

Features

12 What Ship Is That?

What ship is that? Where's it heading? When is it due in port? What's its speed? AIS (Automatic Identification System) has the answers and you can even follow the ship on your computer – by Stan Swan

24 Digital Radio Is Coming, Pt.5

Digital radio broadcasts have now commenced operation in most Australian state capitals. Here's a look at the receiver profiles, broadcast licence categories and basic signal transmission characteristics – by Alan Hughes

44 Review: JTAGMaster Boundary Scan Tester

Comprehensive test instrument is used for in-circuit programming, training and for checking production PC boards – by Mauro Grassi

Projects To Build

20 Converting a Uniden Scanner To Pick Up AIS Signals

Want to track ships around the world using the Automatic Identification System (AIS)? Here's how to modify a couple of Uniden scanners to pick up the signals. There's also a cheap "SlimJim" antenna to build – by Stan Swan

30 An SD Card Music & Speech Recorder/Player

Easy-to-build unit stores WAV files on low-cost MMC/SD/SDHC cards. You can use it as a jukebox, a sound effects player or an expandable "dicta-phone" – by Mauro Grassi

62 Lead-Acid/SLA Battery Condition Checker

Here's the perfect companion for the Battery Zapper described last month. It draws several high-current pulses from the battery and lights a LED to indicate the battery's condition – by Jim Rowe

72 A 3-Channel UHF Rolling-Code Remote Control, Pt.1

High-security design can be used with up to 16 transmitters and has three separate relay output channels to control devices such as door strikes, garage doors and lights – by John Clarke

Special Columns

57 Serviceman's Log

It's chaos theory to the rescue – by the Serviceman

86 Circuit Notebook

(1) Phase Modulator Vibrato For Musical Instruments; (2) Fractional Frequency Division With A Picaxe; (3) 12V To 36V DC Converter; (4) Stereo Stethoscope For Troubleshooting

91 Vintage Radio

The unnamed console; an orphan from the 1930s – by Rodney Champness