

Hifi & Records

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“a little Levinson by Bryston”

TEST - B100-SST INTEGRATED AMPLIFIER

The long awaited “large” Bryston Integrated Amplifier is here. It incorporates refined circuitry, multiple functions, and interesting options.

Upswing



Quality has many aspects. The times when high end components were judged solely on sound quality, or perhaps one should say sound *character*, are long gone. The “black box” which sounds fantastically good, but which is terribly constructed, constantly breaks down, and also only competes with one or two other pieces of fancy equipment is, truth be told, not wanted by anyone today. Furthermore high end components should and must function flawlessly today, preferably always and everywhere, and if we are truly honest, sound studio people

have always said and demanded this. For us audiophiles however, reliability and the highest sound quality seems to have basically excluded each other for the longest of times. But why really?

Well, most of the studio “work animals” were certainly missing the final sophistication. The sound studio professional who denies tonal differences due to dissimilar cables, will hardly accept these (differences) due to capacitors and other parts (and also will not make allowances for these). The pragmatists in the professional sector are first of all thinking about reliability, then once more about reliability, and perhaps in third place tonal neutrality, because an amplifier is after all nothing else but a tool able to be used to intelligently judge a recording or its editing.

In light of this background it is understandable that only very few manufacturers have been able to establish themselves on both sides of the fence, i.e. with professionals as well as with audiophiles. **The most well known exception from the rule comes from Canada and carries the name Bryston. Bryston amplifiers have always been available, in any case already before such a trend as “high end” was even initiated.** The Canadians mastered the feat of garnering respect over the years from music lovers while at the same not letting reliability fall by the wayside. A Bryston amplifier is for a sound studio person something like a Mercedes-Diesel for taxi drivers: an “indestructible” tool which can be absolutely depend upon, **and for music lovers a Bryston piece of equipment is a reassuring “rational decision” – a guarantee that one “is in good hands.”**

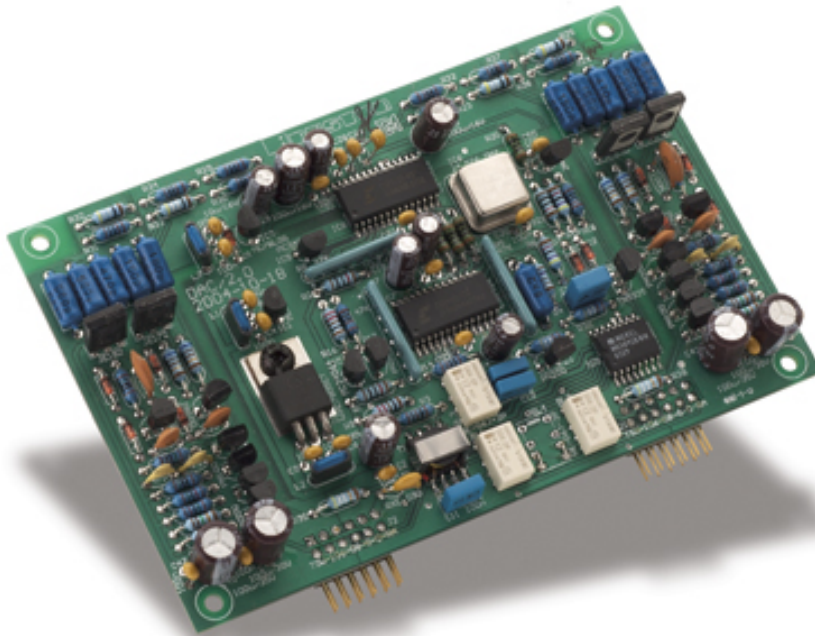
From my point of view, quasi from a working tool into the foremost audiophile league, Bryston achieved its biggest leap when it successfully introduced the SST power amplifiers. The 14B-SST amplifiers (Issue 3/2002) and also the lower priced 4B-SST amplifiers (Issue 1/2003) have significantly impressed me and my colleagues. On the other hand, in the category of integrated amplifiers Bryston for years offered only the shallow “60”, which in its latest incarnation as the 60R-ST (Issue 4/2003) was also a beautifully balanced sounding and incredibly sympathetic integrated component, but not in the SST league. **Therefore the time was ripe for a larger “SST Integrated Amplifier.”**

This entity now appears in the form of the “100B-SST” integrated amplifier, which is its designation here in Germany (the German version is supplied with a heavy ML power cord). But in order to immediately preclude any misunderstanding, the new

“100” has not inherited the ingenious circuitry with the crossed NPN/PNP transistor pairs from the large power amplifiers, but only their “SST” transistors. For each channel the “100” makes do with just a pair of these, whereas for the clever circuitry of the SST power amplifiers at least four transistors are required for each channel. But on the other hand, the “Emitter Switching” of the B100-SST in the best Bryston manner is complementary-symmetrical, entirely discrete, and built up in dual mono architecture. The separation already starts in the power supply which contains two 250 VA toroidal transformers (for the digital section there is a third toroidal transformer), which are complemented by speedy 30,000 mfd. filter capacitors, per channel. The importance that Bryston ascribes to the power supply can be discerned by a simple number, i.e. no less than 15 stabilized or regulated voltage supplies were incorporated into the new integrated amplifier by its developers.

The two classic preamplifier functions, i.e. input selection and volume control, are realized in the Bryston B100-SST with modern technology. The inputs are switched with multiple pole relays (even the ground connection to unused inputs is disconnected), which guards against interference – *exemplary!* **Until now Bryston has used specially selected Alps potentiometers to control volume, but in the “100” a very accurate integrated resistance network is employed, which guarantees extremely precise channel to channel balance (we measured differences of less than one tenth decibel).**

The B100-SST integrated amp even features a first-rate headphone jack, and for an up-charge one can also obtain the well known, and tonally proven, Bryston Phono Stage (unfortunately only for MM) as a built-in. A further option is an internal D to A Converter with two optical (TOS-Link) and two coaxial inputs per channel. To be honest the idea of a “converter within an integrated amplifier” at first irritated me, but when one thinks about it there is something to be said for it, i.e. short paths, and no additional plugs, jacks, and cables in the signal path – just an integrated amplifier with digital input. Furthermore, so that the “100” does not lack in the area of tonal reproduction Bryston has included modern 24 bit converters from Cirrus Logic, with which CD signals are converted to 96 kHz (Up-Sampling).



BRYSTON DAC

In use the Bryston B100-SST becomes pleasantly warm, and not only at the heat sinks, but also at the thick aluminum front panel (which is available in black as well). This factor we want to choose as the first indication of its tonal virtues, but not for its tonal character. With earlier Bryston amplifiers the reverse conclusion would have been more appropriate, they were somewhat reticent in the highs, and blessed with a healthy body in the bass region.

However the B100-SST denies itself even this little intrusion of its predecessors in the area of tonal balance, for it sounds so clean and neutral that at one point I made myself a note “A Little Levinson!” What do I mean by this? Well, just an amplifier that does not call attention to itself, does not do anything, “simply is not there.” Perhaps that sounds a bit unspectacular at the start, but in the long run it’s always best.

For example let’s take the Bryston B100-SST in conjunction with the little Spendor S3/5SE speakers. **Amazingly forceful, and very controlled in the bass which agrees particularly well with the not especially “Pop-suitable” Spendors, which seem to overdo this region a bit.** Furthermore the Bryston “100” achieves this (bass reproduction) without “bloated cheeks”, without enriched upper bass, or with added fudged artificial warmth. **The upper mid range is full-bodied, yet crystal clear, authentic, and very neutral. However the “100” is not a “braggart”, arrogant in its own sound, and here once more it is very similar to the Levinson role model. And**

just as with the Levinson it is especially beneficial to take a step backwards from the “100” in comparison to other integrated amplifiers, because only then can the qualities of the “100” be properly illuminated. After extended listening with the Bryston B100-SST, I once again connected one of my favorite English integrated amplifiers to the Spendor and I could hardly believe my ears – for only then it became clear to me how little the Bryston “100” really interferes, how incredibly clean it sounds (and how much distortion and unique sound one can apparently get used to over time).

Treat the Bryston B100-SST to equally honest companions, for example I am thinking about the Trigon Recall CD player, or decide immediately to acquire the accurate internal D to A Converter, which left a very good impression and represents an especially rewarding option for owners of several digital sources. With high quality sources the slag free B100-SST will permit a clear, unaffected view of recordings. For example a grand piano (Angela Hewitt, Hyperion) sounds imposingly in the room even without bass emphasis, and the fading away of notes on good recordings is extremely multi-facetedly replicated due to the excellent resolving power. Furthermore delicate impulses are mastered by the “100” with effortless ease, i.e. no trace of “smearing” or “braking.” **In fact it is simplicity itself to evaluate the quality of recordings with the Bryston B100-SST integrated amp – it’s just the genuine article!**

Conclusion

This is one of the most neutral integrated amplifiers that I have ever encountered, and one that deserves great respect. The Bryston B100-SST is indeed “a little Levinson.” With the D to A converter and the phono stage on board it becomes a genuine Analog/Digital “Universalist.” But beware, those who have been exposed to its tonal purity and neutrality, will indeed have a very, very difficult time with “Sound” (*those having a sound of their own – translator’s note*) amplifiers.

Wilfried Kress

Laboratory Report:

Bryston B100-SST Integrated Amplifier

Output 8 ohms	120 watts
Output 4 ohms	170 watts
Input Impedance	49,000 ohms
Distortion (THD+N, 4 ohms)	0.018%

Intermodulation Distortion (SMPTE, 4 ohms)	0.075%
Intermodulation Distortion (CCIF, 4 ohms)	0.0054%
External Voltage	-74.4 dB
Noise Voltage (A rated)	-81.1 dB
Rise Time (4 ohms)	4.37 microseconds
Channel Difference	0.05 dB
DC-Exit-Offset	4.4 mV
No Load Power	-26 VA
Tendency to Oscillate (with capacitive load)	none
Curvature Change (with capacitive load)	very minute

As expected the Bryston B100-SST amp left nothing to be desired in the laboratory. It is very stable and has practically no tendency to oscillate with capacitive loads. "Levinson Standard" best describes the channel to channel balance of the digital volume control.

Bryston B100-SST

Dimensions: W x H x D	19 or 17 x 4.75 x 16 inches, 48.26 or 43.18 x 12.1 x 40.64 cm.
Warranty	20 Years (5 Years digital circuitry)
Price	3,500 Euro, Metal Full Function Remote Control – 300 Euro MM Phono Stage – 400 Euro D to A Converter – 900 Euro
Distributor	Sun Audio Schneckenburger Straße 30 81675 Munich, GERMANY
Telephone	089 – 47 94 43

Translated from the German by Peter Ullman