

Cable Summit

A comprehensive review and comparison of the top cables available for guitar and speaker applications. by Eric Kirkland

Cables as Components

Audiophiles have known for years, as have top recording studios, that the cable used to connect components and speakers is as important as the components themselves. But, this logic is relatively new to the artists creating the music. Following design philosophies and proven results in the audio industry, there's now a large selection of high performance instrument and speaker cables available for every taste, style and budget.

Our perception of how one cable sounds or affects the signal is a complex matter. A very basic analogy involves lenses. Imagine walking into a dark room and then turning on a flashlight. The light generated by the bulb passes through a lens which focuses or spreads out the light. The projected light hits the object you are aiming at and then bounces back to your eye, providing you with a visual impression of the object. But, most cables color sound. So, now take that same flashlight and use a blue lens. The object will appear to be blue; that is your perception. Using a guitar cable that has some coloration will alter the sound of your rig similarly.

In most cases, however, such a simple analogy with primary colors is not applicable. Typically, we're discussing in terms of clarity—gradations of gray and opaque. Using our flashlight demonstration, some lenses are just not as transparent as others, damping areas of the spectrum and creating spectral shifts and distortions. The clearest lens will pass the most light and reveal all of the detail of the image. But, if that light is too bright, while every detail will be visible, the depth of the object's texture may be indiscernible. This relates directly to signal transfer and illustrates that there are trade-offs and balances to be considered, based on a player's personal needs. Cables also pass frequencies that most ears are unable to discern singularly. These sounds are felt in the way the strings react to touch, creating tangible levels of expressive possibilities.

While a percentage of these cables' attributes are lost in a noisy environment, their feel remains intact, heavily affecting personal performance. And, remember that live performance is not the only important application. The sound acquired through a microphone in the controlled studio environment is ultimately what we buy and try to emulate; these are the sounds that shape our expectations of equipment performance. So, any difference, no matter how small, requires consideration.

Through extensive research and with help from numerous engineers and players, I've determined these cables to be the elite, in terms of sound quality, design and marketing. While it was essential for me to quantify their performance in a thoughtful manner, my goal was also to qualify them for players, based on stylistic and professional needs.

Performance Factors

This comparison will not list specifications such as capacitance, DC resistance and inductance, as these serve to falsely lead consumers. While each is important to achieving certain results, they don't follow the same formula and are not final determinants of performance.

Guitar cables can be very basic or exotic in their construction, as with any component. Some are simple coaxial designs, which use the shield as a negative conductor. Others utilize a balanced design, where the shield is isolated and multiple conductors transfer the signal independently. And the conductors themselves vary widely. They include various levels of oxygen free copper [OFC], Ohno Continuous Cast [OCC] copper, ultra-pure copper types, audio-grade silver, silver coated copper and proprietary concoctions of the manufacturer's design. Other factors affecting performance include the geometry of stranding, the use of solid core or stranded conductors, the dielectric and other insulator materials, the amount and type of shielding, the outer jacket, solder type and termination choice. And those are just the structural variables. There are also electrical, mechanical and source and load considerations. As you might have guessed, everyone feels they have the right formula.

Choosing a Cable

For jazz chording and multiple octave patterns, clarity, dimension and accuracy have priority. Country and blues players will enjoy as much clarity as they can get with a smooth feel and a sweet top end, while players who routinely work with heavy distortion will appreciate some extra midrange, punch and control in the treble region.

An identical score for two cables in the same category does not necessarily reflect that they sound exactly the same in that area, but perform on the same level. A cable's sum performance must be considered, along with any tonal shift, strengths and weaknesses. On the graph, while two cables may have a similar curve, the taller curve will have the most overall strength and clarity, while the flatter will be more neutral in its effect.

All of these cords, treated properly, will serve the user well for a long time. Any issues with handling noise or durability will be addressed in each cable's summary. Be aware that cables will sound sweeter [more musical with less harshness or hard edges] and more dimensional over time. And, they must be broken-in considerably to achieve the documented results.

Evaluation Categories, Graphs & Summaries

Each guitar cable was evaluated on a 10-point scale, with quarter point gradations in each of ten categories, summing to a possible score of 100. Purely in the interest of space, speaker cable performance is discussed briefly at the end of each summary—this is regrettable and not intended to gloss over equally important products. Each summary serves ultimately to direct players to cables that will best serve their needs.

Through careful observations, I discerned that each descriptive category/term is primarily dictated or affected by **clarity** in a specific area of the frequency range. For example, dimension is largely governed by clarity in the middle lows, while transient response is more heavily affected by clarity in the upper-mids and low treble. **After exhaustive testing and critical listening, I determined where each category in the table fit in the response curve, from bass to treble, thereby allowing me to graph an estimate of the cable's perceived frequency response, using my scores in the defined categories.** This revolutionary approach makes it possible to universally translate previously subjective terms and literally illustrate how each cable will affect the tone and general performance of your rig. Though not hyper-accurate, it does provide a very fair representation. **Please pay careful attention to how the graphs are generated. The categories in the table are aligned from bass to treble and directly correlate to the plots on the graph. This frequency response curve is a visual representation of the scores in the chart, as they appear.**

Dynamics: Measures how softly and loudly the cable can accurately produce all of its qualities. This is more than just volume; a compressed signal can be loud all the time, but a dynamic cable will only be loud when you hit the strings hard. Clarity in the bass has a large effect on the dynamic ability.

Dimension: Depth and multi-dimensional quality. This is noticed when notes do more than strike you directly in the face. Rather, they envelope the player and listener. Primarily affected by the middle bass.

Pitch definition: Accuracy, fidelity and note separation. Intervals are a clear indicator of pitch definition. This upper bass and low mid section of the response is difficult for a cable to define and more clarity in this area will be responsible for better separation and higher degrees of accuracy.

Balance: This is more of an absolute/ideal based on what we expect to hear, related to the acoustic sound of the guitar and years of shaped perception. Most classic guitar sounds have excellent clarity in the low mids, providing an emotional resonance, without heavily impacting the upper frequencies. This balance can work in conjunction with and in contrast to neutrality.

Feel: What we hear, largely in the midrange, causes the perception of a slinky or stiff feeling in the strings, especially on bends. The cable should ideally not change the feel of the instrument as it's experienced acoustically. Although commonly the sum of balance and transient response, it requires a category of its own. This is how the sound is translated to the hands.

Stylistic range: Rates how the cable performs over the broad range of styles. Clarity in this central area of the frequency response certainly has some overlap with other categories, but is a good determinant of how many styles the cable will competently handle.

Signal strength: This part of the upper mid response curve relates to punch and perceived strength. While noise may be a part of the signal measured here, it's an unavoidable contributor to the overall level. However, too much noise in ratio will result in lower scores in other areas.

Transient Response: This is basically speed and tracking ability and has some effect on feel; too much speed can shift the response upwards and cause the strings to feel stiff. Too little speed and overall definition suffers. With its neighboring categories, this is a heavy contributor to punch.

Presence: Treble definition and attack. Presence is a balance of treble and upper midrange. An overabundance will smear the highs and cause glare, while lower levels will negatively affect definition and impact detail.

Transparency: This represents the noise floor and resolution, noticed heavily in harmonics when distorted and air around the note when clean. This is primarily dictated by clarity in the top-end. Try listening to the T.V. with a fan on. Turn the fan off and the dialogue and subtleties become clearer. This analogy relates transparency to accuracy and dimensionality. An unclouded signal reveals clarity, complexity and upper end dimension.

Test Conditions and Methods

The amps used were a ToneKing Comet 20 head and matching 1-12 cabinet, a Peavey 5150 combo, a 1967 Fender Deluxe Reverb and a modded 1971 Marshall Plexi through a 4-12 with vintage Greenbacks. A Mesa Boogie Thiele 1-12 cabinet with an EVM 12L was also used in the test. Guitars included several oil-finished custom guitars with EMG and Barden pickups, a PRS Custom 24 with Tom Holmes humbuckers and a stock 1996 Relic Strat. With very few exceptions, the instrument cable lengths ranged between twelve and fifteen feet, while speaker cables were between four and six feet.

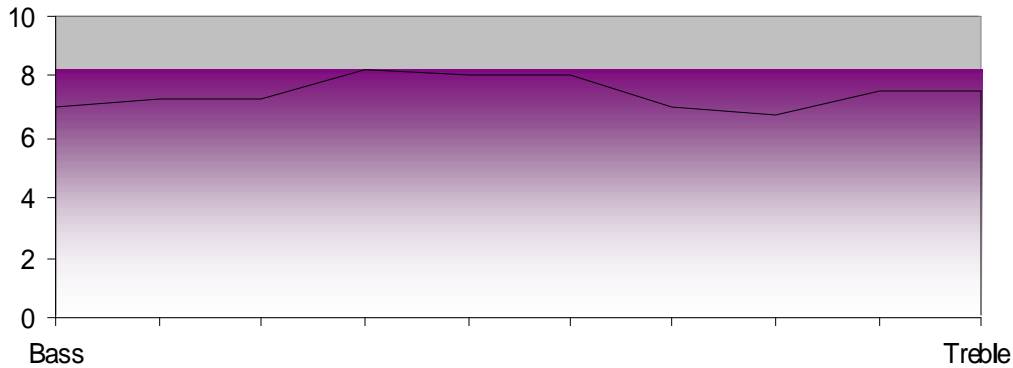
Prior to critical listening, I burned each cable in for 60-100 hours with a pink noise generator. I then tested the cables over a several week period [the entire process actually took months], accounting for changes in temperature, house voltage, my ear and other factors. Instrument cables, the main focus of the test, were plugged directly from guitar to amp, while speaker cables were run directly from amp to cabinet and also tested with the combos via a double female adaptor. Remaining as objective as possible, I routinely had friends try the cables and give me their impressions. Their results were consistent with mine more than 95% of the time, with their own equipment. Blind and double blind tests were also routinely performed to ensure objectivity and validate results.

Results

(presented alphabetically)

Alessandro Guitar Two

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
7	7.25	7.25	8.25	8	8	7	6.75	7.5	7.5

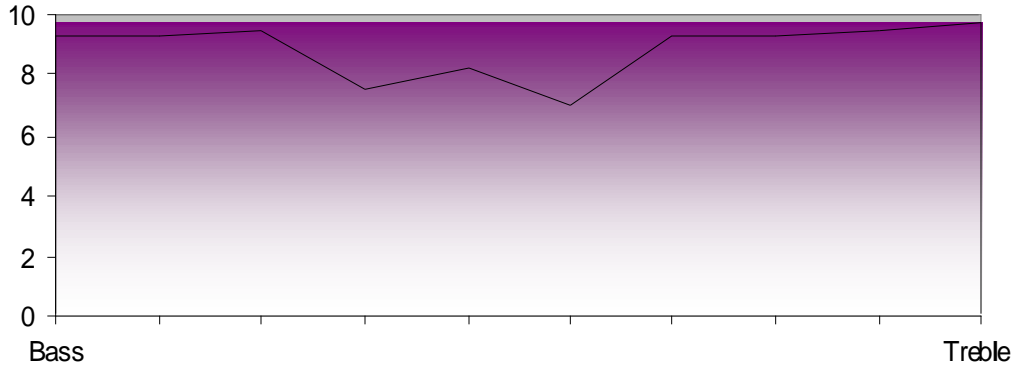
Overall score: 74.50

While George Alessandro is generally known for advancing the art of amplifier design with incredibly high quality creations, he also has the honor of being one of the first manufacturers to recognize the importance of quality cable. Built in conjunction with Audioquest, Alessandro's Guitar Two cable derives its clean and balanced tone from solid core silver-plated Litz copper conductors in a double balanced design. The cable's performance is ideal for a wide range of styles, with a nice curve in the mids and decent transparency. Although not the most revealing or punchy, it introduces you to a lot of high-end attributes for the price. Take note that this cable's slightly accentuated midrange and modest transparency make it well suited to any rock or pushed blues styles. The Amp Two speaker cable is very warm with a musical, clear response—match this to a punchy guitar cable.

Alessandro High End Products; www.alessandro-products.com; (215) 355-6424
Guitar Two 12ft: \$99.95, Amp Two 6ft: \$89.50

Analysis Plus Pro Oval

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
9.25	9.25	9.5	7.5	8.25	7	9.25	9.25	9.5	9.75

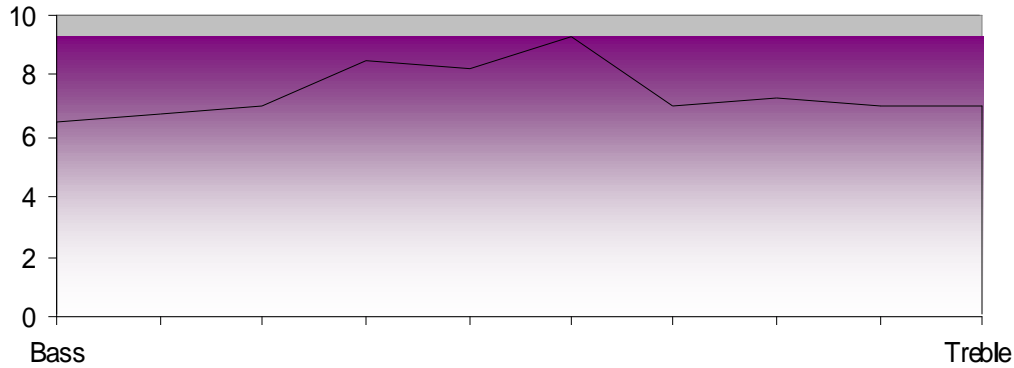
Overall score: 88.50

The renowned engineering firm Analysis Plus, Inc. designs and manufactures products to exacting specifications, with performance and quality as their top priorities. I tested the pre-production prototype of their new Pro Oval instrument cable, a stellar achievement for fans of transparency—units won't be available until after the New Year. Utilizing a patented oval design, Teflon structural and outer dielectrics, Litz stranding, Ohno cast copper and carefully chosen shielding materials, they've created the most revealing cable I've heard to date. The detail/air that this cable passes is akin to an electrostatic speaker panel. The feel is quite nice for a cable of this transparency level and dynamics are amazing...it responds to every nuance of attack. Dimension is of the highest order, as your amp will now sound like it has far more depth than with most other cables. And accuracy is also increased, with wide note separation and less washout. While jazz artists and some country and clean blues players will rejoice at its piano-like clarity, the amount of high-end it's capable of transmitting makes it inappropriate for use with heavy overdrive or distortion. The cable itself is stiffer than most, but easy enough to work with for the applications listed. Although mine came with quality plugs, I'm told that the production cables will achieve even higher resolution through custom designed terminations.

Analysis Plus, Inc.; www.analysis-plus.com; (888) 579-0386
Pro Oval 10ft: \$299.00

Canare GS-6

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
6.5	6.75	7	8.5	8.25	9.25	7	7.25	7	7

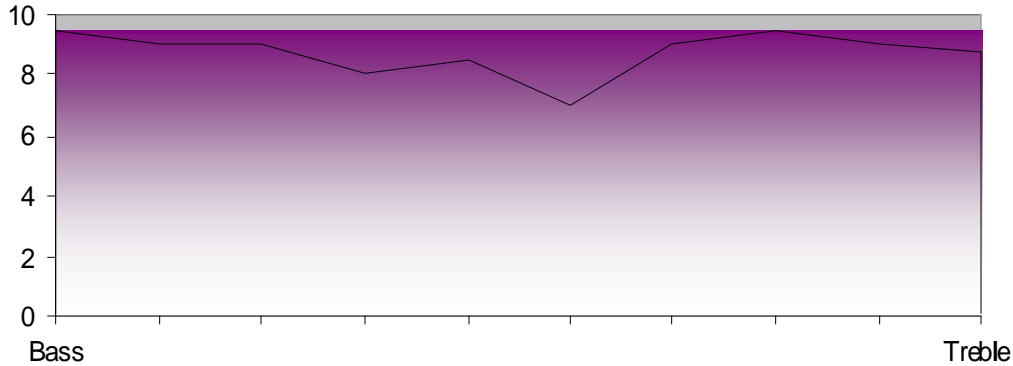
Overall score: 74.50

The Canare GS-6 is a favorite among savvy studio artists and players of almost any style. Its simple construction uses 18 awg stranded oxygen free copper, a proprietary double carbon/braid shield and Canare's own reinforced terminations. Its performance can be described as a nice balance between speed, feel and top end. This gives the Canare enough tracking ability for quick players, a warm midrange, a sweet treble response and superb feel. The GS-6 is suited to practically any style, never fatigues the listener, and should be considered as an alternate to George'L or a lower price option for Cardas fans.

Canare Corporation of America; www.canare.com; (818) 365-2446
GS-6 15ft: \$25.87

Cardas Audio Golden Chord

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
9.5	9	9	8	8.5	7	9	9.5	9	8.75

Overall score: 87.25

George Cardas, devotee of the famous Litz stranding technique and the finest materials, is well known for creating some of the world’s top-performing audio cables. The Golden Chord instrument cable follows in that tradition, delivering gorgeous tone and high resolution. As well, the feel is fantastic, with notes having just the right amount of give. That said, country, clean blues and jazz players should seriously consider this as one of the new standards. While the Golden Chord provides the most transparency, the 2 X 24M cable reduces the resolution by a small degree and provides players with slightly more low mids and resonance. With either cable, the transparency may cause high gain styles to be extremely bright and somewhat undefined. While both cables can be microphonic with high drive levels, playing extremely loud through clean and somewhat overdriven rigs yielded no triboelectric noise. The Crosslink speaker cable is one of the most impressive I’ve encountered for any style application, with a near perfect ratio of punch, volume, mids, sweet highs and transparency.

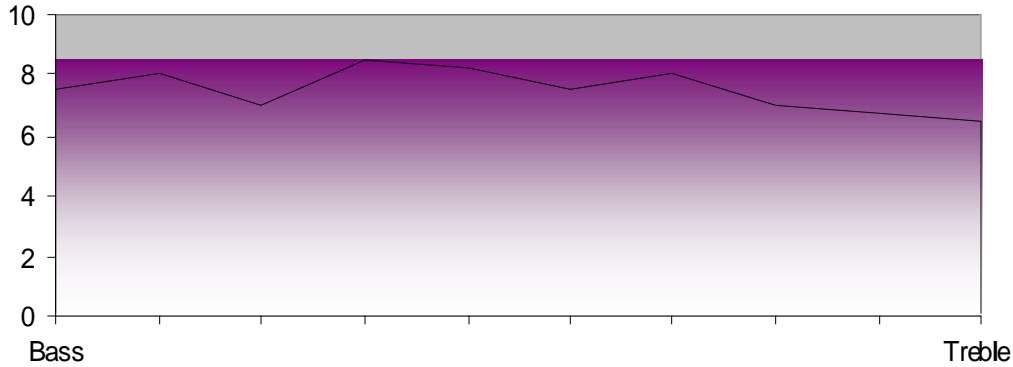
Cardas Audio, LTD.; www.cardas.com; (541) 347-2484

Golden Chord 10ft: \$120.00 + \$33.40/5ft, 2 X 24M 10ft: \$92.00 + \$26.00/5ft

Crosslink 2m: \$64.00 [buyers must specify a single piece and _-inch terminations, as these are typically sold in pairs for audio use]

Carver Professional ZEROpoint 3D Session / Fender Pro Tone

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
7.5	8	7	8.5	8.25	7.5	8	7	6.75	6.5

Overall score: 75.00

The guys at Carver Professional are real fans of the Fender sound and it shows in their ZEROpoint 3D Session cable. It's such an obvious complement that Fender is now marketing the cable as well; though slightly different in appearance, the cables are identical in construction and sound. With OCC copper and gold-plated plugs, this fat cable features nice dimensionality and a strong push in the low mids, making it a perfect tool for creating a classic beefy tone. The feel is right on for Fender fans and single-coil players will love how this cable fattens the tone without removing the jangly high mids. Rockers may also benefit from its loud bottom and rolled off highs. This is one of those cables that works well plugged into almost any guitar, with the ability to smooth over some of a player's and guitar's flaws, for a rewarding playing experience. The purple/silver swirled ZEROpoint 3D speaker cable creates a huge bottom and impressive resonance from a very light touch. Two other less expensive instrument cables are also offered, with more high-end emphasis and less dimension.

Carver Professional; www.carverpro.com; (503) 978-3344

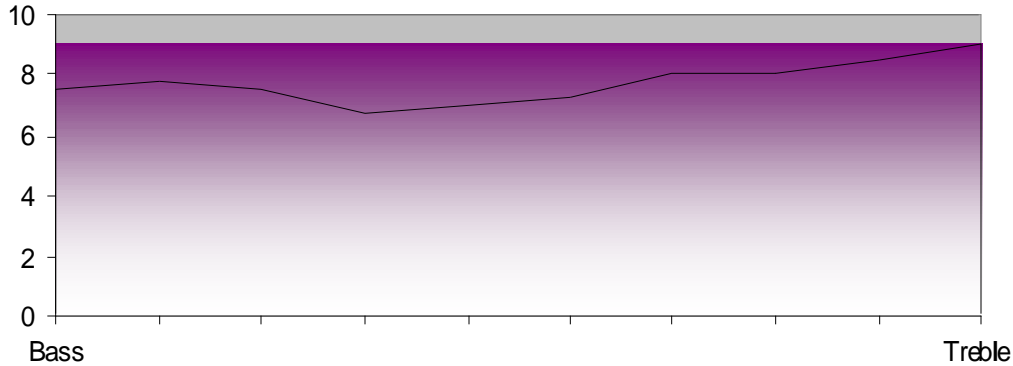
Fender Musical Instruments; www.fender.com; (480) 596-9690

Fender Pro Tone 12ft: \$74.99, Carver 3D ZEROpoint Session 12ft: \$74.99

Carver 3D ZEROpoint Session speaker 6ft: \$48.00

Cobalt Ultimate Instrument Cable

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
7.5	7.75	7.5	6.75	7	7.25	8	8	8.5	9

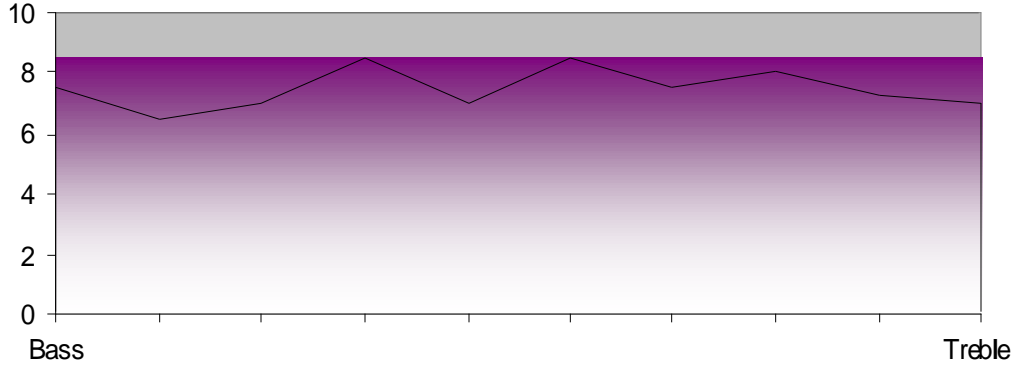
Overall score: 77.25

Cobalt Cable is an enthusiastic company that builds extremely high quality cables at a very reasonable price. Everything about their product, from the reinforced ends to the fireproof black flex-o jacket, says quality. And, I'd like to highlight that the cables were beautifully packaged in antistatic bags and double-boxed, using only sturdy and attractive biodegradable recycled materials—this made for a pleasurable experience from the time they reached the door to the final listening test. The highly durable and flexible instrument cable is extremely transparent and provides performance that shouldn't be possible in this price range. In terms of clarity, the Cobalt delivers a lot of the performance of the \$300+ cables, lacking some of the low-end oomph, accuracy and depth. Anyone looking for shimmering open tone on a budget can't go wrong with the Cobalt...it's quite an achievement. The speaker cable was the most transparent in the test, with pure sparkle and utter clarity—match it to a warm lead.

Cobalt Cable; www.cobaltcable.com; (877) 626-2258
 Ultimate Instrument 10ft: \$41.24 or \$22.00 + \$2.00/ft, Speaker 2m: \$53.44

Pete Cornish Silver Signature

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
7.5	6.5	7	8.5	7	8.5	7.5	8	7.25	7

Overall score: 74.75

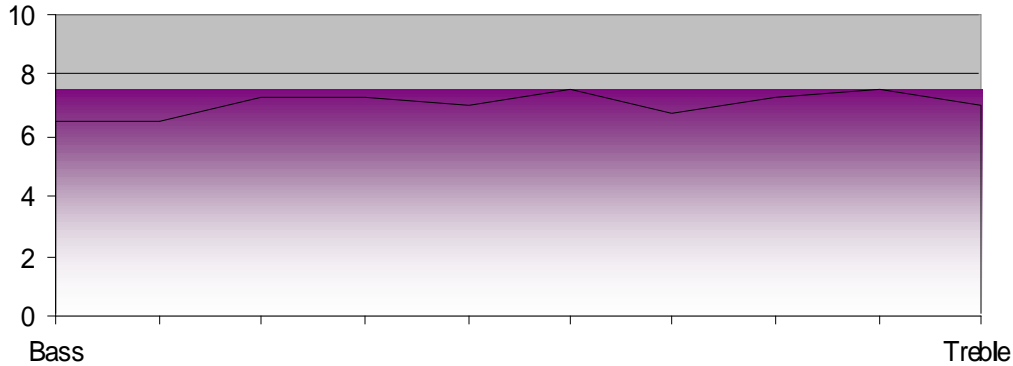
With a reputation for providing innovative high performance products to touring pros like David Gilmour and Sting, it's no surprise that Pete Cornish offers a very nice instrument lead. Built with energetic stage use in mind, this rugged guitar cable has abundant punch, nice bass thump, a consistently loud attack and enough fat on top for all styles. Its compressed nature make the notes somewhat stiff, but fantastic for players that want to dig in without overdriving their speakers. The Cornish cable trades some transparency and depth for punch and a midrange character that will suit nearly everyone.

Pete Cornish Products, distributed through Roadie Stuff, Inc.; www.petecornish.com; (617) 504-8621

Silver Signature Instrument 5m: \$77.95

DiMarzio

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
6.5	6.5	7.25	7.25	7	7.5	6.75	7.25	7.5	7

Overall score: 70.50

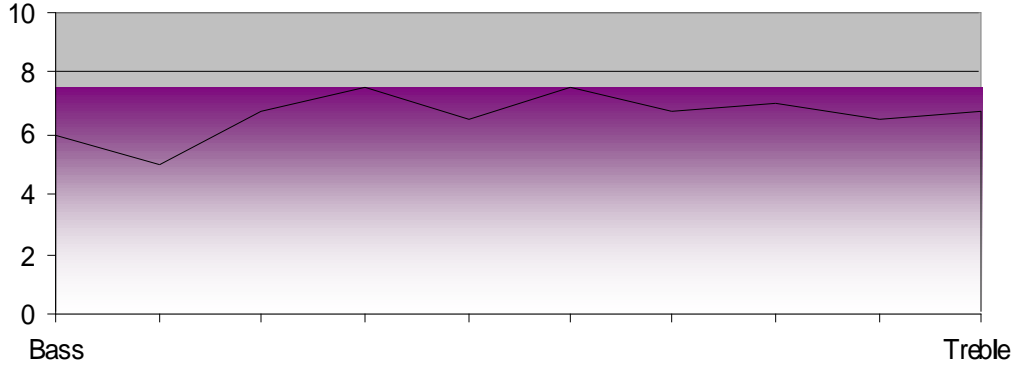
DiMarzio is universally recognized as a leader in pickup technology, contributing to the tone of scores of the world’s finest players. But, many people may not know that they also offer a professional guitar cable with a steely bite. Made from 20 awg copper and a medium grade dielectric, it delivers excellent clarity, attack and accuracy. And, with a tendency towards the highs, it creates lively harmonics and stinging leads. The DiMarzio instrument cable is suitable for any style where improved accuracy and a thinner, more present top end are desirable. Rock players, especially, will enjoy the artificial harmonics and searing treble. Using high conductivity OFC, the DiMarzio High Definition speaker cable boasts a clear and open bottom end, with a thin top and fantastic feel—match this one to a punchy and fat instrument lead.

DiMarzio, Inc.; www.dimarzio.com; (800) 221-6468

Instrument 15ft: \$33.95, High Definition Speaker 6ft: \$64.95—Prices for both cables include cable ties and Switchcraft Plugs.

Evidence Audio Lyric

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
6	5	6.75	7.5	6.5	7.5	6.75	7	6.5	6.75

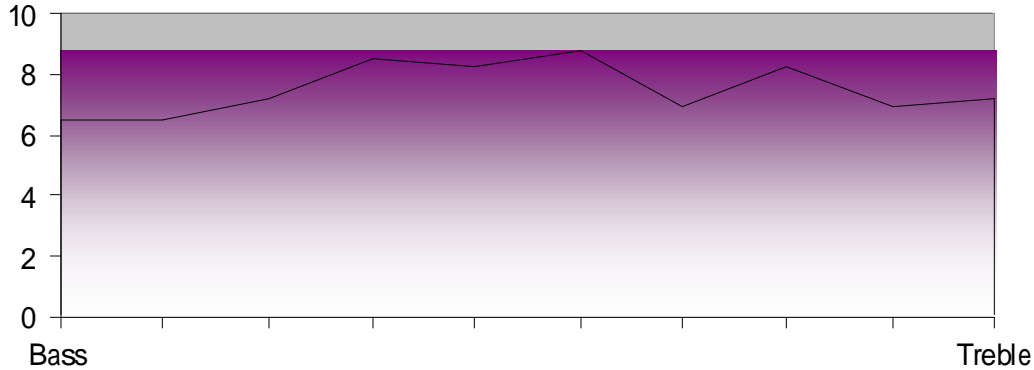
Overall score: 66.25

Tony Farinella created Evidence Audio to provide guitarists with a cable that balances budget with performance. Utilizing two 20 awg conductors in a balanced design, his Lyric instrument cable delivers a relaxed attack and a smooth midrange. If you're looking for a more laid back cable with a warm essence, the Evidence Audio may be for you. The Lyric is suitable for all styles where it's attributes match the player's needs. The Siren speaker cable has lots of midrange definition and excellent clarity—try this cable is you want to clarify and tighten your response.

Evidence Audio; www.evidenceaudio.com; (949) 306-7390
 Lyric 10ft: \$43.00, Siren 5ft: \$32.00

George'L

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
6.5	6.5	7.25	8.5	8.25	8.75	7	8.25	7	7.25

Overall score: 75.25

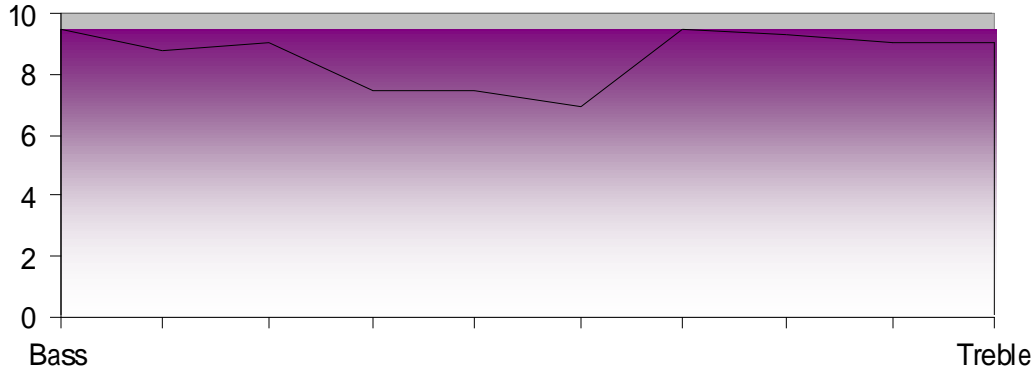
George'L cable is well known as one of the industry standards. And, don't let its diminutive size fool you. Most of Nashville and infamously particular players, like Eric Johnson, rely on its consistently great sound. What's so attractive about the cable is its harmonious relationship between clarity and feel, with an upper mid presence that adds lots of punch. Unique to the George'L are the specially designed solderless plugs, which allow the user to cut and re-terminate to any length in mere seconds; pedalboards and rack systems are ideal applications. This is a cable that will be around for years to come, with a sound that defines classic guitar tone and a low price that belies its proven performance. Flexible and easy to work with in small spaces, George'L cable is very durable when properly cared for—don't yank it out of amps from across the stage. This cable is typically not a good match for high gain styles. And, take care when choosing nickel, gold or brass plugs; they all sound different.

George L's; www.georgels.com; (615) 868-6976

Instrument .155 diameter: \$0.70/ft, Gold plated straight plug: \$6.50/ea.

JPS Labs Superconductor FX

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
9.5	8.75	9	7.5	7.5	7	9.5	9.25	9	8.75

Overall score: 85.75

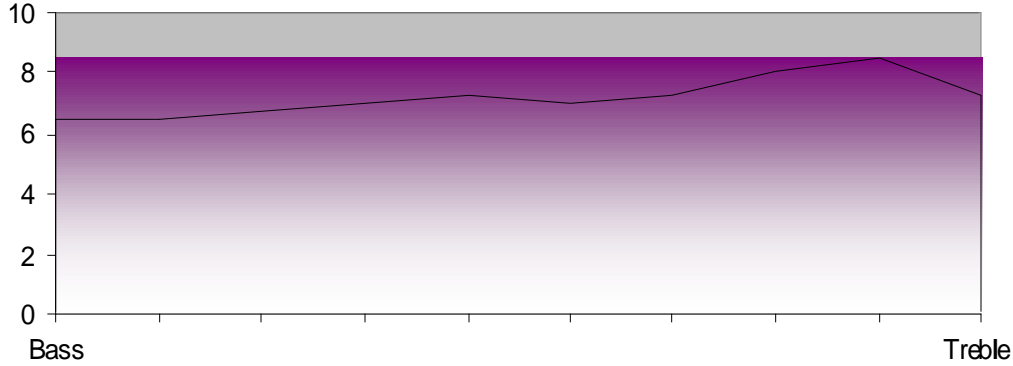
JPS Labs is an acknowledged leader in audio technology, famous for their power cables and non-filtered outlet centers. Their Superconductor FX guitar cable creates boutique transparency, tons of volume and unbelievable dynamics, thanks in part to exceptional shielding and four conductors made from a proprietary space-age material called alumiloy—a combination of ultra pure copper, aluminum alloys and other materials. While it trades some feel and balance for transparency and touch response, an upper midrange flavor adds to its punch and lightning response. The Superconductor FX is ideal for jazz, country and any clean-based style. The thick dark purple cable is a little stiff and heavy, but not so much that it interferes with its amazing performance. The Ultraconductor speaker cable doesn't approach the Superconductor's abilities, but is a nice compliment to the guitar cable, with a clean delivery and a somewhat limited response.

JPS Labs; www.jpslabs.com; (716) 656-0810

Superconductor FX 12ft: \$300.00, Ultraconductor Speaker 6ft: \$99.00

Klotz La Grange

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
6.5	6.5	6.75	7	7.25	7	7.25	8	8.5	7.25

Overall score: 72.00

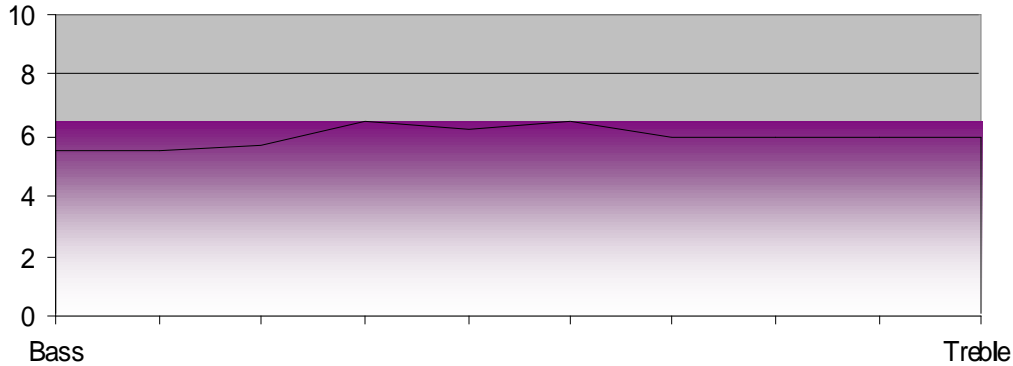
Gerald Weber of Kendrick Amplifiers is a long time user of the German made Klotz cable and recently decided to become the North American distributor. The newly named Klotz La Grange is a coaxial design that uses high quality stranded copper, with conductive plastic and spiral copper shielding, to create a bright but full sound. Clean tones are lively and, as more gain is introduced, a glare in the top-end becomes prominent. This cable will serve players who want to smooth out a midrange dominant amplifier or get the most from overdriven tweed tones. The Klotz Twinax speaker cable is punchy with a big midrange and I got my best results from the La Grange when the cables were used together.

Klotz Cable, distributed through Kendrick Amplifiers; www.kendrick-amplifiers.com; (512) 932-3130

Klotz La Grange Instrument 20ft: \$69.00 or \$15+4/ft, Klotz Twinax Speaker 6ft: \$39.00

MIT Hardwire ST

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
5.5	5.5	5.75	6.5	6.25	6.5	6	6	6	6

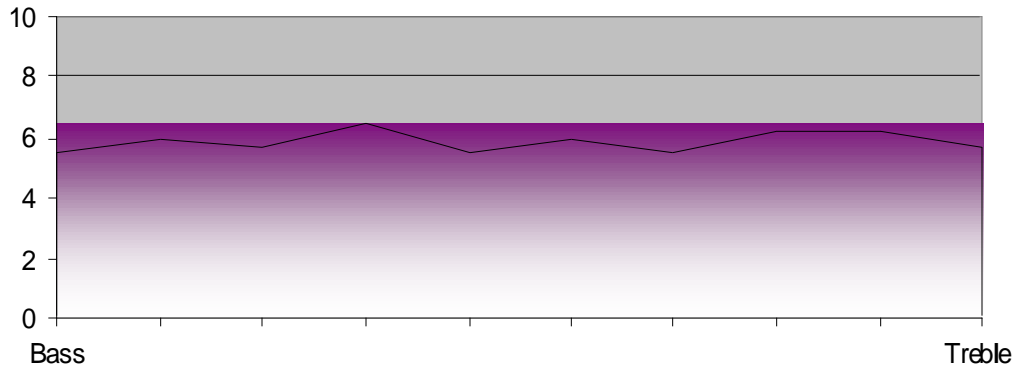
Overall score: 60.00

Known as one of the technological innovators in high-end audio, MIT [Music Interface Technologies] utilizes a passive network of electronics, housed in the cable plug, to correct for phase alignment and inefficiently stored and released energy. The resulting sound is essentially a linear response with greater complexity and more bass weight. Although not particularly exciting by itself, it works extremely well as the last cable in chain with a high gain system, accomplishing increased resonance and harmonic response without affecting the balance of your rig. Although not an included test parameter, it's worth noting that the Hardwire's flat response and harmonic resolution make it well suited for use as an acoustic instrument cable. The Standard speaker cable is one of the standouts in this comparison with increased volume, fat highs, clarity and punch—one of the nicest performers and best values in speaker cables. The Pro speaker version is similar and achieves greater harmonic enhancement, sounding wider and less forward.

Music Interface technologies; www.mitcables.com; (916) 625.0129
 Hardwire ST Instrument 15ft: \$69.95, Hardwire Standard Speaker 2m: \$94.95, Hardwire Pro Speaker 2m: \$164.95

Mogami

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
5.5	6	5.75	6.5	5.5	6	5.5	6.25	6.25	5.75

Overall score: 59.00

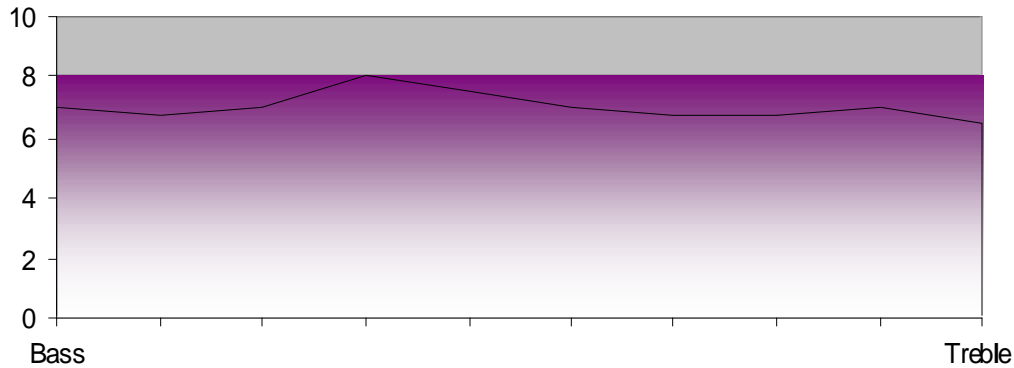
Mogami is one of the staples in the recording industry and has been used with success by musicians looking to upgrade their music store instrument cable. Relaxed and fairly flat, the Mogami tames heavy distortion and provides decent definition in the midrange. Bright amplifiers and high-powered pickup users may benefit from this cable's lower output and reduced transparency. The Mogami guitar cable is appropriate for anyone just starting to explore higher performance products.

In response to the article, Mogami Cables states: "It is our opinion that cable should contribute or detract as little as possible from the original signal. We design our cables with the philosophy that any change in timbre or tone should be accomplished with different components or via signal processing, not through matching cables to specific sets of circumstances and tastes. Our cables achieve a flat response, leaving signal alteration to other devices and methods".

Mogami America; www.mogamicables.com; (800) 800-6608
Instrument 15ft: \$37.95

Monster Cable Studio Pro 1000

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
7	6.75	7	8	7.5	7	6.75	6.75	7	6.5

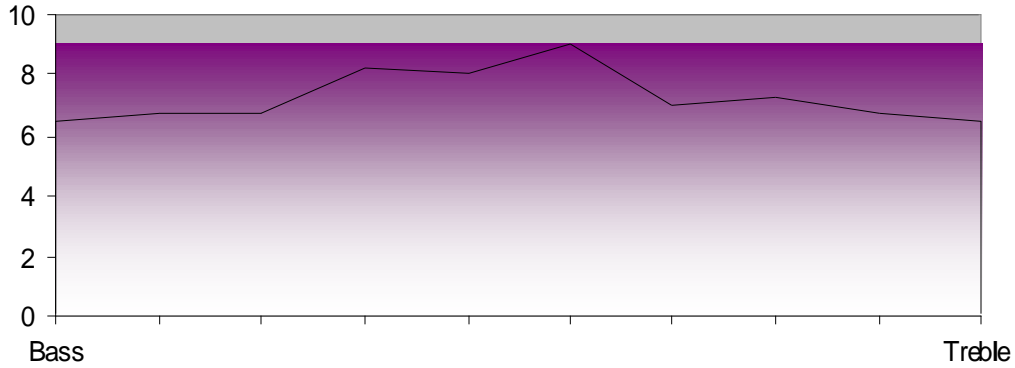
Overall score: 70.25

There's probably no name in the cable industry more widely recognized than Monster Cable. While they offer a range of cables for every budget, I tested their top cable, the Studio Pro 1000. Its construction includes multi-gauge wire networks of oxygen free copper in a twisted pair design, a dense copper braid, a conductive polymer sheath and an air-filled dielectric. This cable is not highly transparent, but does have a bump in the low mids and a unique presence signature that gives it enough attack for complex rock styles. While not the best choice for clean styles, the Monster Pro 1000 is highly capable as a heavy rock tool. Just ask Slash or Zakk Wylde. The cable is also suitable for choking out a bright rig with a unique blend of attack and midrange balance/complexity. The Studio Pro 1000 speaker cable has very nice depth across the entire range and achieves the most definition when played loud or with heavier strings.

Monster Cable Products, Inc.; www.monstercable.com; (415) 840-2000
Studio Pro 1000 Instrument 12ft: \$99.95, Studio Pro 1000 Speaker 6ft: \$34.95

Planet Waves

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
6.5	6.75	6.75	8.25	8	9	7	7.25	6.75	6.5

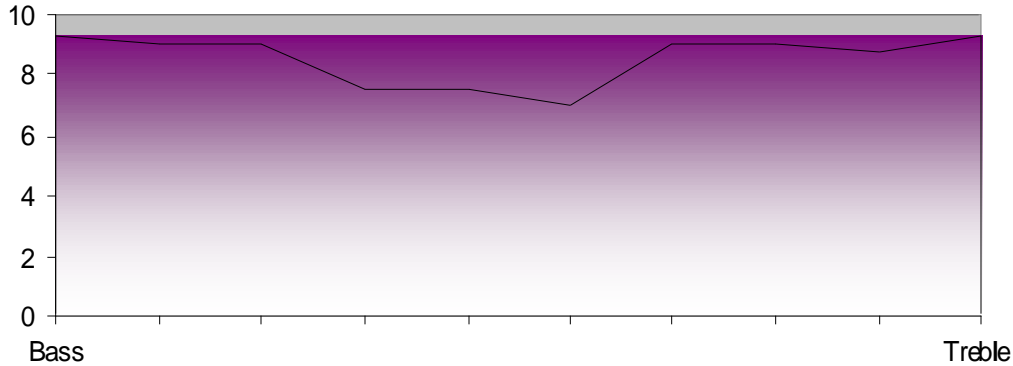
Overall score: 72.75

This cable from D’Addario products has become a recent classic in music stores. Using premium ultra-fine oxygen free copper in a balanced two-conductor design, the Planet Waves delivers terrific performance at a very reasonable price. Its hearty midrange, great balance and excellent feel make it suitable for practically any style. While it is rich and fat, the Planet Waves has just the right amount of transparency for some of the best clean rock and high gain experiences. Players from Eric Clapton to Lenny Kravitz and Mark Tremonti sing its praises. The speaker cable is not as defined as the instrument, but achieves similar volume and balance.

J. D’Addario & Company, Inc.; www.daddario.com; (631) 439-3300
 Instrument 15ft: \$39.99, Speaker 5ft: \$30.99

Requisite Audio “The New Cable”

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
9.25	9	9	7.5	7.5	7	9	9	8.75	9.25

Overall score: 85.25

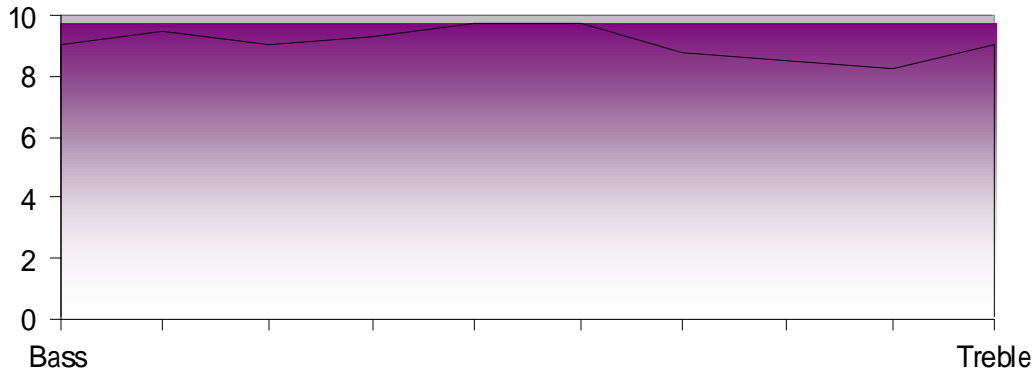
Requisite Audio’s “The New Cable”, sold alongside Stadel Amplifiers, is quickly becoming the West Coast *super cable*. Its unique and complex infinitely variable helix stranding, ultra pure copper, superior shielding and non-plated brass terminations make this one of the most revealing cables available. It’s fun to have around too, measuring nearly .75-inches in diameter, but with absolute flexibility. While it easily ranks as one of the clearest cables, an opaque tinge across the spectrum creates a relaxing ambience. This is a terrific choice for jazz artists or anyone that needs over-the-top clarity with slightly less aggression—this is one of the new weapons in Keith Richards’ arsenal. The Requisite speaker cable is clear and dynamic with somewhat less overall dimension and punch.

Requisite Audio Engineering; www.requisiteaudio.com; (818) 247-2047

“The New Cable” Instrument 12ft: \$350.00, “The New Cable” Speaker 6ft: \$160.00

Two-Rock Crystal Clear

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
9	9.5	9	9.25	9.75	9.75	8.75	8.5	8.25	9

Overall score: 90.75

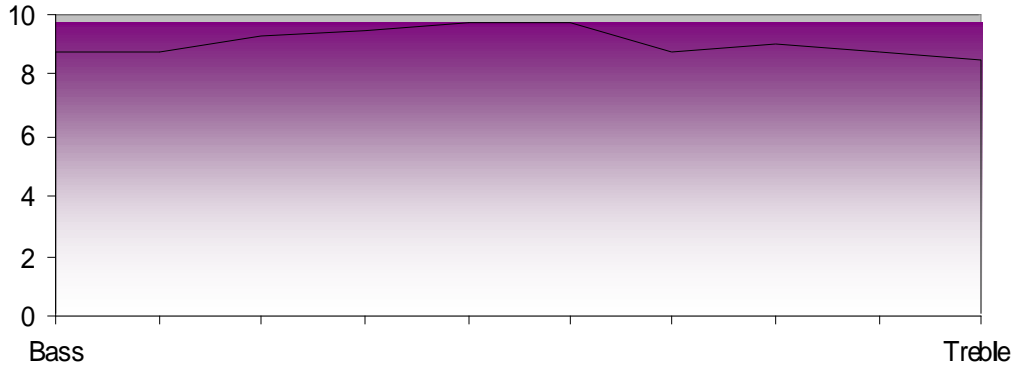
Bill Krinard and Joe Mloganoski of Two-Rock Amplifiers have devoted themselves to creating amazing tone machines for the most demanding professionals. Built from two OFC 18 awg solid core conductors with Teflon insulation and Neutrik connectors, their Crystal Clear instrument cable features an astounding balance of transparency and warmth, with depth that's second to none; it's like they captured the magical essence of the best blackface amplifier in a cable—pure guitar tone. This makes it ideal for any clean or distorted style, providing remarkable dimension and clarity at even the highest levels of saturation. The only possible downside is that the cable is physically more rigid than typical—it still lays and coils reasonably well. The speaker cable is similar in its performance, but too much of a good thing can ruin the impact and make the feel too loose—better to match the speaker cable to a rig that is in need of its abilities.

K & M Analog Designs; www.two-rock.com; (707) 664-0267

Crystal Clear Instrument 12ft: \$169.00, Crystal Clear Speaker 6ft: \$69.00

Van de Hul Integration Hybrid

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
8.75	8.75	9.25	9.5	9.75	9.75	8.75	9	8.75	8.5

Overall score: 90.75

Van de Hul is an elite Dutch audio company that builds cables for the audio purist and music enthusiast. Their award-winning interface cables are underground favorites in the guitar community, creating inimitable tones. Terminated with Neutrik connectors, the Integration cable boasts four conductors of a hybrid material that contains pure copper, silver and zinc. Somewhat the opposite of several other top performers, Van de Hul seems to have designed first for balance, achieving as much clarity as possible within that tenuous framework. Its tone is absolutely addictive, with a remarkably involving midrange, amazing feel and lifelike attack. This is probably the most exciting cable for high-gain, with near perfect balance and astounding harmonics. Played clean...simply exceptional. I did notice some microphonic tendencies with heavier sounds, but it seems a worthwhile tradeoff to achieve its wild presence. Please note, I had to really bang on the cable to get minute amounts of handling noise from it and there was zero noise when playing clean or moderately overdriven.

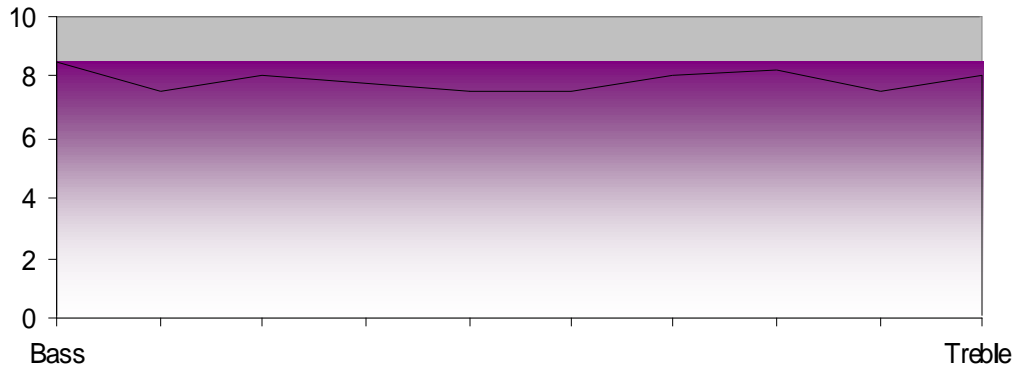
Van de Hul Audio Products, distributed through May Audio Marketing;

www.mayaudio.com; (800) 554-4517

Integration Hybrid factory terminated 4m: \$300.00

Vans Evers People Eater

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
8.5	7.5	8	7.75	7.5	7.5	8	8.25	7.5	8

Overall score: 78.50

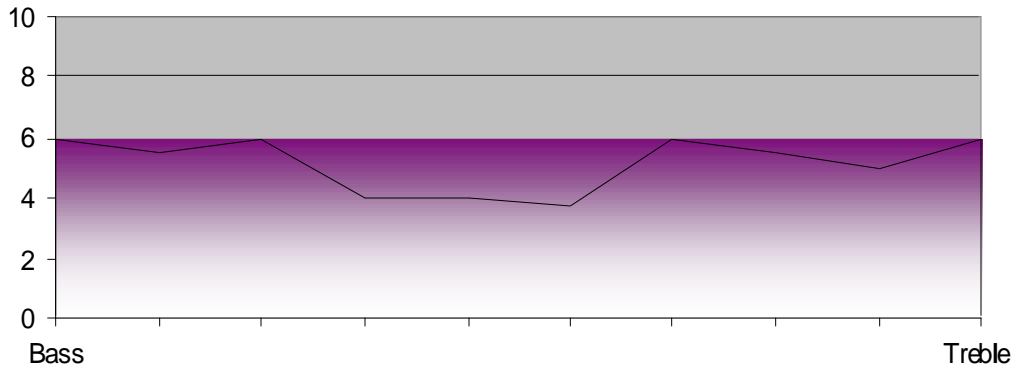
Mike Vans Evers is one of the scientists in the audio industry, always exploring new ideas and solutions overlooked by traditional engineers. His line of instrument cables utilizes special coaxial designs, with materials chosen so that each model cable has its own tonal flavor. Broadening their range of abilities, each voiced cable features resonators that can be slid up and down both ends of the cable. These cylindrical attachments actually add highlights to the sound—the resonators closer to the plugs make the sound brighter and more open, while moving them away shifts the resonance toward the lows. This is useful for achieving specific tonal results when changing amps, guitars, and venues. The performance of his appropriately purple People Eater is fairly neutral with an even measure of clarity. This cable does a nice job across the range of styles and excels when some drive is present. The Blue Nile speaker cable, one of many hand-tuned creations, is clear, loud and punchy. Give Mike a call and he'll help get you the right product for your system.

In response to the article, Mike Vans Evers states: “Our cables are intentionally different in tone from model to model. This is because each musician has different tonal requirements. We don't make 'one-size-fits-all' cables at specific price points. We build cables to enhance your tone, and the People Eater is just one model of many.”

Vans Evers Audio Products; www.vansevers.com; (813) 309-0700
People Eater 15ft: \$125.00, Blue Nile 4ft: \$100.00

Zaolla Silverline

Frequency Response Curve



Scores in table plot frequency response as they appear—refer to section discussing graphs

Dynamics	Dimension	Pitch Definition	Balance	Feel	Stylistic Range	Signal Strength	Transient Response	Presence	Transparency
6	5.5	6	4	4	3.75	6	5.5	5	6

Overall score: 51.75

The Zaolla instrument cable is one of the top offerings from the Hosa Corporation, utilizing an ultra-pure solid silver conductor, quality components and extreme levels of shielding. The performance is clean in the treble with a heavy dip in the midrange. Certain sucked-mid rock styles and rhythm players that need clarity behind a lead instrument will benefit from this cable's qualities.

Zaolla Silverline; www.zaolla.com; (714) 736-9270
Silverline 15ft: \$95.00

Wrap Up

There are no winners or losers in this comparison. **Although there are several standouts in terms of pure performance characteristics, the overall scores do not necessarily serve as a ranking. Every cable has a place and needs to be matched to the player's style, situational requirements, equipment and specific needs—individual high and low points must be considered.** Basically, the categorical scores are meaningless without the summary description and the most expensive and highest scoring cable may be the wrong choice for your individual needs. And, don't be afraid to mix and match cables; this is often the best way to achieve a balance of attributes and the most impressive tones. I'd like to extend my sincere thanks to all of the participating manufacturers and fine engineers, Mark Bartel of ToneKing Amplifiers, Bill Finnegan of Klon, William Tucker, Al Zimmerman and Dr. Carl Nett. Anyone who would like to discuss the results, my article in general, or specifics that space didn't allow, may contact me through the email address below. kekirkland@msn.com.

Classically trained in direct lineage of Andre Segovia, Eric Kirkland is a gear reviewer for Guitar World magazine, Senior Editor of www.tonehunter.com and works as an independent technical consultant and beta tester. Eric also has a BA in Behavioral and Social Sciences from the University of Maryland and a background in statistics.