

Beijing TV

Production Facilities Upgrade



CASE STUDY

PAM2 MK2



The Application

Beijing TV (BTV), the Chinese government owned-and-operated television station, serves over 20,500,000 residents in the greater Beijing area, delivering programming covering everything from arts, sciences, lifestyle and finance to sports, youth and news to more than 10 primary channels. Broadcasting exclusively in Chinese, the station additionally produces the BTV International Channel distributed globally through Dish Network, the BTV Theater Channel featuring TV drama productions and the Loving Home Shopping Channel. BTV is in the process of updating all aspects of its facility as it migrates into all digital production. This includes upgrading the entire audio infrastructure as well.

Challenge

With the avalanche of programming production, including live application sports and news, critical confidence monitoring of incoming signals for continuity, production decisions and loudness compliance became impossible to accomplish with the aging equipment that was in place prior to the upgrade. A new system needed to be identified and installed in order to take on modern confidence monitoring tasks.

Solution

The TSL Products' **PAM2 MK2** units give BTV advanced loudness and confidence monitoring capabilities that include Dolby E, Dolby Digital and Dolby Digital Plus decoding from HD, SDI and AES signal sources. These capabilities were not available in the older units, as that equipment was only able to supply level metering as its main function. The PAM2 MK2 additionally offers a software upgrade path to keep the units compatible with ever-changing international loudness standards.

“Our older equipment was severely limited in performance scope, so we decided it was time to upgrade all our confidence monitoring systems. The TSL Products' PAM2 MK2 gives us the power to monitor loudness for compliance with new broadcast standards, accurately meter audio from many sources and provide phase information. In addition to full implementation of current Dolby standards and the capability to interface with multi-layered confidence monitoring systems to ensure signal integrity and quality, the units offer free software upgrades as new features are added. We are very pleased with the performance of the PAM2 MK2 units.”

Mr. Chu Cun, Head of Technical Operations at BTV.

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Project Description

The multi-story Beijing TV headquarters, a 36,000-square-meter (387,500 Sq Ft.) corporate and production facility complex offering 197,000 square meters of multifunctional production studio, control room and office space, needed an upgrade of all its audio confidence monitoring equipment throughout the facility. The original equipment installed for this purpose could not address new Dolby and loudness compliance monitoring standards, so the search began for systems that would take the massive production facility into the HD future.

The equipment chosen for the job was the TSL Products' flagship PAM2 MK2 Precision Audio Monitoring unit. The PAM2 MK2 is equipped with an SDI output which exports the bargraph, data and Loudness Histogram displays to an external monitor (such as a multiviewer or video display) for 'at a glance' review of mission critical audio information. This feature helps Beijing TV to make the unit even more user friendly, as non-technical personnel use the PAM2 MK2 to make critical decisions about which audio stream to use out of the many servicing a particular production.

With the PAM2 MK2 units in place, Beijing TV's new facility can now address all modern monitoring situations, with the additional benefit of having a sophisticated alarm system in place for extended confidence monitoring. The PAM2 MK2 has completely replaced the aging system that only offered level metering, so that Beijing TV operators now have a powerful tool for today's all-digital needs and for those yet to come.

PAM2 MK2

Innovative

The PAM2 MK2 is one of the first audio monitoring solutions to feature Dolby's CAT1100 module (as an option), a new platform for comprehensive decoding and monitoring of Dolby audio formats that are used throughout the HD broadcast chain (Dolby Digital Plus, Dolby Digital and Dolby E). The new module enables the PAM2 MK2 to perform Dolby E decoding and external speaker monitoring, as well as Dolby Digital Plus with surround descriptive audio and stream mixing, which will evolve to 7.1 as broadcasters adopt the full cinematic experience.

Additional features which the CAT1100 card brings to the PAM2 MK2 include;

- Dialogue Intelligence
- Loudness Measurement
- Simultaneous Multichannel and Stereo outputs
- Selectable error concealment

This ensures that PAM2 MK2 maintains its reputation as the world's leading Dolby 'loaded' audio monitoring unit.

Features

- 8 AES (8 Pairs/16 channel) Inputs – 110 Ohm. Balanced or 75 Ohm unbalanced via optional CAB-D25-BNC cable
- 6 Analogue Stereo Inputs
- User programmable presets, 8 by hardware buttons, GPI and 24 internal, accessible by high level menu selection
- Factory preset recall – 5 presets selecting SDI1, SDI2, AES, and Analogue and Optical Inputs
- Fixed or variable AES multichannel outputs for external loudspeaker and system integration (8 pairs/16 channels)
- Compact, lightweight (5.1Kg), 2RU case, 320mm deep



Global reseller network

TSL Products has a network of distributors supporting our products all over the world. For further details about our product range and where to buy please visit www.tslproducts.com

TSL Sales: +44 (0)1628 676 221

E-mail: enquiries@tslproducts.com Web: www.tslproducts.com

TSL Products, Units 1&2, First Avenue, Globe Park, Marlow, SL7 1YA, United Kingdom
Tel: +44 (0)1628 676 221 Fax: +44 (0)1628 676 299 E-mail: enquiries@tslproducts.com

