



A service of Falcon Direct, Inc. #36 – 20th Avenue NW – Birmingham, AL 35215

A special message

for 2-way radio system users

Things are changing rapidly in the communications industry! The biggest change is the switch from analog to digital. Cell phones made the switch years ago. Broadcast TV made the big switch this year and broadcast radio is in the process. All federal agencies have made the switch while state and local agencies as well as commercial enterprise is being *encouraged* to make the transition to digital as quickly as possible.

None of us like to be told what to do but the fact is that this switch will happen and there are some positive benefits. In the case of public safety and transportation, there can be a financial incentive in the form of federal and state grants. For now, it is important only for you to be aware of three significant dates – January 1, 2011, 2013, and 2018. We won't go into detail at this time except to say that an abundance of information on this subject is available at <http://falconinfo.blogspot.com/search/label/Digital%20radios>.

In essence, you have four basic choices. The first is to assess the impact of these changes relative to your long term goals and select radios consistent with current and future objectives based on the least possible investment while maintaining compatibility with existing equipment. The second is to choose equipment that can be upgraded to either the IDAS commercial standard or the P25 governmental standard. The third is to replace existing equipment with digital based on any one of four available technologies (DMR, FHSS, IDAS, or P25). Actually, there are eight choices available, but that is a subject more adequately covered at www.info4u.us.us/Narrowband-Planner.pdf.

To make your job a little easier, we have prepared some background information to explain the significance of 2011 (the date that all equipment sold in the USA must be 6.25 kHz compatible, 2013 – the date on which all 25 kHz equipment can no longer be used (12.5 or 6.25 kHz only), or 2018 – the date which the FCC proposed that all radio systems must operate on 6.25 kHz. All equipment must be licensed for use by the FCC with the exception of MURS operation in the VHF band or 900 MHz ISM portables. Additional information is available at <http://falconinfo.blogspot.com/search/label/FCC%20Information>.

The bottom line is that you don't want to purchase equipment today that can't be used in 2013 and if you are purchasing public safety or commercial grade equipment, you may want to seriously consider purchasing equipment that will meet FCC standards for 6.25 kHz operation. To assist you in making these choices, we have prepared three price guides. The first is for equipment that meets the 2013 requirements. The second meets the 2013 basic requirements and can be upgraded to digital, and the third meets both current and digital standards right now while maintaining compatibility with current vintage equipment.

Thanks for the opportunity of sharing these comments. We look forward to the opportunity of serving you.

PathwayPS.doc



Things are changing in the way we exchange information. It's all about moving more information, faster, more efficiently, with more security, and interoperability. With new technology, computers, wireless devices, machines, and people can work together to accomplish tasks undreamed of just a few years ago.

The conveyance of information by wireless devices such as cell phones, broadcast radio, TV, and Two-Way radios cannot be accomplished in the limited bandwidth available in an analog format. For that reason, cell phones and TV have already made the transition from analog to digital. Broadcast radio is currently making the transition as are commercial, governmental, and transportation users with mission critical requirements.

The changes are being implemented for a variety of reasons. At the top of the list is standardization of a common protocol which allows the greatest number of people and their needs to be served at the lowest long term cost. Railroads are switching to a technology known as NXDN or IDAS. The decision to standardize on NXDN was fundamentally to increase the number of useable frequencies within a fixed bandwidth allocation and secondarily to provide a gateway to migrate from the existing analog technology to the more efficient ultra narrow band digital technology.

Government agencies are moving from analog to P25 digital technology for slightly different reasons. Obviously, government agencies require standardized operating networks just as much as railroads. Like NXDN, P25 also provides the capability to allow existing systems to make an orderly transition to the new technology without replacing all of the existing equipment to begin the transition to new technology. There is another very important reason why government users are choosing P25. The reason is that P25 is the only government approved standard that qualifies for federal grant funding.

Commercially, the need for standardization is not so important to users with stand alone communications systems such as those found in churches, schools, and warehouses. The emphasis for these users is most often focused on economical operation, functionality, and compliance with applicable FCC requirements. FCC compliance is actually an issue confronting all communications based on mandatory licensing standards that will change in 2011, 2013, and the FCC proposed date of 2018 for operation at 6.25 kHz.

Developing a communications plan today will have significant impact on what you spend tomorrow! We recognize that communications planning is not your primary business (unless you happen to be in the business) and for that reason, we have developed our new Pathway Program as a service to those we serve and hope to serve. The idea is to provide a plan to help YOU make the right decision in choosing the right technology to meet your current and future wireless communications needs.

Pathway is a free service to communications system users in Alabama. We will come to you or you can visit with us. There is no cost or obligation. We can meet at a mutually convenient time and location. Just give us a call at 205.854.2611 to set up an appointment. If you are outside Alabama, send an email to pathway@falcondirect.com for additional information on our Remote Pathway Program.

You've got everything to gain and nothing to lose. Call or email us today – you won't be disappointed! As a closing comment, we would like to say that we didn't exactly invent the concept of working together. For more details, go to www.info4u.us/AskTheGeese.pps.

PATHWAY ANALOG PRODUCTS



Many of those we serve require the ability to be selectively called (volunteer fire departments for example). Our analog pagers and low cost combination Pager/Radios can be used through 2017. Our top choice models include our exclusive *Purrfect Pager*, the SP7000 high powered Pager/Radio, and the top of the line ICOM F50/60V with both audible and vibrate alert plus message record/recall. Our best value in a mobile radio with page reception and sending capability is the ICOM F121/221 series. All of these products include our exclusive four year warranty, free shipping & programming, plus no surcharge for credit card sales. What you see is what you pay!



Our new *Purrfect Pager* weighs less than Minitor V (just 6 ounces), is smaller (just 3.8" x 1.95" x 1.0), is MIL-SPEC 810F rated, has a better warranty, lower cost of repair, and IT HAS 2-WAY COMMUNICATIONS CAPABILITY! Our incredibly low price of **just \$195** includes programming on the frequencies and tones of your choice in both standard and narrow band! Both VHF and UHF models are available. The UHF model shown at the left is supplied with an ultra low profile antenna. The VHF antenna is slightly longer. More information is available at www.info4u.us/purrfect.pdf.



If you want a radio that competes in features, performance, and reliability to top quality radios such as the Motorola HT1250, you need to take a look at the Maxon SP7000 series. Incredibly, the SP7000 is less than HALF the price of the HT1250! You can learn more about the SP7000 and a companion mobile, the SM5000 by going to www.info4u.us/MaxonSpecials.pdf. **Priced at just \$289** for either VHF or UHF, the SP7000 has 2-Tone decode/encode, scrambler, ANI, alpha-numeric display and 255 channels. You can have all channels programmed for 25 KHz wide band and 12.5 kHz narrow band selectable at the push of a button! Complete specifications are available at www.info4u.us/sp7000.pdf.



The most powerful (5 watts VHF or UHF) Pager/Radio available anywhere is the ICOM F50V VHF or F60U UHF. Weighing less than 10 ounces, the F50/60V includes the ability to both receive and send paging tones plus alert you with both audible and vibrate modes. Better yet, the F50/60V can record your message for later playback. Durable? You bet with a full MIL-SPEC 810F rating and it has the highest water and dust resistant rating available with the ability to be completely submersed for up to 30 minutes at a depth of up to 3 feet! With 128 channel capability, mode scan, and built in MDC1200 signaling, this is all the pager or radio you'll ever need! The price is actually LESS than a comparable Minitor V – **just \$495 complete** for either the VHF or UHF model. Additional information is available at www.info4u.us/F50V.pdf.



You can spend anything you wish for a mobile radio, but for most users, a radio with 45 to 50 watts of power, an alphanumeric display, scan, and 16 channels in either VHF or UHF will do the job. We would all like a good warranty, MIL-SPEC 810 durability and the ability to send and receive pages. Obviously, we want both wide band 25 kHz and 12.5 kHz narrow band capability, and maybe the ability to send and receive user identification (MDC1200). The ICOM F121 VHF and F221 UHF radios have all these features and more at the incredibly low price of **just \$349!** Just add an antenna and you are ready to go. A full line of accessories is available. Additional information is available at www.info4u.us/F121.pdf.

PATHWAY ANALOG UPGRADABLE PORTABLE RADIOS



There are four *basic* digital technologies – IDAS (NXDN) and P25 which offer upgradable radios plus DMR (MotoTRBO) and FHSS (DTR 550/650) which are digital only. There are two versions of IDAS and P25 digital portable radios – limited and full keypad models. The full keypad models have the ability to send and receive custom short text messages in the digital operating mode. Our prices include free programming, shipping, and our exclusive 4-year warranty with no surcharge for credit card sales. If you would like a price match on any competitive offering, please give us a call at 205.854.2611 or drop us an email to sales@falcondirect.com.



The ICOM F3161 VHF and F4161 UHF portables are available in standard and keypad models that can be upgraded to IDAS digital capability by a plug in board when desired. Our delivered price for the standard **VHF or UHF model is just \$569**. The full keypad adds just \$40. The digital board adds just \$200 including shipping/delivery charges, free programming, our exclusive 4-year warranty, and no surcharge on credit card sales. Sales tax applicable only on non-exempt sales to Alabama users. We will price match any advertised competitive offer. These radios are compatible with public safety 2-tone paging. Info at www.info4u.us/F3161.pdf.



The ICOM F5061 VHF and F6061 mobiles use the same plug in board to upgrade from analog to digital when desired. These mobiles, like the upgradable portables, feature mode scan, mixed analog/digital operation with digital board installed and LTR trunking. More information on trunking is available at www.info4u.us/ltr.pdf. Our delivered price for the standard **VHF or UHF model is just \$569**. An AC power supply with cabinet and desk microphone adds just \$250. The digital board adds just \$200. A trunk mount kit adds \$150 and a mobile antenna with a 4 year guarantee adds just \$40. For more information about the IDAS system, visit www.icom.co.jp/world/idas/index.html. To order, go to www.bestpriceradio.com.



ICOM FR5000 VHF and FR6000 UHF repeaters extend range and can operate in both analog and digital modes with no switching required. The logical first step in migrating to IDAS digital is to install an FR Series radio complete with duplexer and ready to operate for **just \$2,395 with your choice of either VHF or UHF**. Best of all, it's ready for IDAS digital with no upgrade required. Don't even think about a repeater that won't do digital. More info is available at www.info4u.us/FR5000.pdf. A vehicular version of this repeater (shown at the left) is optionally available for just \$1,495. Go to www.info4u.us/RoadTalkPro.pdf for more information.



ICOM F70 VHF and F80 UHF portable radios are submersible rated, and are rated for Intrinsically Safe operation and can be flash/software upgraded to full P25 mixed analog/digital mode capability. Our delivered price for the **VHF or UHF standard model is just \$769** including enhanced MDC signaling, rapid desk charger and 3040 mAh Lithium-Ion battery. The full keypad version is only \$50 more. The ICOM F1721 VHF and F2721 UHF mobile are available at the same price as the F70/80 portables. An AC power supply with cabinet and desk microphone adds just \$250. The digital board adds just \$200. A trunk mount kit adds \$150 and a mobile antenna with a 4 year guarantee adds just \$40. Additional information on the F70/80 portables is available at www.info4u.us/F70.pdf. Information on the F1721/2721 mobiles is available at www.info4u.us/F1721.pdf. More information on P25 technology at www.info4u.us/APCO25.

PATHWAY DIGITAL PORTABLE RADIOS



There are four basic digital technologies – IDAS (NXDN) and P25 which offer upgradable radios plus DMR (MotoTRBO) and FHSS (DTR 550/650) which are digital only. There are two versions of IDAS and P25 digital portable radios – limited and full keypad models. The full keypad models have the ability to send and receive custom short text messages in the digital operating mode. Our prices include free programming, shipping, and our exclusive 4-year warranty with no surcharge for credit card sales. If you would like a price match on any competitive offering, please give us a call at 205.854.2611 or drop us an email to sales@falcondirect.com.



The ICOM F3161D VHF and F4161D UHF digital portables are available in standard and keypad models that can operate at 25, 12.5 or 6.25 kHz channel spacing in both analog and digital modes. Our delivered price for the standard **VHF or UHF model is just \$769**. The full keypad adds just \$40. The F5061 VHF or F6061 mobile is the same price. Sales tax applicable only on non-exempt sales to Alabama users. Additional information on IDAS (NXDN) is available at: <http://falconinfo.blogspot.com/2009/01/everything-you-always-wanted-to-know.html>



ICOM F70D VHF and F80D UHF portable radios are submersible rated, and are rated for Intrinsically Safe operation and are capable of both analog and digital operation. Our delivered price for the **VHF or UHF standard model is just \$1,369** including enhanced MDC signaling, rapid desk charger and 3040 mAh Lithium-Ion battery. The full keypad version is only \$50 more. The ICOM F1721D VHF and F2721D UHF mobile are available at the same price as the F70/80D portables. An AC power supply with cabinet and desk microphone adds just \$250. The digital board adds just \$200. A trunk mount kit adds \$150 and a mobile antenna with a 4 year guarantee adds just \$40. Additional information on the F70/80D portables is available at www.info4u.us/F70.pdf. Information on the F1721/2721D mobiles is available at www.info4u.us.F1721.pdf. More information on P25 technology at www.info4u.us/APCO25.



Motorola MotoTRBO VHF and UHF repeaters extend range and can operate in either analog or digital modes (not both). The logical first step in migrating to MotoTRBO digital is to install an XPR 8300 Series repeater complete with duplexer and ready to operate for **just \$2,695 with your choice of either VHF or UHF**. Don't even think about a repeater that won't do digital! More info is available at <http://falconinfo.blogspot.com/2008/07/motorola-radio-comparisons.html>. Take your choice of the **XPR6550 portable for \$1,085** or **XPR4550 mobile for just \$920** plus an optional antenna (\$40 for standard antenna or \$125 for a GPS/Radio combination antenna for VHF or UHF. Additional information is available at <http://motosbest.com/mototrbo.aspx>.



The Motorola DTR550 and DTR650 radios were designed from the ground up as digital only portable 2-way radios. They are not compatible with any other system, either analog or digital. That's the bad news. The good news is that no license is required, they are virtually interference free, affordably priced, and full featured. Think of the DTR as a short range Nextel walkie-talkie without the monthly air time and phone capability. These radios are ideal for short range commercial use in hospitals, plants, schools, and warehouses – even for court room security or short range surveillance for public safety use. Additional information is available at <http://dtr2way.com/default.aspx>. **The standard DTR550 is \$385**. The DTR650 with enhanced capabilities, larger capacity battery, and rapid charger is \$15 additional. Both radios include free programming and shipping, no credit card surcharge and our exclusive four year limited warranty.