

DE108 Mini-Radio

VERSION 1 ©2006



The information below is not guaranteed to be error free.

1. Introduction

The DE108 portable is available through [tquchina](#) on Ebay for \$43.90 including shipping and insurance. The unit comes with a manual, earphones, wrist strap, carry pouch, AC adapter, and 220V to 110V converter. Coverage is from 87.5 to 108.0 MHz (FM), 520 to 1620 kHz (MW), and 5.950 to 15.600 MHz (SW). Weight is only 4.6 ounces with 2 "AA" batteries inserted.

Features include: 10 memories for each band (FM, MW, SW), three types of tuning (manual, memory, scan), two clocks, one alarm, low battery indicator, key lock, MCU reset, FM stereo through earphones, MW ferrite rod, and six SW band (49M, 41M, 31M, 25M, 22M, 19M) coverage: approximately 92% of all English language broadcasts occur within these bands.

2. Ultra-Portable

The DE108 is 6.7 cubic inches in volume. In comparison the DE1102 is 21; DE1103 is 32; SW7600GR is 45; YB-400PE is 60; and ATS-909 is 69 cubic inches. The DE108 is the smallest of the currently available mini-radios. The lower chart shows sizes of other notably small radios.

| Mini-Radio | Cost | Size | Mem | Tuning |
|------------|------|------|-----|--------|
| DE108 | \$44 | 6.7 | 10 | PLL |
| GP-4L | \$22 | 7.9 | 0 | ANALOG |
| 100PE | \$30 | 9.1 | 0 | ANALOG |
| A-1004 | \$32 | 10.1 | 0 | ANALOG |
| KA105 | \$50 | 11.1 | 10 | PLL |
| DE203 | \$47 | 12.3 | 0 | ANALOG |

The DE203 is double conversion. Sizes are in cubic inches.

| Radio | Size | Radio | Size | Radio | Size | Radio | Size |
|----------------|------|--------|------|---------|------|---------|------|
| eTraveller VII | 12.2 | SW100S | 12.6 | M300 PE | 14.1 | SW12 | 16.5 |
| G4 | 12.2 | WRX911 | 13.5 | G1000A | 15.2 | CX-CB91 | 17.4 |
| KA818 | 12.2 | SW1S | 13.7 | E100 | 15.7 | SW07 | 25.3 |

Purple signifies a discontinued radio.

3. Negatives

The DE108 does not include nor charge NiMH batteries. The antenna is small at only 14 inches. No keypad makes getting around time consuming. FM reception is very poor. Scanning downward was necessary in order to hit the primary frequency before its image. The DE108 has no narrow bandwidth and only 5 kHz tuning steps so adjacent interference can be problematic. Scanning is somewhat slow at just over 5 stations (27 kHz) per second.

4. Performance

Sensitivity: SW signals at the level of **S5** (3.2 μV) sound decent, **S4** (1.6 μV) are marginal, **S3** (0.8 μV) are identifiable, and **S2** (0.4 μV) or weaker are difficult to hear. Images were easily heard 900 kHz lower than the primary frequency (450 kHz IF single-conversion circuitry). This performance is more than adequate for casual SWL: high power stations sound decent. The DE108 does well on BCB due to the built in miniature ferrite rod. The PLL circuitry means no annoying analog drift. The **10** SW memories come in handy because there is no keypad.

At a volume adequate to hear from **~2.5 feet** and using Duracell alkaline batteries (rated 2850 mAH) the **DE108** will run **71** hours on FM or **81** hours on AM (SW or BCB). Using earphones about **86** hours of AM can be squeezed out of a set of alkaline batteries.

This DE108 is super portable especially considering earphones are unnecessary. The radio is easy to use; buttons and construction are solid; and the **1.44 inch** speaker sounds pleasant.

5. Photo

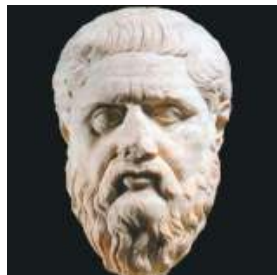


6. Conclusion

The **DE108** is a fun radio: adequate sensitivity, miniature, and PLL synthesized. Delivery from **China** takes about **two weeks** and **Tao Qu** is an excellent seller. I recommend the DE108 for anyone wanting a shirt-pocket portable for casual SWL: powerhouses like BBC, RCI, etc. If high performance is necessary along with small size I highly recommend the double-conversion SSB dual-bandwidth **DE1102**.

Contact

Please direct comments to just_rtfm@<NOSPAM>yahoo.com. dr phil :)



Necessity is the mother of invention. -*Plato*