

Kaito KA1102 vs Sangean ATS-505P Comparing Two Portables Around \$100

This month we will continue our *First Look* at the battle of the low end shortwave portables. In the February 2007 edition of this column, we compared the Kaito KA1102 (Grove RCV02 \$79.95) with the Eton S350DL (Grove RCV04 \$99.95). After the smoke cleared, the Kaito KA1102 came out on top.

So, in this edition of *MT First Look* we will put the winner of that competition in a head to head with the next challenger – the Sangean ATS-505P (Grove RCV07 \$109.95). But, before we travel down this new path, let's do a review of the champ from our last competition.

KAITO KA1102

Inside the Box

The first thing I noticed when I took the radio out of the box was its size. Dimensions are 5.62 inches (143mm) x 3.46 inches (88 mm) x 1.12 inches (28.5 mm) and it weighs 9.8 oz. (280 grams), excluding the three batteries. This radio can be thrown into a briefcase or purse for travel.

Accessories included in the box include a carrying pouch, operating manual (plus a simple operating guide), AC adapter, three Ni-MH rechargeable batteries, stereo earphones, external antenna (SW/FM only), and a wrist strap with stand support. The manual was okay. I have seen better: There was no explanation to the beginner as to what shortwave is, etc. The typeset is a bit small due to the small size of the manual itself, but it is logically laid out.

On-the-Air Testing

During our testing we used the venerable Sony 2010 as our benchmark receiver. The first noticeable improvement was in FM broadcast band reception. It beat the 2010 hands down when using only the whip antennas. But we did notice some images on the lower frequencies from the high end of the band. Shortwave sensitivity was much better on the 2010.

The receiver has good audio, not great, but given the size of the speaker (2.6 inches) it was interesting to hear some reasonable audio from such a small package. There was a noticeable audio improvement when I moved to headphones. But this is not a line-out jack as the instruction manual indicates. The audio levels change using the volume control. I did notice that at times, depending on signal strength, the narrow AM filter

had a detrimental effect on the received audio.

Receiver selectivity was surprising good for this price range. I was particularly pleased with the FM selectivity, which is usually an afterthought in a low-end receiver. But what really surprised me about the 1102 was the inclusion of SSB reception capability, but there is a negative here also (see below).

This is a dual conversion receiver. While that is good, we noticed more images when we connected it to an external antenna when compared to the same setup for the Sony 2010. AM reception was good (see negatives below), but FM reception was better on this radio than on the Sony 2010. Shortwave reception was about equal to the other radio, but the Sony was slightly better on the higher shortwave bands.

And for those that like tuning around, there was no chugging when tuning the 1102 like you have with the older Sony.

The 1102 Negatives

As I have said many times, no radio is perfect. And we are talking about a \$79.95 portable, so the Kaito has a few skeletons in its closet.

Tuning SSB signals is a chore. Since there seemed to be some confusion by at least one reader of my last review, let me try to explain this situation about tuning in SSB signals on the Kaito.

Yes, there is an SSB button on the side of the receiver. When you press that button you will be able to decode the SSB transmission for receiving. If you release that button, the receiver will revert back to the AM mode and you will now longer be able to receive the tuned SSB signal.

In order to change from the AM mode and put the Kaito into the SSB mode without having to hold the SSB button, you have to go through a convoluted 5-step procedure to keep it in that

mode. And there is no USB/LSB; instead, the radio uses SSB fine tuning control to hone in SSB signals.

The learning curve for this radio is much steeper than the 2010 or even the Sangean radio reviewed in this article. What makes this more difficult is the much smaller screen used by this radio. If you are near-sighted, you will not have a pleasurable experience using the Kaito KA1102.

AM reception compared to the Sony/Sangean was not as good and was probably the result of a smaller ferrite loop coil inside the radio compared to the other two radios. The external antenna on the Kaito only works on the shortwave/FM bands, so AM broadcast band reception is not as good as the other two radios.

I did note a bit of synthesizer noise while tuning around; the Sangean reviewed below has none. This is probably a direct result of the tuning methods used by the two portables.

There are few other quirks we noted, but this didn't effect overall reception.

Table 1 is a listing of manufacturer specs and key features.

Table 1: Kaito KA1102 Manufacturer Specs/Key Features

- Frequency Coverage:
 - Medium Wave 520-1710 kHz with 1/9/10 kHz steps – selectable
 - Shortwave 3.00-29.99 MHz with 1/5 kHz steps – selectable
 - FM Band 70.0-108.0 MHz with 10/50/100 kHz steps – selectable
- Conversion: MW & SW dual conversion
- Bandwidths: Wide-Narrow AM/SW, Mono/stereo selectivity for FM
- Freq/Meter Conversion: SW meter band indicator/conversion
- Attenuator: Local-DX switch
- Tuning Options: Digital frequency readout with manual tuning/speed change tuning/auto scan/memory scan/direct tuning and SSB fine tuning control
- Memory Locations: 190 random presets pages 1-6; band preset pages 7-9; ATS preset page 0, has Auto tune/Auto memory
- Indicators: LED light signal strength (AM/SW four levels/FM three levels), includes a stereo reception indicator, battery level indicator
- Clock function: 12/24 hour selectable, Sleeping time direct entry 1-99 minutes
- Audio Control: Push button
- Tone select: News/music switch, FM stereo bass (earphones only)
- Backlighting: Display/keyboard light
- Antennas: Telescopic antenna for FM and shortwave and built in ferrite bar antenna for AM,



Overall rating: 2-1/4 stars



plus external jack.
External Jacks: Earphone jack (stereo on FM), antenna jack, both are 3.5 mm diameter jacks
Speaker: 2.6 inches (66 mm) in diameter
Power Source: Battery 3 AA rechargeable Ni-MH batteries (recharging time 1-9 hours); external power: DC 6V 300mA; includes an AC-DC adapter

MT First Look Rating (0-10 scale)

KAITO KA1102 RECEIVER

Audio Quality	6
Audio Levels	6
Back light/Display	6
Battery Life	7
Dynamic Range	5
Ease of use	6
Feature Set	7
Keyboard/Button/Control Layout	7
Sensitivity	
AM-5, FM-6, SW AM-5, SW SSB-4	
Selectivity	
AM-6, FM-6, SW AM-6, SW SSB-4	
Overall Construction	8
Overall Reception	7
Overall Manual	5

SANGEAN ATS-505P

Inside the Box

The first thing that becomes obvious is the Sangean ATS-505P is much bigger than the Kaito. The 505P is 8.43 inches wide (214 mm) x 5.04 inches high (128 mm) x 1.5 inches deep (38.5 mm). While the Kaito is smaller, it does have a smaller footprint than the portable we tested last month – the Eton S350DL. And the 505P weighs more than the Kaito – 1 lbs. 13 ounces (840 grams). Again, this unit is lighter than the S350DL, but heavier than the Kaito.

Accessories included in the box included an operating manual, AC adapter, a soft pouch, stereo earbuds, a built-in whip antenna (SW/FM only), and a reel antenna

The manual is good, well laid out, and easy to read, and the radio is pretty easy to operate.

The audio is good but there are no separate controls for treble and bass like the S350DL. During my test I noted no synthesizer noise.

The LCD display is very nice, sharp, and has good contrast when viewed from a various angles. Backlit illumination can be turned on or off.

I like the various tuning methods that the 505 is capable of. Not only does the 505 have direct tuning via the keypad (like the Kaito), but it also has a two-speed tuning knob (the Kaito doesn't have a tuning knob), manual tuning using the up/down buttons (the Kaito has that), scan tuning (which is useless in SSB modes and marginal in the AM mode), meter-band carousel selection, memory tuning (45 presets: 18 on two pages for shortwave, nine each on MW, LW, and FM). The Kaito has 190 memories (10 pages of 19 each and page 9 is for SSB use).

AM, FM and SW reception is good, with the AM and FM reception a little bit better on the Kaito. You get FM stereo reception with the stereo earbuds, a nice dual zone 12/24 hour clock, alarm with sleep delay, and a neat travel power lock so the radio does not inadvertently come on while it is packed away.

The 505P Negatives

There are also negatives with this radio. First and foremost, the SSB filter bandwidth is way too wide. While I can't confirm it for sure, it seems almost as wide as the AM filter. And another major irritant – this radio chugs during tuning (the audio is being muted). Using larger steps reduces the chugging, but that is not something I like in my portables. I like turning the tuning knob, but the chugging while doing so is frustrating.

I like the big keys on this radio and it makes it easy to see, but they seem slow to react. You can't tap the button and move on: you have to hold it down momentarily. This took some getting used to. There is no handle, no signal strength indicator, and the clock display is not independent of the frequency display.

Finally, I was not impressed with the SSB sensitivity. It is pretty close to the Kaito, but like most portables, if you are really interested in prowling the ham bands or the utility frequencies, this radio will be a disappointment. Yes, I heard the louder stuff, but twice during our test, the 20 meter ham band during late afternoon was nearly dead (only one loud signal heard).

Table 2 is a listing of manufacturer specs and key features.

Table 2: Sangean ATS-505P Manufacturer Spec/Key Features

Frequency Coverage:
 Long Wave 153-279 kHz
 Medium Wave 520-1710 kHz
 Shortwave 1.711-29.999 MHz
 FM band 87.5-108 MHz
Conversion: Double
Attenuator: Local-DX switch
Bandwidths: All modes fixed at one bandwidth for each mode.
Tuning Options: See text above
Memory Locations: 45 presets: 18 on shortwave-two pages, nine each on MW, LW, and FM)
Indicators: None-level battery reserve indicator, no signal strength indicator
Clock function: Digital clock with selectable 12/24 hour format, wake-up timer (use as radio-play alarm clock) and sleep timer.
Audio Control: Rotary volume control
Tone Select: A music/news switch
Antennas: Telescopic antenna for FM and shortwave and built in ferrite bar antenna for AM/LW, plus external jack shortwave only.
External: Jacks 3.5 mm earphone socket (stereo), external antenna, and power plug.
Power Source: 6 volts (center pin negative), 4 AA batteries (not included) or AC Adapter (included)
Note: Published specs subject to change

Bottom Line – Head-to-Head

As I mentioned in my last review, manufac-



Overall rating: 2-1/4 stars



turers have come a long way in the last decade in improving the under \$100 portable radios, and that is quite evident when we tested both these radios. I can see some distinct markets for both these radios.

The Kaito will have a wide appeal to the traveler. You get a lot of bang for the buck using this radio, including SSB reception. I was particularly pleased with the FM reception on the 1102.

I like the tuning flexibility of the Sangean, and its mode selection is definitely easier than the Kaito's. Overall, its audio was better, but that is a function of speaker and case size.

But who won, you ask?

I have called this a draw. It really depends on what you want to use the radio for, what you are used to in your radios, and where you will use the radio. Bottom line, both radios offer a lot of listening for the buck, especially in the shortwave broadcast bands.

MT First Look Rating (0-10 scale)

SANGEAN ATS-505P RECEIVER

Audio Quality	7
Audio Levels	7
Back light/Display	7
Battery Life	7
Dynamic Range	5
Ease of use	7
Feature Set	7
Keyboard/Button/Control Layout	7
Sensitivity	
AM-5, FM-6, SW AM-5, SW SSB-3	
Selectivity	
AM-6, FM-6, SW AM-6, SW SSB-3	
Overall Construction	8
Overall Reception	7
Overall Manual	6

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