

Eminent iTrio EM7100



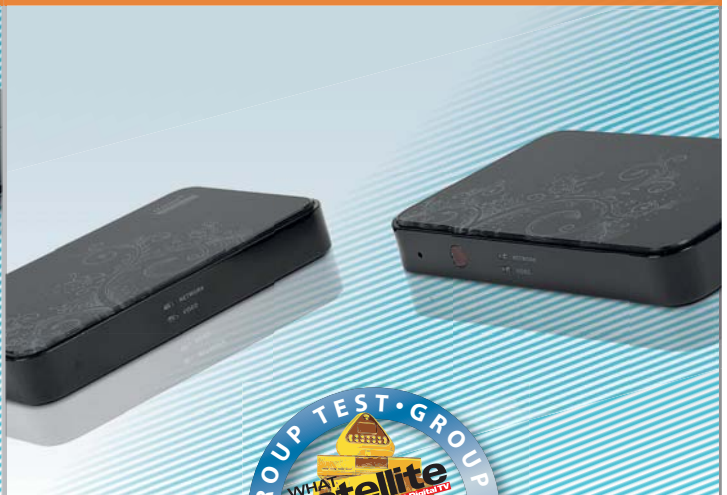
Prestigio Emporio PWHD01



Marmitek Gigaview 820



SAC HD Wireless Sender 1080p



Wireless HDMI video senders

Forget the analogue video senders of yesteryear, today's wireless HDMI models offer a big leap forward in performance

A new generation of wireless video senders for HDMI hardware is now available using the 5GHz A and B bands (5.18GHz-5.79MHz), designated for short-range wireless LAN applications to deliver interference-free pictures. 5GHz is also much more robust than 2.4GHz (used by previous video senders), doing a better job of penetrating brickwork and plasterboard. So it's ideal for streaming video over WLAN.

They vary significantly in connectivity and performance and we challenged them with a trio of tasks. Our objective was simple: to see just how easy they are to install and where, if anywhere, do they stumble. We

tried streaming HD from our Sky+HD in a second-floor room then feeding the wireless transmitter directly from a 3D Blu-ray player. With the receiving unit connected directly to an AV receiver, we could tell not only if the transmitter would handle 1080p video but could also judge how each unit handled multichannel audio.

Finally, we used a Blu-ray test disc with a horizontally scrolling 1080p monoscope pattern, alongside various test sequences. Just how badly would the picture quality suffer from compression artefacts? All of our tests involved transmitting between rooms; none was carried out using line-of-sight connections.

Buying tips

- Make sure that the receiver in your chosen system can output to the TV intended. There's no point buying a box that only has an HDMI output if your bedroom TV has just a Scart input
- If you plan to transmit over a long distance, make sure you buy a video sender with the greatest non-LOS (Line of Sight) capacity
- Your TV receiver probably only has one HDMI output. To feed both the video sender and TV, you'll need a system with an HDMI loopthrough, or a separate switching/distribution solution

www.eminent-online.com £399

Eminent iTrio EM7100

Standing 195mm tall and tipping the scales at 270g per unit each, the iTrio has just about the largest units on test here, offering a wide range of connection options. Choose from two HDMI v1.1 inputs, Scart PC VGA/component (a VGA-to-component adapter lead is enclosed in the box) and a stereo mini jack audio input. The receiver unit has HDMI, Scart and component outputs.

Rather bizarrely (for a wireless sender), there is also a wired LAN option on both units, although the manual warns you away from it declaring the connection for 'professional use only'.

Eminent tells us that this facility is actually being used in shopping centres to get video to up to five distribution points for advertising purposes. There's also a USB input on the receiver; this is not for additional media playback options (although that would be nice), but firmware upgrades.

Included is a small credit card remote control and a standard three-bulb IR extension zapper. You can also manually cycle through the inputs using a tiny button on each front fascia. For our first test, the HDMI output from our Sky+HD was plumbed into the transmitter. For the units to link you need to ensure the receiver is synced to the correct input source. During our tests, the transmitter did not auto detect connected sources, which meant we

had to scroll through the options to pair the units up.

Audiovisual performance is average. There were no significantly intrusive compression artefacts incurred during the process. However, scrolling onscreen movement can stutter and skip. We also detected a low level of background audio hiss, but this would be masked by most programme material. Audio from our Blu-ray player was delivered to our receiver unit as stereo PCM. The Dolby Digital 5.1 bitstream never made it through the ether. Instructing our BD player to internally convert to multichannel PCM didn't help either. The output from the receiver remained stereo PCM.



Ratings

PLUS

- Wide range of signal input options
- Only system to offer a legacy Scart output from the receiver

MINUS

- Receiver delivers stereo PCM output only
- Smooth motion compromised by occasional judder and frame skips
- No HDMI loopthrough on transmitter

| | |
|-------------|-----------|
| Build | ★★★★★☆☆☆☆ |
| Setup | ★★★★★☆☆☆☆ |
| Performance | ★★★★★☆☆☆☆ |
| Features | ★★★★★☆☆☆☆ |
| Value | ★★★★★☆☆☆☆ |

WHAT satellite & Digital TV
68%

www.keene.co.uk £260

Marmitek Gigaview 820

Marmitek's Gigaview 820 looks like a serious contender even before it's plugged in. The transmitter and receiver units are nearly as large as the iTrio units, but have a pleasing, sweeping design and a glossy black finish. Rather thoughtfully, the units come with rawl plugs and a mounting plate should you wish to wall-mount them near or behind kit.

Because the transmitter has two HDMI inputs plus one loopthrough HDMI output you can have the same video and audio running in two rooms on two displays. Without it you would need to use a separate switching device to feed both your main viewing screen and the video sender.

In addition to this improved HDMI connectivity, there is also a mini jack for a supplied IR repeater, a USB connection for firmware updates and a simple remote control to select HDMI inputs. Once powered up, the Gigaview 820 takes longer than its rivals to locate and

lock to its stablemate receiver. However, once connected, both hi-def and SD transmissions stream without judder. A standard IR blaster extension connects to the transmitter and there's an optional IR collector that plugs into the receiver, which is helpful should you wish to place the unit out of sight.

Our second challenge, which involved streaming 1080p from a Blu-ray player in another room, really saw the Gigaview 820 come into its own. Not only was a Dolby Digital 5.1 bitstream delivered to our waiting AV receiver, when we switched the Blu-ray player from a bitstream output to multi-channel PCM this too was transmitted effortlessly – all without any low-level background noise. The Gigaview 820 is the only system in the group able to transmit and deliver multichannel PCM. The system's video performance is equally praiseworthy. The transmitter streamed our 1080p test material without stutters, judders or slipped frames.



Ratings

PLUS

- HDMI loopthrough on the transmitter
- Supports bitstream audio and multichannel PCM
- Excellent video performance

MINUS

- Transmit and receive units a little on the large size

| | |
|-------------|-----------|
| Build | ★★★★★☆☆☆☆ |
| Setup | ★★★★★☆☆☆☆ |
| Performance | ★★★★★☆☆☆☆ |
| Features | ★★★★★☆☆☆☆ |
| Value | ★★★★★☆☆☆☆ |

WHAT satellite & Digital TV
88%

www.maplin.co.uk ■ £250



Prestigio Emporio PWHD01

With a name like Prestigio Emporio, this wireless sender appears to be trying a little too hard to impress – even its packaging is extravagant. But there is substance behind the style.

Both transmitter and receiver have a pancaked Mac Mini-style design that is rather attractive. Build quality is good, although there is some creak in the plastic casings. Given how slim the units are, there's only room for a single HDMI connection on each. Also supplied in the box is an IR blaster and an HDMI lead.

Thanks to the paucity of connections, hooking up the PWHD01 is simplicity itself. Once the transmission source and receiving screen have been wired via HDMI, the units can be powered up. A simple onscreen text display then informs that the devices are 'Linking'.

By way of confirmation, a few moments later a Sky channel appeared on our second-floor set. The IR blaster

enabled us to pull up the EPG, with little obvious delay. It was as if a fully functioning Sky box was connected. In terms of ease of use, the PWHD01 proved to be the best system on test.

Prestigio says the Emporio can transmit 1080p HD resolution video across 25m, with 720p HD video reaching twice that.

It is the only wireless HDMI video sender in this group to use Motion JPEG compression rather than an H.264 codec, but the results are not great. On received footage there were clear mosquito noise artefacts around fine detail (not present on the source material). Even worse, our Blu-ray test platter confirmed significant judder and skipping during rapid horizontal movement.

This all added up to the worst video performance in the group. As with the Eminent iTrio, the Prestigio receiver outputs stereo only.

www.sacelectronics.co.uk (code: AE7695) ■ £250



SAC HD Wireless Sender 1080p

When it comes to design, this diminutive duo has got its groove on. We love the fashionable swirly pattern on the casing, which makes a nice change from regulation gloss black. Two iPod-style bases are provided to stand the units vertically, which helps cool what transpires to be hot-running electronics.

Connectivity is limited to a single HDMI v1.3 input/output on the transmitter and receiver, along with a power feed and IR blaster mini jack. Performance is very good. The units boast a transmission distance of no more than 30m, but we experienced no problems during our tests. Image support extends up to 1080p. We didn't need it but if the transmitter and receiver units fail to connect there is a booster button on both. These must be pressed simultaneously and the two boxes then re-sync. Picture quality is reduced as a result, though.

Ease of use is also good. Immediately after being powered up, with the transmitter taking an HDMI input from our Sky+HD box and the receiver unit connected to a second-floor TV, both automatically linked. Moments

later a Sky channel was delivered to our second set.

The Sky EPG could be navigated seamlessly, and recordings played from the Planner. Both SD and HD TV streamed to our second-floor test room without judder or stutter. HD signals appeared extremely clean.

For our second test, we fed our transmitter with the HDMI output of a Sony Blu-ray player and routed the HDMI from its sibling receiver into an AVR. Not only did the 1080p image pour across with no visual impairment, the Dolby Digital 5.1 bitstream from the disc came with it, dutifully turned into full surround sound by our home cinema amp. Performance using our motion resolution Blu-ray disc was excellent. There were no compression artefacts and motion scrolling is perfectly smooth.

Audio quality is also fine with no low-level audio hiss apparent in the transmission stream. It supports Dolby Digital 5.1 bitstream and stereo PCM but could not deliver multichannel PCM when a multichannel film soundtrack was converted from bitstream to PCM before transmission.

Ratings

PLUS

- Quick and easy to set up
- Attractive design

MINUS

- Horrible compression artefacts
- Severe judder and stuttering with horizontal motion
- Receiver outputs stereo only
- No HDMI loopthrough

| | |
|-------------|---------|
| Build | ★★★★★☆☆ |
| Setup | ★★★★★☆☆ |
| Performance | ★★★★★☆☆ |
| Features | ★★★★★☆☆ |
| Value | ★★★★★☆☆ |

WHAT satellite & Digital TV
60%

Ratings

PLUS

- Small, stylish design
- Excellent video performance
- Receiver supports DD5.1 bitstream output

MINUS

- Units tend to run hot
- No HDMI loopthrough on transmitter

| | |
|-------------|---------|
| Build | ★★★★★☆☆ |
| Setup | ★★★★★☆☆ |
| Performance | ★★★★★☆☆ |
| Features | ★★★★★☆☆ |
| Value | ★★★★★☆☆ |

WHAT satellite & Digital TV
82%

And the winner is...



➤ There's no doubt that all the wireless senders here represent a massive leap forward in performance from the days of RF analogue video senders. But there is considerable diversity, and your choice is going to be dictated by what you value most. If you're looking for ease of use, we advise you to audition the Prestigio Emporio PWH01 first. We found this easiest to install. Its design is also really cool. Unfortunately, the system is let down by its poor overall AV performance and image quality is the worst in the group.

If you want multiple inputs or to be able to output via Scart to a legacy TV in a bedroom, den or shed, then Eminent's iTrio is the only choice. You will, however, pay a rather high price for such versatility.

Our top two contenders: the SAC HD Wireless Sender 1080p, and the Marmitek Gigaview 820. Each offer excellent performance and value. We particularly like the former's small form factor and funky appearance.

We're told by the distributor that a revamped edition will be available by the time you read this, which will offer an HDMI loopthrough output on the transmitter box. ■ Steve May

Verdict

Our best buy is the Marmitek Gigaview 820. This system is not only competitively priced; it's well made and sets the bar high when it comes to audiovisual performance. It's also the only one on test to offer the convenience of an HDMI loopthrough – a really rather important feature strangely missing on the other competitors. It offers the most versatile of audio options and is able to transmit and deliver copious audio formats. This sonic talent makes it the ultimate choice for those looking to integrate an HDMI video sender into a home cinema-minded environment.



| |  |  |  |  |
|-----------------------|---|---|--|---|
| Make and model | Eminent iTrio EM7100 | Marmitek Gigaview 820 | Prestigio Emporio PWH01 | SAC HD Wireless Sender 1080p |
| Price | £399 | £260 | £250 | £250 |
| WiFi type | WiFi 802.11n | WiFi 802.11n | WiFi 802.11n | WiFi 802.11n |
| Maximum range claimed | Up to 30m | Up to 15m when obstructed | 50m for 720p/25m for 1080p | Less than 30m |
| Remote supplied | ● | - | - | - |
| IR blaster | ● | ● | ● | ● |
| Maximum resolution | 1080/60p | 1080/60p | 1080/60p | 1080/60p |
| Audio support | Stereo | Stereo/DTS/Dolby Digital 5.1/PCM | Stereo | Stereo/DTS/Dolby Digital 5.1 |
| HDMI inputs | 2 | 2 | 1 | 1 |
| HDMI outputs | 1 | 1 | 1 | 1 |
| HDMI loopthrough | - | ● | - | - |
| HDCP supported | 1.2 | 2.0 | 1.2 | 1.2 |
| Component output | ● | - | - | - |
| VGA input | ● | - | - | - |
| VGA output | - | - | - | - |
| Scart input | ● | - | - | - |
| Scart output | ● | - | - | - |
| Ethernet port | ● | - | - | - |
| USB port | ● (for firmware updates only) | ● (for firmware updates only) | - | - |
| Rating (%) | 68 | 88 | 60 | 82 |