



An Extended Guide · No. 1979

HDMI Cables — When "Ultra High Speed" Matters and When Any Cable Will Do

Which cable your TV, soundbar,
or console really needs

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Let's make sense of HDMI cables together

If you've ever stood in a store aisle, or scrolled a website, staring at HDMI cables that all look the same but cost wildly different amounts — you are in very good company. This guide sorts out which cable you actually need, and when a new one would change nothing at all.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. I've spent 30+ years helping folks get comfortable with the gear in their homes, patiently and in plain language. Think of this guide as me sitting on your couch with the TV remote, helping you decide if that pricey cable is worth it.

HDMI is the flat, wide cable that carries both the picture and the sound between your TV and the things you plug into it — a streaming box, a cable box, a game console, a soundbar. There are a handful of official cable types with real names, and the whole trick is matching the right name to what your gear actually needs.

★ The short answer, up front

For ordinary TV watching, the cable you already have is very often fine, and a new one fixes nothing. The time it truly matters is a newer game console pushing the fanciest picture. If you're unsure, call or text me at (330) 200-8042 and I'll tell you straight — no charge for the question.

The whole guide, on one page

If you remember only these things, you already know most of what there is to know about HDMI cables.

- ❑ One HDMI cable carries both the **picture and the sound** — it's not two separate things.
- ❑ The official certified names, from older to newest, are **Standard**, **High Speed**, **Premium High Speed**, **Ultra High Speed**, and **Ultra96**.
- ❑ For ordinary 1080p or 4K-at-60 TV viewing, an existing **High Speed** or **Premium High Speed** cable is usually plenty.
- ❑ For a game console doing **4K at 120**, you want an **Ultra High Speed** cable.
- ❑ A new cable fixes nothing if the picture problem is really the source, the wrong input, or a setting.
- ❑ Marketing phrases like "8K ready" are not the real certification — the genuine cable carries the official name and a scannable label.

✓ Don't let anyone upsell you

A more expensive HDMI cable does not make an ordinary picture look better. If your TV and your box only need a 4K-at-60 picture, a sensible certified cable does the job as well as the priciest one on the shelf.

What an HDMI cable actually carries

Before we talk about which one to buy, it helps to know exactly what this cable is doing when you plug it in.

HDMI carries the picture and the sound together, over one cable, in one direction mostly — from a device like a streaming box into your TV. That's why plugging in a single HDMI cable can bring up both a crisp picture and the audio at the same time. In our audio-cables guide we cover the sound side in more detail.

The plug is a flat, wide connector, a little wider than it is tall, with gently angled bottom corners. It only goes in one way up. You'll find the matching sockets on the back or side of the TV and on the back of nearly everything you connect to it.

✓ Picture and sound, one cable

If you ever wonder why a new streaming box needs only one cable to the TV, this is why — HDMI handles both jobs. That's also why a sound problem sometimes traces back to an HDMI setting, not a separate speaker wire.

The official cable names, oldest to newest

There are only a few real, certified HDMI cable names. Learn these and the marketing noise stops mattering.

- **Standard HDMI** — the oldest, made for about 1080i, the earlier kind of high-definition picture.
- **High Speed HDMI** — handles 1080p and early 4K at 30, which covers a great deal of everyday viewing.
- **Premium High Speed HDMI** — certified to 18 Gbps, enough for 4K at 60 with HDR (richer color and contrast).
- **Ultra High Speed HDMI** — certified to 48 Gbps, enough for 4K at 120 or 8K at 60, with the features newer game consoles use.
- **Ultra96 HDMI** — certified to 96 Gbps, the newest type, and the only cable that supports every mode of the latest standard.

Gbps is just a measure of how much picture-and-sound information the cable can carry each second — a bigger number means it can handle a more demanding picture. You do not need to memorize the numbers. You only need to match the name to what your gear asks for.

★ Five names, that's the whole list

There's a picture page near the back laying these out side by side. When in doubt, I'm a phone call away at (330) 200-8042 and happy to tell you which name your TV and box need.

The everyday cables: Standard and High Speed

These are the cables most homes already have in a drawer or behind the TV, and for a lot of folks they're all that's needed.

Standard HDMI is the oldest type, made back when high-definition meant about 1080i. You likely won't buy one new today, but you may still have one, and for an older set it can be perfectly fine.

High Speed HDMI is the workhorse. It handles 1080p — the full high-definition picture most shows and streaming come in — and early 4K at 30. If you watch regular TV, movies, and streaming on a typical set, a High Speed cable very often does everything you need and a newer one changes nothing you'd ever see.

✓ Already have one that works?

If your picture looks good right now with the cable you've got, you do not need to replace it. A working High Speed cable is not something a newer, pricier cable improves upon for the same picture.

Premium High Speed — the 4K-at-60 cable

This is the sweet spot for most modern 4K televisions, and worth knowing by name.

Premium High Speed HDMI is certified to carry 18 Gbps, which is enough for a 4K picture at 60 with HDR. HDR, if the word is new, simply means richer color and deeper contrast — brighter brights and darker darks. Most 4K TVs and 4K streaming land right in this range.

If you have a 4K TV and a 4K streaming box or disc player, a Premium High Speed cable is usually the right match. It costs more than a basic High Speed cable, but not dramatically so, and it's a sensible, honest buy when you genuinely have 4K gear on both ends.

✓ Match the cable to both ends

A fancy cable can't create a 4K picture if your TV or your box only does regular HD. Match the certified name to what the TV and the device actually do — buying beyond that spends money on headroom you'll never use.

Ultra High Speed — the one game consoles want

This is the cable where the words "Ultra High Speed" truly earn their keep, and the one worth being fussy about.

Ultra High Speed HDMI is certified to carry 48 Gbps, enough for 4K at 120 or 8K at 60, along with the smoother-motion and better-sound features that newer game consoles and high-end TVs use. It was introduced with the HDMI 2.1 standard in 2020.

If someone in the house has a newer game console and a TV that can show 4K at 120 — that's a very fast, very smooth picture for fast-moving games — this is the cable you want. An older High Speed cable may connect and show a picture, but it can hold back that top mode. For 4K at 120, reach for Ultra High Speed.

★ A gift for a gamer in the family?

If you're buying for a grandchild with a new console, Ultra High Speed is the name to look for. Snap a photo of the console and the TV and text me at (330) 200-8042 — I'll confirm you're getting the right one before you spend a dime.

Ultra96 — the newest cable, for the newest gear

There's one more name you might start seeing, and it's worth understanding so you don't pay for it before you need it.

Ultra96 HDMI is certified to carry 96 Gbps, built for the newest HDMI standard, called HDMI 2.2, whose specification was announced in January 2025. It is the only cable that supports every mode of that newest standard.

For almost everyone reading this today, Ultra96 is more than the TV and the gear in the living room can use. It's good to know the name exists, but there's no reason to buy it just because it's the biggest number on the shelf. Buy it only when you actually own gear that calls for it.

! Biggest number is not the same as best for you

A cable certified far beyond what your devices can do gives you no better picture — it just costs more. The right cable is the one that matches your gear, not the one with the highest figure printed on the box.

Two kinds of households, two sets of needs

The right HDMI cable depends entirely on what you're plugging in. The same store shelf serves two very different needs.

If it's ordinary TV and streaming

You watch shows, movies, news, and streaming on a typical TV with a cable box or streaming stick. Your goal is a reliable picture without overspending.

- A working High Speed or Premium High Speed cable is usually all you need.
- If the picture looks good now, a new cable will not make it look better.
- Buy a basic certified cable only if a current one is damaged or missing.
- Ignore the big numbers and splashy claims — they won't change your picture.

If it's a 4K-120 console or high-end setup

You have a newer game console or a high-end TV that can show 4K at 120, and you want the top picture mode to actually work. Here the cable matters.

- Look specifically for the Ultra High Speed name — that's the match.
- An older cable may show a picture but quietly limit the fastest mode.
- Check the TV's socket, too — the top mode often needs a specific HDMI port.
- Only step up to Ultra96 if you own the very newest gear that calls for it.

★ Not sure which camp you're in?

This is a five-minute question and a free one. Tell me your TV and what you plug into it, and I'll tell you whether your current cable is fine or whether one specific upgrade is worth it. Call (330) 200-8042.

Matching the cable to what your gear needs

The whole decision comes down to one honest question: what picture does your gear actually produce, and what does your cable need to carry?

Start with the TV and the device on the other end — a streaming box, a disc player, a game console. Find what picture they're set up for: regular HD, 4K at 60, or 4K at 120. The box or the maker's page will say. Then pick the cable name that covers it, and no further.

Regular HD viewing is happy on a High Speed cable. A 4K TV at 60 wants Premium High Speed. A 4K-at-120 game console wants Ultra High Speed. If you match the name to the need, you never overpay and you never fall short.

✓ When in doubt, use the cable that came in the box

Many TVs, consoles, and streaming devices include an HDMI cable built for what that device can do. If you still have it, it's a safe, free match — label it so you remember which device it belongs to.

When a new cable fixes nothing at all

This is the part that saves you the most money, so let's be plain about it. A great many picture problems have nothing to do with the cable.

HDMI is mostly a pass-or-fail affair. If a cable is carrying the picture at all, and the picture is steady, a different cable will show you the exact same thing. Cables don't make a good picture 'a little better' the way a better lens might — they either carry what your gear sends, or they don't.

So if your picture already looks right, buying a pricier cable buys you nothing you can see. And if your picture looks wrong, the cable is often not the culprit at all — which is the very next page.

! A pricier cable is not a picture upgrade

If a store or a website promises a sharper, more vivid picture from a more expensive HDMI cable at the same settings, be skeptical. For the same picture your gear produces, a sensible certified cable and a costly one look identical.

A bad picture is usually not the cable

When the picture goes wrong — blank, snowy, flickering, or the wrong size — the cable is only one suspect, and often not the guilty one.

More often, the trouble is the source (the box or player itself), the input the TV is set to, or a setting somewhere. A TV showing a black screen is very commonly just set to the wrong input — the HDMI 1 versus HDMI 2 choice — rather than suffering a bad cable.

Work through it calmly, one thing at a time. Check that the right input is selected. Make sure the box is on and awake. Reseat both ends of the cable. Only after all that is a bad cable a likely answer — and a known-good spare cable settles it in a moment.

✓ Check the input before you blame the cable

Press the Input or Source button on your remote and step through the HDMI choices until your box appears. Nine times out of ten a 'dead' HDMI cable is really the TV pointed at the wrong input.

Telling the real certification from marketing talk

Sellers love to dress up HDMI cables with impressive-sounding phrases. Here's how to tell the genuine label from the hot air.

Phrases like "8K ready," "HDMI 2.1 compatible," or "48 Gbps style" are marketing, not the official certification. They sound reassuring and mean very little on their own. A cable can print those words whether or not it truly passed any certification.

The genuine article carries one of the real certified names — such as Ultra High Speed HDMI — plus a scannable certification label on the package, a QR code or hologram you can check. If you see the big claims but not the official name and label, treat the claims with caution.

! The words to trust, and the words to doubt

Trust the exact certified name and the scannable label on the box. Doubt the vague superlatives. A cable that only shouts "8K ready" without the official name and certification label has told you nothing solid.

What to look for on the package

You don't need to decode every word on an HDMI box. A couple of things, found quickly, tell you nearly everything.

- **The certified name:** find one of the five real names — Standard, High Speed, Premium High Speed, Ultra High Speed, or Ultra96.
- **The scannable label:** genuine certified cables carry a QR code or hologram on the package you can check with a phone.
- **The length:** pick a length that reaches with a little slack, but no huge extra coil to manage behind the TV.
- **The job it names:** if a cable is sold specifically for gaming at 4K and 120, the box will say so in plain words.
- **What it leaves out:** if the box shouts claims but never prints a certified name, that silence is telling.

✓ A phone camera reads tiny print and codes

Point your phone's camera at the small print or the certification code and pinch to zoom — the name and label jump right out, no reading glasses needed. Our guide on identifying wall cords uses the same trick.

HDMI and your soundbar

Because HDMI carries sound as well as picture, it's often how a soundbar connects to the TV — and that can cause its own small confusion.

Many TVs have one special HDMI socket marked for sound return — a way to send the TV's audio back out to a soundbar over the same kind of cable. The newest, highest-quality version of that feature rides on an Ultra High Speed cable, which is one more reason that cable earns its name in a higher-end setup.

If your soundbar connects by HDMI and the sound isn't coming through, the fix is usually the right socket and the right TV setting, not a new cable. Make sure the cable is in the socket marked for sound return, and check the TV's audio-output setting. Our audio-cables guide goes further here.

✓ Use the socket that's marked for sound

On most TVs only one HDMI socket handles the sound-return feature, and it's labeled right on the back. Plugging the soundbar into the wrong socket is a far more common cause of silence than a faulty cable.

Length, slack, and a tidy run

The right length and a gentle path matter more day to day than any big number on the box.

Pick a length that reaches with a little slack, not a lot. Too short and you'll strain the plug; a huge extra coil just clutters the space behind the TV and can be awkward to tuck away. For the ordinary distances behind a living-room set, a sensible certified cable of the right length is all you need.

Very long runs — across a room or into a wall — are a special case worth getting right, because a demanding picture can fade over a long distance. If you're planning a long or in-wall run, that's a good moment to ask before you buy, so you get a cable built to carry that far.

✓ Leave a gentle loop, not a sharp bend

Where the cable meets the plug is the weak spot. Leave a soft loop of slack rather than a tight bend over a shelf edge, and your cable will last for years behind the TV.

Buying the right cable without overpaying

You don't need the most expensive HDMI cable, and you don't want a mystery no-name one either. Here's the sensible middle.

First, settle what your gear needs: regular HD, 4K at 60, or 4K at 120. Then buy a cable whose certified name matches that need — High Speed, Premium High Speed, or Ultra High Speed — from a seller you'd trust for anything else. A sturdy, correctly-named certified cable of the right length is the comfortable choice.

Resist the pull of the biggest number and the flashiest claims. Paying far beyond what your TV and box can use buys you no better picture. The honest buy is the one that matches your gear and stops there.

★ Tell me your gear before you buy

Snap a photo of your TV's HDMI sockets and tell me what you're plugging in, and I'll tell you exactly which certified name to get — so you order once and it just works. No commission, just a straight answer. Call or text (330) 200-8042.

Plugging it in and getting a picture

Once you have the right cable, connecting it is simple — and a couple of small habits head off the usual snags.

The plug only goes in one way up; line up the shape and press gently until it's seated firmly — never force it. Note which numbered HDMI socket you used on the TV, because that's the input you'll select on the remote to see the picture.

Then switch the TV to that input with the Input or Source button, and turn on the box you connected. If nothing appears, reseal both ends and double-check the input before you suspect anything's wrong with the cable.

✓ Write down which input is which

A little note — 'HDMI 1 = cable box, HDMI 2 = streaming, HDMI 3 = game' — taped near the TV turns input-hunting into a one-press job. It's the single most useful thing most folks can do for their setup.

The mix-ups I see most often

A few honest misunderstandings account for most HDMI confusion. Knowing them ahead of time means you'll breeze right past them.

- **Thinking a pricier cable sharpens the picture:** for the same gear and settings, it does not. The picture is identical.
- **Blaming the cable for a blank screen:** far more often the TV is simply on the wrong input.
- **Trusting "8K ready" as proof:** that's marketing. Look for the certified name and the scannable label.
- **Buying Ultra96 for an ordinary TV:** it's more than the gear can use, and it won't look any different.
- **Forgetting HDMI carries sound:** a missing-audio problem is often an HDMI socket or setting, not a speaker fault.

! Never force a plug

An HDMI plug seats with gentle pressure. If it resists, it's probably upside down or misaligned — check the shape and try again. Forcing it can bend the little pins inside the socket, which is a real repair.

Your quick reference, start to finish

The short version you can lean on any time an HDMI cable has you second-guessing.

- ❑ HDMI carries picture and sound together over one cable.
- ❑ The five certified names: Standard, High Speed, Premium High Speed, Ultra High Speed, Ultra96.
- ❑ Regular HD or 4K at 60: a High Speed or Premium High Speed cable is usually plenty.
- ❑ 4K at 120 on a newer console: get Ultra High Speed.
- ❑ If the picture looks good now, a new cable will not improve it.
- ❑ A bad picture is more often the source, the input, or a setting than the cable.
- ❑ Trust the certified name and the scannable label, not the splashy claims.

★ Keep this guide by the TV

You don't have to hold any of this in your head. Keep these pages near the television, and when in doubt, I'm a phone call away at (330) 200-8042.

Common Questions

The questions I hear most about HDMI cables, answered plainly.

Q: Will a more expensive HDMI cable give me a better picture?

For the same gear and the same settings, no. HDMI either carries the picture your devices send or it doesn't — it doesn't make a good picture 'a little better.' A sensible certified cable looks identical to a costly one.

Q: Which cable do I need for a new game console?

For a console doing 4K at 120, look for the Ultra High Speed name. An older High Speed cable may connect and show a picture, but it can hold back that fastest mode.

Q: My screen is black — is my HDMI cable dead?

Usually not. Most often the TV is set to the wrong input. Press Input or Source and step through the HDMI choices until your box appears. Reseat the cable, too, before you suspect it's faulty.

Q: What does "8K ready" on the box mean?

On its own, not much — it's marketing, not the official certification. Look instead for one of the real certified names and a scannable QR or hologram label on the package.

Q: Do I need the newest Ultra96 cable?

Only if you own the very newest gear that calls for it. For an ordinary TV and box, Ultra96 is more than your devices can use, and it won't make any difference you can see.

★ Still staring at the cable aisle?

Sorting out which HDMI cable you actually need is a quick, satisfying little job, and it often saves folks real money. Call or text (330) 200-8042 and I'll point you to exactly the right one.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

I hope this guide made HDMI cables and getting the right picture feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do licensed electrical, gas, or appliance-repair work myself — for that I'll help you line up a trustworthy local pro.

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The HDMI Cable Names

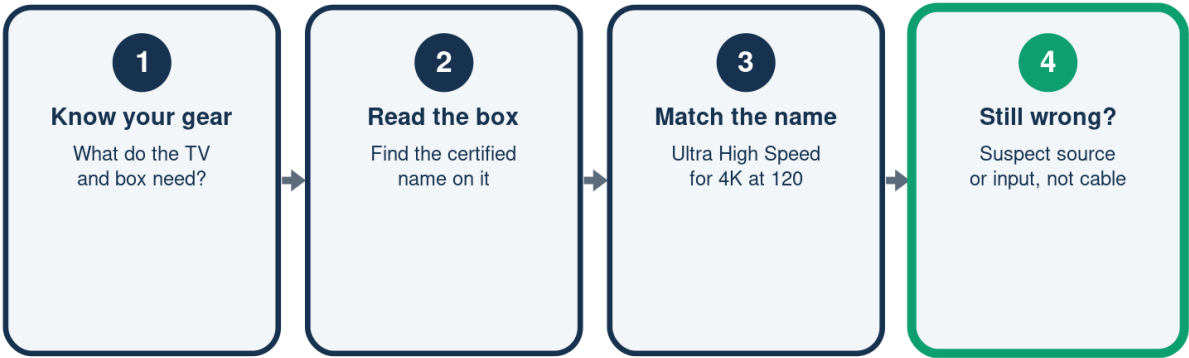
Match the certified name to what your gear needs

	What it handles	Best for
Standard	About 1080i	Older TVs
High Speed	1080p, early 4K	Everyday TV
Premium High Spd	4K at 60, HDR	4K TVs
Ultra High Speed	4K-120, 8K-60	Game consoles
Ultra96	All HDMI 2.2	Newest gear

Buy the name that matches your gear -- not the biggest number.

Before You Buy a Cable

A calm way to land on the right one



If the picture is fine now, you may need no new cable at all.

4K at 60 or 4K at 120?

Two needs, two answers

	4K at 60 TV	4K-120 console
Cable to get	High Speed/Prem	Ultra High Speed
Typical use	Shows, streaming	Fast games
New cable help?	Usually not	Yes, if old one

Match the certified name to the picture your gear produces.

Do I Need a New HDMI Cable?

Start with the picture you see now



HDMI carries sound too -- a new cable rarely fixes a bad picture.

Illustration - a schematic, not to scale. Your setup may differ.



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A Note From Bill

A quick note from Bill.

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