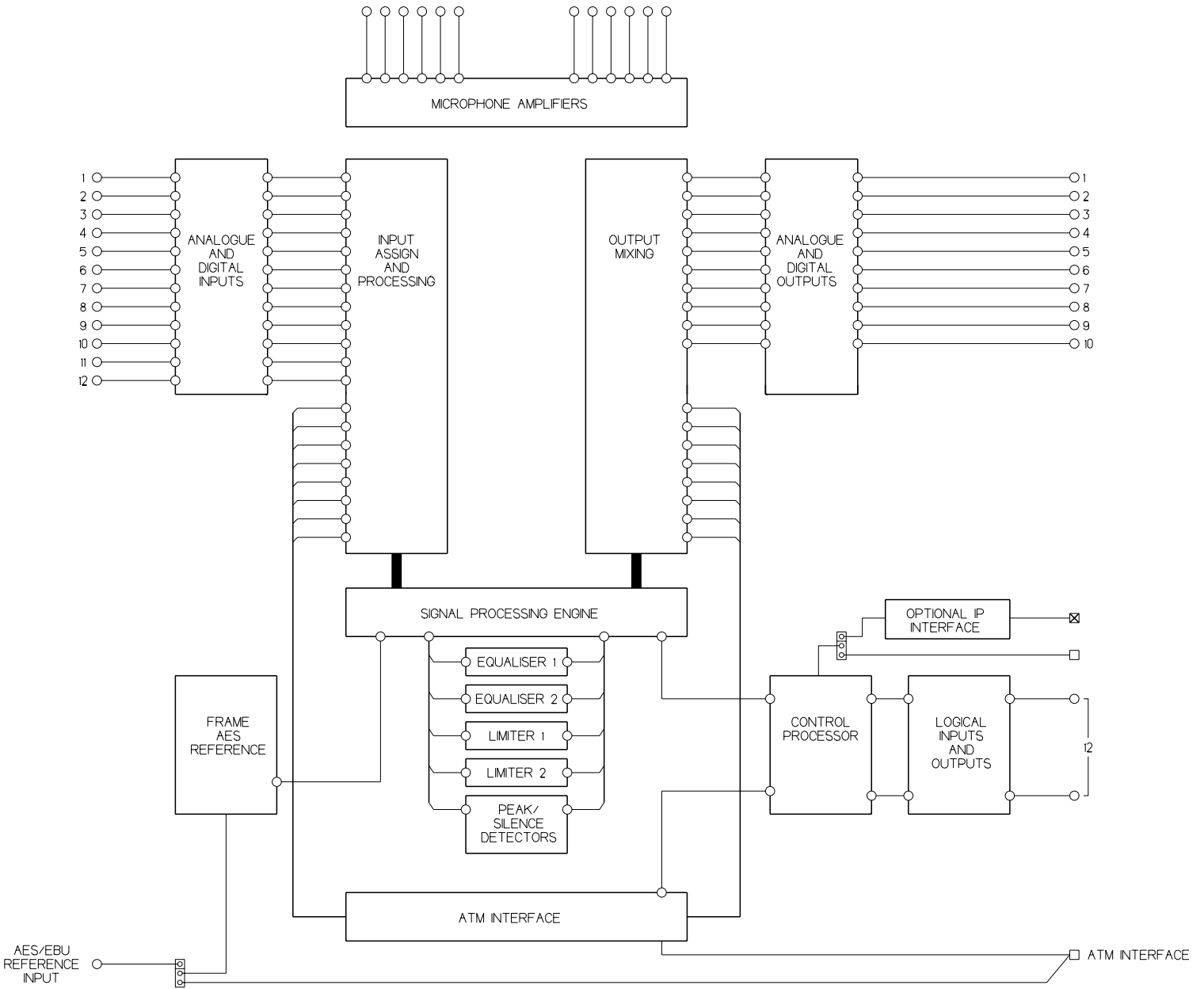
### SPECIFICATION: ATM2223

|                                |   |
|--------------------------------|---|
| Maximum No. of Inputs .....    | Up to 8 Stereo channels   |
| Digital Inputs .....           | Transformer isolated, AES/EBU format, 48kHz Sampling, Synchronous   |
| Maximum No. Outputs .....      | Up to 8 stereo channels   |
| Digital Outputs .....          | Transformer isolated, AES/EBU format, 48kHz Synchronous   |
| External Synchronisation ..... | AES/EBU silence   |
| Dynamic Range .....            | 130dB   |
| Frequency Response .....       | +/- 1dB, 20Hz to 20kHz any input to any output  |
| Distortion .....               | Less than 0.03%, any input to any output  |
| Crosstalk .....                | Not measurable  |
| Maximum Output .....           | +18dBu = 0dBFs, as standard   |
| Digital Resolution .....       | Selectable as 16, 18, 20 or 24 bit  |
| ATM Gateway .....              | 25MB Port Connection  |
| Audio Circuits .....           | 8 stereo linear digital audio, 48kHz, 24bit samples   |
| DC Control-Data .....          | Slow Speed serial RS232 possible, data will be interleaved with control message structure, no guaranteed bandwidth available. |

The frame may incorporate microphone amplifiers which can be controlled either locally or through the network by a remote user.

Connection to external audio and logic interfaces is via XLR type connectors.

# Detailed System Diagram



**WARRANTY**

All equipment is guaranteed for a period of twelve months against faulty workmanship and materials. All repairs are to be carried out at our works at Saffron Walden, where units must be forwarded, carriage paid. We reserve the right to exchange or replace units as necessary.

**DEVELOPMENT**

Audix Broadcast policy is one of continuous improvement. We reserve the right to change specifications without notice. Typical figures are based on normal operating conditions. For critical applications please confirm current specifications with our sales department.