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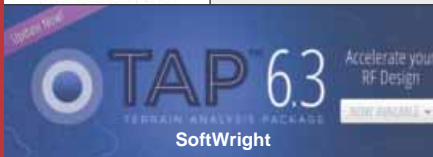
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22 2016 Worldwide Buyers Guide

From digital radio standards equipment to interoperability tools to mobile data including broadband systems to software to antennas, the Worldwide Buyers Guide is a veritable resource, featuring more than 500 companies and the products and services they provide to the global mobile communications market. Sections include a company index with websites of industry suppliers, along with a category index featuring nearly 180 mobile communications product categories with a list of companies that offer each type of product. Mobile communications network equipment buyers across the globe use the resource all year long.

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PSCE Forum Highlights



The Public Safety Communication Europe (PSCE) Forum in Oxford, England, tracked five key themes.

PMRExpo Update



A summary of discussions about public safety, security and broadband from the Cologne, Germany, event

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The 2016 outlook for the industry is strong with changes ahead.

By Sandra Wendelken



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Strong Industry Outlook for 2016

As we begin 2016, the outlook for the global mission-critical communications industry is strong. Digital technologies continue to permeate more of the industry, and many professional mobile radio (PMR) networks that already are digital are refreshing their technology with the latest upgrades. Innovation can be seen in many areas of the industry with new technologies released and users expecting more features.



In addition, broadband developments are underway in various parts of the globe. Europe had a busy last two months of 2015, with several industry events pushing forward with Long Term Evolution (LTE) in the public protection and

disaster recovery (PPDR) community.

Each year we conduct a reader survey to gain further insights into where the industry is heading. This year's survey found several interesting items.

More than 90 percent of survey respondents expect their communications budgets to increase or stay the same, with 87 percent of respondents planning to upgrade or replace their networks within two years.

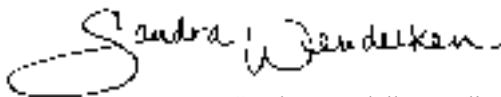
We asked our readers what equipment they plan to purchase within the next two to five years. Radio accessories topped the list, followed closely by radios and antennas. Digital radio systems equipment was next on the list of items that the survey respondents plan to purchase, and base stations/repeaters rounded out the top five.

As we say goodbye to 2015, we can appreciate the many changes that the year brought. We can also look forward to more changes during 2016. Movement in LTE networks and spectrum allocations will continue. Growth and interest in distributed antenna systems (DAS), network security, HF radio, microwave and backhaul, and video surveillance are likely to filter into discussions as well.

We value your opinions! Please email your feedback to me at swendelken@RRMediaGroup.com.

Watch these pages and RRI mag.com — which was recently redesigned and

updated to better house and share our many online resources — for information to help your business. And send your article ideas to us as well; we appreciate reader input and contributions.



Sandra Wendelken, Editor
swendelken@RRMediaGroup.com

RadioResource International delivers wireless voice and data information for mobile and remote mission-critical operations for professionals who reside or do business outside the United States and Canada. The magazine covers private and trunked mobile radio, wireless data, location technologies, public safety communications, microwave radio, satellite, paging/messaging, remote monitoring, and other wireless applications. Editorial content is international in scope and encompasses emerging technologies, industry reports and trends, innovative applications, product information and comparisons, news, standards, and troubleshooting tips.

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U.K. Awards LTE Contracts, Motorola Buys Airwave

The U.K. government's Home Office awarded the final two contracts for its new Emergency Services Network (ESN). U.K. commercial mobile operator EE won the Lot 3 contract, and Motorola Solutions was awarded the Lot 2 contract for user services for the network that will be used by more than 300,000 emergency and public service officials from more than 300 agencies.

Signing of the final contracts follows the announcement in the U.K. Spending Review that the government committed an additional £1 billion (US\$1.5 billion) to overhaul the ESN. The new network is expected to save taxpayers £1 million (US\$1.5 million) a day, a Home Office statement said.

The government's £1 billion Emergency Services Mobile Communications Program (ESMCP) will see EE's 4G U.K. network expand coverage and enhance resilience to meet the emergency services' critical communications requirements, an EE statement said.

The new ESN will replace the country's existing TETRA system, operated by Airwave and with infrastructure equipment from Motorola Solutions, from mid-2017 as current contracts expire. ESN will support voice and broadband data services, such as the ability to send photos and video.

A week before the U.K. award, Motorola Solutions acquired Airwave, the U.K. nationwide TETRA operator, for £817.5 million (US\$1.2 billion), saying the buy would boost its managed services business, expand its geographic footprint and establish its role in the U.K. public-safety broadband market.



Motorola Solutions expects its net cash payment to be about £700 million (US\$1 billion) at closing, based on purchase price adjustments and cash in the business. In addition, a deferred cash payment of £64 million (US\$96.6 million) will be made in November 2018. The agreement is subject to required approvals and is expected to close in the first quarter of 2016.

Airwave is the largest private public-safety operator in the world, providing communications to more than 300 emergency and public service agencies in Great Britain. The network covers 99 percent of Great Britain's landmass.

In August, Lot 1 of the new ESN was awarded to Kellogg Brown & Root (KBR) as the delivery partner for the program. KBR is responsible for transition support, cross-lot integration and user support.

EE previously committed to spend £1.5 billion (US\$2.3 billion) on its network up to 2017 and will increase that investment to deliver the ESN. Work to enhance and expand the EE network has already commenced to be ready in time for the first transitions.

EE said it will do the following to deliver the mission-critical ESN:

- Build a new, highly resilient dedicated core network for the emergency services
- Build more than 500 new sites, expanding coverage in rural areas

■ Switch on low frequency 800 MHz spectrum on more than 3,800 sites to enhance rural and indoor coverage

■ Implement network access priority capability to emergency services when required

■ Implement voice over Long Term Evolution (VoLTE) and new LTE voice capabilities including push to talk (PTT)

■ Deploy rapid response vehicles

■ Implement satellite backhaul for Britain's hardest-to-reach areas

"We are growing the managed services business," said Kelly Mark, Motorola Solutions corporate vice president, managed and support services. "Airwave provides a good delivery platform as we go forward and to deliver the ESN. Airwave has call centers, operations, and that's exactly what we'll have to do as we go into Lot 2."

Mark said Airwave's 600 employees are focused on servicing and managing the U.K. TETRA network, handling call centers, provisioning services and "anything you need to run the network."

Although Motorola Solutions supplied the TETRA infrastructure for the U.K. network, each jurisdiction buys radios from various TETRA suppliers.

Mark said Motorola Solutions has invested \$300 million in LTE research and development. The firm plans to fund the transaction with bank financing and cash on hand, predominantly from international funds. Upon closing, the company expects the transaction to be immediately accretive to non-GAAP earnings and free cash flow.

In August, Motorola Solutions received a \$1 billion investment from technology investment firm Silver Lake.

INTERNATIONAL

GENEVA — The International Telecommunication Union (ITU) passed Resolution 646 during the World Radiocommunication Conference 2015 (WRC-2015) in November. The resolution identified spectrum in the 694 – 894 MHz frequency band to facilitate mobile broadband communi-

cations for mission-critical emergency services.

Resolution 646 takes into consideration "the growing telecommunication and radiocommunication needs of public protection agencies and organizations, including those dealing with emergency situations and disaster relief, that are vital to the maintenance of law and order, protection of life and

property, disaster relief and emergency response."

The resolution is an international agreement under the U.N. and ITU that encourages administrations to use harmonized frequency ranges for public protection and disaster relief (PPDR) operations to the maximum extent possible and to consider the 694 – 894 MHz range when planning for PPDR



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Norway's Nødnett Launches Nationwide

Nødnett, the Norwegian TETRA-based public-safety network, was completed and launched nationwide 1 December. His Majesty King Harald V of Norway attended the official opening in Kirkenes.

The vision of Nødnett was to establish a single network for all public-safety agencies in the country to communicate with each other and exchange information easily. Nødnett is a digital network for police, fire and rescue, and health services. Its key characteristics are resilience, talk groups within the agencies and groups in common with other emergency services. Additionally, users with TETRA radios can send and receive text messages and exchange small amounts of data.

The nationwide coverage encompasses 330 emergency call centers connected by 2,170 base stations. More than 45,000 users make nearly 1.5 million calls each month over the network. The network includes cross-agency communications among 37 police control centers, 23 fire and rescue control centers, and 184 health control centers, along with voluntary groups, customs and more.

Nødnett includes more than 20,000 kilometers of microwave transmission lines. Norway's high latitude means the northern sites are shrouded in darkness 24/7 during the winter months with temperatures plunging to -40°C.

The network coverage also extends



His Majesty King Harald V of Norway (left) and Tor Helge Lyngstøl of Directorate for Emergency Communication (DNK) in Kirkenes, Norway

through 310 road tunnels for 758 kilometers, about eight hours of solid driving without ever seeing the light of day. The tunnels include the Laerdal tunnel, the longest road tunnel in the world, and the world's deepest sub-sea tunnels, the Eiksund and Bømlafjord tunnels.

In all, Motorola Solutions teams drove 817,000 kilometers conducting radio coverage testing. Nearly 14,000 kilometers were travelled by helicopter to test air-to-ground-to-air coverage.

Frequentis, as a partner of prime contractor Motorola Solutions, delivered about 800 control center operator positions based on the Integrated Communication and Control System (ICCS) 3020.

The technology available at each operator position helps manage all communications related to incoming emergency calls. The operators can switch between internal and external radio communications with officers in the field and manage all of the talk groups Nødnett provides to coordinate required emergency responses.

The Nødnett nationwide control center rollout was planned from south to north across six geographical regions. The southernmost control center is based in Mandal (Vest-Agder) and the northernmost in Svalbard (Spitsbergen).

Motorola Solutions will maintain and provide operational support for the next 10 years. One-third of all Nødnett base stations are equipped with TETRA Enhanced Data Service (TEDS), and the system includes technology to deliver push to talk (PTT) on smartphones and connected devices. The network is also ready for public-safety broadband bearers, such as Long Term Evolution (LTE).

Nødnett has claimed many firsts, including the first demonstration of TEDS and Europe's northernmost TETRA base station. See the Quarter 4 2012 issue of *RadioResource International* for an article on how the network was used during terror attacks in Norway and the Quarter 4 2013 magazine for an article on how the network interoperates with Sweden's Rakel public-safety network.

applications with an emphasis on broadband.

The resolution recognizes that narrowband and wideband systems will continue to be used to meet PPDR requirements, but that there is an increasing need for broadband applications to support improved data and multimedia capabilities. These require higher data rates and capacity, and appropriate spectrum from this harmonized range may need to be made available on a national basis.

Administrations may wish to promote interoperability and interworking among communications systems used for PPDR, both nationally and for cross-border operations in emergency situations and for disaster relief. Clear-

ly defined frequency ranges enable improved spectrum management and planning, and harmonized spectrum increases the potential for interoperability and standardization of equipment. The resulting economies of scale in terms of research, development and manufacturing lead to a more cost-efficient and competitive market, the resolution said.

"The need for cross-border cooperation among PPDR agencies has never been more apparent," said Phil Kidner, CEO of the TETRA + Critical Communications Association (TCCA). "Many organizations responsible for delivering and supporting PPDR emergency response have been working for several years to secure harmonized

spectrum for critical broadband applications. We would like to thank the spectrum regulators of the world for this resolution — it is a treaty between the 196 U.N. countries and therefore a very important global step."

ITU said the resolution is a significant first step, and efforts on both regional and national levels are needed to reach the objective of internationally harmonized spectrum dedicated at the national level. Several countries, including Australia, Canada, France, Korea and the United States, have allocated spectrum already. Each of these countries allocated the spectrum as a result of natural disasters or terrorist attacks and all are in alignment with the resolution.



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FREEDOM
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In Europe, the next step will be for the European Conference of Postal and Telecommunications Administrations (CEPT), which represents 48 European countries, to complete the ongoing work and reach an ECC decision. The CEPT decision is expected in the first half of 2016.

EUROPE

BRUSSELS — The European Commission's Radio Spectrum Policy Group (RSPG) launched three public consultations on topics related to the harmonization of spectrum and the EU policy on spectrum.

The first consultation concerns a report prepared by the RSPG examining efficient awards and use of spectrum bands harmonized for electronic communications services. The report aims to highlight the best practices on spectrum award approaches with a

view to promoting efficient use of spectrum. Auctions, in particular, are highlighted as an important tool in ensuring efficient spectrum use.

The second consultation is on the draft RSPG opinion on the implementation of the current Radio Spectrum Policy Program and its revision for the next period. The program focuses on strategic policy issues related to harmonization of the use of spectrum to ensure the functioning of the internal market in the EU policy areas involving the use of spectrum, and sets out the objectives for the strategic planning and harmonization of the use of spectrum.

The final consultation revolves around the RSPG work program for 2016 and beyond. In the next few years, the RSPG will focus its activities on the digital single market, in particular the Telecoms Regulatory Framework issues, 5G technologies and spectrum-related aspects, World

Radiocommunication Conference 2019 preparation, the Internet of Things (IoT), and assisting in bilateral negotiations between EU countries.

BRUSSELS — Eleven organizations across Europe will work to improve current technologies and design a next-generation emergency platform enabling communications from citizens to emergency call centers as part of the EMYNOS (nExt generation eMergencY commuNicatiOnS) project, which launched in September.

EMYNOS seeks to design and implement a next-generation platform, capable of accommodating rich-media emergency calls that combine voice, text and video, thus constituting a powerful tool for coordinating communication among citizens, call centers and first responders.

The project will run for two and a half years, until 1 March, 2018.



The advertisement features a firefighter in a red helmet and jacket on the left, looking thoughtful. To the right, a large computer monitor displays a complex network performance dashboard with various charts, graphs, and data tables. The background is a dark blue gradient. The text is white and yellow, providing a high-contrast look.

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Photo courtesy Motorola Solutions

Proper Parameters Enhance **Digital Performance**

Several factors, including alignment accuracy, receiver sensitivity, FM deviation measurements and transmitter signal impairments, could affect your digital radio network's performance.

By Rob Barden

Digital radio systems operate differently than legacy analog systems. Although digital radio alignments are similar to alignments used in analog radio systems, digital radios require more precise alignment to achieve optimum performance and must be verified for digital modulation performance. Proper alignment can

improve performance to maximize and deliver the high performance that digital technology was designed to provide. Improper alignments can cause degraded digital modulation accuracy, significantly impacting the receiver's ability to recover digital data.

Extensive lab testing using recorded digital radio RF transmitter param-

eters shows that modulation alignments of the radio's transmitter parameters can positively or negatively affect performance of another digital radio's receiver. In some instances, this can affect range to the same extent as a 75 percent reduction in power. With an understanding of digital radio operation and alignment, proper setting of audio filter parameters and the use of accurate deviation meters can significantly improve the performance of these radios. Conversely, using inaccurate deviation meters compounded by improper filter settings and lack of knowledge of meter specifications and operation, can dramatically and negatively impact digital radio performance.

Most RF professionals are aware of coverage studies that are related to transmit power variations. Assuming all things are equal except for power level, the coverage area becomes smaller as the radio's transmitter power level decreases. This is expected and would hold true for both analog and digital systems. However, with digital systems, additional factors can cause issues with coverage, in particular the quality of the transmitted digital signal.

Analog and Digital Differences

Just because a radio is digital does not mean the signal is always good. Digital RF transmitters have attributes that must be measured to verify the quality of the digital signal. In many digital radios, the signal quality is directly related to proper FM deviation alignment. To decode the digital waveform, the receiver must see a good-quality digital signal to decode the digital ones and zeros properly. This requires precise and accurate measurements to ensure that the radio meets its published specifications.

Many LMR technologies use digital modulation based on four-level frequency shift keying (FSK) to represent the digital ones and zeros used to transmit information over the air. 4FSK modulation means that there are four allowed frequency deviation



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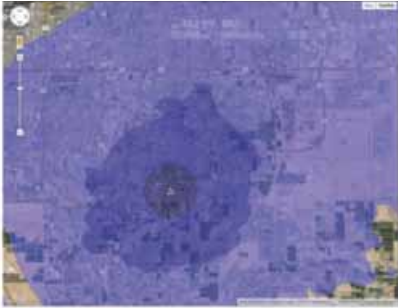
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Coverage Study with Various Site Transmitter Power Settings



Typical coverage map at 25 watts (44 dBm)



Typical coverage map at 50 watts (47 dBm)



Typical coverage map at 100 watts (50 dBm)

Images courtesy Cobham AvComm

states of the RF carrier (also called symbols) that represent the digital data. These symbols are called “dibits” and represent two bits of data per symbol: 00, 01, 10 or 11. The deviation states must be precisely synchronized with the symbol clock. The relation to the specified deviation state at the symbol clock time affects the quality of the transmitted signal and is critical to the performance of the system for both range and voice quality. For Project 25 (P25), these deviation points are -1800 Hz, -600 Hz, +600 Hz and +1800 Hz and are referenced to a symbol clock of 4,800 symbols per second. Because there are two bits per symbol, the bit rate is 9,600 bits per second (bit/s).

Digital radio receiver performance is tested using bit error rate (BER) measurements to determine the receiver sensitivity compared to signal-to-noise-and-distortion (SINAD) ratio, which is used with analog FM. Problems in the receiver will increase BER and negatively affect system performance. In a digital two-way communications system, the quality of the sending radio’s transmitter also impacts the receiver BER.

Because the transmitter must modulate the carrier with 4FSK to the precise symbol deviation at symbol clock time, how close these symbols are to the ideal frequency deviation points impacts the receiving radio’s operation. The measure of the transmitter’s accuracy is stated as modulation fidelity (in P25 systems) or 4FSK error. Transmitting a poorly modulated 4FSK signal may work during a short-range radio check; however, across any significant

distance, the RF air interface between radio transmitter and receiver cause additional impairment of any RF signal. Effects such as noise, interference, multipath and inter-symbol interference (ISI) degrade the quality of the received signal.

These differences from analog FM are why digital systems must be maintained and aligned correctly to ensure the best possible voice quality and coverage range. The accuracy of these alignments is significantly affected by the accuracy of the deviation meter used for digital alignments. Both the absolute and relative accuracy of the meter over the modulating frequency range are important factors for correct FM deviation measurements. After an

All RF signals, both analog and digital, lose amplitude and are more susceptible to noise as the radio wave propagates across a given distance. However, the effect between analog and digital is substantially different.

alignment is completed on a radio, the digital modulation performance (symbol deviation and modulation fidelity or FSK error) must also be verified. This ensures that the analog alignment actually produces a good digital signal.

All RF signals, both analog and digital, lose amplitude and are more susceptible to noise as the radio wave propagates across a given distance. However, the effect between analog and digital is substantially different. With analog FM signals, the noise is directly demodulated and present at the speaker. However, with digital 4FSK signals, the noise degrades the quality of the symbols, making recovery of the data more difficult. Improper FM deviation alignments can cause the same problem.

Deviation Meters

A deviation meter can be viewed as a peak responding AC voltmeter that is measuring the audio of the demodulated output from the test receiver. There are two different types of FM deviation measurements common in the alignment of digital radios: absolute and relative.

Absolute measurements must reference an absolute value. RF power, frequency error, audio level and deviation are examples of parameters referenced to an absolute standard. Because they are absolute, it is important to consider all factors that can impact the measurement. FM deviation meters are peak reading, therefore, other frequency components, besides the primary frequency being tested, will combine and add to the deviation level displayed on

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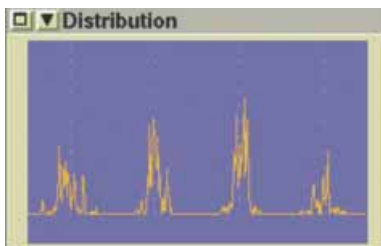
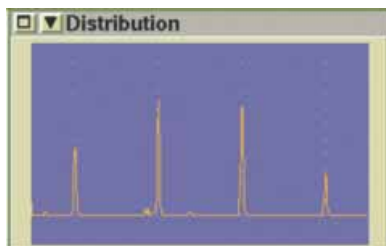
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Good 4FSK Signal Vs. Poorly Modulated Signal



A receiver will have difficulty decoding the poor signal on the right once the quality is further impaired over its propagated distance.

the meter. Noise is the largest additive contributor to deviation measurements. Most test receivers or modulation meters that use a super-heterodyne receiver allow the audio frequency (AF) and intermediate frequency (IF) filters to be set to limit the amount of noise allowed to pass through and affect the measurement.

As an example, a typical measurement for P25 radios is setting of the deviation level of a 1200 Hz tone to 2.83 kHz. This is a common adjustment and an example where absolute accuracy is required to set the deviation level, because it will directly affect the symbol deviation of the transmitter's digital signal.

Relative measurements reference a level of a tone in relation to another tone. In P25 and Digital Mobile Radio (DMR) digital radios, a low tone (for example 100 Hz) is measured and the corresponding high tone (3 kHz or 6 kHz) is set to exactly match the level of the low tone. The 3 kHz or 6 kHz tone is relative to the 100 Hz tone.

FM deviation meters must have no change in accuracy from one frequency to the next. In other words, there should be no "tilt" from one frequency to another. This is a critical parameter,

as shown by one manufacturer's specification that requires the high tone to be within 0.05 decibels (dB) of the low tone. Flatness is critical in a deviation meter for doing relative measurements.

Alleviate Errors

When selecting AF and IF filters, a wider filter will allow more noise to pass through, and that will become part of the measured signal. Therefore, the filter settings should be no wider than necessary to reduce errors caused by allowing too much noise to pass through and affect the measurement, while at the same time allowing adequate bandwidth so that the filter does not attenuate the level. There are methods to determine the proper setting. For the AF filter, the filter is typically set to twice the frequency of the tone to accommodate the tone frequency.

For IF filters, a modified Carson's rule determines the bandwidth setting. This variation of Carson's bandwidth rule states that two times the sum of the rate and deviation will pass 98 percent of the audio energy for an analog system. For digital systems, we need to obtain greater than 98 percent of the energy to obtain the most accurate reading, so the basic rule is to use three

times the sum of the rate and deviation or $3 \times (\text{rate} + \text{deviation})$.

Older FM deviation meters typically use an analog meter movement. The meters have a needle that moves a certain amount on the meter face to indicate the measured level of FM deviation. A typical specification from such an FM deviation meter follows:

Meter range: 2 kHz to 60 kHz
(full scale, 2-6-20 sequence)

Meter accuracy: ± 5 percent of reading, ± 3 percent of full scale
(1 kHz tone)

While the meter appears to have a fair level of accuracy at ± 5 percent, the specification also states ± 3 percent of full scale. For this particular meter, the available meter ranges are 2 kHz to 60 kHz in a 2-6-20 sequence. If we look at a signal modulated at 3-kilohertz deviation, we would use the 6 kHz range. The specification says that you also have to add ± 3 percent of the meter at full scale. Therefore, the meter's true accuracy can be calculated. Measuring at 3-kilohertz deviation:

± 5 percent of 3000 Hz reading
equals ± 150 Hz

± 3 percent of 6000 Hz full scale
equals ± 180 Hz

Total potential error equals
 ± 330 Hz

The actual meter accuracy at 3-kilohertz deviation is 330 Hz/3000 Hz or ± 11 percent. Another significant issue is that this type of meter is not specified for performance at audio tones other than 1 kHz. When looking at the relative deviation measurements, we need to know if the meter is flat between our two frequencies of 100 Hz and 6 kHz. With the given specification, we simply do not know the deviation meter accuracy at 100 Hz and 6 kHz. Analog meters tend to roll off after 4 kHz and when combined with improper IF and AF filter settings, can produce measurement errors of more than 20 percent. Digital meters have similar limitations in their specifications. A typical specification

Analog meters tend to roll off after 4 kHz, and when combined with improper IF and AF filter settings, can produce measurement errors of more than 20 percent. Digital meters have similar limitations in their specifications.

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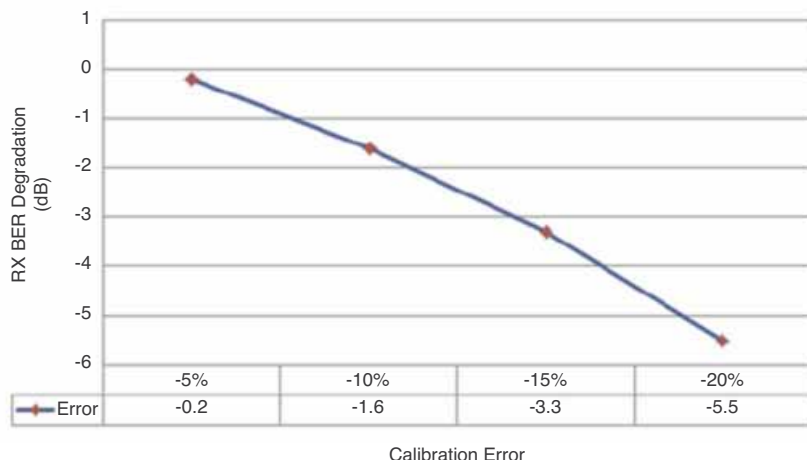
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FM Deviation Meter Error Impact on a P25 Receiver



for a meter to do alignment would be 3 percent absolute accuracy with 0 dB flatness.

Understanding how FM deviation meter errors can affect the radio's digital FSK performance, it is now possible to determine the impact that the quality of the transmitted signal has on

the ability of the receiver to decode that modulation. The table shows the impact on a P25 receiver. Because of the similarity in modulation types, these results are typical for current digital radios. In this example, using an FM deviation meter with poor accuracy, improper IF filter and AF

filter settings, or too much slope in the meter flatness can cause a receiver sensitivity impact that approaches a 6 dB loss — or an effective 75 percent reduction in power.

With a proper understanding of digital radio operations, system performance can be significantly improved. The proper setting of audio filter parameters and the use of accurate deviation meters can improve digital radio performance. Conversely, the use of inaccurate FM deviation meters compounded by improper audio filter settings and lack of knowledge of meter specifications and operation can dramatically and negatively impact digital radio performance. ■

Rob Barden is director of product marketing for Cobham AvComm (Aeroflex) and has been with the company for more than 17 years in various sales, technical marketing and product development roles. Barden has more than 32 years of experience in the test and measurement industry. Email feedback to editor@RRMediaGroup.com.

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T


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TESSCO Technologies
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Trans-Canada Energies Distribution (TCED)
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(B=bidirectional, L=line driver, RF=RF power, S=signal boosters, T=lower top)

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AIR802 (B, S)
Antcom (RF)
Antennentechnik Bad Blankenburg (B, L, RF, S, T)
Axell Wireless (B)
Barrett Communications (RF)
BHE Bonn Hungary Electronics (B, RF)
Bird Technologies (B, S, T)
Broadcast Microwave Services (RF)
CML Microcircuits (RF)
Codan Radio Communications (RF)
CommScope (B, RF, S, T)
Comprod Communications (B, RF, S, T)
Cubic Defense Systems (RF, S)
Data Comm for Business (B)
dbSpectra (T)
Deltanode Solutions (B, S)
El Paso Communications Systems (B, S)
EMR (B, RF, S, T)
Etelm (B)
Etherstack (RF)
European Telecommunications S.A. (ETSA) (B, RF, T)
Fiber-Span (B, S)
Filtron Wireless (T)
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FreeWave Technologies (B)
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G-Wave Solutions (B, L, RF, S, T)
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L-Com (B, S)
LMR Systems (S)
Metric Systems (RF)
Motorola Solutions (RF)
Nautic Devices (RF)
Praxsym (B, RF)
Radio Frequency Systems (RFS) (B, T)
Response Microwave (RF)
RFI (B, RF, S, T)
RF Technology (RF)
Roger GPS (S)
Rojone (B, L, RF, S, T)
Schnoor Industrieelctronik (RF)
See Telecom (B, S)
Selecrom (B, L, RF, S, T)
Sinclair Technologies (B, L, RF, S, T)
Sirio Antenna (B, RF)
Skymasts Antennas (B)
Smooth Talker (Mobile Communications) (B, RF, S)
Sonic Communications International (RF)
Sonik Messaging Systems (RF)
Spectra Engineering (RF)
Tait Communications (RF)
Tallysman Wireless (L)
Telewave (T)
Telsate Telecomunicações (B, RF, S)
TXL Communications (RF)
TX RX Systems Bird Technologies (B, S, T)
Webb Industries (RF, T)
weBoost (B, RF, S)
Westell Technologies (B, S)

ANTENNAS

(B=base station, D=DAS, E=embedded, G=GPS, I=in-building, MW=microwave, M=mobile, MB=multiband portable, P=portable, S=satellite, SA=smart/adaptive, W=wireless and mobile data)
2J Antenna (B, E, G, I, M, SA, W)
4RF (MW)
Aaronia USA (B, I, MW, W)
AIR802 (B, G, I, MW, M, SA, W)

Alcatel-Lucent (I, MW, W)
Alpha Technical Services (B)
Aluma Tower (M, P, SA, W)
Antcom (B, E, G, I, MW, M, P, S, SA, W)
Antenna Plus (G, I, M, W)
Antennentechnik Bad Blankenburg (B, E, G, I, MW, M, MB, P, S, SA, W)
Axell Wireless (D, I)
Barrett Communications (B, M, P)
Berkeley Varitronics Systems (MW)
Bird Technologies (B)
Broadcast Microwave Services (MW)
CalAmp (B, G, W)
Call24 Wireless Call Box Systems (B, M)
Carlson Wireless Technologies (CWT) (B, MW, W)
Ceracon Networks (W)
Cobalt AV Comtronics (B, G, I, M, W)
Cobham Antenna Systems (B, D, E, G, I, MW, M, MB, P, S, SA, W)
Cobham SATCOM Land Systems (S)
Codan Radio Communications (B, M, P)
CommScope (B, I, MW, SA, W)
Comprod Communications (B, G, I, M, W)
Comsystems Solutions (B, M, P, W)
Comtelco (B, E, G, I, MW, M, P, S, W)
Covert Systems (MW)
Cubic Defense Systems (M)
Dali Wireless (D, I, W)
Data Comm for Business (MW)
dbSpectra (B, D, I, W)
DragonWave (MW)
EF Johnson Technologies (M, MB, P, W)
El Paso Communications Systems (B, E, G, M, MB, P, W)
EMR (B, E, I, M, P)

Procom (B, E, G, I, MW, M, P, S, SA, W)
Prostar Batteries (P)
Pulse Electronics/Larsen Antennas (B, D, E, G, I, MW, M, P, W)
Pyramid Communications (G)
Quantum Electronics (B, M, P)
RAD Data Communications (B, MW, W)
Radial Firm (B, I, W)
Radio Frequency Systems (RFS) (B, I, MW)
RadioMobile (G, W)
Rajant (B)
Raytheon JPS Communications (W)
Relm Wireless (G, P)
Response Microwave (G, I, MW, W)
RFI (B, E, G, I, M, MB, W)
Roger GPS (G, I, S)
Rojone (B, E, G, I, MW, M, P, S, SA, W)
Royal Communications International (B)
Rugged Radios (M, MB, P)
Scan Antenna (B, E, G, I, MW, M, MB, P, S, SA, W)
Selecrom (D, I, M, SA, W)
Sinclair Technologies (B, E, G, I, MW, M, P, S, SA, W)
Sirio Antenna (B, D, MW, MB, W)
Skymasts Antennas (B, G, I, MW, M, W)
Smooth Talker (Mobile Communications) (D, I, W)
SOLiD (D, W)
Spectracom (MW, W)
STI-CO Industries (B, E, M, P, W)
Swissphone Wireless (B)
Tallysman Wireless (E, G, S)
Tassta (B, G, M, W)
TE Connectivity (D)
Tekk International (P)
TeleCommunication Systems (TCS) (D, G, I, S)
Telewave (B, I, W)
Telsate Telecomunicações (B, G, I, MW, M, P, W)
Teltronic S.A. Unipersonal (I)
Thales Defense & Security (P)
TX RX Systems Bird Technologies (B)
Unimo Technology (P)
Ventev Wireless Infrastructure (D, I, MB, W)
Wade Antenna/Taco Antennas (B, I, W)
Webb Industries (B, G, I, MW, M, P, W)
weBoost (D, I, W)
Westell Technologies (B, D, I)

BASE STATIONS/REPEATERS

(I=in-building, M=mobile radio, P=paging)
Advanced Digital Systems (M)
Airbus Defence and Space (Cassidian) (M)
Alcatel-Lucent (I, M)
Alligator Communications (M)
Aluma Tower (M)
Axell Wireless (I, M)
Barrett Communications (M)
BHE Bonn Hungary Electronics (I, M, P)
Bird Technologies (M)
BridgeCom Systems (I, M)
CalAmp (M)

Call24 Wireless Call Box Systems (M)
Cobalt AV Comtronics (M)
Cobham Antenna Systems (I)
Codan Radio Communications (I, M, P)
CommScope (I, M)
Comsystems Solutions (I, M)
CPI Communications (M)
Damm Cellular Systems (I, M)
Deltanode Solutions (I)
Digital Paging, Golden Sab (P)
EF Johnson Technologies (M, P)
El Paso Communications Systems (I, M)
EMR (I, P)
Etherstack (I, M)
European Telecommunications S.A. (ETSA) (I, M)
Fiplex Communications (I)
Futurecom Systems Group (I, M)
Galtronics (I)
Global Wireless Technologies (I, M)
G-Wave Solutions (I, M, P)
Harris (I, M)
Hytera Communications (I, M)
Hytera Mobilfunk (I, M)
Icom (I, M)
I.D. Systems (M)
Innovative Circuit Technology (ICT) (M)
IPMobileNet (M)
JVCKENWOOD (M)
JVCKENWOOD USA (I, M)
Kirisun Communications (M)
Kirmuss & Associates/Infinity Advanced Technologies (M)
Laird (I, M)
LMR Systems (M, P)
MCV Microwave (I)
Metric Systems (I)
Midian Electronics (M, P)
Midland Radio (I, M)
Motorola Solutions (M)
Prism — IPX Systems (P)
Prostar Batteries (M)
Quantum Electronics (I, M)
Radio Activity (M)
Radiodata (I, M)
Radio Frequency Systems (RFS) (M)
RadioMobile (I, M)
Raveon Technologies (M, P)
Relm Wireless (I, M)
Rexon Technology (I, M)
RFI (I, M, P)
RF Technology (M, P)
Ritron (I, M)
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Royal Communications International (M)
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Selecrom (I, M)
Selex Eltag (I, M)
Simoco (I, M)
Sinclair Technologies (I, M, P)
SkySweep Technologies (I, M)
Smooth Talker (Mobile Communications) (I)
SOLiD (I, M, P)
Sonik Messaging Systems (M, P)
Spectra Engineering (I, M, P)
Spok (P)
Star Solutions International (M)
Swissphone Wireless (M, P)
Tait Communications (I, M, P)

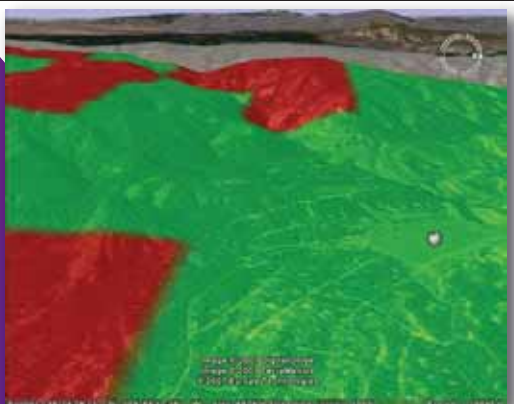
Terrain Analysis Package (TAP™)

Path Design

- VHF/UHF Links
- Microwave Links
- Reliability Studies

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- Land Mobile
- Ground-to-Air
- Terrain Shadowing



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Tekk International (M, P)
Telsate Telecomunicações
(I, M)
Teltronic S.A. Unipersonal
(M)
Temwell (I, M)
TX RX Systems Bird
Technologies (I)
Vertex Standard (M)
Westell Technologies (M)
Westel Wireless Systems
(M)
WiPath Communications
(M, P)
Wireless Pacific (M)
ZTE Trunking Technology
(I, M)

BATTERY EQUIPMENT (Portable Radio)

ANALYZERS/ CONDITIONERS

Advanced Charger
Technology
AdvanceTec Industries
Antcom
Asentria
BatteryJack
BatteryZone
Cadex Electronics
CanCom Radio Accessories
Eagle Eye Power Solutions
Global Technology Systems
Kendoo Technology
Kirmuss & Associates/
Infinity Advanced
Technologies
Maha Energy
Motorola Solutions
Power Products
W&W Manufacturing

BATTERIES

Advanced Charger
Technology
Aria Industrial
BatteryJack
BatteryZone
Cadex Electronics
CanCom Radio Accessories
Cape Products USA
EF Johnson Technologies
El Paso Communications
Systems
Emerging Power
Entel UK
Global Technology Systems
Harris
Hytera Communications
Impact Power Technologies
JVCKENWOOD
JVCKENWOOD USA
Kendoo Technology
Kirmuss & Associates/
Infinity Advanced
Technologies
Laird
Maha Energy
Midland Radio
Motorola Solutions
Nautic Devices
Oy Stop Noise Finland
PJ & RHS
Positive Charge
Power Products
Prostar Batteries
Quantun Electronics
ReIm Wireless
Rugged Radios
Safety Innovations
International
Samhoo Science &
Technology
Satel
Simoco
Sonic Communications
International
Tait Communications
TecNet International
Telsate Telecomunicações
Thales Defense & Security

Trans-Canada Energies
Distribution (TCED)
Unimo Technology
W&W Manufacturing
Wireless Pacific

BATTERY CHARGERS

Advanced Charger
Technology
AdvanceTec Industries
Aria Industrial
Astron
Ballard Power Systems
BatteryJack
BatteryZone
Cadex Electronics
CanCom Radio Accessories
Cape Products USA
Eagle Eye Power Solutions
EF Johnson Technologies
El Paso Communications
Systems
Global Technology Systems
Harris
Impact Power Technologies
Impact Radio Accessories
Innovative Circuit
Technology (ICT)

JVCKENWOOD

Kendoo Technology
Kirmuss & Associates/
Infinity Advanced
Technologies
Klein Electronics
Lind Electronics
Maha Energy
Midland Radio
Motorola Solutions
Nautic Devices
Oy Stop Noise Finland
PJ & RHS
Positive Charge
Power Products
ProClip USA
Prostar Batteries
Quantun Electronics
Rugged Radios
Safety Innovations
International
Samlex America
Simoco
Tait Communications
TecNet International
Telsate Telecomunicações
Thales Defense & Security
Threat4
Trans-Canada Energies
Distribution (TCED)
Unimo Technology
W&W Manufacturing
Wireless Pacific
Xantrex Technology

BROADBAND DEVICES

MDTS

CalAmp
Comm-Net 2000
Manufacturing
FDM Software
IDA
I.D. Systems
JVCKENWOOD USA
LMR Systems
Logistic Systems
Motorola Solutions
NeoTerra Systems
Pyramid Communications
RadioMobile
Tait Communications
Teltronic S.A. Unipersonal
TETRAtab
WiPath Communications

MODEMS

Advanced Digital Systems
Alligator Communications
CalAmp
CML Microcircuits
Cobalt AV Comtronics
Codan Radio
Communications
Data Comm for Business

DataSoft
DragonWave
General Dynamics Mission
Systems
HAL Communications
Harris
IDA
IPMobileNet
Kantronics
Keysight Technologies
Midian Electronics
Mobile Mark
Motorola Solutions
Radiocrafts
Radio IP Software
RadioMobile
Raveon Technologies
Raytheon JPS
Communications

Ritron
Rojone
Sentor Control Systems
Sierra Wireless
SkySweep Technologies
Smooth Talker (Mobile
Communications)
Sonim Technologies
Tait Communications
TecNet International
Telsate Telecomunicações
TETRAtab
PDA's
BatteryJack
CML Microcircuits
Elektrobit
El Paso Communications
Systems

General Dynamics Mission
Systems
Kirmuss & Associates/
Infinity Advanced
Technologies
Logistic Systems
Motorola Solutions
On Demand
Communications
Sonim Technologies
Teltronic S.A. Unipersonal
TETRAtab
Thales Defense & Security

ROUTERS

Aviat Networks
Cisco Systems
Dragonitech Systems
Harris

Motorola Solutions
On Demand
Communications
Sentor Control Systems
Sierra Wireless
SkySweep Technologies
TeleCommunication
Systems (TCS)
Vocality
ZTE Trunking Technology

RUGGEDIZED LAPTOPS

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Comsystems Solutions
Elektrobit
General Dynamics Mission
Systems
Getac

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Infinity Advanced
Technologies
Motorola Solutions
RadioMobile
Raytheon JPS
Communications
Solacom Technologies
TETRAtab

SMARTPHONES

General Dynamics Mission
Systems
Harris
Motorola Solutions
On Demand
Communications
Sonim Technologies
Tassta
ZTE Trunking Technology

TABLETS

BatteryJack
Comsystems Solutions
Elektrobit
General Dynamics Mission
Systems
Getac
Harris
IHM
JLT Mobile Computers
Kirmuss & Associates/
Infinity Advanced
Technologies
Motorola Solutions
On Demand
Communications
RadioMobile

Smooth Talker (Mobile
Communications)
Sonim Technologies
Tassta
TETRAtab
ZTE Trunking Technology

USBs AND DONGLES

General Dynamics Mission
Systems
Motorola Solutions
On Demand
Communications
Tassta
ZTE Trunking Technology

WIRELESS ACCESS POINTS

Cisco Systems
DragonTech Systems
Firetide
Icom
L-Com
Motorola Solutions
On Demand
Communications
Sierra Wireless
SkySweep Technologies
Tassta
Trango Systems
Vocality
ZTE Trunking Technology

BROADBAND INFRASTRUCTURE

LTE eNodeBs
Alcatel-Lucent
Cisco Systems
Etelm
General Dynamics Mission
Systems
Global Wireless
Technologies

Harris
Motorola Solutions
Rohill Engineering
Star Solutions International
Teltronic S.A. Unipersonal
Temwell
Thales Defense & Security
Valid8.com
ZTE Trunking Technology

LTE EVOLVED PACKET CORE

Alcatel-Lucent
Athonet
Cisco Systems
Etelm
General Dynamics Mission
Systems
Global Wireless
Technologies
Harris
Motorola Solutions
Rohill Engineering
Star Solutions International
Teltronic S.A. Unipersonal
Thales Defense & Security
Valid8.com
ZTE Trunking Technology

LTE HOME SUBSCRIBER SERVER

Alcatel-Lucent
Cisco Systems
Harris
Motorola Solutions
Rohill Engineering
Star Solutions International
Thales Defense & Security
Valid8.com
ZTE Trunking Technology

LTE SMALL CELL TECHNOLOGY

Cobham Antenna Systems
Etelm
Galtronics
Genesis Technical Systems
Global Wireless
Technologies
Laird
Nextmove Technologies
Rohill Engineering
SOLiD
Star Solutions International
Valid8.com
ZTE Trunking Technology

MESH NETWORKS

AIR802
Alcatel-Lucent
Cisco Systems
Cobalt AV Comtronics
Cobham Antenna Systems
Cobham SATCOM Land
Systems
CommScope
Covert Systems
DataSoft
DragonTech Systems
Elektrobit
El Paso Communications
Systems
Exelis
Firetide
FreeWave Technologies
General Dynamics Mission
Systems
Global Wireless
Technologies
Hytera Mobilfunk
I.D. Systems
IPMobileNet
Metric Systems
Motorola Solutions
Nextmove Technologies
On Demand
Communications
Radiocrafts
Radio IP Software
Rajant
Raytheon JPS
Communications
Selex Elsas
Solarcraft
Temwell

MICROWAVE BACKHAUL

4RF
Alcatel-Lucent
Antcom
Artevea Digital
Aviat Networks
BHE Bonn Hungary
Electronics
Broadcast Microwave
Services
Carlson Wireless
Technologies (CWT)
Ceracon Networks
Cobham Antenna Systems
CommScope
DragonWave
Fairview Microwave
Genesis Technical Systems
Global Wireless
Technologies
Lightpointe
Communications
Nextmove Technologies
Praxsym
Procom
RAD Data Communications
Raytheon JPS
Communications
RFI
Rojone
Sentor Control Systems
SOLiD
Spectracom
Trango Systems

REPEATERS/BRIDGES

Advanced Digital Systems

AIR802
Alligator Communications
BridgeCom Systems
CalAmp
Cobalt AV Comtronics
**Codan Radio
Communications**
Comlab
Comm-Net 2000
Manufacturing
Damm Cellular Systems
Etelm
Etherstack
Firetide
Futurecom Systems Group
General Dynamics Mission
Systems
Global Wireless
Technologies
GPS Networking
Harris
LMR Systems
Midian Electronics
Motorola Solutions
OmniTronics
On Demand
Communications
Penta
RAD Data Communications
RadioMobile
Raytheon JPS
Communications
RF Technology
Rojone
See Telecom
Selemcom
SkySweep Technologies
Smooth Talker (Mobile
Communications)
SOLiD
Spectra Engineering
Tait Communications
Tassta
Telsate Telecomunicações
Teltronic S.A. Unipersonal
Temwell

CRYSTALS/CHANNEL ELEMENTS

Fiplex Communications

DISPATCH EQUIPMENT

AUTOMATIC CALL DISTRIBUTOR (ACD)

AW Communications
Systems Ltd. (AWCSL)
Conet Solutions
Elektro-Arola
Motorola Solutions
Plantronics
Schnoor Industrielektronik
Zetron
ZTE Trunking Technology

DISPATCH FURNITURE

AFC Industries
Airbus Defence and Space
(Cassidian)
Eaton
Motorola Solutions
Schnoor Industrielektronik
Winsted
Zetron

GRAPHICS-IMAGING EQUIPMENT

Conet Solutions
Exelis
Tech Global
ZTE Trunking Technology

INTERCONNECT

Artevea Digital
AW Communications
Systems Ltd. (AWCSL)
Catalyst Communications
Technologies
Conet Solutions
Connect Systems
Cyfas Systems

Data Comm for Business
EF Johnson Technologies
Elcomplus
Exelis
GAI-Tronics
Hoag Electronics
IDA
Kolibri Systems
LMR Systems
Midian Electronics
Motorola Solutions
Mutualink
NHRC Repeater Controllers
OmniTronics
Pantel International
Penta
Raytheon JPS
Communications
Selex Elsas
Sentor Control Systems
Simoco
Tait Communications
Vocality
Zetron

RADIO CONSOLES

Artevea Digital
Avtec
AW Communications
Systems Ltd. (AWCSL)
Bosch Security Systems,
dba Telex Radio Dispatch
BridgeCom Systems
Catalyst Communications
Technologies
Collicomm, dba NCS
CPI Communications
Cyfas Systems
EF Johnson Technologies
Elcomplus
Etelm
Etherstack
Exelis
GAI-Tronics
Harris
IDA
IHM
Midian Electronics
Motorola Solutions
OmniTronics
Pantel International
Penta
Raveon Technologies
Raytheon JPS
Communications
Schnoor Industrielektronik
Sepura
Simoco
TecNet International
Telsate Telecomunicações
Teltronic S.A. Unipersonal
Zetron
ZTE Trunking Technology
**TURNKEY SYSTEMS
(BUSINESS/INDUSTRY)**
Airbus Defence and Space
(Cassidian)
Artevea Digital
AW Communications
Systems Ltd. (AWCSL)
Bosch Security Systems,
dba Telex Radio Dispatch
BridgeCom Systems
Conet Solutions
Cyfas Systems
Cyrus
EF Johnson Technologies
Elcomplus
Etelm
Etherstack
Exelis
Frequentis
Hytera Communications
Hytera Mobilfunk
IHM
InterAct
Intergraph
Motorola Solutions
Pantel International
Penta
RadioMobile



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by Cellxion, div. of
Sabre Industries
Selex Elsig
Sentor Control Systems
Simoco
Solacom Technologies
Special Electronics and
Designs
Swissphone Wireless
Tait Communications
Teltronic S.A. Unipersonal
Zetron

DISTRIBUTORS/REPS
(See Distributors/Reps
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**ENCRYPTION/
SCRAMBLING**

Aviat Networks
AW Communications
Systems Ltd. (AWCSL)
Cimarron Technologies
**Codan Radio
Communications**
Comsystems Solutions
Conet Solutions
Data Comm for Business
Engage Communication
Funkwerk Security
Communications
General Dynamics Mission
Systems
Harris
Kantronics
LMR Systems
Midian Electronics

Midland Radio
Radio IP Software
Raveon Technologies
Simoco
Tait Communications
Tekk International
Telsate Telecomunicações
Teltronic S.A. Unipersonal
Titan Communication
Systems
Vocality
Westel Wireless Systems

**LOCATION SYSTEMS
EQUIPMENT**

ANI/ALI

AW Communications
Systems Ltd. (AWCSL)
Cimarron Technologies
El Paso Communications
Systems
Exacom
FDM Software
Hoag Electronics
InterAct
Intergraph
Midian Electronics
Motorola Solutions
Penta
Raveon Technologies
Rohill Engineering
Tait Communications
TeleCommunication
Systems (TCS)
Telsate Telecomunicações
Teltronic S.A. Unipersonal
TruePosition
Zetron

ASSET TRACKING/RFID
Barrett Communications

Comm-Net 2000
Manufacturing
Cubic Defense Systems
Dragontech Systems
Etelm
FDM Software
IDA
I.D. Systems
InSight Mobile Data
Laird
LMR Systems
Mobile Mark
Motorola Solutions
NeoTerra Systems
Panorama Antennas
Raveon Technologies
Rojone
Sentor Control Systems
Siemens Convergence
Creators
Skymasts Antennas
SLA
Smooth Talker (Mobile
Communications)
Tallysman Wireless

AVL/GPS

(A=AVL, G=GPS)
Antcom (G)
Antenna Plus (A, G)
Artevea Digital (A)
Aseatria (G)
AW Communications
Systems Ltd. (AWCSL)
(A, G)
CalAmp (A, G)
CML Microcircuits (G)
Cobham Antenna Systems
(G)
**Codan Radio
Communications** (A)

Comm-Net 2000
Manufacturing (A, G)
CommScope (A, G)
Cyfas Systems (A)
Cyrus (A, G)
Damm Cellular Systems
(A)
Dragontech Systems (A, G)
Elcomplus (A, G)
Elektro-Arola (A, G)
El Paso Communications
Systems (G)
Etelm (A)
Etherstack (A, G)
FATPOT Technologies (A, G)
FDM Software (A, G)
Funkwerk Security
Communications (G)
GPS Networking (G)
Harris (A, G)
Hoag Electronics (A, G)
Hytera Communications (A)
Hytera Mobilfunk (A)
IDA (A, G)
I.D. Systems (G)
IHM (A, G)
InSight Mobile Data (A, G)
Integrated Tracking
Solutions (A, G)
InterAct (G)
Intergraph (A)
IPMobileNet (G)
Iveda (G)
JLT Mobile Computers (G)
JVCKENWOOD (A, G)
JVCKENWOOD USA (A, G)
Kantronics (A, G)
Kirmuss & Associates/
Infinity Advanced
Technologies (G)
LMR Systems (A)
Logistic Systems (A, G)

MCV Microwave (G)
Microlab (G)
Midian Electronics (G)
Midland Radio (A)
Mobile Mark (A, G)
Mobility Sound Technology
(G)
Motorola Solutions (A, G)
NeoTerra Systems (A, G)
On Demand
Communications (G)
Panorama Antennas (G)
Pantel International (A)
Pryme Radio Products (A, G)
Pyramid Communications
(A, G)
Quantun Electronics (G)
Radio IP Software (G)
RadioMobile (A, G)
Raveon Technologies (A, G)
Raytheon JPS
Communications (A, G)
Roger GPS (A, G)
Rohill Engineering (A, G)
Rojone (A, G)
Selex Elsig (A, G)
Sentor Control Systems
(A, G)
Siemens Convergence
Creators (A, G)
Sierra Wireless (A, G)
Simoco (A, G)
Skymasts Antennas (A, G)
SkySweep Technologies
(A, G)
SLA (A, G)
Smooth Talker (Mobile
Communications) (G)
Spectracom (G)
Tait Communications (A)
Tallysman Wireless (A, G)
Tassta (A, G)

TecNet International (A, G)
TeleCommunication
Systems (TCS) (G)
Telsate Telecomunicações
(G)
Teltronic S.A. Unipersonal
(A, G)
Thales Defense & Security
(G)
TRBOnet (A, G)
TriTech Software Systems
(A, G)
TruePosition (A, G)
Vecima Networks (G)
Verint Systems (A)
Webb Industries (G)
WiPath Communications
(A, G)
Zetron (A, G)

**MOBILE RESOURCE
MANAGEMENT**

AW Communications
Systems Ltd. (AWCSL)
CalAmp
Elektro-Arola
FDM Software
Global Wireless
Technologies
IDA
I.D. Systems
InSight Mobile Data
Intergraph
Iveda
Kolibri Systems
NeoTerra Systems
Raveon Technologies
Raytheon JPS
Communications
Rojone
Selex Elsig
Sentor Control Systems

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AFFORDABLE
SIMPLE

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TELCO
EXPENSIVE
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Smooth Talker (Mobile Communications)
Syntech Systems
Teltronic S.A. Unipersonal
TRBOnet
WiPath Communications

MODEMS/TRANSMITTERS

Antenna Plus
CalAmp
CML Microcircuits
Comm-Net 2000
Manufacturing
Elektro-Arola
El Paso Communications
Systems
FreeWave Technologies
Global Wireless
Technologies

HAL Communications

IDA
I.D. Systems
Impact Radio Accessories

JVCKENWOOD

Kantronics
Linx Technologies
Midian Electronics
Midland Radio
Pyramid Communications
Radiocrafts
RadioMobile
Raveon Technologies
Raytheon JPS
Communications

Satel
Sentor Control Systems
Sierra Wireless
Simoco

Smooth Talker (Mobile Communications)
Spectra Engineering
TecNet International
Tekk International
Telsate Telecomunicações
Teltronic S.A. Unipersonal
Vecima Networks

MOBILE MOUNTS

Comprod Communications
Comsystems Solutions
Gamber-Johnson
Holzberg Communications
L-Com
Precision Mounting
Technologies
ProClip USA
RadioMobile
Sinclair Technologies
TETRAtab
Wade Antenna/
Taco Antennas

PAGING/MESSAGING EQUIPMENT

PAGER RECEIVERS

CML Microcircuits
Codan Radio Communications
Cyfas Systems
Digital Paging, Golden Sab
Funkwerk Security
Communications
LMR Systems
Motorola Solutions
Prism – IPX Systems
Raveon Technologies
SCA
Sinclair Technologies
Sonik Messaging Systems
Spok
Swissphone Wireless
Unimo Technology
United Communications
Veetronix
WiPath Communications

TERMINALS

Cyfas Systems
Funkwerk Security
Communications
Prism – IPX Systems
Raveon Technologies

Sonik Messaging Systems
Spok
Zetron

TRANSMITTERS/ RF CONTROLLERS

Berkeley Varitronics
Systems
CeoTronics
CML Microcircuits
Codan Radio Communications
Connect Systems
Cyfas Systems
Digital Paging, Golden Sab
Elektro-Arola
Funkwerk Security
Communications
IHM

Linx Technologies
Midian Electronics
Motorola Solutions
NHRC Repeater Controllers
Penta

Prism – IPX Systems

Radiocrafts

Raveon Technologies

RF Technology

Ritron

Sinclair Technologies

Sonik Messaging Systems

Spectra Engineering

Spok

Swissphone Wireless

Tait Communications

Tekk International

Temwell

WiPath Communications

Zetron

TWO-WAY MESSAGING DEVICES

Airbus Defence and Space
(Cassidian)
Artevea Digital

CeoTronics

Cimarron Technologies

CML Microcircuits

Codan Radio Communications

IDA

I.D. Systems

Motorola Solutions

Mutualink

NHRC Repeater Controllers

On Demand

Communications

Prism – IPX Systems

Radiocrafts

RadioMobile

Sentor Control Systems

SkySweep Technologies

Sonik Messaging Systems

Spok

Swissphone Wireless

Teltronic S.A. Unipersonal

Temwell

TRBOnet

WiPath Communications

VOICE STORAGE/ RETRIEVAL SYSTEMS

Artevea Digital
Call24 Wireless Call Box
Systems

CML Microcircuits

CVDS

Exacom

Midian Electronics

Motorola Solutions

NHRC Repeater Controllers

Omicron Electronics

On Demand

Communications

Prism – IPX Systems

Record Play Tek (RPT)

Rohill Engineering

Sentor Control Systems

Sonik Messaging Systems

Spok

Stancil

POWER SUPPLIES/ EQUIPMENT

BACKUP SYSTEMS

Alfatronix
Ballard Power Systems
CommScope
DuraComm
Eagle Eye Power Solutions
Innovative Circuit
Technology (ICT)
Kyocera Solar
MCV Microwave
Motorola Solutions
Newmar
Pioneer Energy Products
(PEPRO)

Plug Power
Samlex America
Sentor Control Systems
Solarcraft

Spectra Engineering

Telsate Telecomunicações

Trans-Canada Energies

Distribution (TCED)

VFP

Winco

Xantrex Technology

CONVERTERS/INVERTERS

(C=converters, I=inverters)

Absopulse Electronics (C, I)

AIR802 (C)

Alfatronix (C)

Astron (C, I)

El Paso Communications

Systems (I)

Innovative Circuit

Technology (ICT) (C)

Kyocera Solar (I)

Lind Electronics (C, I)

MCV Microwave (C, I)

Motorola Solutions (C)

Newmar (C, I)

Pioneer Energy Products

(PEPRO) (C, I)

Rajant (C)

Samlex America (C, I)

Solarcraft (C, I)

TCC Industries (C)

Telsate Telecomunicações

(C, I)

Trans-Canada Energies

Distribution (TCED) (C, I)

Wilmore Electronics (C, I)

Xantrex Technology (C, I)

GENERATORS

Aluma Tower

Ballard Power Systems

Dupont Building

Plug Power

Solarcraft

Trans-Canada Energies

Distribution (TCED)

VFP

Winco

LOAD-MANAGEMENT EQUIPMENT

911 Circuits

Comm-Net 2000

Manufacturing

Lind Electronics

MCV Microwave

Sentor Control Systems

POWER SUPPLIES

Absopulse Electronics

AIR802

Alfatronix

Alinco, Electronics div.

Astron

DuraComm

Eaton

El Paso Communications

Systems

EMR

Hytera Communications

Hytera Mobilfunk

Innovative Circuit
Technology (ICT)

Kyocera Solar

Lind Electronics

Newmar

Precision Mounting

Technologies

Quantum Electronics

RF Technology

Samlex America

Solarcraft

Spectra Engineering

Trans-Canada Energies

Distribution (TCED)

Winco

SHUT-OFF TIMERS

911 Circuits

Alfatronix

Comm-Net 2000

Manufacturing

Lind Electronics

SOLAR POWER EQUIPMENT

Ballard Power Systems

BatteryJack

Carlson Wireless

Technologies (CWT)

DuraComm

El Paso Communications

Systems

Funk-Electronic Piciorgros

Innovative Circuit

Technology (ICT)

Kyocera Solar

Lind Electronics

MCV Microwave

RFI

Ritron

Solarcraft

Trans-Canada Energies

Distribution (TCED)

Unimar

Winco

Xantrex Technology

UNINTERRUPTIBLE POWER SUPPLIES

Absopulse Electronics

Alfatronix

Ballard Power Systems

Comm-Net 2000

Manufacturing

DuraComm

Eaton

Hytera Communications

Hytera Mobilfunk

Innovative Circuit

Technology (ICT)

MCV Microwave

Newmar

Selex Eltag

Solarcraft

Trans-Canada Energies

Distribution (TCED)

VFP

UPS BATTERIES

BatteryJack

Global Technology Systems

Innovative Circuit

Technology (ICT)

Laird

Lind Electronics

MCV Microwave

Motorola Solutions

Newmar

Solarcraft

Sonic Communications

International

Telsate Telecomunicações

Trans-Canada Energies

Distribution (TCED)

VFP

WIND POWER EQUIPMENT

Sentor Control Systems

Trans-Canada Energies

Distribution (TCED)

EMERGENCY NUMBER EQUIPMENT

CAD SOFTWARE/SYSTEMS

AGENT511

Antcom

Artevea Digital

Avtec

Beta 80 International

Cyrus

Elcomplus

FDM Software

Frequentis

Genesis Group

Hytera Communications

Hytera Mobilfunk

IDA

IHM

Infors Public Sector

InterAct

Intergraph

Kolibri Systems

Logistic Systems

Midian Electronics

Motorola Solutions

Pantel International

RadioMobile

Selex Eltag

Siemens Convergence

Creators

Spectracom

Stratus Technologies

Teltronic S.A. Unipersonal

TriTech Software Systems

Zetron

LOCATION EQUIPMENT

AGENT511

Cisco Systems

CommScope

HigherGround

Kolibri Systems

Motorola Solutions

Roger GPS

Solacom Technologies

Tech Global

TeleCommunication

Systems (TCS)

Teltronic S.A. Unipersonal

TruePosition

Westell Technologies

Zetron

IN-BUILDING

Bird Technologies

CommScope

EDX Wireless

Schnoor Industrielektronik
Selex Elsas
Sentor Control Systems
Siemens Convergence
Creators
Swissphone Wireless
Tassta
ZTE Trunking Technology

AUTOMATIC NOTIFICATION SYSTEMS

AtHoc
Bosch Security Systems
Cimarron Technologies
CML Microcircuits
Conet Solutions
Decodio
Etherstack
Exacom
Exelis
Funkwerk Security
Communications
IDA
I.D. Systems
IHM
Midian Electronics
Mobile Sound Technology
Motorola Solutions
NeoTerra Systems
On Demand
Communications
Pantel International
Racom Products
Rojone
Sentor Control Systems
Solacom Technologies
Syntech Systems
Tassta
Zetron

**BIOMETRICS/
FINGERPRINTING**
Afix Technologies
El Paso Communications
Systems
I.D. Systems
Motorola Solutions
Realtime North America
Sentor Control Systems
Sonim Technologies

BODY-WORN CAMERAS

Getac
Pauras Technology
Peter Jones (ILG)
Safety Innovations
International
SceneDoc
Tassta

CAD ADD-ONS/ ENHANCEMENTS

AGENT511
AW Communications
Systems Ltd. (AWCSL)
Carlson Wireless
Technologies (CWT)
Cyrus
Elektro-Arola
Exelis
FATPOT Technologies
Funkwerk Security
Communications
General Dynamics Mission
Systems
IDA
Intergraph
Logistic Systems
PowerPhone
Priority Dispatch
RadioMobile

SceneDoc
Stratus Technologies
Teltronic S.A. Unipersonal
TriTech Software Systems
TwitCo Distributing
(ParMarLow)
Zetron

CALL BOXES

Call24 Wireless Call Box
Systems
CanCom Radio Accessories
Exelis
GAI-Tronics
IHM
Ritron
Sentor Control Systems
Special Electronics and
Designs
Tekk International

EARLY WARNING SYSTEMS

Alcatel-Lucent
AtHoc
AW Communications
Systems Ltd. (AWCSL)
CML Microcircuits
Cubic Defense Systems
Eagle Eye Power Solutions
Elektro-Arola
GAI-Tronics
IDA
Kycocera Solar
Narda Safety Test Solutions
NeoTerra Systems
Pantel International
Racom Products
Ritron
Sentor Control Systems
SkySweep Technologies
Solacom Technologies

Whelen Engineering
ZTE Trunking Technology

FIELD REPORTING

AtHoc
**Codan Radio
Communications**
Cyrus
Decodio
FATPOT Technologies
FDM Software
Funkwerk Security
Communications
General Dynamics Mission
Systems
IDA
InterAct
Intergraph
Motorola Solutions
NeoTerra Systems
On Demand
Communications
SceneDoc
Sentor Control Systems
Smooth Talker (Mobile
Communications)
Syntech Systems
TETRAtab
TriTech Software Systems
TX RX Systems Bird
Technologies
ZTE Trunking Technology

INTEROPERABILITY EQUIPMENT/SYSTEMS

AGENT511
Alcatel-Lucent
AtHoc
Avtec
AW Communications
Systems Ltd. (AWCSL)
Base Camp Connect

Bosch Security Systems,
dba Telex Radio Dispatch
BridgeCom Systems
CalAmp
Catalyst Communications
Technologies
Cobham AvComm
Cobham SATCOM Land
Systems
**Codan Radio
Communications**
Collcomm, dba NCS
CommScope
Conet Solutions
Connect Systems
CPI Communications
Decodio
EF Johnson Technologies
Elektro-Arola
Etelm
Etherstack
Exelis
FATPOT Technologies
FDM Software
Fiplex Communications
**Freedom Communication
Technologies**
Frequentis
Futurecom Systems Group
General Dynamics Mission
Systems
Harris
Hytera Communications
Hytera Mobilfunk
IDA
Intergraph
Iveda
JVCKENWOOD USA
Kolibri Systems
Midian Electronics
Midland Radio
Motorola Solutions
Mutualink

NeoTerra Systems
Nodcom
OmniTronics
On Demand
Communications
Pantel International
Penta
Quintron Systems
Radio IP Software
Raven Electronics
Raytheon JPS
Communications
Relm Wireless
Rohill Engineering
SceneDoc
Selex Elsas
Sentor Control Systems
Siemens Convergence
Creators
Sinclair Technologies
SkySweep Technologies
Special Electronics and
Designs
Spectracom
Tait Communications
TeleCommunication
Systems (TCS)
Telewave
Teltronic S.A. Unipersonal
Thales Defense & Security
TX RX Systems Bird
Technologies
Valid8.com
Vertex Standard
Vocality
Westel Wireless Systems
Wireless Pacific
Zetron
ZTE Trunking Technology

**MOBILE COMMUNICATIONS
VEHICLES**
AIR802

**When stable and reliable radio
data communications are the
highest priority,
HAL Communications
can deliver at
lower costs.**

HAL Communications CLOVER modems are known for their stable and reliable transmission of fax, email, chat and data over radio. Field proven in the most remote and inhospitable locations around the world, HAL Communications have been partnering with system integrators to provide proven solutions to meet the developing requirements of primary and backup data communications solutions covering large geographic regions.

HAL meets the needs of system integrators through product development, customization, and integration.



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Phone: (217) 367-7373 FAX (217) 367-1701
P. O. Box 365 - Urbana, IL 61803-0365 USA

www.halcomm.com



Aluma Tower
 AW Communications
 Systems Ltd. (AWCSL)
 Base Camp Connect
 Broadcast Microwave
 Services
 CalAmp
 Catalyst Communications
 Technologies
 CML Microcircuits
**Codan Radio
 Communications**
 Collcomm, dba NCS
 Conet Solutions
 Connect Systems
Damm Cellular Systems
 Decodio
 Dragontech Systems
 Elektro-Arola
 Etherstack
 Exelis
 FATPOT Technologies
 Firetide
 Frequentis
 Gamber-Johnson
 Harris
 I.D. Systems
 IHM
 Iveda
 JLT Mobile Computers
JVCKENWOOD USA
 Kantronics
 Mobile Specialty Vehicles
 Motorola Solutions
 Nextmove Technologies
 On Demand
 Communications
 Pioneer Energy Products
 (PEPRO)
 Precision Mounting
 Technologies
 Radio IP Software
 RadioMobile
 Raveon Technologies
 Raytheon JPS
 Communications
 Realm Wireless
 Selex Elsas
Sepura
 Setcom
 Sierra Wireless
 Simoco
 Sinclair Technologies
 Smooth Talker (Mobile
 Communications)
 Solacom Technologies
 Sonic Communications
 International
 Special Electronics and
 Designs
Tait Communications
 Tallysman Wireless
 Teltronic S.A. Unipersonal
 TETRAtab
 Titan Communication
 Systems
 WiPath Communications
 ZTE Trunking Technology

P25 SOFTWARE

Catalyst Communications
 Technologies
 Cimarron Technologies
 Cisco Systems
**Codan Radio
 Communications**
 Conet Solutions
 Cyrun
 Decodio
 Digital Voice Systems Inc.
 (DVS)
 EDX Wireless
EF Johnson Technologies
 Etherstack
 Exelis
 FATPOT Technologies
Genesis Group
 Harris
 IDA
 Midland Radio
 Motorola Solutions

Raytheon JPS
 Communications
 Realm Wireless
 Simoco
 SkySweep Technologies
 Tallysman Wireless
 Thales Defense & Security
 Valid8.com
Zetron

RAPIDLY DEPLOYABLE SYSTEMS

Alcatel-Lucent
 Aluma Tower
 Athonet
 AW Communications
 Systems Ltd. (AWCSL)
 Base Camp Connect
 BridgeCom Systems
 Broadcast Microwave
 Services
 Carlson Wireless
 Technologies (CWT)
 Ceragon Networks
 Cisco Systems
**Codan Radio
 Communications**
 Conet Solutions
Damm Cellular Systems
 Decodio
 Etelm
 Etherstack
 Exelis
 Firetide
 General Dynamics Mission
 Systems
 Harris
 Iveda
 On Demand
 Communications
 Pioneer Energy Products
 (PEPRO)
 Pyramid Communications
 Raveon Technologies
 Realm Wireless
 Rohill Engineering
 SceneDoc
 Sensor Control Systems
 Simoco
 SkySweep Technologies
 Sonic Communications
 International
 Star Solutions International
 TeleCommunication
 Systems (TCS)
 Teltronic S.A. Unipersonal
 TX RX Systems Bird
 Technologies
 Ventev Wireless
 Infrastructure
 Wireless Pacific
 ZTE Trunking Technology

RECORDS MANAGEMENT SYSTEMS

Artevea Digital
 ASC Americas
 Base Camp Connect
 Cyrun
 FATPOT Technologies
 FDM Software
 Frequentis
 IDA
 I.D. Systems
 Infor Public Sector
 InterAct
 Intergraph
 Logistic Systems
 Mida Solutions
 Motorola Solutions
 NeoTerra Systems
 On Demand
 Communications
 PowerPhone
 Priority Dispatch
 Safety Innovations
 International
 SceneDoc
 Siemens Convergence
 Creators
 Spectracom
 Syntech Systems

Teltronic S.A. Unipersonal
 TriTech Software Systems
 ZTE Trunking Technology

STATION ALERTING

AW Communications
 Systems Ltd. (AWCSL)
 Cimarron Technologies
 Decodio
 Elektro-Arola
 Exacom
 Exelis
 Funkwerk Security
 Communications
 Midian Electronics
 Motorola Solutions
 Sensor Control Systems
 Sonik Messaging Systems
 WiPath Communications
Zetron

SURVEILLANCE EQUIPMENT

Astra Radio
 Communications (ARC)
 Broadcast Microwave
 Services
 CanCom Radio Accessories
 CeoTronics
 Cisco Systems
 Cobalt AV Comtronics
 Cobham Antenna Systems
 Comsystems Solutions
 Covert Systems
 Cubic Defense Systems
 Digital Ally
 El Paso Communications
 Systems
 Firetide
 Iveda
 JEI Communication
 Recorders
 Jing Deng Industrial (JDI)
 Kirmuss & Associates/
 Infinity Advanced
 Technologies
 Klein Electronics
 Kyocera Solar
 Motorola Solutions
 NICE Systems
 Omnicron Electronics
 Optoelectronics
 Phonak Communications
 Racom Products
 Roger GPS
 Savox Communications
 SceneDoc
 Selex Elsas
 Sensor Control Systems
Sepura
 Signal Hound
 Sinclair Technologies
 SkySweep Technologies
 Sonic Communications
 International
 Special Electronics and
 Designs
 Spectracom
 Stone Mountain
 Telsate Telecomunicações
 Threat4
 TwitCo Distributing
 (ParMarLow)
 Verint Systems
 ZTE Trunking Technology

TURNKEY

EMERGENCY SYSTEMS

911 Circuits
 Activu
 Alcatel-Lucent
 Aluma Tower
 Artevea Digital
 AW Communications
 Systems Ltd. (AWCSL)
 Base Camp Connect
 Ceragon Networks
 Cyrun
 Decodio
 Etelm
 Etherstack
 Exacom

Exelis
 Fiplex Communications
 Frequentis
 Funkwerk Security
 Communications
Hytera Communications
Hytera Mobilfunk
 IHM
 InterAct
 Intergraph
 Motorola Solutions
 On Demand
 Communications
 Pantel International
 Raytheon JPS
 Communications
 Selex Elsas
 Sensor Control Systems
 Siemens Convergence
 Creators
 Sonik Messaging Systems
 Swissphone Wireless
 Teltronic S.A. Unipersonal
Zetron

VIDE SURVEILLANCE

Alcatel-Lucent
 Bosch Security Systems
 Bosch Security Systems,
 dba Telex Radio Dispatch
 Broadcast Microwave
 Services
 CeoTronics
 Cobalt AV Comtronics
 Cobham Antenna Systems
 Covert Systems
 Cyrun
 Digital Ally
 Dragontech Systems
 El Paso Communications
 Systems
 Firetide
 Frequentis
 General Dynamics Mission
 Systems
 Getac
 Intergraph
 Iveda
 Mobile Mark
 Motorola Solutions
 NICE Systems
 On Demand
 Communications
 Qognify
 Quintron Systems
 Rajant
 Raytheon JPS
 Communications
 SceneDoc
 Selex Elsas
 Sensor Control Systems
 SkySweep Technologies
 Sonic Communications
 International
 Special Electronics and
 Designs
 Tech Global
 Telsate Telecomunicações
 Teltronic S.A. Unipersonal
 Verint Systems
 ZTE Trunking Technology

RADIO ACCESSORIES

CARRYING CASES

A.W. Enterprises
 BatteryJack
 Bee Electronics
 CanCom Radio Accessories
 Cape Products USA
 CeoTronics
EF Johnson Technologies
 Harris
Hytera Communications
JVCKENWOOD USA
 Kendoo Technology
 Klein Electronics
 Midland Radio
 Motorola Solutions
 Oy Stop Noise Finland
 Peter Jones (ILG)
 PJ & RHS
 Realm Wireless

Rugged Radios
 Selex Elsas
 Simoco
 Smooth Talker (Mobile
 Communications)
 Sonim Technologies
 TecNet International
 Tekk International
 Thales Defense & Security
 TwitCo Distributing
 (ParMarLow)
 Unimo Technology
 Vertex Standard
 ZTE Trunking Technology

HANDS-FREE EQUIPMENT

3M Peltor
 AdvanceTec Industries
 Astra Radio
 Communications (ARC)
 BatteryJack
 CanCom Radio Accessories
 Cape Products USA
 CeoTronics
 Cobalt AV Comtronics
 Comsystems Solutions
David Clark
 Eartec
EF Johnson Technologies
 Exelis
Hytera Communications
 Imtradex
JCK Jean Couk Enterprise
 Juma Communications
 Kendoo Technology
 Klein Electronics
 Midland Radio
Mobility Sound Technology
 Motorola Solutions
 Oy Stop Noise Finland
 pei tel Communications
 Phonak Communications
 PJ & RHS
 Pryme Radio Products
 Pyramid Communications
 Quantun Electronics
Rexon Technology
 Rugged Radios
 Samhoo Science &
 Technology
 Savox Communications
 Setcom
 Simoco
 Smooth Talker (Mobile
 Communications)
 Sonic Communications
 International
 Sonim Technologies
 Special Electronics and
 Designs
 Stone Mountain
 TAM/Milicom
 TecNet International
 Tekk International
 Telsate Telecomunicações
 Thales Defense & Security
 Threat4
 Titan Communication
 Systems
 TwitCo Distributing
 (ParMarLow)
 Unimo Technology
 Wireless Pacific
 ZTE Trunking Technology

RECORDS
 BatteryJack
Hytera Communications
JCK Jean Couk Enterprise
 Label Graphics
 Motorola Solutions
 TecNet International
 Telsate Telecomunicações
 ZTE Trunking Technology

MICROPHONES
 Aria Industrial
 Astra Radio
 Communications (ARC)
 BatteryJack
 Bosch Security Systems,
 dba Telex Radio Dispatch
 CanCom Radio Accessories
 Cape Products USA
 CeoTronics
 Cobalt AV Comtronics
 Comsystems Solutions
 Covert Systems
David Clark
EF Johnson Technologies
 El Paso Communications
 Systems
 Harris
 Holzberg Communications
Hytera Communications
Hytera Mobilfunk
 Impact Radio Accessories
 Imtradex
JCK Jean Couk Enterprise
 Jing Deng Industrial (JDI)
 Juma Communications
JVCKENWOOD

JVCKENWOOD USA

Kendoo Technology
Kirmuss & Associates/
Infinity Advanced
Technologies
Klein Electronics
Midian Electronics
Midland Radio
Mobility Sound Technology
Motorola Solutions
National2Way
OTTO

Oy Stop Noise Finland
pei tel Communications
Phonak Communications
PJ & RHS
Procom
Prostar Batteries
Pryme Radio Products
Pyramid Communications
Quantum Electronics
Relm Wireless
Rugged Radios
Safety Innovations
International
Savox Communications
Selex Eltag
Setcom
Simoco
Smooth Talker (Mobile
Communications)
Sonic Communications
International
Special Electronics and
Designs
Spectra Engineering
Stone Mountain
TecNet International
Tekk International
Telsate Telecomunicações
Threat4
Titan Communication
Systems

TwitCo Distributing
(ParMarLow)
Unimo Technology
Wireless Pacific
ZTE Trunking Technology

RADIOS**MOBILES/PORTABLES**

(MA=mobiles analog,
MD=mobiles digital,
M6.25=mobiles 6.25 kHz,
MB=multiband,
PA=portables analog,
PD=portables digital,
P6.25=portables 6.25 kHz)
3M Peltor (PA, PD)
Advanced Digital Systems
(MA, MD)

Alinco, Electronics div.
(MA, MD, M6.25, MB, PA,
PD, P6.25)
Barrett Communications
(MA, PA)
BatteryJack (PA, PD)
Cape Products USA (PA)
Ceragon Networks (MD)

Codan Radio**Communications**

(MA, MD, PA, PD)

Comlab (MA, MD, MB)

Comsystems Solutions
(MA, MD, PA, PD)

Connect Systems
(MA, M6.25, PA, PD)

Cyrun (MD, PD)

Eartec (PA, PD)

EF Johnson Technologies

(MA, MD, M6.25, MB, PA,
PD, P6.25)

El Paso Communications
Systems (MA, MD, M6.25,
MB, PA, PD, P6.25)

Entel UK (PA)

Etelm (MD, PD)
Etherstack (MA, MD, M6.25,
MB, PA, PD, P6.25)
Exelis (MA, MD, PA, PD)
General Dynamics Mission
Systems (MD)
GME

(MA, MD, M6.25, PA, PD)

Harris (MA, MD, M6.25,
MB, PA, PD, P6.25)

Holzberg Communications
(PA, PD)

Hytera Communications

(MA, MD, M6.25, PA, PD,
P6.25)

Hytera Mobilfunk

(MA, MD, PA, PD)

Icom (MA, MD, M6.25, PA,
PD, P6.25)

JVCKENWOOD (MA, MD,
M6.25, PA, PD, P6.25)

JVCKENWOOD USA

(MA, MD, M6.25, PA,
PD, P6.25)

Kirisun Communications
(MA, MD, PA, PD)

Kirmuss & Associates/
Infinity Advanced

Technologies (MA, MD,
M6.25, MB, PA, PD, P6.25)

Klein Electronics
(MA, PA, PD)

Midland Radio
(MA, MD, PA, PD)

Motorola Solutions
(MA, MD, M6.25, PA,
PD, P6.25)

Nautic Devices (MD, PD)

On Demand
Communications
(MA, MD, PA, PD)

Phonak Communications
(PA, PD)

Pyramid Communications
(PD)

Quantum Electronics
(MA, MD, M6.25, PA,
PD, P6.25)

Quanzhou Risen Electronics
(MA, MD, M6.25, MB, PA,
PD, P6.25)

Radiodata (MA, MD)

Raveon Technologies
(MD, PD)

Relm Wireless
(MA, MD, PA, PD)

Rexon Technology

(MA, MD, M6.25, PA,
PD, P6.25)

Ritron (MA, M6.25, PA)

Roger GPS (MD)

Royal Communications
International (PA)

Rugged Radios
(MA, MD, PA, PD)

Samhoo Science &
Technology
(MD, M6.25, PD, P6.25)

Satel (PA, PD, P6.25)

Schnoor Industrielektronik
(MA, MD, PA, PD)

Selex Eltag
(MA, MD, PA, PD)

Sepura (MD, PD)

Simoco (MA, MD, M6.25,
PA, PD, P6.25)

SkySweep Technologies
(MD, MB)

Special Electronics and
Designs (MA, MD, PA, PD)

Stone Mountain (PD)

Tait Communications

(MA, MD, PA, PD)

Tassta (PD)

TecNet International
(MA, MD, M6.25, PA,
PD, P6.25)

Tekk International
(MA, MD, PA, PD)

Telsate Telecomunicações
(MA, MD, PA, PD)

Teltronic S.A. Unipersonal
(MA, MD, M6.25, PA,
PD, P6.25)

Temwell (MA, PA)

Thales Defense & Security
(PA, PD)

Unimo Technology
(MA, PA)

Vertex Standard
(MA, MD, PA, PD)

Wireless Pacific
(PA, PD, P6.25)

ZTE Trunking Technology
(MD, M6.25, MB, PD,
P6.25)

P25 RADIOS

Airbus Defence and Space
(Cassidian)

Codan Radio**Communications**

Comlab

EF Johnson Technologies

Etherstack

Exelis

GME

Harris

Icom

JVCKENWOOD

JVCKENWOOD USA

Kirmuss & Associates/
Infinity Advanced

Technologies

Midland Radio

Motorola Solutions

On Demand
Communications
Phonak Communications
Relm Wireless
Simoco
Tait Communications
Temwell
Thales Defense & Security
Vertex Standard
Wireless Pacific

TETRA

Airbus Defence and Space
(Cassidian)

Artevea Digital

Comlab

Comsystems Solutions

Etelm

Etherstack

Funk-Electronic Piciorgros

Funkwerk Security
Communications

Hytera Communications**Hytera Mobilfunk****JVCKENWOOD USA**

Linecom Technology

Motorola Solutions

On Demand
Communications

Phonak Communications

Samhoo Science &
Technology

Selex Eltag

Sepura

Simoco

Syntech Systems

Teltronic S.A. Unipersonal

Temwell

Unimo Technology

REXON
What An Excellent Radio!

Rexon Technology Corp.

No.261 Jen Hwa Rd., Dali District, Taichung 41279, Taiwan TEL: +886-4-2491-6316

Factory: Taichung, Taiwan

Email: rexontec@rexontec.com.tw

Official Site www.rexontec.com.tw www.globalsources.com/rexontec.co



Rexon presents Remarkable abilities in OEM/ODM for providing excellent two-way radios and wireless communication products/accessories as a well-known manufacturer in Taiwan.

We specialize in Bluetooth, GPS, WiFi... etc., enabled military grade two-way radios in various features, being flexible among supply chains in Taiwan & China as our customers' demands.

Feel free to contact us for more information!



TAIWAN
EXCELLENCE



DMR



LMR



Marine



AirBand



IP Radio



DMR



RSM

RADIO SYSTEMS**ACSB**

Motorola Solutions

CONVENTIONAL/TRUNKED**(CA=conventional analog, CD=conventional digital, TA=trunked analog, TD=trunked digital)**

4RF (TA, TD)

Advanced Digital Systems (CA, CD)

Airbus Defence and Space (Cassidian) (TD)

Alligator Communications (TA, TD)

Anritsu (CA, CD)

Arteva Digital (TD)

Aviate Networks (TD)

AW Communications Systems Ltd. (AWCSL) (CA, CD, TA, TD)

Axell Wireless (TA, TD)

Barrett Communications (CA)

BridgeCom Systems (CA, TA)

CalAmp (CA, TA)

Catalyst Communications Technologies (CA, CD, TA, TD)

CeoTronics (CA, CD, TA, TD)

Ceracon Networks (CD, TD)

CML Microcircuits (CA, CD, TA, TD)

Cobalt AV Comtronics (CA, CD)

Codan Radio**Communications**

(CA, CD, TA, TD)

CommScope (TA, TD)

Comsystems Solutions (CA, CD, TA, TD)

Connect Systems (CA, CD, TA)

Cubic Defense Systems (CA)

Damm Cellular Systems

(TD)

DragonWave (TD)

EF Johnson Technologies

(CA, CD, TA, TD)

Elcomplus (CA, CD, TA, TD)

Elektro-Arola (CA, CD, TD)

El Paso Communications

Systems (CA, CD, TA, TD)

Etelm (TD)

Etherstack (CA, CD, TA, TD)

Exelis (CA, CD)

Fiplex Communications

(TA, TD)

Frequentis (TA, TD)

General Dynamics Mission

Systems (CD)

Harris (CA, CD, TA, TD)

Hoag Electronics (TA, TD)

Hytera Communications

(CA, CD, TA, TD)

Hytera Mobilfunk

(CA, TA, TD)

Icom (CA, CD, TA, TD)

IHM (CA, CD, TA, TD)

IPMobileNet (CD)

JRD Communications

(CA, CD, TA, TD)

JVCKENWOOD (CA, TA, TD)**JVCKENWOOD USA**

(CA, CD, TA, TD)

Kirisun Communications

(CA, CD, TA, TD)

Midland Radio

(CA, CD, TA, TD)

MiMOMax Wireless

(CA, CD, TA, TD)

Motorola Solutions

(CA, TA, TD)

Nodcom (TA, TD)

On Demand

Communications

(CA, CD, TA, TD)

Pantel International

(CA, TA, TD)

Penta (CA, CD, TA, TD)

Quantun Electronics (CA, CD)

Radial Firm (TA)

Radio Activity (CA, CD, TD)

Radiocrafts (TA, TD)

Radiodata (CA, CD, TD)

Radio IP Software (CD, TD)

RadioMobile (CA)

Raven Electronics (TA, TD)

Raveon Technologies

(CD, TD)

Relm Wireless

(CA, CD, TA, TD)

Redxon Technology

(CA, CD, TA, TD)

RF Technology (CA, CD, TA)

Ritron (CA)

Roger GPS (TD)

Rohill Engineering (TA, TD)

Rugged Radios (CA, CD)

Schnoor Industrielektronik

(CA, CD, TA, TD)

Selecrom (TD)

Selex Elsas (CA, TA, TD)

Simoco (CA, CD, TA, TD)

Sinclair Technologies

(CA, CD, TA, TD)

SkySweep Technologies

(CD)

Sonik Messaging Systems

(CA)

Spectra Engineering

(CA, CD, TA)

Survey Technologies Inc.**(STI)** (CA, CD, TA, TD)**Tait Communications**

(CA, CD, TA, TD)

TecNet International

(CA, CD, TA)

Tekk International (CA, CD)

Telsate Telecomunicações

(CA, TA)

Teltronic S.A. Unipersonal

(CA, CD, TA, TD)

Temwell (TA)

Thales Defense & Security

(CA)

Vertex Standard (CA, CD)

Weste Wireless Systems

(CA, CD, TD)

Wireless Pacific (CA, CD)

Zetron (CA, TA, TD)

ZTE Trunking Technology

(CD, TA, TD)

MICROWAVE

4RF

Alcatel-Lucent

Alligator Communications

Anritsu

Aviate Networks

Broadcast Microwave

Services

Carlson Wireless

Technologies (CWT)

Ceracon Networks

Cobham Antenna Systems

CommScope

Covert Systems

DragonWave

Fairview Microwave

General Dynamics Mission

Systems

Hytera Communications**Hytera Mobilfunk**

Lightpointe

Communications

Pantel International

RAD Data Communications

Rojone

Sinclair Technologies

Telsate Telecomunicações

Temwell

Vecima Networks

NARROWBAND (6.25 KHZ)

Advanced Digital Systems

Anritsu

AW Communications

Systems Ltd. (AWCSL)

CommScope

Connect Systems

Etherstack

Harris

Hytera Communications**Icom**

JRD Communications

JVCKENWOOD**JVCKENWOOD USA**

MiMOMax Wireless

Motorola Solutions

RadioMobile

Raveon Technologies

Ritron

Satel

Simoco

Survey Technologies Inc.**(STI)**

TecNet International

ZTE Trunking Technology

P25 SYSTEMS EQUIPMENT

Airbus Defence and Space

(Cassidian)

Anritsu

Axell Wireless

CalAmp

Catalyst Communications

Technologies

Cimarron Technologies

CML Microcircuits

Cobham AvComm**Codan Radio****Communications**

(CA, CD, TA, TD)

Cyrus

DragonWave

EF Johnson Technologies**(STI)** (CA, CD, TA, TD)**Etherstack**

Exelis

Fiplex Communications

Futurecom Systems Group

Harris

Icom

IDA

IPMobileNet

JRD Communications

JVCKENWOOD USA

Metric Systems

Midland Radio

MiMOMax Wireless

Motorola Solutions

On Demand

Communications

Panorama Antennas

Pantel International

Penta

Relm Wireless

RF Technology

Roger GPS

Simoco

Sinclair Technologies

Spectra Engineering

Survey Technologies Inc.**(STI)****Tait Communications**

Teltronic S.A. Unipersonal

Temwell

Thales Defense & Security

Vertex Standard

Weste Wireless Systems

Zetron**REPEATER CONTROLLERS**

Advanced Digital Systems

AW Communications

Systems Ltd. (AWCSL)

BHE Bonn Hungary

Electronics

BridgeCom Systems

CeoTronics

Codan Radio**Communications**

Collcomm, dba NCS

Communications Specialists

Comsystems Solutions

Connect Systems

EF Johnson Technologies

El Paso Communications

Systems

Etherstack

Exelis

Hytera Communications**Hytera Mobilfunk****Icom**

I.D. Systems

JRD Communications

Kirmuss & Associates/

Infinity Advanced

Technologies

Midian Electronics

Midland Radio

NHRC Repeater Controllers

Raveon Technologies

Rojone

Samhoo Science &

Technology

See Telecom

SkySweep Technologies

Telsate Telecomunicações

Wireless Pacific

ZTE Trunking Technology

SIMULCAST

AW Communications

Systems Ltd. (AWCSL)

Carlson Wireless

Technologies (CWT)

Codan Radio**Communications**

Comsystems Solutions

EF Johnson Technologies

Etherstack

Harris

IHM

JRD Communications

Midian Electronics

MiMOMax Wireless

Motorola Solutions

Pantel International

Penta

Racorn Products

Radio Activity

Radiodata

RF Technology

Samhoo Science &

Technology

Schnoor Industrielektronik

Selex Elsas

Simoco

Sonik Messaging Systems

Spectra Engineering

Survey Technologies Inc.**(STI)****Tait Communications**

ZTE Trunking Technology

SOFTWARE-DEFINED**RADIO**

Alligator Communications

Axell Wireless

BHE Bonn Hungary

Electronics

CalAmp

Carlson Wireless

Technologies (CWT)

CML Microcircuits

Codan Radio**Communications**

Communications Research

Centre (CRC)

Comsystems Solutions

Cubic Defense Systems

Cyfas Systems

EF Johnson Technologies

Elcomplus

Elektro-Arola

El Paso Communications

Systems

EMR

Etelm

Etherstack

Exelis

Firetide

Frequentis

General Dynamics Mission

Systems

Harris

Hytera Communications**Icom**

IDA

IHM

JRD Communications

Kirmuss & Associates/

Infinity Advanced

Technologies

Midian Electronics

MiMOMax Wireless

Motorola Solutions

Mutualink

Nautic Devices

Nodcom

TETRA

Airbus Defence and Space

TAIT TOUGH

Available in DMR, P25, and Analog

“ We needed equipment that could **take a beating** and **keep on working.** ”

Daniel Cole,
Director of Panola County Emergency Operations, Mississippi

After installing Tait mobile and portable radios, Panola County put the “Tait Tough” promise to the test when a Tait portable was accidentally dropped into a fire. Although the casing suffered superficial damage, the radio turned on and continued working.

“Since we implemented the Tait radios, I’ve been 100% confident in them ... the Tait radios have never failed. We’ve had zero complaints, everybody loves them.”



Meet the entire Tough Family
www.taitradio.com

tait
communications

Midland Radio
MiMOMax Wireless
Mobility Sound Technology
Motorola Solutions
PageTek
Radiocrafts
Raveon Technologies
Rojone
Selecom
Sentor Control Systems
Simoco
SkySweep Technologies
Slatercom-WCD
Smooth Talker (Mobile Communications)
Solarcraft
Spectra Engineering
Tait Communications
Tekk International
Telsate Telecomunicações
Temwell
Vecima Networks
Zetron

SCADA

4RF
Advanced Digital Systems
Alligator Communications
Asentria
CalAmp
Carlson Wireless Technologies (CWT)
CML Microcircuits
Data Comm for Business
Davicom, div. of Comlab
DuraComm
Elektro-Arola
Etelm
Etherstack
FreeWave Technologies
Funk-Electronic Piciorgros
Hytera Communications
Hytera Mobilfunk
Kantronics
Kyocera Solar
Metric Systems
MiMOMax Wireless
Motorola Solutions
PageTek
Pantel International
RAD Data Communications
Radiodata
Raveon Technologies
Schweitzer Engineering Laboratories
Selex Eltag
Sentor Control Systems
Sierra Wireless
Sinclair Technologies
SkySweep Technologies
Solarcraft
Spectra Engineering
Tallysman Wireless
TecNet International
Tekk International
Teltronic S.A. Unipersonal
TRBOnet
Unimo Technology
Vecima Networks
Ventev Wireless Infrastructure
Zetron
ZTE Trunking Technology

SOFTWARE

Activu
Advanced Digital Systems
Anritsu
Asentria
Aviat Networks
BHE Bonn Hungary Electronics
CommScope
Conet Solutions
Davicom, div. of Comlab
Elcomplus
Elektro-Arola
Funk-Electronic Piciorgros
General Dynamics Mission Systems
Hytera Communications
IDA

I.D. Systems
Integrated Tracking Solutions
Intergraph
Kantronics
Kolibri Systems
Mentura Group
MiMOMax Wireless
Motorola Solutions
NeoTerra Systems
PageTek
Radio IP Software
Raveon Technologies
Sentor Control Systems
Siemens Convergence Creators
Sierra Wireless
Simoco
SkySweep Technologies
Spectra Engineering
Tallysman Wireless
Tassta
TRBOnet
Vecima Networks
Zetron

TELEMETRY

4RF
Advanced Digital Systems
Alcatel-Lucent
Alligator Communications
Asentria
BHE Bonn Hungary Electronics
CalAmp
Carlson Wireless Technologies (CWT)
CML Microcircuits
Davicom, div. of Comlab
Digital Paging, Golden Sab
DuraComm
Elcomplus
Elektro-Arola
Etherstack
FreeWave Technologies
Funk-Electronic Piciorgros
Galtronics
GME
Harris
Hytera Communications
Hytera Mobilfunk
IDA

I.D. Systems
InSight Mobile Data
Kantronics
Kolibri Systems
Kyocera Solar
Metric Systems
Midland Radio
MiMOMax Wireless
Mobile Mark
Motorola Solutions
NeoTerra Systems
PageTek
Panorama Antennas
Pyramid Communications
Radiocrafts
Raveon Technologies
Ritron
Rojone
Satel
Schweitzer Engineering Laboratories
Selex Eltag
Sentor Control Systems
Simoco
SkySweep Technologies
Solarcraft
Sonic Communications International
Sonik Messaging Systems
Spectra Engineering
Tallysman Wireless
TecNet International
Telsate Telecomunicações
TRBOnet
Unimo Technology
Vecima Networks
WiPath Communications
Zetron

TRANSMITTERS

4RF
Alligator Communications
Anritsu
Asentria
Berkeley Varitronics Systems
BHE Bonn Hungary Electronics
Broadcast Microwave Services
CalAmp
Carlson Wireless Technologies (CWT)
GeoTronics
CML Microcircuits
Cubic Defense Systems
DataSoft
Davicom, div. of Comlab
dbSpectra
DuraComm
Etherstack
Firetide
I.D. Systems
Linx Technologies
Metric Systems
Midland Radio
MiMOMax Wireless
Motorola Solutions
Narda Safety Test Solutions
Radiocrafts
Raveon Technologies
RF Technology
Ritron
Sentor Control Systems
Simoco
Sinclair Technologies
Spectra Engineering
Spok
Tait Communications
TecNet International
Tekk International
Telsate Telecomunicações
Temwell
Vecima Networks

SATELLITE SYSTEMS EQUIPMENT

MOBILE DATA/VOICE

(MD=mobile data, MV=mobile voice)
CML Microcircuits (MD)
Cobham SATCOM Land Systems (MD, MV)
Codan Radio Communications (MD, MV)
CPI Communications (MV)
Elektrobit (MD, MV)
Engage Communication (MV)
General Dynamics Mission Systems (MD, MV)
Motorola Solutions (MD, MV)
On Demand Communications (MD, MV)
Pyramid Communications (MV)
Radio IP Software (MD)
RadioMobile (MD, MV)
Satel (MD)
Sentor Control Systems (MD, MV)
Sonim Technologies (MD)
Tallysman Wireless (MD)
TeleCommunication Systems (TCS) (MD, MV)
Vocality (MD, MV)
WiPath Communications (MD)
Wireless Pacific (MV)

VSAT

Cobham SATCOM Land Systems
Engage Communication
General Dynamics Mission Systems

Kyocera Solar
On Demand Communications
Radio IP Software
Raytheon JPS Communications
Sentor Control Systems
Solarcraft
Swissphone Wireless
TeleCommunication Systems (TCS)
Teltronic S.A. Unipersonal
Vocality

SERVICE PROVIDERS (See Pages 22-26)

SITE/TOWER EQUIPMENT

ALARMS/ACCESS DEVICES

Asentria
Bosch Security Systems
CML Microcircuits
Davicom, div. of Comlab
DuraComm
El Paso Communications Systems
EMR
Midian Electronics
Motorola Solutions
PageTek
Quintron Systems
Racom Products
RFI
Rojone
Sentor Control Systems
Slatercom-WCD
Telewave

BEACONS

CML Microcircuits
Dialight
Funkwerk Security Communications
Sabre Site Solutions, div. of Sabre Industries
Siemens Convergence Creators
Slatercom-WCD
Specialty Tower Lighting
Unimar
Westell Technologies

CABINETS

Aluma Tower
CommScope
Comsystems Solutions
dbSpectra
Dupont Building
Eagle Eye Power Solutions
El Paso Communications Systems
L-Com
Midland Radio
Pioneer Energy Products (PEPRO)
PolyPhaser
Sabre Building Systems by Cellxion, div. of Sabre Industries
Selecom
Solarcraft
Telewave
Ventev Wireless Infrastructure
VFP
Warehouse Cables
Winsted

CABLE

4RF
AIR802
Antcom
BroadWave Technologies
CommScope
Compro Communications
Comtelco
El Paso Communications Systems
Fairview Microwave
GPS Networking
G-Wave Solutions
(C, DI, DU, F, I, MC, MP)

Harger Lightning and Grounding
Hytera Communications
L-Com
Mobile Mark
Motorola Solutions
Pulse Electronics/Larsen Antennas
Radio Frequency Systems (RFS)
Response Microwave
RF Connectors, div. of RF Industries
RFI
Rojone
Skymasts Antennas
Slatercom-WCD
Smooth Talker (Mobile Communications)
Telewave
Times Microwave Systems
Trilogy Communications
Ventev Wireless Infrastructure
Warehouse Cables
Webb Industries

CABLE FAULT LOCATORS

Anritsu
BHE Bonn Hungary Electronics
Bird Technologies
Deviser Instruments
Eagle Eye Power Solutions
Motorola Solutions
TX RX Systems Bird Technologies

COMBINERS/DIPLEXERS/ DUPLEXERS/FILTERS/ ISOLATORS/ MULTICOUPPLERS/ MULTIPLEXERS

(C=combiners, DI=diplexers, DU=duplexers, F=filters, I=isolators, MC=multicouplers, MP=multiplexers)
4RF (C)
Alcatel-Lucent (MP)
Aluma Tower (I)
Antcom (C, F, I)
Axell Wireless (C, DI, DU, F, I, MC, MP)
BHE Bonn Hungary Electronics (C, DI, DU, F, MP)
Bird Technologies (C, DI, DU, F, I, MC)
BroadWave Technologies (C)
Cobham Antenna Systems (C)
Comlab (DU)
CommScope (C, DI, DU, F, MC)
Compro Communications (C, DI, DU, F, I, MC, MP)
Comtelco (DI, DU, MC)
Data Comm for Business (MP)
dbSpectra (C, DI, DU, F, I, MC, MP)
El Paso Communications Systems (DU, MP)
EMR (C, DI, DU, F, I, MC, MP)
European Telecommunications S.A. (ETSA) (DI, DU, F, MC)
Fairview Microwave (DU, F, I)
Filtronic Wireless (C, DI, DU, F, MP)
Fiplex Communications (C, DI, DU, F, I, MC, MP)
Genesis Technical Systems (MP)
GPS Networking (C, F)
G-Wave Solutions (C, DI, DU, F, MC, MP)

Hytera Communications (C)
Innovative Circuit Technology (ICT) (F)
JFW Industries (C)
Kathrein Werke (MC, MP)
L-Com (DI, F)
MCV Microwave (DI, DU, F, MC, MP)
Microlab (C, DI, DU, F)
Microwave Filter (C, DI, DU, F, I)
Midland Radio (DU)
MiMOMax Wireless (DU)
Motorola Solutions (C, DU, F)
Nautic Devices (MP)
Procom (C, DI, DU, F, I, MC, MP)
Quintron Systems (MP)
RAD Data Communications (MP)
Radial Firm (C, DI, DU, F, I, MC)
Radio Frequency Systems (RFS) (C, DI, DU, F, I, MC)
Response Microwave (C, DI, DU, F, I)
RFI (C, DI, DU, F, I, MC, MP)
Rojone (C, DI, DU, F, I, MC, MP)
Selecom (C, DI, DU)
Sinclair Technologies (C, DI, DU, F, I, MC, MP)
Skymasts Antennas (C, DI, DU, F)
SOLID (MP)
Spectra Engineering (DI, DU)
STI-CO Industries (F, MC)
TC Communications (MP)
Telewave (C, DU, F, I, MC)
Telsate Telecomunicações (C, DI, DU, F)
Temwell (C, DI, DU, F, I, MP)
Trango Systems (C)
TX RX Systems Bird Technologies (C, DU, F, I, MC)
Webb Industries (C, DU, F, I, MC, MP)
Westell Technologies (C, DI, DU, F)

CONNECTORS

AIR802
Anritsu
Antcom
Bird Technologies
BroadWave Technologies
CommScope
Compro Communications
Comtelco
D.W. Electrochemicals
El Paso Communications Systems
EMR
European Telecommunications S.A. (ETSA)
GPS Networking
G-Wave Solutions
Harger Lightning and Grounding
L-Com
Microlab
Procom
Pulse Electronics/Larsen Antennas
Radio Frequency Systems (RFS)
Response Microwave
RF Connectors, div. of RF Industries
Rojone
Sabre Site Solutions, div. of Sabre Industries
Sinclair Technologies
Skymasts Antennas
Telewave
Times Microwave Systems
Trilogy Communications
TX RX Systems Bird Technologies

Ventev Wireless
Infrastructure
Webb Industries

HVAC CONTROL SYSTEMS

Asentria
Bard Manufacturing
Laird
Marvail
Pioneer Energy Products
(PEPRO)
Sentor Control Systems
STULZ
VFP

ICE BRIDGES

CommScope
Rohn Products
Sabre Site Solutions,
div. of Sabre Industries
Slatercom-WCD
Specialty Tower Lighting
Valmont Structures
VFP

LIGHTNING-PROTECTION EQUIPMENT

4RF
AIR802
Aluma Tower
CommScope
Comprod Communications
EMP Solutions
Fairview Microwave
G-Wave Solutions
Harger Lightning and
Grounding
L-Com
Pioneer Energy Products
(PEPRO)
PolyPhaser
Radio Frequency Systems
(RFS)
Response Microwave
Rojone
Sabre Site Solutions,
div. of Sabre Industries
Skymasts Antennas
Slatercom-WCD
Specialty Tower Lighting
Times Microwave Systems
Ventev Wireless
Infrastructure
VFP
Webb Industries

MICROWAVE/ MUX EQUIPMENT

4RF
Alcatel-Lucent
Antcom
Artevea Digital
Athena Wireless
Communications
Aviat Networks
BHE Bonn Hungary
Electronics
Broadcast Microwave
Services
Carlson Wireless
Technologies (CWT)
Ceragon Networks
CommScope
DragonWave
JFW Industries
MCV Microwave
Praxsym
Procom
RAD Data Communications
Response Microwave
RFI
Rojone
Sinclair Technologies
SOLiD
Spectracom
TCC Industries
Trango Systems

PREAMPLIFIERS

Axell Wireless

BHE Bonn Hungary
Electronics
Bird Technologies
Comprod Communications
dbSpectra
EMR
Fiplex Communications
GPS Networking
G-Wave Solutions
Kathrein Werke
Motorola Solutions
Praxsym
Procom
Radial Firm
Radio Frequency Systems
(RFS)
RFI
Rojone
Telsate Telecommunicações
Telewave
Telsate Telecommunicações
TX RX Systems Bird
Technologies

RACKS

Aluma Tower
Comprod Communications
Comsystems Solutions
dbSpectra
EMR
Kyocera Solar
L-Com
Pioneer Energy Products
(PEPRO)
Procom
Radio Frequency Systems
(RFS)
Sinclair Technologies
Solarcraft
Telewave
Ventev Wireless
Infrastructure
VFP
Winsted

SHELTERS

Aluma Tower
Dupont Building
LS telcom
Pioneer Energy Products
(PEPRO)
Sabre Building Systems
by Cellxion, div.
of Sabre Industries
Sinclair Technologies
Solarcraft
Trachte
VFP
Webb Industries

SITE-MANAGEMENT SOFTWARE

Advanced Digital Systems
Anritsu
Asentria
Aviat Networks
**Codan Radio
Communications**
CommScope
Comsystems Solutions
Eagle Eye Power Solutions
Elcomplus
FDM Software
Hytera Communications
Hytera Mobilfunk
Kathrein Werke
LS telcom
Midian Electronics
Motorola Solutions
PageTek
Radio Frequency Systems
(RFS)
Selex Eltag
Sentor Control Systems
Simoco
SoftWright
**Survey Technologies Inc.
(STI)**
Tait Communications

SURGE PROTECTORS

CommScope
GPS Networking
Harger Lightning and
Grounding
Innovative Circuit
Technology (ICT)
L-Com
PolyPhaser
Radio Frequency Systems
(RFS)
Response Microwave
Rojone
Sinclair Technologies
Skymasts Antennas
Slatercom-WCD
TCC Industries
Telsate Telecommunicações
Ventev Wireless
Infrastructure
VFP
Webb Industries

SWITCHES

Alcatel-Lucent
Cisco Systems
El Paso Communications
Systems
Fairview Microwave
Frequentis
Hytera Communications
Hytera Mobilfunk
IHM
JFW Industries
MCV Microwave
Motorola Solutions
Omnitronics
Quintron Systems
RAD Data Communications
Response Microwave
Rojone
Selex Eltag
Sentor Control Systems
Simoco
Solacom Technologies
VFP

TOWER OBSTRUCTION

Kyocera Solar
Rohn Products
Sentor Control Systems
Sinclair Technologies
Slatercom-WCD
Valmont Structures
Webb Industries

TOWERS, FIXED/MOBILE

(F=fixed towers,
M=mobile towers)
Aluma Tower (F, M)
Barrett Communications
(F, M)
CommScope (F)
Comsystems Solutions
(F, M)
General Dynamics Mission
Systems (F)
Pioneer Energy Products
(PEPRO) (F, M)
Rebco Towers (F)
Rohn Products (F, M)
Sabre Building Systems
by Cellxion, div. of
Sabre Industries (M)
Sabre Site Solutions,
div. of Sabre Industries (F)
Sabre Towers and Poles,
div. of Sabre Industries
(F, M)
Sinclair Technologies (F, M)
Skymasts Antennas (F, M)
Slatercom-WCD (F)
Specialty Tower Lighting (F)
Valmont Structures (F)
Wade Antenna/Taco
Antennas (F)
Webb Industries (F, M)
Winco (M)

VOTING PRODUCTS

Midian Electronics

Motorola Solutions
RF Technology
Selex Eltag
Simoco
Spectra Engineering
Tait Communications

WAVEGUIDE

Antcom
CommScope
Fairview Microwave
MCV Microwave
Microlab
Pioneer Energy Products
(PEPRO)
Radio Frequency Systems
(RFS)
Response Microwave
Rojone
Sabre Site Solutions,
div. of Sabre Industries
Temwell
Valmont Structures
VFP

SOFTWARE

CAD SOFTWARE/SYSTEMS (See Emergency Number Equipment, Page 34)

CUSTOM

ABB Enterprise Software
Activu
Advanced Digital Systems
Advanced Simulation
Technology Inc. (ASTI)
AGENT511
Antcom
BridgeCom Systems
Cadex Electronics
Catalyst Communications
Technologies
Cobalt AV Comtronics
**Codan Radio
Communications**
CommScope
Comsystems Solutions
Conet Solutions
DataSoft
Digital Voice Systems Inc.
(DVS)
Doppler Systems
Dragotech Systems
ECi Software Solutions
EDX Wireless
Etelm
Exelis
FATPOT Technologies
FDM Software
General Dynamics Mission
Systems
Genesis Group
Global Wireless
Technologies
Hoag Electronics
IDA
I.D. Systems
IHM
Infor Public Sector
Integrated Tracking
Solutions
InterAct
Iveda
Kolibri Systems
Linecom Technology
Logistic Systems
LS telcom
Mentura Group
MiMOMax Wireless
Multiple Access
Communications (MAC)
NeoTerra Systems
Nodcom
PageTek
Penta
Prism – IPX Systems
Qognify
RadioMobile
RadioSoft
Raveon Technologies
Raytheon JPS
Communications

Realtime North America
SceneDoc
Schnoor IndustrieelElektronik
Selex Eltag
Sentor Control Systems
Siemens Convergence
Creators
Simoco
SkySweep Technologies
SoftWright
Sonim Technologies
TeleCommunication
Systems (TCS)
TRBOnet
Valid8.com
Winsted
Zetron

DISPATCH (BUSINESS/INDUSTRY)

Advanced Simulation
Technology Inc. (ASTI)
AGENT511
Artevea Digital
Artevea
AW Communications
Systems Ltd. (AWCSL)
Beta 80 International
Bosch Security Systems,
dba Telex Radio Dispatch
Catalyst Communications
Technologies
Cisco Systems
Conet Solutions
Cyfas Systems
Cyrus
Damm Cellular Systems
ECi Software Solutions
EF Johnson Technologies
Elcomplus
Elektro-Arola
Etelm
Exelis
Harris
HigherGround
Hytera Communications
Hytera Mobilfunk
IDA
IHM
Infor Public Sector
InSight Mobile Data
InterAct
Intergraph
Kolibri Systems
Linecom Technology
Mentura Group
Midian Electronics
Motorola Solutions
Nodcom
Omnitronics
Pantel International
Penta
PowerPhone
Prism – IPX Systems
Pyramid Communications
RadioMobile
Rohill Engineering
Schnoor IndustrieelElektronik
Selex Eltag
Siemens Convergence
Creators
Simoco
Spok
Swissphone Wireless
Tallysman Wireless
Tassta
Teltronic S.A. Unipersonal
TETRAsim
TRBOnet
TriTech Software Systems
Voice Print International
(VPI)
WiPath Communications
Zetron

CommScope
Comsystems Solutions
Cyfas Systems
DataSoft
EDX Wireless
El Paso Communications
Systems
Etherstack
Exelis
Forsk
Hoag Electronics
IDA
Kolibri Systems
LS telcom
Mentura Group
Motorola Solutions
Radio Activity
RadioSoft
Raytheon JPS
Communications
RCC Consultants
Siemens Convergence
Creators
SoftWright
Sonim Technologies
**Survey Technologies Inc.
(STI)**
Teltronic S.A. Unipersonal

FIELD REPORTING (BUSINESS/INDUSTRY)

ABB Enterprise Software
Anritsu
Athoc
Cyrus
Decodio
ECi Software Solutions
FATPOT Technologies
General Dynamics Mission
Systems
Hytera Communications
Infor Public Sector
InSight Mobile Data
Integrated Tracking
Solutions
InterAct
Intergraph
Mentura Group
NeoTerra Systems
RadioMobile
SceneDoc
Syntech Systems
Tassta
Zetron

GIS MAPPING

ABB Enterprise Software
AW Communications
Systems Ltd. (AWCSL)
Beta 80 International
Cisco Systems
Conet Solutions
Cyfas Systems
Damm Cellular Systems
Decodio
Doppler Systems
ECi Software Solutions
Elektro-Arola
Etelm
Etherstack
FATPOT Technologies
FDM Software
Forsk
General Dynamics Mission
Systems
IDA
Infor Public Sector
Integrated Tracking
Solutions
InterAct
Intergraph
Kirmuss & Associates/
Infinity Advanced
Technologies
Kolibri Systems
Logistic Systems
LS telcom
Mentura Group
Mobility Sound Technology
Narda Safety Test Solutions
NeoTerra Systems
RadioMobile

Raveon Technologies
Raytheon JPS
Communications
Selex Elsas
Siemens Convergence
Creators
SoftWright
Sonim Technologies
Survey Technologies Inc. (STI)
Swissphone Wireless
TeleCommunication
Systems (TCS)
TriTech Software Systems
Wrap International
Zetron

MIDDLEWARE

ABB Enterprise Software
AGENT511
CalAmp
Conet Solutions
DataSoft
Dragontech Systems
Elektro-Arola
Exelis
FATPOT Technologies
General Dynamics Mission
Systems
Integrated Tracking Solutions
Motorola Solutions
NeoTerra Systems
Prism – IPX Systems
Quintron Systems
Radio IP Software
RadioMobile
Siemens Convergence
Creators
Sierra Wireless
Spok
Tallysman Wireless

MOBILE-DATA SYSTEMS

ABB Enterprise Software
Advanced Digital Systems
AW Communications
Systems Ltd. (AWCSL)
Beta 80 International
CalAmp
Conet Solutions
Cyrus

Damm Cellular Systems

Decodio
Dragontech Systems
ECI Software Solutions
Elektro-Arola
Etelm
FATPOT Technologies

HAL Communications

Harris
IDA
I.D. Systems
Infor Public Sector
InSight Mobile Data
InterAct
Intergraph
IPMobileNet
Kantronics
LMR Systems
Logistic Systems
Motorola Solutions
NeoTerra Systems
Pyramid Communications
Radio IP Software
RadioMobile
Raveon Technologies
Raytheon JPS
Communications
Selex Elsas
Sentor Control Systems
SkySweep Technologies

SoftWright

Solarcraft

Sonim Technologies

Tait Communications

Tallysman Wireless
TeleCommunication
Systems (TCS)
Software Systems
WiPath Communications

NETWORK MANAGEMENT

Alcatel-Lucent
Anritsu
Artevea Digital
Asentria
Aviat Networks
Axell Wireless
CalAmp
CommScope
Damm Cellular Systems
Data Comm for Business
DataSoft
Decodio
DragonWave
EF Johnson Technologies
El Paso Communications
Systems

Etelm

Etherstack
Exelis
Flexip Communications
Firetide
Forsk
FreeWave Technologies
General Dynamics Mission
Systems

Genesis Group

Harris

Hytera Communications

Hytera Mobilfunk

Icom

IDA
Intergraph
Kolibri Systems
LS telcom
Mentura Group
MiMOMax Wireless
Motorola Solutions
Omnitronics
On Demand
Communications

PageTek

Prism – IPX Systems

RAD Data Communications

Radiodata

Radio IP Software

RadioMobile

RCC Consultants

Rohill Engineering

Schweitzer Engineering

Laboratories

See Telecom

Selex Elsas

Sentor Control Systems

Sierra Wireless

Simoco

Survey Technologies Inc. (STI)

Tait Communications

Teltronic S.A. Unipersonal

Trango Systems

Vecima Networks

Vocality

Wrap International

OPERATIONS

ABB Enterprise Software

Activu

Artevea Digital

AW Communications

Systems Ltd. (AWCSL)

Catalyst Communications

Technologies

Comlab

Decodio

ECI Software Solutions

Exelis

FATPOT Technologies

General Dynamics Mission

Systems

Hytera Communications

Hytera Mobilfunk

IDA

Infor Public Sector

Kolibri Systems

Mentura Group

Motorola Solutions

NeoTerra Systems

Qognify

Raytheon JPS

Communications

RCC Consultants
SceneDoc
Sentor Control Systems
Verint Systems

PAGING

AtHoc

Codan Radio

Communications

Conet Solutions

Cyfas Systems

Decodio

Digital Paging, Golden Sab

EF Johnson Technologies

Elektro-Arola

Exelis

FDM Software

I.D. Systems

IHM

Infor Public Sector

Intergraph

Midian Electronics

Motorola Solutions

NeoTerra Systems

Penta

Prism – IPX Systems

Raveon Technologies

Sentor Control Systems

Sonik Messaging Systems

Spok

Swissphone Wireless

WiPath Communications

Zetron

RECORDS MANAGEMENT

SYSTEMS

(BUSINESS/INDUSTRY)

Anritsu

Cadex Electronics

Cyrus

ECI Software Solutions

FATPOT Technologies

FDM Software

IDA

Infor Public Sector

InterAct

Intergraph

Mida Solutions

Motorola Solutions

RadioMobile

SceneDoc

Sentor Control Systems

Siemens Convergence

Creators

SoftWright

Syntech Systems

TriTech Software Systems

RF SAFETY

Cobalt AV Comtronics

FieldSense USA

Laird

Linx Technologies

LS telcom

Narda Safety Test Solutions

On Demand Communications

RCC Consultants

TERRAIN PROPAGATION

EDX Wireless

Etelm

Forsk

Harris

LS telcom

Motorola Solutions

Multiple Access

Communications (MAC)

NeoTerra Systems

RadioSoft

RCC Consultants

Selex Elsas

Simoco

SoftWright

Survey Technologies Inc. (STI)

Wrap International

VOICE RECOGNITION

Advanced Simulation

Technology Inc. (ASTI)

ASC Americas

Cisco Systems
Conet Solutions
Infor Public Sector
Motorola Solutions
NeoTerra Systems
Siemens Convergence
Creators
Voice Print International (VPI)

WIRELESS INTERNET

APPLICATIONS

AtHoc

AW Communications

Systems Ltd. (AWCSL)

BeamSmart

Carlson Wireless

Technologies (CWT)

Catalyst Communications

Technologies

Ceragon Networks

Cisco Systems

Cobalt AV Comtronics

Conet Solutions

DataSoft

Digital Voice Systems Inc.

(DVS)

Dragontech Systems

El Paso Communications

Systems

FDM Software

General Dynamics Mission

Systems

Harris

IDA

I.D. Systems

Infor Public Sector

InSight Mobile Data

Intergraph

Linx Technologies

Motorola Solutions

Nextmove Technologies

On Demand Communications

Radio IP Software

Rajant

Raveon Technologies

SceneDoc

Siemens Convergence

Creators

Sonim Technologies

TeleCommunication

Systems (TCS)

TriTech Software Systems

Vecima Networks

TELEMATICS/ITS

EQUIPMENT

Dragontech Systems

Harris

InSight Mobile Data

Laird

Mobile Mark

NeoTerra Systems

OnStar

Radio IP Software

Rojone

Tallysman Wireless

WiPath Communications

TEST EQUIPMENT

(D=direction finders,

FS=field strength meters,

FC=frequency counters,

P=power monitors,

RF=RF monitors,

SM=service monitors,

SA=spectrum analyzers,

V=voltmeters/wattmeters)

Aaronia USA

(D, FS, FC, RF, SA)

AEA Technology (FS, SA)

Anritsu (D, FS, FC, P, RF,

SM, SA, V)

Berkeley Varitronics

Systems (D, P, SA)

Bird Technologies

(FS, P, RF, SM, SA, V)

Cobham AvComm

(FC, P, RF, SM, SA)

Comlab (D)

Communications Research

Centre (CRC) (SA)

Comprod Communications
(P, RF)

Cubic Defense Systems (D)

Davicom, div. of Comlab (P)

dbSpectra (P, RF)

Deviser Instruments

(D, FS, RF, SA)

Doppler Systems (D)

DuraComm (P)

Eagle Eye Power Solutions

(P)

El Paso Communications

Systems (SM, SA)

EMR (P)

Etherstack (RF)

FieldSense USA (RF)

Freedom Communication

Technologies

(P, SM, SA, V)

General Dynamics Mission

Systems (RF, SM, SA, V)

Global Wireless

Technologies (RF, SA)

Hytera Communications

(D, FS, FC, P, RF, SM, V)

Hytera Mobilfunk (D, FS,

FC, P, RF, SM, SA, V)

Keysight Technologies

(FC, SA, V)

LS telcom (D, FS, RF, SA)

MicroLab (P)

Motorola Solutions (SM, SA)

Multiple Access

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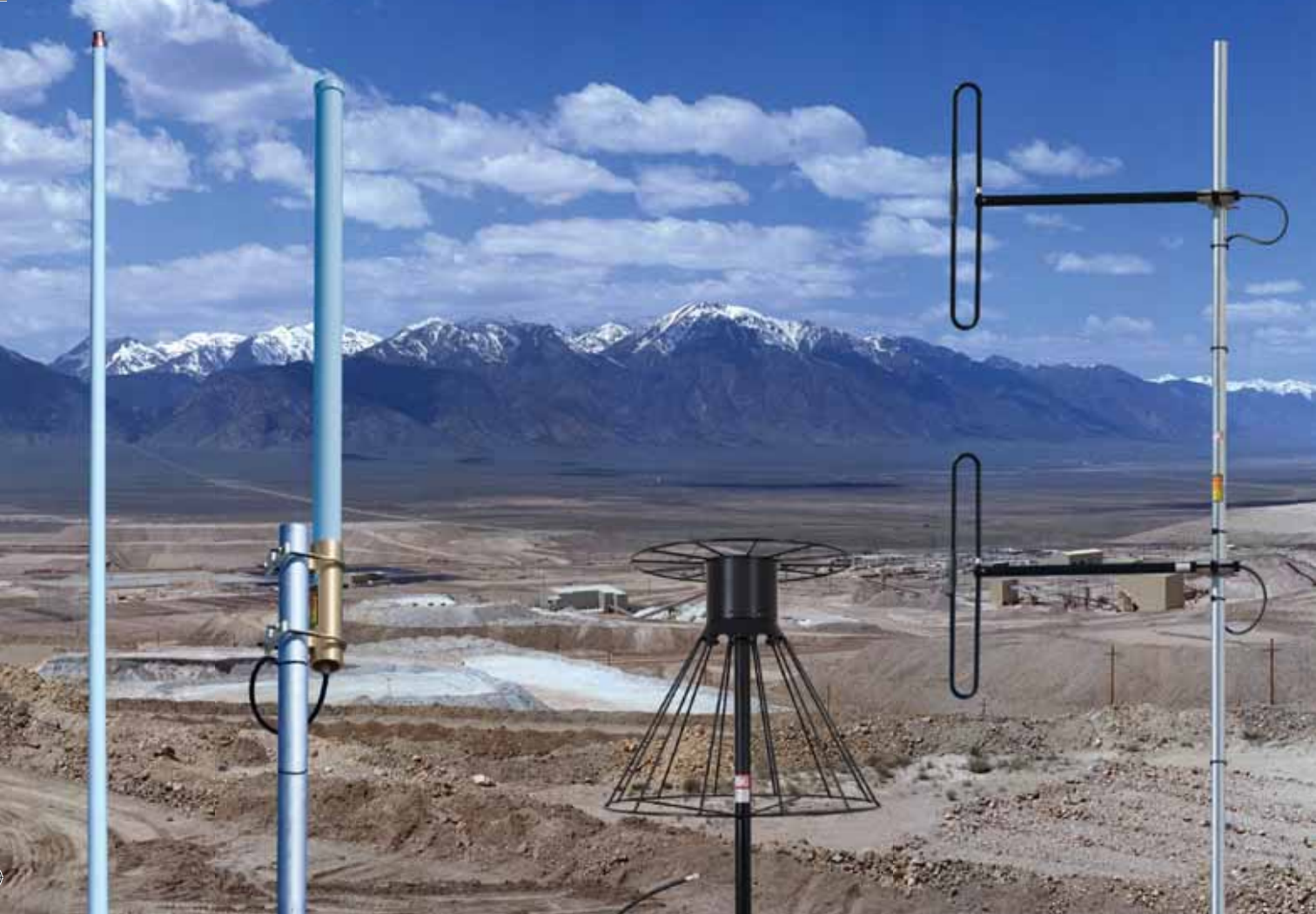
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