



Siltech Cable Series Overview

At Siltech, we have been at the cutting-edge of audio cable development for almost 40 years. Working with the latest science and technologies, we have evolved groundbreaking conductors, innovative constructions, and sought out the very best dielectric materials, significantly extending the musical performance of high-end audio systems. Our products are renowned and their qualities recognised around the world. For almost four decades, we have been setting the standards in high-end audio.

Siltech

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The essence of cables



Everybody knows that when it comes to audio systems, you need cables to make them work. What fewer people appreciate is that those cables represent a system within the system. What almost nobody understands is that each cable is itself a system – a complex combination of materials and technologies that often have competing and contradictory goals and need to be precisely applied and perfectly balanced to achieve optimum results. The whole spectrum of music must be transported as entirely as possible to avoid any loss of quality in the music.

Siltech essentially invented high-end cables with the original Siltech line and we are best known for our groundbreaking cable designs. For almost four decades, we have set the performance standards that other cable brands struggle to match. Our unparalleled experience and accumulated knowledge have been applied far beyond the field of audio cables. Siltech products are made with our unique approach using proprietary materials and patented technologies. That is why our cables sound so good and get even better as time goes on.

Why is the quality of a cable so challenging to achieve?

This is because music has a wide range of frequencies. Cables consist of a conductor that carries the music from one point to another and an insulator that makes sure it does not short.

The most known properties of electricity are voltage and current. Voltage can be seen as tension or pressure- a difference in level from one side to the other. Current can be seen as a flow-like water moving in a river.

The conductor can be seen as the river itself. In a wide river, the current flows slowly but steadily and can deliver a lot of water. Just like a river, a cable can carry a lot of current if it is big enough. Loudspeaker cables (and power cables) need to be of sufficient diameter in order not to reduce the current. The quality and purity of the conductor can be compared to the bed of the river. The smoother it is, the smoother the river flows without splashing. Splashing equals distortion in music. That is why we have put so many years of research into our proprietary metallurgies, to be able to produce conductors of the highest quality and purity.

Voltage distortion is mainly of importance for interconnect cables. Here, the voltage is essential because the current is extremely low. That means that any friction from the sides would influence the signal flow.

This relates to the conductor itself and the insulation material. The higher the purity of the conductor, the less resistance it endures and the better the sound quality will be. The same is valid for the insulator. High-quality insulators are,

therefore, essential. This is the reason our engineers have selected high-tech insulation materials that are often used by the military because of their unique properties. These materials are Teflon, Kapton and PEEK (polyether ether ketone). All are used in different combinations to allow for the best sound.

Power cables are often not well understood. If we assume that the power comes from your electric box, it might be on its way for tens of metres before arriving at your wall plug. So, what kind of loss can a few metres do? After studying the behaviour of cables for 35 years, we found many unknown answers. The magnetic fields leaking out of power cords and power lines influence sound quality within the first 2 feet. That means that only the quality of the last few feet affects the sound quality of your system.

Two fundamental properties can separate a power cord. One is the conductor. At higher currents, it can saturate connections and therefore add an audible distortion to the sound of your system. The other important property is the shielding. The shielding should prevent the magnetic field from leaking out of the power cord. Because of its low frequency, the wavelengths of the 50 or 60 cycles is longer than the cable. Our specialised engineers invented a unique technique ensuring total freedom of distortion as well as excellent shielding for power cords. This leads to a much quieter background, which means a more musical system.

Siltech cable construction

Generally speaking, an ideal audio cable should have the following properties:

No (series) resistance, why?

Because any signal travelling from one crystalline unit to another should not be changed. Every bit of resistance means that not all of the signal is being transported to the next unit. Also, due to leaking ground currents, the ground resistance of the wiring plays a major role in degrading the sound quality.

No capacitance, why?

Because capacitance means an extra load for the signal entering the cable. Also, dielectric effects will cause storage of the signal in the insulation.

No inductance, why?

Because inductance means higher series impedance at higher frequencies. This causes uneven distribution of higher and lower frequencies.

Siltech chooses to make cables quite independent of the other gear that the customer will have because we have no say in that. Siltech cables do not filter or cause any active alteration of the signal. They have low impedance and low inductance as well as medium (Classic Anniversary) to ultra-low (Triple Crown) capacitance depending on the model. Siltech cables are very stable and do not change the sound even when long lengths or unequal speaker cable lengths are used. The low capacitance ensures the sound is the very fastest, most precise and refined it can be.

For the lowest distortion and resistance, we use both our proprietary metallurgic formulas (see below) and unique Kapton and/or PEEK and Teflon insulation from Dupont.

Monocrystal oxygen-free copper – Used in Explorer series

The Explorer series is the only series that uses copper as a conductor. Our 6N monocrystal copper is the result of extensive research and testing and boasts superior conductivity. The Explorer series can be regarded as a monocrystal oxygen-free copper version of the higher-level Classic series because the processing technology and structure are completely consistent.

Solid core silver-gold of the 7th generation called “G7” – used in Classic Anniversary series

Silver outperforms copper in all sonic and electrical aspects as well as being more stable over time. SILver TECHnologies has perfected the silver metallurgy over time to ensure the best and most constant performance of audio cables.

Siltech’s proprietary silver-gold alloy (G7) improves a natural silver wire by adding traces of gold to fill the microcracks that occur during the solidification process of the silver crystal structure. In a continuous process of improvements since 1997, the gold injection process has been perfected with every generation of silver-gold wire. This 7th generation of Siltech silver-gold alloy was able to reach a purity of 9N by increasing the filling rate of the crystal structure gaps to the highest possible level. This technology lowers the resistance and audible distortion of all cables and, at the same time, makes the wire stronger and more flexible.

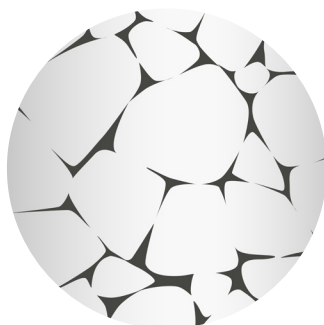
Solid core monocrystal silver of the 8th generation called “S8” – used in Crown series

Our silver-gold alloy was the best possible metal at that time because it filled virtually all the microcracks in the silver structure. The only way to improve this further is to eliminate these microcracks entirely.

“Monocrystal” means one long continuous crystal of the silver metal from one end of the cable to the other. This technology results in the absolute highest purity possible, which ensures the lowest loss of energy (lowest resistance) and lowest micro-distortions because the limitations of the crystal structure are completely removed.

Both Siltech silver wire technologies (G7 and S8) benefit from positive aging, which means that the measured signal and audio quality will continue to improve over time. This also explains the high value of used Siltech and the long life of our lines.

Microscopic view



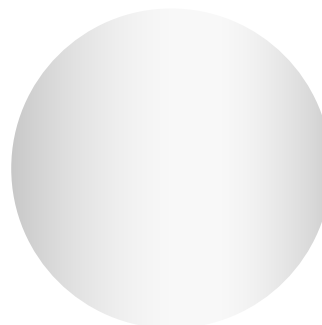
Regular

Copper or Silver conductor; small gaps appear causing micro-distortions in the signal.



Siltech G7 Silver-Gold wire

Silver conductor injected with pure gold; gaps are eliminated keeping the signal intact and thus providing higher performance.



Siltech S8 Monocrystal silver

One continuous silver crystal, totally eliminates microcracks for lowest resistance and micro-distortions.

Siltech Explorer Series










Explorer 90i

The cables in the Explorer Series bring Siltech technology, know-how and performance to a new, far more approachable price-level. By combining our exacting constructional standards, innovative di-electric materials and all of our massive, accumulated experience, with newly developed, high-purity, 6N copper conductors, we can deliver an unprecedented level of performance from a cable at this price.

For the first time, a company that is synonymous with the use of silver for its conductors has chosen copper – but not just any copper. Extensive research has allowed us to eliminate the microscopic contaminants that don't just limit the performance of conventional copper conductors, but further erode it over time.

Our mono-crystal copper conductors offer both measurably superior conductivity and longevity. By combining this revolutionary metallurgy with our proven, self-shielding, low-loss construction and unique, Kapton-Teflon insulation, we ensure superb protection from mechanical, RF and EM interference, creating a series of cables that deliver genuine Siltech quality and performance at anything but a Siltech price.

The Explorer Series – allowing more music lovers to explore higher audio performance.

				Metallurgy										Construction				Insulators				Cross section												
				Silver-plated copper			Monocrystal copper			Pure silver-gold alloy			Pure monocrystal Silver			Twisted pair		Star quad		Coax		Twisted coax pair		Siltech special Multicell		Kapton		PEEK (selected connector)		Teflon		Super shielding		
				Model	Cores																													
Explorer Series	Interconnects	90i	1	•									•									•		•		•								
		180i	1	•									•									•		•		•								
		180ix	2	•												•								•		•		•						
	Loudspeaker cables	90L	2	•						•												•		•		•								
		180L	2	•						•												•		•		•								
	Power cable	270P	2	•						•														•		•								
	Digital cable	45 USB	4	•						•																•		•						

* The USB digital cable has PVC insulation.

Siltech Classic Anniversary Series



Classic 770i

The Classic Anniversary series was originally developed to celebrate 25 years of high-end audio cables from Siltech. Built on the foundation of the legendary Siltech Classic series, we used G7 silver-gold alloy conductors* with refined construction, which resulted in reduced low-level signal distortion and a whole new level of musical performance. Combined with precision micro-engineering and cutting-edge research into the effects of electromagnetic interference, we created the quietest Classic cables ever made- 10,000 times quieter than the competition!

Audio systems have to operate in increasingly hostile environments and are constantly under attack from RF pollution caused by wireless devices, mobile phones and computers. The multi-layer Kapton-Teflon insulation**, silent background and low distortion mean the Classic Anniversary cables deliver music that is rich in detail and dimensionality, accurate in tonal colour and weight, and has lightning-fast shifts in dynamic range and transient response. With four interconnect cables, three speaker cables, and a full suite of digital cables, there's a Classic Anniversary model for every requirement. Their accurate, low-loss performance will reveal the full potential of your audio system and the recordings you play on it.

		Model	Cores	Silver-plated copper			Monocrystal copper			Pure silver-gold alloy			Pure monocrystal Silver			Twisted pair			Star quad	Coax	Twisted coax pair			Siltech special Multicell			Kapton	PEEK (selected connector)			Teflon	Super shielding			Cross section
Classic Anniversary Series	Interconnects	330i	2			•													•			•		•		•		•							
		550i	2			•													•			•		•		•		•							
		770i	2			•													•			•		•		•		•							
		Phone	2			•													•			•		•		•		•							
	Loudspeaker cables	330L	2			•													•			•		•		•		•							
		550L	2			•													•			•		•		•		•							
		770L	2			•													•			•		•		•		•							
	Power cable	SPX-380	3	•						•																•		•							
		SPX-800	2			•				•									•			•		•		•		•							
	Digital cable	HF	2			•				•																•		•							
USB		4			•				•																•		•								
				Metallurgy					Construction					Insulators																					

* The SPX-380 power cable has a silver-plated copper conductor.

** The SPX-380 power cable and the digital cables have Teflon insulation only.

Siltech Crown Series



To celebrate 35 years of cable excellence, Siltech introduced the Crown Princess interconnect cable. This limited-edition model combines many of our latest inventions and technologies. We’re very proud of this cable and its pure and advanced monocrystal silver conductor. Its outstanding musicality and fantastic performance made it an easy decision to add a limited-edition Crown Prince speaker cable and a Crown Prince power cable to the series too.

All three cables have monocrystal silver conductors and multi-layer Kapton-Teflon insulation materials that work together perfectly to get the best out of any audio system. During the past 35 years, our extensive research, along with advancements in technology, has enabled us to continually produce products that set new standards in high-end audio.

Crown Series		Model	Cores	Silver-plated copper Monocrystal copper Pure silver-gold alloy Pure monocrystal Silver Twisted pair Star quad Coax										Twisted coax pair Siltech special Multicell Kapton PEEK (selected connector) Teflon Wide-range shielding*				Cross section
	Interconnects	Crown Princess	2				•	•					•		•	•		
	Loudspeaker cables	Crown Prince	4				•		•				•			•		
	Power cable	Crown Prince Power	2				•	•					•		•	•		
				Metallurgy			Construction				Insulators							

* Wide-range shielding provides protection from a very wide range of frequencies caused by electronic devices.

Siltech Royal Signature Series



Empress Crown

The Royal Signature high-end cable series embodies every ounce of Siltech's knowledge and technology. When performance is all that matters, how a cable is constructed is paramount. Using an external, circumferential shield produces exceptional results, so long as it's kept far enough away from the conductors. Thick and stiff external insulation imparts added mechanical isolation. It's this construction that means the Royal Signature series cables are heavier and less flexible but, once heard we think you'll agree, that's a small price to pay given the performance on offer.

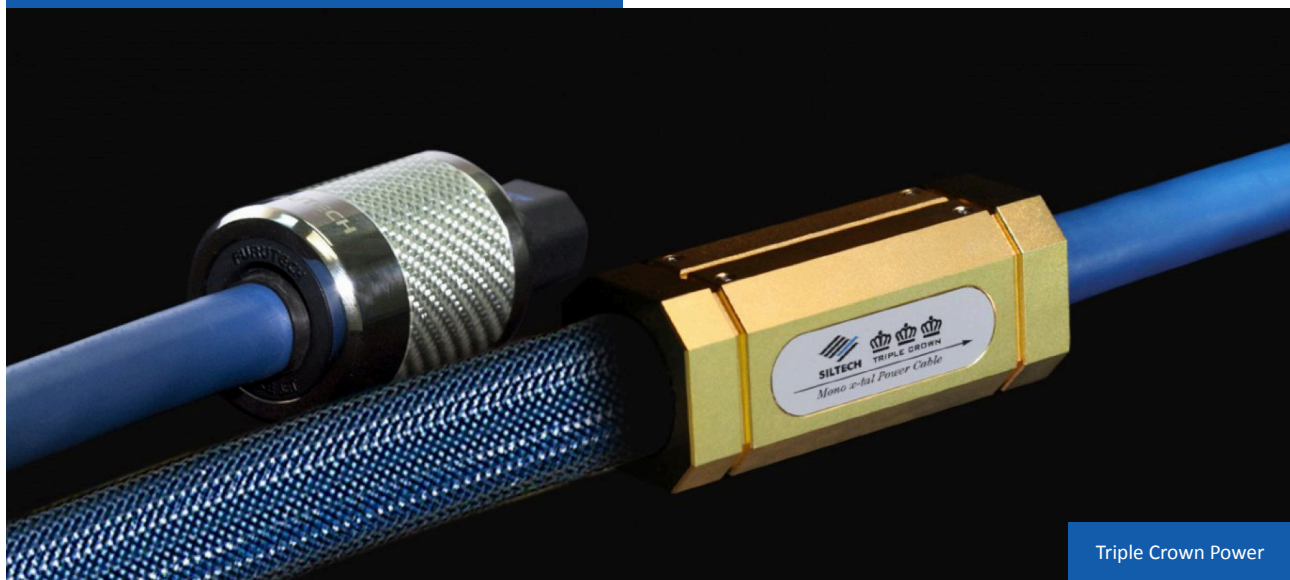
Precision manufacturing techniques are used to create these cables that feature our latest G7 silver-gold alloy or monocrystal silver conductors combined with advanced multi-layer Kapton-Teflon insulation* materials. This state-of-the-art cable family consists of eight interconnect cables, five speaker cables, three power cables and eight digital cables. Breathtakingly accurate and musically involving, the Royal Signature series are among the best cables that money can buy.

			Model	Cores	Silver-plated copper		Monocrystal copper		Pure silver-gold alloy		Pure monocrystal silver		Twisted pair		Star quad		Coax	Twisted coax pair	Siltech special Multicell	Kapton	PEEK (selected connector)	Teflon	Wide-range shielding**	Cross section	
Royal Signature Series	Interconnects	Princess	2			•		•							•	•	•	•			•	•	•	•	
		Queen	2			•		•							•	•	•	•			•	•	•	•	
		Empress	2			•		•							•	•	•	•			•	•	•	•	
		Empress Crown	2				•	•							•	•	•	•			•	•	•	•	
		Empress Double Crown	2					•	•						•	•	•	•			•	•	•	•	
	Loudspeaker cables	Prince	2			•		•							•	•	•	•			•	•	•	•	
		King	2			•		•							•	•	•	•			•	•	•	•	
		Emperor II	4			•			•						•	•	•	•			•	•	•	•	
		Emperor Double Crown	2				•	•							•	•	•	•			•	•	•	•	
	Digital	Golden Ridge II	2			•		•										•	•			•	•		
		Golden Eagle II	2			•		•													•	•			
		Golden Eagle 75	1			•					•											•	•		
		Golden Eagle 75 Double Crown	1				•				•											•	•		
		Golden Eagle 110 Double Crown	2				•	•														•	•		
		Golden Universal II (USB)	4			•		•														•	•		
		Golden Universal Crown (USB)	4				•	•														•	•		
	Headphone	Duchess Crown	4				•	•														•	•		
	Power	Ruby Hill II	2			•		•							•			•	•			•	•		
		Ruby Mountain II	2			•		•							•			•	•			•	•		
		Ruby Double Crown	4				•		•						•			•	•			•	•		
				Metallurgy				Construction						Insulators											

* The digital cables have Teflon insulation

** Wide-range shielding provides protection from a very wide range of frequencies caused by electronic devices.

Siltech Triple Crown Series



Triple Crown Power

Siltech's unique monocrystal silver conductors deliver the highest resolution and lowest-loss audio signal path, making them the standard against which other conductors are measured. How could we improve them? Well, if monocrystal silver is the best conductor material available, one way to get better performance is to use more of it by creating conductors with larger dimensions. That's why the cables in the Triple Crown series have monocrystal silver conductors with the largest diameters we've ever used. This solution is only possible in a genuinely cost-no-object design, one where the only consideration is ultimate performance.

While the astonishing accuracy of the conductor revealed new levels of musical nuance, detail and definition, it also revealed shortcomings in cable construction. Residual levels of micro-distortion and other error mechanisms that had previously stayed hidden were now exposed. Solving this problem required a complete rethink about how the cable was constructed for new levels of geometrical and conductive consistency.

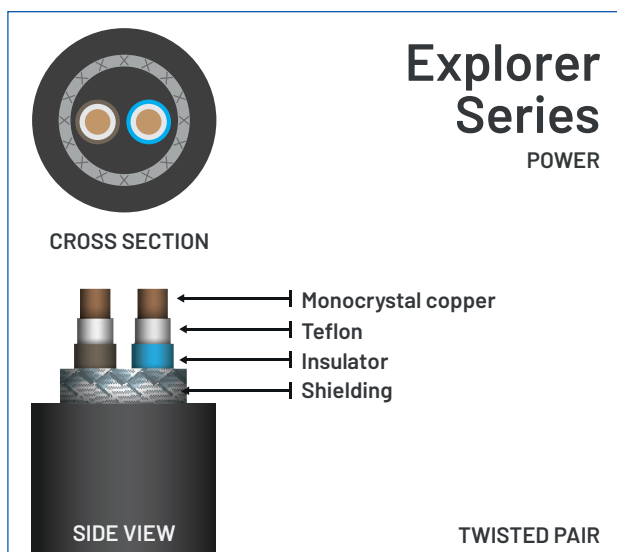
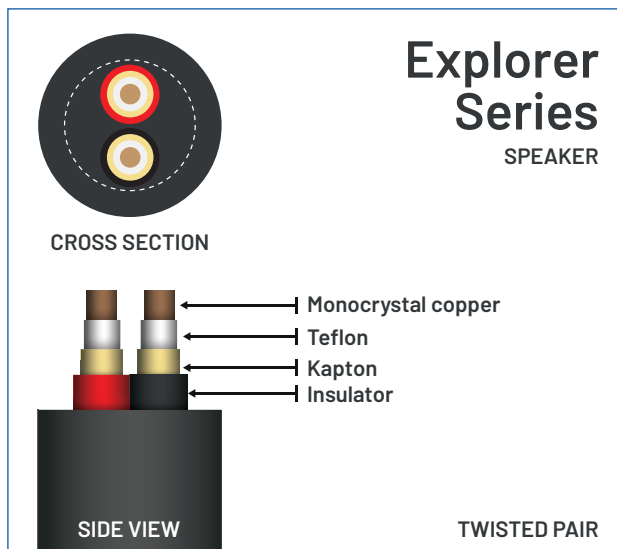
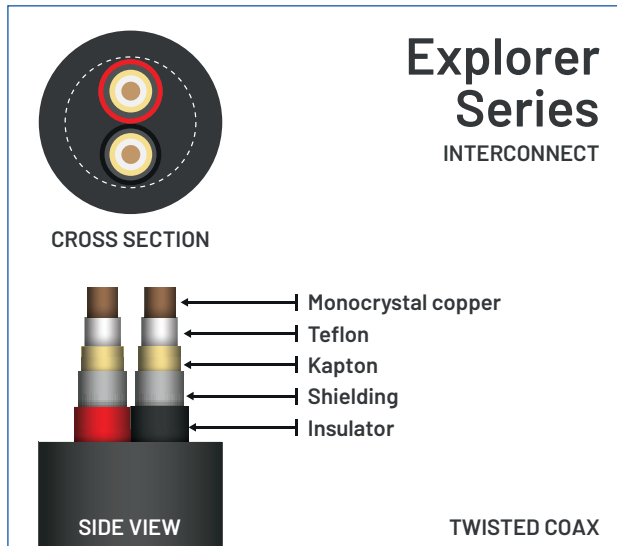
Siltech's engineers perfected a radical new cable topology with a complex construction that ensures absolute geometrical and mechanical consistency, no matter how the cable is curved. It needed to be longitudinally flexible but stiff in compression. We call the new topology 'Air Cradle Construction' and it combines large monocrystal silver conductors with ultra-low-density insulation- made from a complex Teflon matrix- to deliver incredibly low inductance, resistance and capacitance.

The result is a vanishingly low-loss cable with numbers that aren't just better than any other cable we've ever produced – they're better under any circumstances. Siltech's exhaustive empirical research has also revealed that it's not just low LCR numbers that matter, but the consistency with which a cable delivers those numbers under real-world conditions.

		Model	Cores	Silver-plated copper				Monocrystal copper				pure silver-gold alloy				pure monocrystal Silver				Twisted pair				Star quad				Coax				Twisted coax pair				Siltech special Multicell				Kapton				PEEK (selected connector)				Teflon-Air				Wide-range shielding*				Cross section																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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* Wide-range shielding provides protection from a very wide range of frequencies caused by electronic devices.

Cross Sections Explorer



Cross Sections Classic Anniversary

