

KENTON ELECTRONICS

Midistream

Offering low-latency, long-distance control, the Midistream looks set to break records. **Keith Gemmell** takes it to the limit...

MUSIC TECH MAGAZINE
Recommended

MIDISTREAM

Manufacturer **Kenton Electronics**

Price **£400**

Contact **Kenton**
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METHOD SPOT

Over and out

If you're using the Midistream onstage, there will sometimes be fairly long idle times between MIDI messages. However, you can enable power-save mode in the transmitter to increase battery life. This is done by sending a System Exclusive message from your control device to the transmitter.

Every so often, among the large selection of hardware and software that arrives at the **MTM** office for review, something a little out of the ordinary crops up. One such device is the Kenton Midistream. In fact, from the moment you lay eyes on the plain 'no nonsense' packaging with just a black and white photograph of the contents on the front, you get the feeling that this is not going to be a run-of-the-mill product. Inside are two sturdy metal boxes sprouting stubby antennae, a battery and a power supply. Interesting.

Musician and electronics wizard John Price began building MIDI interfaces for pre-MIDI synths such as the Oberheim OBX for his mates back in 1986. They gave him the thumbs up, so he formed Kenton Electronics to begin manufacturing them on a commercial basis. He was soon selling thousands of units as the company went from strength to strength and now produces a wide range of specialist MIDI devices.

The Kenton Midistream is the latest of these products – a wireless device for transmitting MIDI data from a master keyboard (such as the Roland AX-1 or a wind controller such as the Yamaha WX-5) to a distant synthesizer or sound module. That's all very well in theory, but will it enable you to control your on-stage synth from the back of the auditorium, and does it overcome the problems of low latency and dropout commonly associated with these types of devices?

Dual signals

As mentioned above, the Midistream comprises two metal boxes. The transmitter is about the size of a packet of cigarettes, with a small aerial protruding from the top, an on-off switch, and a MIDI input socket. It's powered by a 9V battery. The receiver is a well-constructed, free-standing diversity unit (in other words, the unit actually houses two receivers, each with its own antenna). The system arbitrates between the two incoming data streams so that if for some reason one antenna isn't receiving the transmitter's signal, the other probably is, and this one is selected.

The front panel has four status LEDs. On (blue) shows that power is reaching the Midistream; if it should start to flash, you know that the transmitter's battery is low. MIDI (orange) reveals the presence of incoming MIDI data; while two green LEDs indicate that data is being received at each antenna. Ideally, these should both be lit and serve as a guide when positioning the unit as to the best possible place for a good reception. The on/off switch is located on the back panel along with a MIDI In socket and a connector for the mains adapter.

Using the Midistream is



⚠ Rechargeable batteries are best – one charge gives five hours of continuous use.

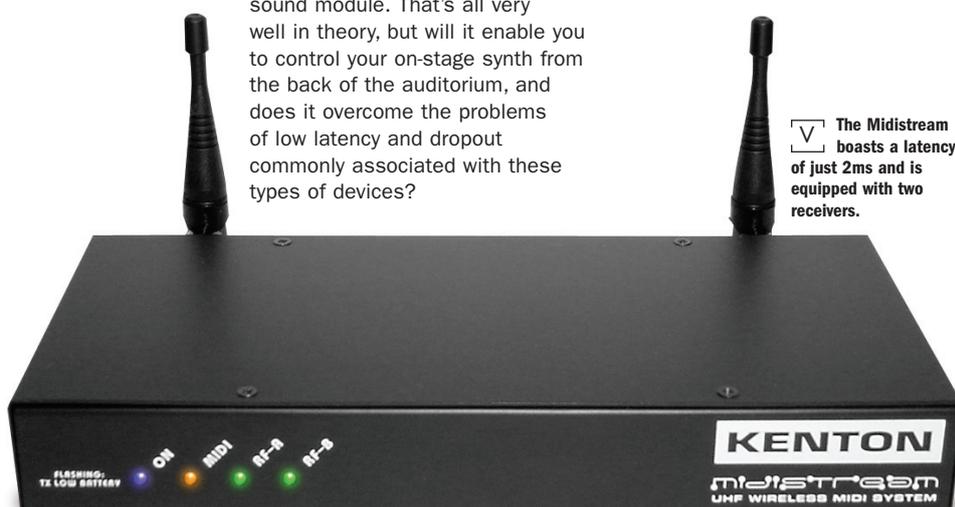
straightforward and intuitive. The receiver's MIDI Out is connected to your synth or sound module's MIDI In and placed in a suitably open space, away from sources of interference. Ideally, this should be as high as reasonably possible (for example, on top of a rack rather than inside it) and away from other metal objects.

The transmitter's MIDI In is connected to your keyboard's (or other MIDI controller's) MIDI Out. You're advised to keep the transmitter away from your body and, if you can, to mount it on your instrument or its carrying strap. A clip is provided for this.

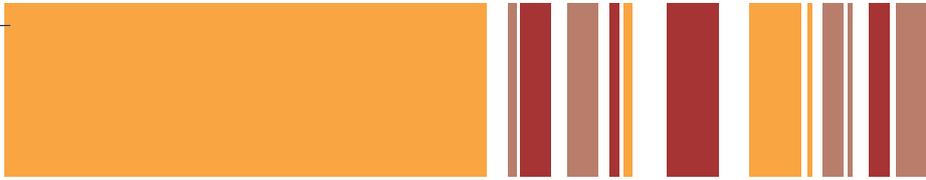
All you have to do now is turn the transmitter on, move to the front of the stage and let rip with a few Herbie Hancock licks – assuming, of course, that it's a keyboard you're playing. Kenton boast an extremely low latency time of 2ms – about the time it takes for sound to travel two feet (less than a metre) – and testing bore that out.

Strut your stuff

Obviously, there's not much point in using a clever device like the Midistream at close range, so does it enable you to leave the stage and show off, playing hot licks while seated within the audience? The



✓ The Midistream boasts a latency of just 2ms and is equipped with two receivers.



answer is yes. According to the information on the Kenton website, the range has not been tested to its full limit as yet and a figure of up to 80 metres (260 feet) is quoted as the maximum in ideal conditions. However, the manual (which was, presumably, printed after testing) quotes a range of up to 100 metres in open spaces – or about 30 metres indoors.

However you look at it, that's quite a claim, so by way of a test we connected the Midistream receiver to a Roland sound module and the transmitter to a Yamaha CBX-K1 portable MIDI keyboard. Both the keyboard and the transmitter were taken for a long walk outside of the studio and played at distance of at least 100 metres. The results were astonishing – perfect transmission of Note On and Off messages as well as pitch-bend and modulation controller data. No dropouts were encountered, either.

In the past, while playing a long solo using a wireless MIDI transmitter and receiver you might have accidentally wandered out of range of the receiver for a moment. The probable result: a relentless hung note droning around the auditorium while you dash back (red-faced) to the synth

messages were recorded using Cubase and subsequently examined in the List Editor. All data, including Aftertouch, Modulation, Pitch Bend and System Exclusive, was found to be present and correct. You are advised by Kenton to avoid very large System Exclusive dumps (1K or more), but for stage use that's pretty unlikely anyway.

It's very hard to find fault with the Kenton Midistream in any respect. It may appear expensive at first, but that's clearly not the case when you start to consider the kind of sophisticated circuitry that has gone into its design. In fact, its only conceivable drawback is the fact that the system is currently available operating at only one frequency (869.85MHz). This means that you can't use two Midistreams near to one another. However, Kenton is planning to make other frequencies available in the future, enabling several units to be used in close proximity.

If you already own or are considering buying a master MIDI controller of some kind – perhaps even for controlling on-stage lighting – the Midistream offers a great way of using it without wires. Definitely highly recommended. **MTM**

If you already own a master MIDI controller, the Midistream offers a great way of using it without wires.

to switch it off. That shouldn't be a problem any more. The Midistream has been specially designed to tackle problems such as this and the likelihood of them occurring is now extremely remote.

If you do wander out of range or the signal is momentarily interrupted for one reason or another, all of the notes playing at that time will be automatically turned off. When you and the transmitter are back in range, the current value for the major controllers – Volume, Pitch Bend and so on – will be resynchronised, with the most recent values sent to the transmitter.

Fault finding

As part of further testing, a wide variety of MIDI controller

SUMMARY

KEY FEATURES

- High data transfer rate
- Free-standing diversity
- Power -save mode
- Range of 100 metres
- Low dropout

WHY BUY

- Low latency (2ms)
- Easy to use
- Flawless operation
- Sturdy construction

WALK ON BY

- Can't use two devices in close proximity at the moment

VERDICT

A quality product which provides the perfect wireless solution for transmission of low-latency MIDI data over astonishingly long distances.

