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F.A.Q. (frequently asked questions) on the trademark MARKAN.

Question: Dear MARKAN! Do not you think that the price of your equipment is a bit "heavy" for the domestic consumer? Although, the sound I really like.

Answer: If in your life there was not yet a sound from MARKAN, then it's time to think - was it happy? It is enough to touch the sound of MARKAN once, to never be the same again. Most likely (since you are here!), communication with MUSIC is an important component of happiness in your life, and - not fully realized (since you are here!). So is it worth on this component of happiness to continue so desperately trying to save money? Let's try to figure it out together.

We warn you - if you read this article to the end, you risk turning your worldview on many issues of sound reproduction.

Sound-reproducing technology, in one form or another, is present in almost every apartment and, even, almost in every car. At the same time, the overwhelming majority of domestic consumers are ready to spend on audio equipment as little as possible of money, and "saved" by this means to allocate for the purchase of sofas and sheepskin coats. Apparently this category of consumers is in question? No domestic manufacturer is able to compete in price with Chinese rattles, focused specifically on this vast consumer niche of "economical consumers." Ambition type "sound from MARKAN - in every apartment!" I do not. At the slightest manifestation of any interest in the notorious correlation "price/quality of sound reproduction", and not just "price", MARKAN products are the undisputed leader. This is an indisputable and unconditional fact that everyone knows.

The MARKAN website contains a lot of information, based on which you can remotely evaluate the convincing positions of the MARKAN technique from the point of view of the price/quantity ratio of embedded electronics, and the conditions for real acquaintance with MARKAN products offered by me make it possible to estimate the real price/real_sound_result. For my part, I can guarantee that the values of these ratios unconditionally lead MARKAN products to the "final choice" category. The only characteristic that can be characterized by communication with music through the products of MARKAN products is ADMIRATION. Be sure that the degree of this ADMIRATION is simply incommensurable with the feelings that arise from communicating with sofas, sheepskins and Chinese rattles. Moreover, the "price" of that ADMIRATION is quite moderate against the background of other products, from communication with which there are no rudiments of such emotions.

I.e., these are sofas and sheepskin coats in most "economical" consumers are heavy, including at a price. And DAC MARKAN flutters like an angel, both in sound and in price categories. On the change from buying a sofa to buy it, indeed, it will not work, but, to change from buying an imported DAC the same level as DAC MARKAN, it is possible to furnish the entire apartment with expensive furniture.

Usually, audio enthusiasts turn to the MARKAN products after 3-4 rotations of imported equipment in their audio system, when it becomes clear that for no money it is impossible to obtain an import alternative to the MARKAN sound transmission. Then already the conversation about the price starts to look something like this: "I'm ready to pay more indicated amounts, I need everything on the highest level!". In the serial production of MARKAN, everything is at the highest level, so the additional increase in the audio pitch, when using MARKAN products, is always limited only by the other links of the sound path - it's better to pull them up to the MARKAN level.

Those, all depends not on the effective demand of domestic buyers, but at that level of the bar of requirements to the sound that the potential consumer seeks. If this bar of sound quality requirements starts to rise above the level of the plinth, that is, just above the level of Chinese rattles from Ebay (all sounding like an empty iron bucket with nuts) - then the products of MARKAN are out of competition, goes into detachment, glosses and fragrant. Let's just say: MARKAN products compete easily and successfully with dCS, JADIS, Metronome products. I repeat: it is easy and successful, this is to offend no one...

If at the moment of your life you are interested in the response of your heart to the process of communicating with MUSIC, then the price for DAC MARKAN is clearly not superfluous. If at the moment the first place for someone is the response of the "fifth point" to the upholstery of the sofa - you just have to wait until the emotions of the heart will require attention and then compare the emotions transmitted by the equipment and compare its prices. First, we compare the responses of the heart to the music being transmitted, then the prices. So it will be more correct.

Question: I now use the (model name) as the source of the sound. Is it possible to characterize the possible degree of growth in the quality of sound reproduction when replacing this source with MARKAN in some specific units, say in percentages? At least approximately?

Answer: MARKAN products always have a powerful emotional impact on a potential consumer, which is "not a common yardstick". If you mean a certain price increase in the quality of sound reproduction, then you can focus on the declared by the manufacturer MARKAN 5-7 times the stock at a price in relation to the commercial technology. I.e., simply take the amount of \$ 5000-7000 and try it on your existing device - this will be the MINIMUM expected increase in the quality of the sound reproduction, which can be GUARANTEED.

At the MARKANaudio forum and in the store www.markanshop.ru, there are many customer reviews on all the positions of the MARKAN product range. Just try to find the same number of reviews on any other device or cable, pay attention to the emotional intensity of the reviews. Or try to try on any feedback on MARKAN products to your device or cable.

On the same Internet resources you can see a map of cities with consumers of MARKAN products. At the moment, there are just over 96 cities. This is not a consumer map - this is a map of cities in which there are consumers of MARKAN products. Moscow and St. Petersburg

have one marker on the map, although they are more than the rest of the map. This is another argument in favor of selecting MARKAN products: the whole country chooses MARKAN. None of the commercial brand of audio equipment has such popularity in our country. Now, the separation of MARKAN products from the commercial is even more thorough, but, more on this later.

Just remember: it's about ADMIRATION when communicating with music through the products of MARKAN. If your current technique is not capable of providing these emotions, then the "increase in the quality of sound reproduction" can be characterized in one word: colossal.

Question: Your information contains a lot of new and, as yet not completely understandable terms and phrases for me. But, all this is very interesting for me! Can I expect that the MARKAN technique will not be difficult to operate?

Answer: Of course! I specifically reduced the number of controls in the MARKAN technique to the ascetic minimum and even a child will master them. Well, smart child. However, this does not exclude the need to understand some of the important issues set out in the manual that is available for review on the MARKAN website in the "Articles" section. Any, even the most insignificant question, I am always ready to explain in detail in personal correspondence.

Question: The conditions of real acquaintance with MARKAN technology, offered by you, really, look very tempting. I do not quite understand: are there any restrictions on the return of equipment, say, if I accidentally scratch the case? What else should I keep in mind when agreeing to the terms of your program for acquaintance with MARKAN technology?

Answer: Possible return of MARKAN equipment within the proposed acquaintance program is carried out without explaining the reasons for the return and is not accompanied by any claims or restrictions on my part. Even if you accidentally scratch the case, there will be no complications. I just count on the rationality of all actions on the part of potential consumers.

Question: On the Internet, I often heard ads about the sale of MARKAN equipment by consumers. Does it say that not all consumers are satisfied with their choice?

Answer: Over the years, I've been given out to the mountain many varieties of MARKAN in price categories, which differ ten times in size (\$ 150- \$ 2500). Many consumers of MARKAN technology over time acquire more modern products MARKAN, and old technology finds its new owners in the secondary market. I myself sometimes offer my old products, at a price of 50% of the modern. The availability of MARKAN equipment on the secondary market means that everything is proceeding in its normal course, and consumers of MARKAN equipment can always be assured of the future.

Some consumers purchase the MARKAN technique, viewing it as a kind of "constructor kit" for their personal experiments. On the used market there are a lot of DAC MARKAN redesigned by consumers. I sometimes have to repair the DAC MARKAN that the consumers have converted. Once I had to remove 33pcs of foreign components from it. My verdict is always the same: I could not sell such a sound (converted) even for \$1.

On the used market there are constantly turning several altered DAC MARKAN, constantly replacing their owners and attracting negative feedback to MARKAN products. So, be careful with the secondary market.

Question: I share your point of view that the most emotional sound in digital format is available only in the classical CD format and would like to replace its CD player with something more serious. What can your recommendations be?

Answer: My recommendations for popular old models are roughly the same (in the order of the priority ascending, based on the statistics of the work of devices as a transport for DAC MARKAN):

DENON 1015, TEAC VRDS 7, TEAC VRDS 10, TEAC VRDS 25.

On modern digital equipment, I categorically would not advise to be guided, but immediately pay attention to these models, the good, their modern cost in the secondary market is very democratic.

From modern positions, I would unobtrusively recommend paying attention to SDcard players (for example, the company QLS). With a good classic CD transport / player, the sound is more "live", but SDcard players as close as possible to classic CD transport / players and make available a sea of music information from the Internet.

Question: What types of optical cables would you recommend?

Answer: At the moment, I recommend an optical cable only for connection to a computer, because the computer is a source of significant internal interference that is effectively cut off by the optical interface. For all other connection options, the MARKAN digital cable is optimal. Even when connected to a computer, the MARKAN digital cable is often a priority and second only to the most expensive optical cables. In all other cases, it works better than even the most expensive optical cables.

The optical cable is, in fact, the only position from the extensive cable facilities that domestic manufacturers can't afford. Have to go to the bow to the import. My recommendations for optical cables (in priority order):

1. AudioQuest Diamond Optilink (its sound transmission is aimed to a modern "empty" computer sound, successfully softens the sound).

2. AudioQuest Optilink 5 (its sound transmission is for classical digital sources)
3. AudioQuest Optilink 4 (currently not produced, only available on the secondary market).
4. NordOst White Light Glass - With this cable, there is some confusion, it is necessary to GLASS cable, although the guys told me that under this brand they were offered a plastic cable.

In any case, the optical cable, if possible, it is better to choose glass. It is necessary to know that any optical cable has a directionality (it is necessary to listen in both directions and then independently mark) and each copy of an expensive optical cable (due to the complexity of production) sounds differently even within the same brand.

All other types of cables for the sound path are available under the trademark MARKAN and are products of extremely high sound level. There is no point in focusing on imported cables - any position from the MARKAN cable range will be guaranteed better than the most expensive imported cable that you could only dream about. To check this - the program for acquaintance with MARKAN products just for this purpose exists.

Question: You offer convincing warranty conditions. How is the MARKAN equipment serviced beyond the warranty period? What is the estimated service life of MARKAN?

Answer: I try to maintain the efficiency of all my products without taking into account the limitation period for their release. You will not find a single person who complains that I left him without attention. If possible, I produce technical support in my in-house facilities. In the case of territorial remoteness, at the request of the consumer, I provide the necessary technical information. Modern MARKAN products are based on the equipment that I purchase directly in the USA and are very reliable.

The approximate service life of MARKAN equipment is at least 7 years. Repair of MARKAN equipment up to 7 years old is free of charge. Repair of MARKAN equipment older than 7 years - free of charge, provided that the consumer purchases any MARKAN cable (except for the "younger" power cable).

7 years - this is the European standards for the operation of household electronic equipment. For many positions of electronic equipment older than 7 years in the EU there is a legislative ban on operation. For MARKAN products, I just specify the estimated lifetime of MARKAN products at least these European standards. The actual lifetime of MARKAN products is significantly higher than these standards, but in order to have at least some reasonable limits on the issue of MARKAN product life, one should be guided by these figures.

Question: I would like to order a slightly different design for MARKAN. Is this possible?

Answer: Possibly! All the nuances are discussed in the conditions of personal correspondence. It is only necessary to bear in mind that under the conditions of the proposed program of

acquaintance with the MARKAN technique, only serial models with a classical design are offered. I.e., custom design is the final purchase. I can only add that the real appearance of the classical design is very interesting and far from fully illustrated by the photos offered on the site. In fact, everything looks more impressive in life. But, I repeat, all the questions on design are discussed.

Question: Is it possible to integrate the volume control in DAC MARKAN (I want to get rid of the preamplifier)?

Answer: This is a very wrong technical solution. The volume should be adjusted only after the interconnect cable. Adjusting the volume before interconnect cable leads to degradation of the energetics of sound in conjunction with volume control. This is an inevitable fact.

Question: Is it possible to organize a balanced analog signal output in DAC MARKAN?

Answer: Yes, the balanced version of DAC MARKAN is being released. Not always on the official MARKAN website there is an exhaustive information about the produced varieties of MARKAN products, the fullest information about the MARKAN assortment is in the online store www.markanshop.ru.

Question: My player (transport) has only digital outputs of AES/EBU and ST format. Can I connect it to DAC MARKAN?

Answer: The DAC MARKAN coaxial input is capable of receiving AES/EBU signal when using the appropriate cable or adapter. I.e., the question is only in the configuration of the digital cable, there are no other obstacles. You can order the installation of an XLR socket for the AES/EBU interface to the DAC MARKAN digital input.

Question: Can I order a DAC MARKAN with the ability to connect to a computer via USB or FireWire?

Answer: DAC MARKAN is focused on the serious approach of consumers to the sound and uses only the digital interfaces SPECIALIZED for SOUND. All other types of computer interfaces are oriented to completely different tasks and are not supported by the MARKAN technique. The presence in the computer of a sound card with specialized interfaces for sound is the minimum indicator of the orientation of the computer for performing any sound tasks. A computer that does not have a sound card should not be considered as a potential source of a good music signal. The sound card carries out considerable work on the preparation of sound data for their output outside the computer and this should not be neglected.

The current market trend really offers to exchange data with a computer via USB and FireWire interfaces. It is very convenient for the consumer and gives the impression that from that hole in the computer case called USB, into which everyone pokes in whatever they get, you can get a good sound. The very principle of computer USB interfaces and all others is based on the principle of PACKET transmission of information, rather than on a continuous stream. Those, the stream of sound data is "cut into slices" (data packets), which can't then be glued to a uniform stream in real time (playback mode), the data stream is torn (uneven). There is no data loss at the same time, but the sound of the "empty can" is absolutely unremovable, although on the Internet this sound is now considered the standard and, tapping on the keyboards with colorful marigolds, is praised to the skies at forums of commercial equipment and diverse business media projects. Although the sound frankly and hopelessly falls before the requirements of the new time - do not forget the renaissance of vinyl, growing as a leap against the background of this crash of "cans".

DAC MARKAN is designed for enthusiasts, whose sound from the computer via USB absolutely does not suit the quality. Such audio-enthusiasts - the vast majority, despite the abundance of zombie information on the Internet from computer geeks on this issue. "Generation Pepsi" proclaimed the motto: "*The best sound is a dead sound*". The sound via USB perfectly matches this newfangled trend.

The difference for the sound between the USB and FireWire interfaces (IEEE1394) is in most cases. The USB interface is the worst option for sound. I can't say that IEEE1394 is a better interface for sound - it should be said that USB in audio playback is even worse than IEEE1394. I.e., we are not talking about what is "better" than the other, we can only talk about what is worse for another - feel the difference in wording.

So how does this "empty can" sound when sending a stream of audio data through USB and FireWire (IEEE1394)? For normal operation of synchronous interfaces such as USB or IEEE1394, service intervals between data packets are required. During these time intervals, the interfaces exchange service information with each other, rather than user data-something like "I just sent you so much data, did you accept them?" "Yes, I took so much data, everything is fine, come on yet! "" Then attention! After the signal, I start transmitting the next data packet! Do not miss the signal about the beginning of the transfer! "It is clear that these official "smoke breaks" do not benefit the sound, but that's not all ... To maintain the standard GENERAL streaming speed of audio data (for example, for the 44.1 / 16 format it is 1411kbbs) directly sound data must be increased in order to "catch up" the loss of time after each official "break". As a result, we get a sound toned to a higher frequency region, lightweight, without support from below (without deep bass/infra-bass) and a distorted rhythmic pattern (due to "smoke breaks"). A good sound is when a wave of bass slowly rolls across the floor, on the crest of which the main musical action is already calmly arranged. In the case of sound via USB, you can't even dream about it - the sound is fussy, empty, tonally shifted to a higher frequency region, the rhythmic and semantic pattern is broken, there is no "support from below" ... But it's cheap!

"But, in fact, in the modern protocols of USB, there are asynchronous modes of operation, in which there is no exchange of this service information between the transmission and reception

nodes!" - can ask a technically savvy reader. Quite right! Technically savvy readers, I can pay attention in personal correspondence to the influence of the "computer" equipment on the sound, IRQ interruptions and many other "demons" that instantly flock like moths to a light (in our case - to sound) as soon as the user utters this terrible spell: "*USB! Come to my sound!*". For all other readers, I think this information should be already enough to understand: as soon as we start talking about using USB in sound, we immediately start moving not to emotions of the category "ADMIRATION", but in a completely different direction, i.e. to emotions of the class "Disappointment by sound". Computer geeks that promote the use of USB in sound on numerous forums, simply have no idea what the ADMIRATION is from communicating with Music and simply propagandize just some kind of its sound result. Most often, the goal of such experiments is to save as much money as possible on equipment and bring them to beer and chips. Those human treasures-emotions, which are generously laid in MUSIC - they never dreamed.

In the professional sound interfaces S/PDIF and TOSLINK there is no such disgrace, therefore, only professionals trust their priceless sound data, therefore these interfaces are called "professional sound" interfaces, and USB and FireWire interfaces are "household". By these "professional" interfaces I mean the protocol (method) of data transmission, because there are also household versions of implementations of these professional interfaces that have the same "correct" operating principle, but a simplified (cheap) physical implementation.

You can also touch upon the power of the transmitted signal, which modifies the parameters of both the interfaces at both ends and interface cable parameters: the so-called "biphase coding" is used in S/PDIF (TOSLINK), while the transmitted signal power is absolutely independent of its code composition, i.e. all links of the interface work in ideal conditions, float like in a boat. In the case of USB, when the sequence 0000 is transmitted ... the interface cools down (its electrical resistance decreases), during transmission 1111 ... -heats and the resistance increases. This modulation of the physical parameters (not only the resistance of the conductor mentioned) of the interface with a musical signal negatively affects the sound and makes a significant contribution to the phenomenon under the collective term "sound of an empty can".

It is very simple to eliminate the limitations inherent in the USB interface - just do not rely on it, but use computers with built-in (not external!) Sound cards or, even better, stand-alone SDcard players.

In case of extreme necessity it is possible to use separate USB->S/PDIF (Toslink) converters, now there is a huge number of them. But, this converter itself will have a HUGE influence on the sound reproduction quality and hope that such a good node is already built into the commercial DAC - it is naive. The best (for this task) sound result is achieved when the audio data receiving node via USB (or FireWire) is a stand-alone external unit, and not built-in inside the device (any). A good USB->S/PDIF (Toslink) converter can cost several thousand dollars, as well as good USB processing nodes without conversion to S/PDIF. This indicates the seriousness of the task and the great difficulties in solving it. Inexpensive nodes of data converters from USB or inexpensive devices with built-in USB - guaranteed "empty can" in sound, dead, lifeless, impotent sound. "Sound minority" supporters of cheap sound via USB at the moment are

extremely active in the information plan. It is necessary to have certain "propensities" to the "such" sound, which has nothing to do with the healthy sound feed that MARKAN products are promoting and confidently demonstrating.

Just remember that at all times the best digital sources have always been two-block - the DAC node has always been an autonomous device, to which any sources and converters are connected.

Let's do it again. We have some good device - audioDAC - without a built-in USB node. If someone here thinks that the introduction of the USB node in the DAC design does not affect the sound of this good device in any way, then this person does not "think", but simply "believes" (advertising brochures, audio periodicals, "professional forum users" – i.e., all those resources, which impose technology to consumers). Any additional node in the design of any audio device that does not participate in the direct playback process leads to a noticeable degradation of sound (an approximate analogue is a car with a permanently connected air conditioner, a full drive and a food refrigerator, even if they are not currently in use, they are permanently connected and devour up to 50% of the dynamic potential of such a car. In our case, the main problem is the "products of the life action" of the USB node in the sound, even if it is not using 50% - absolutely true figure for both cases). I.e., if we have some kind of universal audioDAC with several digital inputs, one of which is USB and we do not use the USB input - we can only count for 50% of that sound potential if we did not have a USB input. On a 10-point scale of conditional playback quality, devices with USB input, if we do not use this USB input - no more than 5 points of the expected sound potential. This is if we just have a USB input, but, do not use it. If we use it, then all the problems that are described above are still coming to this. Result: 2-3 ballroom sound result on a 10-point scale as a practical maximum for serious devices. For Chinese rattles in the range of up to \$ 1000 - 0-1 point (below the plinth level / the level of the plinth). I.e., in fact, what happens: the difference between 0 points and 3 points is not that big, most audio enthusiasts simply DO NOT HEAR it (it's hard to navigate in a swamp of sound level "below the plinth", catching fish in troubled water is like times about it), it turns out that Chinese rattles (sounding like an empty bucket with nuts) when working through USB do not lose much to expensive "branded" devices. This is a medical fact, this is the whole level "below the plinth".

Once again, the best option is when the DAC's USB host is external, stand-alone, which can always be replaced with a more advanced one without affecting the DAC. The external USB node does not affect the operation of the audioDAC itself and allows the DAC unit to expand 100%, rather than 50%, as with the built-in USB node. So it was always - the top digital sources were always two-block (directly DAC + source of digital stream). If you meet someone else's opinion on the aspects under consideration, you just need to estimate where the top 10 score of the quality scale is from the individual. Personally, I propose to place the 10th point in the area of the dCS P8i player, which is popular in Moscow, is available for some comparisons and ratings. This is not the most top-notch commercial device that came to my attention, I would say it is the most affordable good device in order to understand what is 10 points on a 10-point scale of sound quality, the scale of which I touched a little in the above reasoning. There are

commercial devices and with a higher quality of sound reproduction, but I consider the formula "dCS P8i = 10 points" sufficient to understand the fact: Chinese rattles up to \$ 1000, working on USB - sound below the skirting board, the theoretical maximum of "branded" devices for working through USB - 5 points, practical maximum -2-3 points on the proposed scale; for the Chinese 0-1 point.

It is absolutely impossible to uncover all the pitfalls of the affected sound aspects. If you have any questions, please call, write, and discuss in detail. And I will allow myself to continue...

Absolutely all audio enthusiasts who "hooked" on devices that work via USB (just convenient at home) soon cease to be "enthusiasts", get tired of communicating with SUCH music, and, at best, supplement the ranks of vinyl adepts - I repeat: sound reproduction through USB turns MUSIC into a meaningless heap of sounds, which is inferior to any "normal" sound source on all fronts and with time tires the listener. Against this background, vinyl sound is simply king. With DAC MARKAN, many vinyl enthusiasts easily move into the domain of digital sound, although before that they could not be forced to listen to digital sound even at gunpoint. The wonderful sound of DAC MARKAN is able to melt the ice on the way to the heart of even the most cute vinyl lovers, using the oldest method - just capturing it.

But, again, we are distracted ... The easiest way, I repeat, is not to orient to USB, but there are other, whiter, simpler and much better ways that I already mentioned: sound cards of computers and standalone SDcard players. SDcard players I consider as the most optimal version of the source of digital stream for external DAC. I use them myself.

I.e., by acquiring DAC MARKAN you get a digital source of the highest quality (the highest possible one can only imagine) of a quality level to which it is not difficult to choose an external USB->S/PDIF converter, sound card or SDcard player. Be prepared for the fact that in the struggle for top sound, even the model and design of the USB cable will have a strong influence on the sound result. Yes, really there! Enthusiasts of using computers in sound actively buy power cables MARKAN to connect their system blocks (for sound) and monitors (for better image quality). So forget about the desire "looking for a quality sound in one box with USB" - all very seriously. Start with a really serious DAC (in the context of our conversation - DAC MARKAN) and you yourself can easily figure it out.

Just remember: if the end point of your trip is just the ADMIRATION from talking to music - then you just on the way with the products MARKAN.

Question: Are there any restrictions or recommendations for installing MARKAN equipment in the hardware rack?

Answer: DAC MARKAN, due to the use of a large number of internal stabilizers of a parallel type, is noticeably heated. It is necessary to ensure free air circulation from the top of the cover and the back panel (at least 2 cm to the neighboring planes of the rack).

A widespread option for installing an external DAA directly to the case of the player (transport) is allowed, but I always recommend that you install the player (transport) and DAC on different racks. In this case different digital components have less influence on each other's work. The operating instructions contain information on the desirability of using vibration-isolating devices.

Question: The site mentions possible bonuses when buying. Can I get a little more detailed?

Answer: The "junior" MARKAN power cables serve as bonuses, which go as a gift to DAC MARKAN and are intended to demonstrate to the consumer that it is difficult to live to audio enthusiasts without specialized audio cables. By purchasing DAC MARKAN, the consumer can count on perpetual discounts on MARKAN cable products. If MARKAN cables are purchased before the need arises to purchase DAC MARKAN, discounts will be taken into account when purchasing DAC MARKAN.

Question: There are many different and, sometimes, contradictory information on the Internet about the MARKAN technique. How does the information, say, a year ago, correlate with modern MARKAN products?

Answer: DAC MARKAN is a very complex device, some of the nuances of reliable operation of which have been honed for years in various conditions of real hard exploitation by consumers. As I already mentioned, you can get an eye on information about products that differ in price every ten, because their fullness by electronics and the element base used were very different. All the recommendations of consumers have always come under the close attention of the developer and are necessarily taken into account in subsequent developments.

The modern DAC MARKAN is an absolutely reliable device, built on an active components purchased directly in the USA, has a unique "original" character of sounding and a very interesting appearance.

Progress in the RELIABILITY-SOUND-DESIGN directions did not stop for a minute, therefore, when considering any information on the Internet, one should always keep in mind that since that time much water has flowed away and in the modern MARKAN technique the final result should be more interesting, impressive and convincing.

In the crisis year 2015, as part of the struggle for consumers, in DAC MARKAN, I invest incommensurably "more sound" than in previous years. I.e., from this moment DAC MARKAN strongly and sharply differs from let out earlier.

We go further. In order to become president of the country, it is not necessary to gain 100% of the votes, it is enough to collect 40-50%, and the remaining candidates will get even less. Similarly, there is no specific device that would appeal to 100% enthusiasts. DAC MARKAN is the most popular device in the category of "digital source" in Russia - it's enough to look at the map

of cities on the MARKAN Internet resources. This does not mean and should not mean that DAC MARKAN likes 100% of enthusiasts. I would estimate this value in 95%. The other 5% have specific requirements for sound, for example: "I like that the HF grunts so that the snot from the speakers jumped out!". On the Internet it is precisely the opinions of these "dissatisfied" categories of enthusiasts that are the most. It was the "dissatisfied" at all times that were the most active part of society, in our time - the Internet community. From the category of "contented" about 1 out of 20 consumers can write a sane review on the Internet or share photos, most simply enjoy their happiness and do not have the need to share it with others. This is normal. In the category of "dissatisfied", every "dissatisfied" considers it his duty to replicate his discontent in twenty forums. This is also a normal phenomenon. The equilibrium of Yin-Yang is called. Just take the product MARKAN for the test period and independently understand which side you are on. Why do you need an impotent sound? Go to our side of good and music! We have a good sound here, high warranty obligations, bonuses are different and many, many interesting things ... ☺

Just pay attention - "negative" reviews about the products MARKAN, scattered on the Internet, come entirely from the guys who proudly declare their sound setups: "*It's cheaper only dirt!*". I characterize such situations on my Internet resources as "nailing the nails with a microscope" - DAC MARKAN is more focused on serious sound setups, it is their owners who write sane reviews of MARKAN products. The more serious the sound path - the more confident are all the advantages of MARKAN products over imported commercial products.

If you still "do not believe" in the strong influence of specialized (expensive) audio cables on the overall perception of Music and consider DAC MARKAN as a candidate for acquiring (once reading these lines) - this will be "nailing the nails with a microscope." It's better to get something simpler (for the same money), something from a huge assortment of Chinese rattles (I'm writing this to reduce the incidents of "A !!! MARKAN could not create a miracle in my penny sound setup!!! Deception on each corner!!! "). Somewhere through 4-5 rotations of similar units in its path, when its own understanding of the trends and requirements for sound will already form - it will be possible to move on to DAC MARKAN. If this way seems too complicated - then you just need to stop looking for garbage comments (like "I read somewhere that someone DAC MARKAN did not like") on the Internet and focus on the reviews of those guys who have a more or less decent technique . And there everything is already well with the reviews.

Question: I used to meet information about several varieties of DAC MARKAN models. What varieties of DAC MARKAN are produced at the moment?

Answer: At the moment only one serial model DAC MARKAN is produced, on the front panel of which there is its name Angel.

Question: How do you feel about modern computer audio formats such as FLAC?

Answer: Perfect attitude! We just need to understand that FLAC, APE and other similar versions are not the audio data formats, but the so-called "containers", analogous to which are ZIP archivers, RAR and the like. Audio playback in lossless formats ALWAYS takes place in WAV format, even if the playback program (for example, Foobar2000) uses data in the formats FLAC, APE and the like. At the same time, the data of the playback program itself is decompressed into the WAV format "on the fly" - otherwise it just does not happen. It is more reasonable to feed the data to the playback program in WAV format, i.e., previously unpacked. The difference in the sound of FLAC (APE) and WAV files is at the level of the club's blow to the head, i.e. not to notice is not possible. I always recommend that favorite albums be kept only in WAV format, and FLAC (APE) - only for acquaintance with new musical material. If your system does not demonstrate a fundamental difference in the sound of WAV and FLAC (APE) - this is a very disturbing sign. True, no person to whom I explained these differences, did not say that there is no difference. Everyone says: *"Thank you! I did not even know it!"*

By the way, "the folk sign from MARKAN" - if someone mentions the program Foobar2000 at least in some connection with the issues of serious sound (without the difference - playback, processing, converting) - stay away from this person's opinion. Foobar2000 and serious sound - the concepts are not compatible, this combine simply grinds the sound for its tasks, completely without hesitation, what tasks the user has.

Question: How do you feel about modern sound formats like SACD, DSD, DSF?

Answer: Very bad attitude! This is some kind of mockery of Music! Every time I hear these "formats", I have a feeling of bewilderment - are you serious? And where is the "goosebumps" or at least some emotions? Music is squeezed out like toothpaste from a tube - all the same, uniform, in some somnambulistic condition. Nothing can bring colors to this dull action.

Question: Why do you think that the CD format is the best for sound?

Answer: Well, not for "sound", but for "Music." In all, reasonable sufficiency is needed and in no sphere of human life the principle "the more - the better" does not work. Obesity and alcoholism are good examples of this. But let us return to our question. So:

1. I consider unconditional the explicit advantage of multi-bit DAC over one-bit (delta-sigma). In "advanced" audio formats, only one-bit (delta-sigma) types of DACs operate. Multibit DAC MARKAN, which supports sampling rates up to 96KHz inclusive - can be considered a rare exception. It's about PRINCIPALLY different sounding of a multibit and one-bit DAC. Who dealt with a good multibit DAC - that no carpets can cause you to switch to a one-bit (delta-sigma) DAC.

2. CD format sounds good only with good (expensive) transports/players. On inexpensive (even more modern multi-format) - to evaluate all its potential in music is impossible, because it is now a "bastard" in the commercial mainstream. But, we, after all, are talking about the most

top (most emotional) level of sound reproduction? Why should we carefully consider the flawed inexpensive modern technology with its inability to work with good sound, including the 44.1/16 format? The picture becomes clearer as soon as the digital source transmits the price tag at about \$7000, as soon as the sound source transmits the price tag of \$14,000 (for example, dCS P8i) - everything becomes already very clear. Here, the format 44.1 / 16 (CD) begins to dominate the emotional content. DAC MARKAN has a much higher sound potential in terms of its sound potential - the overall picture is even clearer. And making some conclusions on the basis of the sound of modern Chinese rattles with a sound in the style of "empty iron bucket with nuts" in the price ranges to the specified mark - there are so many meaningless conclusions can be made ...

3. I understand that the expansion of the dynamic range of reproduced sound is an important factor. Let me remind you that when you expand the dynamic range quiet sounds become quieter, loud sounds - more "loud". So, from these positions HI-RES formats demonstrate just the narrowing of the dynamic range, because the proportions of sounds on the dynamic scale are violated: quiet sounds become louder, and "loud" sounds are obtained with restraint. There is no beautiful blackness between the notes, which is typical for 16-bit formats and which forms expressive "theatrical pauses", which are the basis for building MUSIC. If someone does not know - it is the pauses between musical events (the blackness between the notes in the previous phrase) that form the MEANINGFUL, expressive musical work. A meaningful (expressive) piece of music can't form from a meaningless conglomeration of sound blocks in the style of a "train wreck", which is ubiquitous in HI-RES audio formats precisely because of the absence of this "blackness between notes" that puts everything in its place.

4. Formats with 16 bits sound very cheerful, sublime, solemn. The performers have an emotional bulb inside which fills the entire musical work with special magic. 24-bit formats sound very heavy, tired, monotonous, joyless - as if heavy bags with notes are tugging on the stairs - but do you think it is easy to roll up so much information? In the formats HI-RES, it seems that the artists are working from under the stick. They do not want to - and they are forced, they are not sung (professional slang: "the artist is suffering") - and they are forced, they are not played - I think it is clear what I want to draw your attention to. In CD format, I repeat, all this happens cheerfully, with a good emotional impact on the listener.

To understand this phenomenon, you just need to realize that all the EMOTIONS in MUSIC are concentrated in the field of the senior bits (the first 8 bits), and not somewhere in the field of nanosounds. The correct reproduction of the 8-most senior bits is an archetypal task, 99% of imported commercial equipment can't cope with it (devices with delta-sigma converters, such as SACD, DSD, DSF players - can't cope 100%, we are talking about La Source, if anything). Manufacturers of serious audio equipment focus their efforts on good reproduction of the senior bits (strong emotions), using, for example, the nodes of the DAC of its own design (dCS), the mainstream of the modern audio market is aimed at removing the attention of potential consumers in the area of nanosounds, where it is simply pointless to catch emotions. It is impossible to tell about the large through so small forms. Look for devices that can confidently work with large formats (high-order bits) then low-order bits will automatically play fine - the

task with the senior bits in the teeth is only a serious technique for which working with low-order bits is not a problem at all. Now, I repeat, all the marketing trends are aimed specifically at proposals to look for happiness in the field of nanosounds, such as "Do you hear happiness? And it's there! So, you paid too little money, or you're just too lazy to listen. Happiness - it is, it was barely audible, behind the rustle of spent bills .. ». More and more audioenthusiasts spit on these cases from a high bell tower and go back to vinyl - there this happiness (emotions). MARKAN products are able to offer normal human emotions from communicating with Music even more than the most expensive vinyl (and the vinyl theme does not happen cheap).

5. Yes, indeed, the audio formats HI-RES have a large timbral filling. But, if we pay closer attention at this point, it turns out that these "timbres" have some kind of character (handwriting), which all the time repeats itself on different records. It's like twisted rich colors on color photos. Black-and-white photographs very often have a stronger emotional impact on the viewer, just as the "twisted timbre" in the sound of HI-RES distracts the listener from a variety of subtle performing nuances. In any case, technical progress in the field of sound recording takes place (independently to the size of the bit scale), and with 16-bit formats, everyone has already forgotten how to work. At least, my personal experiments with the simplest operations on converting 24-bit records to 16-bit format, demonstrate a complete failure in the sound results of modern popular converters in relation to old similar tools. Those. all forgot how to work with the senior bits and rushed into the area of nanosounds. The same commercial manufacturers who know how to work with the older bits - feel very comfortable in the category of very expensive equipment, which Russian consumers rarely look at - mostly for the purpose of admiring the pictures.

With the DAC MARKAN frontal comparison, which reproduces the 16-bit format, with any competitor that grinds 24-bit format, DAC MARKAN ALWAYS, UNCONSCIOUSLY AND UNLESSLY demonstrates the clear advantages in meaningful reproduction of MUSIC. I emphasize especially: the musical work acquires MEANINGFULNES, while switching to "commercial" equipment of any price level immediately turns this same piece of music into a chaotic set of sounds, which before acquaintance with DAC MARKAN and was perceived as "music" (a characteristic accessible example: dCS P8i). So it was always, it was so many times, and it will always be so. Therefore, if you quote your question, it's not me "I think so", it's an objective reality in any head-on collisions of any quality devices: absolutely all competitors swallow dust and chew their own ties; DAC MARKAN wins always and everywhere. MARKAN cables work in the same way: the main profit in sound is the ABILITY (expressiveness) of musical works, which has such a scale that it simply puts consumers in a dead end: "What the hell did I listen to before?"

DAC MARKAN perfectly reproduces digital audio formats (16-24 bit) with a sampling frequency up to 96kHz inclusive. If you want to listen to 192kHz, you can lower the sampling frequency (downsample) of records to 96kHz on the computer and listen through DAC MARKAN in unmatched quality, unattainable for "direct" playback of these formats on any other equipment known to man. Just remember: the goal of the MARKAN products is the emotions of the listener's ADMIRATION from communicating with MUSIC.

Now the market of audio equipment offers other purposes, such as: master sound formats 384kHz / 64Bit, dynamic range 199dB, sound pressure 199db, 5 + 1 channels, etc. The choice of equipment is imposed on the parameters, which turns almost into the Excel strategy, something to compare, calculate, memorize and compare. The result of this "strategy" is always the same (with a metallic voice): "These are your problems, that we did not meet expectations. Start life anew, the number of attempts is not limited. Do not go to the MARKAN website. This can be dangerous for your problems! ".

All people are different - one needs these bits, one decibels and channels (although they do not have 99% of the concepts that characterize these figures, they simply follow the principle: "Doctor, give me pills from greed, but more, more!"), Other - just ADMIRATION and other strong emotions of the heart from communicating with MUSIC. Products MARKAN offers you a ADMIRATION, in the purest, pristine form and the strongest, accompanying the ADMIRATION, emotions. If you need even more ADMIRATION and similar emotions - we will be able to offer you even more.

Question: So which source of signal for your DAC is better to prefer:

1. Classic CD player / transport.
2. DVD player
3. Computer
4. Various devices with USB media (flash drives)
5. SD card device.

Answer: Only items 1 and 5 deserve attention. A good classic player/transport now makes sense if you already have a large collection of quality CDs already available. If this collection is not that big - there is full sense to go to point 5 (SD card players).

If we consider only the sound resolution, for which everyone is now chasing, then point 1 is an obvious outsider in relation to all other options. The fact is that in CDDA format (the format in which a CD is recorded), the disk reads not "pure" audio information, but information that has rather large content redundancy encoded with the Reed-Solomon code algorithm. This was all laid for the reliability of the systems with optical disks. This information is decoded by a rather complex algorithm "on the fly" inside the player and only then fed to an external DAC. It does not pass without a trace for sound. Devices with USB and SD media, as well as computers, work with "clean" sound information, so it's easier for them. But, the fact is that with a classic CD player/transport in the sound MORE LIFE. A good external DAC (DAC MARKAN unconditionally among them) will be able to derive the sound resolution of the resulting sound to the very edge of the format possibilities, and here the MORE LIVING sound character starts to work in priority.

I.e., if in brief:

A) SDcard players have a maximum resolution and small signs of life in the sound. Well suited for external DAC of any level.

B) Classic CD players/transports have the most LIVE sound in the domain of digital sound, but, they work well only with serious DACs.

B) The remaining options are hopeless crackers with dead sound. DAC MARKAN is able to revive them a bit, with the other DAC's - the sound of a hopeless "empty can". But, if you do not have an idea of a serious sound - many like it because of the good resolution.

Personally, I use the SDcard player. DAC MARKAN is able to pull the sound potential of such devices literally "by the ears" to the maximum bar. Therefore, there is no point in buying too expensive SDcard sources. At the same time, a sea of music information from the Internet is available, which is reproduced with unsurpassed quality through DAC MARKAN.

Question: You have a peculiar style of information delivery, the frequent use of slangers, mixed with technical terms, is not always clear from the first reading. Although, the amount of information provided is indeed impressive. Can some moments be highlighted on the site in more detail and in a more "classical" style of exposition?

Answer: I do not set myself the initial goal of attracting as many consumers as possible from the category I touched at the very beginning of this document. All the information that is presented on the MARKAN website is primarily targeted at experienced audio enthusiasts, for whom the specific content can be of value, which I sometimes provide in a condensed form, using vivid imagery, in order to avoid a long "chewing" and slang. Please do not take this too meticulously - I just try to give maximum visual information in every paragraph of the site, so I resort to such techniques. In the section of the site "Articles" I always more delicately treat information. In personal correspondence, it is always possible to consider in detail any question.

Question: Everyone everywhere writes and says that DAC MARKAN and MARKAN cables have a very serious and interesting sounding, but I still doubt it!

Answer: Did you listen to them?!!

Slowly summarize: Potential consumer of MARKAN technology will receive only positive emotions from our possible cooperation and make the final choice on some components of its audio system. I am making every effort to do this. The amount of information that is provided within the MARKAN website, although it can't be called exhaustive in the MARKAN technique, is intended to demonstrate the developer's attitude to all areas of promotion of his technique.

If you think that there should be some other information on the site, I will definitely include it in the site.

In the life of any person there is always a lack of strong positive emotions. Enthusiastic emotions - practically does not happen at all. If communication with MUSIC is for you an important component of life, then you just have a chance. MARKAN guarantees that the ADMIRATION from communicating with MUSIC will become a constant companion of your life and greetings with yourselves to your home completely new sensations of the LIFE itself. There is no need to make any "correct elections", etc. - just try it! The program of acquaintance with MARKAN products - and you will feel everything yourself.

DAC MARKAN is just an angel. With a special wing geometry.

Sincerely, Andrey Markitanov, Russia.