

## **The last samurai**

### **Accuphase DP-78**

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**The last and this year are filled with the Accuphase's innovations. New and interesting amplifier as well as CD/SACD players has just appeared on the market; especially the latter one abounded strongly with various models. At fist, there is: DP-78; the next one: DP-500, and lately the crowing one: DP-800/DC-801.**

The choice is quite large but only when we possess appropriately a large sum of money in cash. The Japanese manufacturing company has never belonged to the cheap one and all the new sources continue the tradition. The DP-500 will cost you 17,400zł, DP-800/DC-801 – 90,000zł. Between these models, there is DP-78 for which one you will have to spend 31,900zł and it will be examined by us in the following test.

#### **The structure**

The DP-78 looks massively and it weighs as much as fair booster – 18kg without the remote control and carton. It is no wonder because the casing was made with the steel plate metal and it was finished with the case of anodizing aluminium. These features have increased the weight and we did not even look inside of the model.

Both sides of the DP-78 have carving and aluminium boards – this is a discreet sign that we are dealing with the device situated on the higher position of the catalogue. The large weight of the casing reduces the susceptibility to vibration. The isolation from the vibration of the base is supported by the felt feet made of high-carbon steel. The stiffness is improved by the internal barriers and screens which reduce the penetration of the interference and electromagnetic fields. In the result, the casing is deaf as a post. We can be confident that if this is placed on the stable base, the casing will not transfer the vibration on the decoding system and electronics.

The external appearance can be defined by one word – conservative. The great impression is made by the workmanship as well as the class of used materials. However, I like the cheaper model DP-67 much more – it has oblong buttons instead of round one and above all, it has a green logo of Accuphase that divides display into two parts. The DP-78 with the CD-text function eliminated the appearance of the above feature and because of that fact, this model looks a little bit too modestly.

The round buttons harmonize visually with two selectors. The first one is used for choosing the source in the case of MD and DAT connection or another digital device. The second one is leading us to the requested path and when we find it, we just push the selector or 'play'.

The display was made on the point matrix and it is legible even from 3m and it does not dazzle you during the night hearing. If the display disturbs someone, you can either turn it off or go into the menu and choose one of the four levels of brightness.

In the above menu, two functions were taken into consideration (automatic pause and the play function just after the turning on of the amplifier. However, their application seems to be made-up enough that I do not think that someone would like to use it.

On the back wall, we can find analogue outputs: RCA and XLR as well as coaxial RCA inputs/outputs and Toslink. The DP-78 might be used as a CD drive and converter for the external digital sources. The company cards which are adopted for installations in the blind sockets constitute the optional equipment. Thanks to them, we are able to add some digital inputs/outputs (in popular standards: coaxial/optical as well as ST, AES/EBU) and HS-Link interface which enables the transmission of SACD signal and the connection to the digital preamplifier, acoustics processor or stub axle.

## **Inside**

The upper/top cover is secured by eight screws and it is heavy but fill with the substance that muffles the vibration. The steel walls divides the inside into three blocks; the walls functions as screen as well as strengthens the whole construction. In the centre of the model, there is universal CD/SACD drive covered with the thick board of the brushed aluminium.

The mechanism is supplied by Sony. The DP-78 is the last model in which Accuphase uses the transport of this company. This global conglomerate has stopped the production of the high quality readers for the audio application which put the receivers in a difficult situation. They had a choice: either change the supplier or create their own mechanism. Japanese clearly decided to become independent. Although this decision required large financial outlays, they have chosen the second choice. At first, they used the original mechanics in DP-500 model (the successor of DP-67) and later in DP-800 with CD/SACD version. Only DP-78 works still on the Sony product and we might expect that Accuphase has collected the supplies which will provide the production continuity. As this model is quite new – it is on sale less than a year – it should stay in the catalogue for next few years. Those speculations are confirmed by the Accuphase distributor in Poland who knows nothing about the intention of DP-78 replacement with another model. It might happen once but so far the company is planning to continue the production.

Actel is the processor that is responsible for the precision of the reading; working at the external quartz oscillator with very high accuracy (5ppm). The same quartz clocks were applied in anti-jitter loop which controls the flow of data to the converter c/a. Probably, the memory of the processor contains the unique algorithms written by the Accuphase's engineers with the idea of interaction with this specific drive. Many specialist companies uses the similar solutions in their own sources. They are original and expensive in the production but their aim is to

increase accuracy of the information reading from the CD and consequently – receiving the optimal tonal results.

The digital to analogue converter works in the brand-name technique: MDS++. In each canal, there are six 'bones': Analog Devices AD1955 that have a parallel connection with each other. The signal for them is divided by the 74HC14 systems. The solution of many DACs working at the same time reduces the level of interferences and deformations and also increases the accuracy of quiet signals with the improvement of micro-dynamics. Accuphase has remained faithful to this technique for years and it is also using this solution in amplifiers as well in a modified form.

The factory application of Analog Devices for the AD1955 system provides the operating amplifiers in the analogue filter. Producer decided to change this and installed the popular Japanese JRC2114. It is hard to believe that it was possible using just the savings. The reason of these changes was rather for gaining some specific features of the sound or the other effect about which we could just speculate. The safest way will be to accept that Japanese know a lot about the construction of the digital sources and if they decide to depart from the canon, then it is not just accidental action.

The outputs are buffered with the popular operational amplifiers: 5532, of the JRC production (probably the local patriotism) and enclosed with NEC transmitters. Accuphase advises us against connecting the cables: XLR and RCA at the same time because it might cause some sounds and mass loops. The nominal voltage on both outputs is the same and equals 2,5V. The signal from the output of the converter is led symmetrically. It might be obtained asymmetrically but only for the needs of RCA output. It is worth checking if we get the better quality of sound when the XLRs will be connected. It seems to be possible.

The base of the power pack consists two transformer closed in box made of steel. They provide energy individually to the section of drive, control and digital systems and the display as well as the whole analogue channel. A lot of attention was dedicated to the power issue. Seven voltage stabilizers were used only for the converters and operating display. Additionally, there are few groups of electrolytic capacitors of different capacity and also nine, low-sounding, integrated stabilizers NEC screwed to the aluminium radiator. Basically, each circuit of the player is powered individually which should result in the lower level of interference and sough.

The capacitors have different capacity depending on the powered element, such as: 4700, 3300, 2200 and 1000  $\mu$ F. The low-impedance capacitors are provided for operating amplifiers and analogue part which should have the positive result on the dynamic of sound. It is hard to talk about the spectacular transformation but the constructor knew what he was doing. Instead of single capacitors with large capacity, he used few of the smaller ones that run parallel to each other. Thanks for that, he lowered the inner resistance of the system and increase the effectiveness of amplifier.

The DP-78 was made solidly carrying of the mechanics, the precision of data reading as well as power purity. The original solution, such as DSP program processor and digital to analogue converter in Multi Delta-Sigma++ topology should find the reflection in the quality of presentation. The class of the subgroups is at least good but we can see that nobody was trying to dazzle the receivers with exotic components. The group of designers presented the approach in which each element is the cog in the machine which as a the integrity should work perfectly offering the quality of sound that is worth high price.

### **Arrangement**

The price of DP-78 implies that it should work in appropriately expensive systems but this is not the only right one configuration. Like Robert Watts from DPA or Ivor Tiefenbrun from Linn, I share the view with them that it is almost impossible to get too good source: at the most, it can be too expensive. Mostly in the coordinated system, even from the middle shelf, the change of the amplifier to much better one brings improvements. This will not change the fact that the natural environment for DP-78 is hi-end configurations. Accuphase might be the most expensive element but it will spread its wings only with the good companion.

There are no technical demands towards the rest of electronics. The output impedance of DP-78 is low (50Ω), and the voltage is higher than the standard one (2,5V). However, there is no danger of too much control of preamp or the power ending. The better system is, the much more happiness the amplifier will bring to its receivers. The weaker configuration is, the less good points we appreciate. It is nice that DP-78 does not blind us with the exposition of unit deficiency. It is understanding and only from time to time, it could indicate delicately that if this and that will be improved, the amplifier might accelerate much more. However, this only happens with kid gloves and it is far from ostentation. Accuphase is gentle and understanding and it starts singing just when we placed it in the noble and refined unit.

It is worth adding that although the device is made as tank, it should be placed on a solid shelf or platform. I was using competitive table made by Sroka which helps electronics to gain perfect results. However, there is a possibility to use others producers of tables providing that they will ensure stable support and isolate effectively from the vibration.

### **Hearing impression**

Accuphase arrived to editorial office in the factory-made and stamped carton. The warming up took us more than week and it brought favourable effects. Right through the beginning, the amplifier was giving away the class indication but as time went out the sound was filling up. The similar phenomenon happens in the case of many noble wines. Right after opening the bottle, we know that this is not the indirect beverage but the refinement appears when we give it some time to breathe.

After ten days, the changes of the sound in DP-78 became smaller and smaller and it was possible to the hearing. At first, I wanted to acquaint with the general character of device and by the way, check how much the digital regulation of volume is worth.

In other words, is it possible to save money on preamplifier controlling the power ending directly from the Accuphase output.

### **The first skirmish**

In this test, I surrounded Accuphase model with Martin Logan Sequel II electrostats powered by the power ending of Alchemist APD-27. There was also valve preamplifier BAT VK-3iX which was ready to start the action at any time. The Logan's products are extremely transparent in the diameter and top band so neither the changes of sound nor dynamic could not escape their attention.

The Alchemist was controlled by the Accuphase without any problems but if we focus on the hearing impression – there was lack of enthusiasm. The Barb Jungr work from the CD class of hybrid album: “Chanson/The Space in Between” revealed roughness of the diameter that was not heard before. The easiest way to truck this down was in vocal but it was also possible to detect it the accordion accompaniment. In the middle of the band, there was silent grinding or maybe sharp ‘layer’. I was thinking that the loud speakers bore the blame for that but later tests excluded that speculation.

What is interesting, the ‘grinding’ disappeared after the transition to SACD layer. The same voice and accordion sounded smoothly and naturally not to mention that they appeared on the larger stage and they were surrounded by much more air.

Connecting the lamp BAT into the path resulted in big change for better. The sound was smoother, fuller and easier in receipt. The precision was the same but the tones were lengthened and the saturation of the elements increased. The voices became thicker, hi-hat stopped ticking and the piano became solid.

**Golden analogue output: XLR and RCA. Digital outputs and RCA inputs and Toslink. On the left side, there are sockets of the optional Accuphase's cards.**

No more differences were found in the space which narrowed a little bit whilst the localisation of the instruments improved. This change was delicate so I will refrain from a value judgement. Some of us will enjoy a little bit longer plan and accept minimal compromise in the localisation while other people will appreciate the order on stage. It is essential that in stereophony the difference between the combination with and without the preamp turned out to be size line smaller than in tone. It is also possible that the difference will fade away with the combination of other loud speakers.

It is different with bass. Even with the Logan items which are able to boast about this range, the distinct changes have happened. Paradoxically, deeper and thicker lower registers were presented by BAT. In the system with the ending controlled directly, the frequency band

stopped at some point. The higher and middle bass were making use of privilege giving the floor to the lower bass occasionally. That is why there was a lack of full impression in the configuration deprived preamplifier. XK-3iX did not worsen the precision but filled in deficiency of the lowest register.

After turning on the amplifier into the path and resignation from digital regulation of volume, the sound in DP-78 changed into the better one. Therefore, I would advise to treat the configuration without the preamp just as the no-favourable result of economic determinants. That is why the argument that the model plays better without the amplifier will not be accepted by me on the ground of the hearing that I carried out in the test.

### **The second skirmish**

Before the second skirmish, Accuphase entered into an alliance with divided Balanced Audio Technology amplifier, linear VK-30SE amplifier and the VK-250SE power ending. The results of this cooperation were presented by Audio Physic Avanti 3. The wiring up was taken from the high shelf of Tary Labs – the signal wiring: ‘The One’ and loud speaker wiring: ‘The Two’. The electric current was delivered by Powerbox v 4.0 together with Fadel Art Coherence and Neel N14E Gold network. In this combination I compared DP-78 with the cheaper DP-67 for the first time.

**In the centre, there is CD/SACD drive made by Sony and behind it, there are transformers that power the analogue and digital section individually.**

At first, we listened the DP-67. The music was creating as best impression as it could. “Sixty-seven is great source” – I thought and I get rid of anxiety about the result of duel. “DP-78 is probably this DP-67 but with the additional option of reading: SACD. I do not really care about SACD and it will play probably the same on CD.” – I speculated in my mind lounging on the sofa.

After some time, we accustomed to the sound and we changed the source. The same CD and the same song. Let’s start.

It is more quiet minimally although the instruction shows the same level of output voltage. The change could be regulated but we decided to leave it as it was. Let the ‘seventy-eight’ try.

The first impression is on the limit of suggestion: maybe in the space, there is more depth and echo. Is this enough for us to spend 14 thousand on it – doubtful – DP-67 plays brighter. Neither better nor worse. Just brighter. DP-78 plays just as a little bit more noble. It is transmitting more elements and saturating the band. However, this might be just a suggestion that caused by the differences in price.

In the song by Patricia Barber “Live: a Fortnight in Paris”, the part of double bass was recorded that is moving down till the bottom of stomach as well as the voice, maybe not the largest, but captured to accuracy of aliquot. We listen the DP-78 and then change the wires. After 20 seconds, I am thinking if it is worth changing them over. DP-78 sounds better. The

double bass is going down and it is more diversified. It stands on the real stage and in the hall with the good acoustics. The vocal is fuller and with better saturation. Bass is extensive although controlled and the top is noble.

Later we are still comparing with Anna Maria Jopek, Cassandra Wilson or Barb Jungr. After that, we try a little bit of electric jazz and at the end we have some piano. From the next hearing, we are gaining better and better picture which surprises us because it demolishes introductory assumptions. DP-78 is better than its 'older friend' for CD. DP-67 it a great source, accurate with the perfect drawing of space and bass. However, in the comparison with seventy-eight, it does not possess the plenitude of power and ease. DP-78 plays freely and at the same time it is sure of its opinions that this certainty infects the listeners. Difficult passages are not complicated any more, the mass seems to be just a little higher levels of volume in which more than two instruments are playing. The music floats with its own rhythm – not the one of the source but its own rhythm that is unreserved and not loaded with the existence of electronic medium.

We do not feel the source effort and we are not under the impression that the model plays at its peak of abilities. Owing to that, we feel relaxed. Accuphase sets the listeners free from stress and at the same time it is confirmed in its believes that there is nothing special in what it does. If you believe in this – you fall into a trap. The similar behaviour is presented by Linn Sondek CD12 or good record player. Everything seems to be obvious till the moment when we come back to the previous system. Coming back is the lesser of two evils –after the hearing of Krell, even if this would be KPS-20 – absolutely great CD amplifier with the worse section of preamplifier – or Mark Levinson. With those two, everything is clear from the beginning – they throw the listeners against the wall and later ask if they like it . DP-78 is much more perverse because it gives us hope. We are borrowing it for the hearing and it seems like nothing special is going on. After that we send it to the shop and connect the old player and... . We know that we will pay again for the currier.

### **The third and the last skirmish**

The third team is the one we know the best. Admittedly, the McIntosh's integra MA6900 was recently replaced by Accuphase E-550 but it is still faithful to Harbeth Suer HL5 monitors. Supported by the StandArt stands and amplifier that works in the clear A class, the models play like a dream achieving the tops of musicality.

Accuphase settled in very quickly in the system and it was playing the music with charm and without effort. However, nothing special happened. Not only was the sound suitable but also spectacular. Bass was not overwhelming, the dynamic did not break the board from the floor; basically, the play was good but I became accustomed to that. I started thinking if I did not exaggerate with the enthusiasm in the description of the second system. The sound was definitely good, but maybe not special. I was not sure.

Listening the music I confirmed by belief that the sound that is coming to me is as obvious as warm June in Greece. As a matter of form, I was facing the comparison with DP-67 but I did not believe that something surprising will appear from this. The seventy-eight was playing in the full, natural way with wide and good drawing space, however, this is not a reason for giving it a good write-up. DP-67 is much cheaper and probably it is not worse than the previous one.

Nothing of the kind. The comparisons show again the dominance of the more expensive model. DP-78 is not DP-67 with added option of SACD reading. This is competent source which acquit itself well also on the CD layer.

The obviousness of DP-78 again occurred treacherous. The features that were taken as natural came out weaker with DP-67. I still believe that with this price the amplifier is a real offer but when we judge in ruthless categories, DP-78 come out better.

Through one day or two, we are getting used to it and later when we want to turn it off and come back to the old configuration, we start spotting the errors. Bass is not moving down enough, and the high notes does not sound brassy any more. The diameter seems to be flat as barrack joke. Only the spectacular sources save us because they start to point out the defects of the current configuration. Accuphase provides many data and leaves us alone to draw a conclusion. Horror!

The Winston's piano from "Summer" album sounds airily and also brightly and realistically. It is possible to hear the higher massiveness of the sound, more case not only strings. Vocals are saturated and plastic with peace and nobleness. Strings are not piping even on the upper registers and the brass is cooper-gold. Bass seems to be ample but it does not lose control. It sets the record deeply and do not let for uncontrolled lightning. We can hear many elements and all happen under full control, except that we do not hear this control any more. The sound is just flowing towards us.

The Accuphase stacking hi-fi (DP-78/E550) with the Herbeth's loud speakers is one of the most musical systems that I have ever encountered. Unforced and unpretentious sound has made perfect impression on me. Tremendous bass but kept on its toes together with resonant and long sounding high tones plus natural diameter placed DP-78 in hi-end with the same ease as luxury and acceleration of Bentley Continental GT in super-cars group. Conservative appearance yet achieves almost the race acceleration.

**The remote control could do with the button for opening drawer.**

On SACD the word 'almost' disappears. While listening to Destiny's Child from the single-layer disc, I had a feeling that I was sitting in studio and recording this performance. As far as its uniqueness is concerned, the dynamic and energy together with literality of sound did not leave a shadow of a doubt adding the natural presence of vocals, strong synthetic bass and stage from wall to wall going out easily through the loud speakers; the sound that fills the whole room in, speed and plasticity. In this test, the animal turned out of Accuphase.



Nobleness and culture reappeared in the II Mahler's symphony and Erik Bibb's "Good Stuff". There are natural tones of instruments, space with breath and many subtle-woven details.

Instead of writing something more, I prefer to listen even longer.

## Conclusion

DP-78 is fantastic amplifier.

<b>Accuphase DP-78</b>	
<b>Sound mark:</b>	<b>hi-end</b>
<b>Distribution:</b>	<b>Audio Center</b>
<b>Price:</b>	<b>31 900zl</b>
<b>Technical details:</b>	
Kind of converter:	MDS++ (6xAD1955)
Mechanism:	Sony CD/SACD
Distortion:	<0,006%
Signal – sough:	>115 dB
Analogue output:	2,5 V XLR and RCA
Digital output:	coaxial/optical
Remote control	+
Earphones output	-
Size (L/W/D):	10/44/39,5cm