

2014 Product Source Tools for Launching Your Content

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For Challenging Reception Scenarios.

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Our unique Software Defined Radio (SDR) front-end delivers unparalleled sensitivity, selectivity, and RF shielding. And with Composite-Regeneration mode snuffing out unwanted baseband noise, you get cleaner audio in locations you never thought possible.

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RECEPTION TOOLS

Zoom in on frequency issues with the built in BandScanner[™] and MPX FFT, or use Active and Manual reception processing for total control over Bandwidth, Blend, Multipath Mitigation and more.

AUDIO PROTECTION

Whether you utilize 'Hijack' prevention, SD Card or Web Stream Audio Failover, you'll never have dead air. Plus with remote Web listening, Email/SMS notifications and SNMP you'll know (and be able to verify) immediately when things go wrong.

Live You Tube demo@ www.inovonicsbroadcast.com/model/650







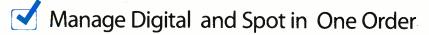


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2014

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2014 Product Source

Get Ready to Launch

Radio is changing—as are the products we use on a daily basis. We still have the traditional tools such as audio consoles and transmitters, but the number of new methods available for interacting with listeners on a daily basis and launching content to the world has steadily increased.

This year's Product Source features wide a selection of items covering nearly every segment of content creation and distribution for radio, including a few of those newer methods. Social media and visual radio have rapidly entered the broadcast studio, and we highlight a number of products in that area. We also highlight products that were awarded "Best of Show" by *Radio* magazine at the 2014 NAB Show in April.

While there may be some products here that you are already familiar with, I hope you also discover some new products that you may not have considered before. These products are also cataloged on the *Radio* magazine website at radiomagonline.com.

3...2...1...Launch!

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2014

Radio

Capture | Bringing back content from the field

Nagra)) Seven

The Nagra Seven is a two-channel high-resolution portable recorder that supports sample rates up to 192 kHz. MPEG compression is also supported. It features connectivity via Ethernet, WiFi, GSM (3G), ISDN, and VoIP. Audio files can also be transmitted via FTP. The integrated touchscreen allows graphical waveform editing of recorded files, as well as adjustment of parameters including ALC, limiters, and filters. Dedicated front panel controls allow quick access to transport functions and audio levels.

www.nagraaudio.com

Yellowtec)) iXM

Shane Toven, Editor, Radio magazine

This microphone features interchangeable capsules, and an integrated recorder with removable SD or SDHC card storage. Record levels are managed through the use of LEA engine technology, which results in a consistent recording with no clipping. The simplified user interface consists of two controls and three LEDs. Three AA cells provide power, and 3.5 mm connections allow external audio I/O.

www.yellowtec.de

D-M Pro » PMD661MKII

A follow-up to the well-known Marantz PMD661, the PMD661MKII offers several new features including a card compatibility check, passcode protection of the device, file encryption, and a retake record function. The unit supports recording to SD and SDHC cards in WAV and BWF format at up to 24 bit, 96 kHz and in MP3 at up to 320 kbps. Four AA batteries provide six hours of recording time. A USB 2.0 interface and Marantz DMP Editor software are provided.

2014 Product Source





We know that live remotes can boost ratings and generate revenue. The more remotes the better. The ACCESS 2USB BRIC IP Audio Codec makes it easy to broadcast from just about anywhere on the planet - even from a speeding train.

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to the studio via available 3G, 4G, WiFi, BGAN or POTS/PSTN networks. They'll sound as if they're in the booth with you due to hign quality AAC and Opus audio alogrithms while you enjoy the connection reliability only Comrex technology can provide. *Contact your Comrex dealer or visit comrex.com for more.*



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Produce | Infrastructure for the studios



Acoustics First » ART Diffusor Model D

The Art Diffusor Model D is an organic quadratic diffuser. This diffuser improves sound clarity and ambience while increasing the overall perceived space of the room. The range of the Art Diffusor is extended over other designs by its unique organic curvature to further control specular reflections above 4 kHz.

www.acousticsfirst.com



Whirlwind)) pcUSB

Whirlwind's pcUSB is a followup to the company's pcDI, featuring an integrated USB audio interface. Instead of the analog audio inputs on the pcDI, the pcUSB connects directly to the computer via USB and appears as a standard USB audio device. Sampling rates of 32 kHz, 44.1 kHz and 48 kHz are supported. Like the pcDI, the pcUSB features switches for ground lift, mono summing, and a 20 dB pad.

www.whirlwindusa.com

Omnirax)) New Website

Omnirax is launching a new website, coming in September, 2014. The site will offer access to Omnirax products for three distinct markets; broadcast, office, and technical. A variety of furniture options are available including custom, production, and "semi-custom" (modifications to existing production designs). This flexibility allows the customer to choose the furniture they need at a price that meets their budget.

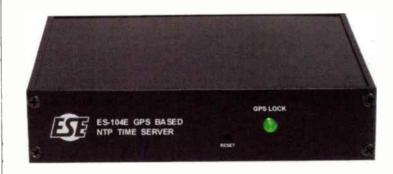
www.omnirax.com



ESE » ES-104E

The ES-104E provides a practical method of putting accurate time information onto a network. The unit receives GPS time using the supplied antenna. The NTP output is provided on a 10/100 Base-T Ethernet connector. The ES-104E is housed in a rugged black anodized desktop enclosure. A voltagecontrolled temperature-compensated crystal oscillator is used to maintain the accuracy of the time code outputs when lock is lost.

www.ese-web.com







M2 Master Reference Monitors The Village Studios Los Angeles



LSR 305

LSR 3105

LSR 308

BOOST YOUR IMAGE

Introducing the 3 Series Powered Studio Monitors, the first to incorporate JBL's groundbreaking Image Control Waveguide. Matched with high performance JBL transducers, the patent-pending Image Control Waveguide delivers detail and depth as you've never heard before. The micro-dynamics in reverb tails and the subtleties of mic placement are clearly revealed within a sound stage that's so realistic it creates a tangible sense of a center channel. A broad, room-friendly sweet spot means everyone in the room hears the same level of dimension and transparency in your music. The 3 Series subwoofer incorporates JBL's patented Slip Stream™ Port working in concert with the custom designed 10" down-firing driver to let you hear the bottom octave of your project. A welcome plus for dance music producers, the XLF Extended Low Frequency setting orings the augmented bass response of the dance club to your control room. Adopting technology developed for our flagship M2 Master Reference Monitors, the 3 Series are surprisingly affordable, so you can hook up a set and boost the image in your studio.

Learn more af jblpro.com/3series



Hear the truth



UBL

Produce | Infrastructure for the studios

Arrakis » ARC-10BP and ARC-15BP (bluetooth)

The "phone" channels on the ARC-10BP and ARC015BP can be used as a Bluetooth audio interface. This allows the operator to take phone calls via a cell phone with Bluetooth, or to play music from Bluetooth-enabled audio players. These channels can function as a "standard" phone channel with an

external codec or hybrid as well. www.arrakis-systems.com





SAS)) "Symphony" networked audio

SAS has introduced significant updates to their 32KD router platform at the heart of their "Symphony" networked audio system. New features include AoIP interfaces for linear and bit-reduced audio transport, silence sense and peak detection, DSP processing including compression, limiting, AGC and equalization, redundant hot standby MCU cards, dual network interfaces, expansion to 16 frames, redundant PC interfaces, and an updated softpanel suite.

www.sasaudio.com





)) Dynamax consoles

Sandies USA offers Dynamax series broadcast consoles in sizes ranging from 6 channels to 18 channels. Various configurations are available including rotary attenuators instead of linear faders. Consoles feature two stereo and two mono busses, auxiliary input selector, modular design, steel construction, and VCA control of audio.

www.sandiesusa.com



JBL)) 3 Series

JBL's 3 series powered studio monitors incorporate a new "Image Control Waveguide" for the high-frequency driver. This new design provides a wider stereo sweet spot, and more detailed high-frequency response. The LSR304 is a two-way monitor with a 5" low frequency driver, while the LSR308 offers an 8" low frequency driver. The LSR310S is a matching powered subwoofer with a 10" driver.

www.jblpro.com

Power Tools for A

AESDA

The AESDA provides extremely high quality AES Digital to Analog conversion while providing diagnostic analysis of the incoming digital signal to help in troubleshooting signal faults.

- 110 Ohm balanced and 75 Ohm unbalanced inputs.
- Dual function level meters display either digital input signal level or analog output level.
- Dual function LEDs display digital input information or signal condition/fault type.
- Separate balanced XLR and 3.5mm headphone outputs, each output has its own volume control.

AESAD

The AESAD is a portable battery powered device for converting mic or line level analog audio into an AES/EBU digital audio stream.

- The AESAD has two high quality transformer based mic preamps and outputs a single, variable level, AES/EBU digital signal. Phantom power is available to power condenser microphones.
- The output sample rate is selectable by the user and a word clock input is provided for synchronization with other AES/EBU equipment.
- Metering is provided to monitor both the analog input and digital output signal levels.
- The AESAD has a headphone output with level control.
- Operates from 4 AA batteries or the supplied wall power supply.

AES QBOX

Generate into or monitor from your AES digital sound system with this handy tool. Also doubles as a quality A/D and D/A converter and impedance transformer.

Receive Section

- Receives 32k, 44.1k, 48k, 88.2k, 96k, 176.4k, and 192kHz.
- Identifies Pro/Consumer mode, sample rate and faults.
- Converts AES digital to analog and outputs the analog via built in speaker or Line Out / Headphone jack.

Transmit Section

- Transmits 48k, 96k and 192kHz.
- Generate AES digital from analog Line In jack, built in dual tone generator or built in condenser microphone.



INTRODUCING AES-SP1x2

The Whirlwind AES Splitter 1x2 is a passive unit that delivers two identical AES/EBU signals from a single stream, maintaining excellent data integrity, and exceptionally high amounts of isolation between outputs.



1-800-733-9473 | 99 Ling Rd. Rochester NY 14612

Manage | Systems for automating and managing content flow



Jump2Go » JumpGateHD

JumpGateHD is a hardware gateway between a station's on-air automation system, streaming encoder, RBDS generator, and HD Radio system. It manages the flow of metadata between these various systems, the Jump2Go servers, and various other third-party services to provide a rich metadata experience for users listening on a variety of radios and other devices. All configuration, management, and monitoring are performed via web interfaces. A dedicated server is no longer required at the station to perform these "gateway" functions for metadata.

www.jump2go.com



ENCO)) DAD

DAD (Digital Audio Delivery) is a third-generation software system built upon ENCO's family of products in use at thousands of facilities worldwide. DAD runs on standard off-the-shelf PC hardware, and features a toolkit that allows broadcasters to implement an audio delivery and automation system that precisely meets their needs. The latest addition to DAD is "Presenter", an integrated interface that gives operators flexible control from a single screen. DAD is available as software only, or as a turnkey system delivered with hardware and software.

www.enco.com

Digital Jukebox » Audio & WebStream Logger

The DJB Audio & WebStream Logger is capable of recording live audio from a sound card input, or logging audio directly from a web stream without a local audio device installed. Configurations are available in 1, 2, 4, and 8 channels to support individual stations or larger station groups. Each channel also provides silence sense monitoring with e-mail alerts.

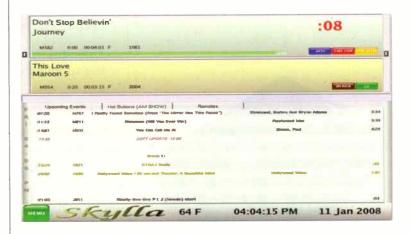
www.digitaljukebox.com

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SMARTS)) Skylla

Skylla from SMARTS Broadcast is designed for a variety of applications including live assist, music on hard drive, voice tracking, and satellite automation. The heart of the system is based on Linux for reliability, with production and traffic utilities running on standard Windows based machines. Other available features include the ability to automatically import files from FTP sites, and easily schedule programming. Detailed reporting of items scheduled and played is available for affidavits and other purposes.

www.smartsbroadcast.com



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www.tieline.com/xtra

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World Radio History

AFFORDABLE

Link | Getting your content from here to there



Comrex » Opus Support in Codecs

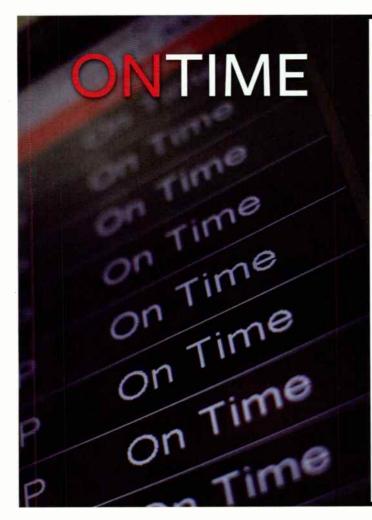
Comrex Corp. has announced the integration of the Opus audio algorithm for its popular ACCESS and BRIC-Link IP codecs. Opus is a newer, high-quality, low-delay algorithm found in a growing number of free Smartphone apps for iOS and Android. These free apps are currently available and make wideband, high-quality connections to Comrex studio codecs more convenient than ever. A preferred app, LinPhone, is a good choice because it doesn't require registration and can dial directly to the IP address of any Comrex codec running v3.0 firmware. Linphone is also easy to set up and use.

www.comrex.com



WorldCast)) Oslo 1U

The Oslo 1U supports up to 16 channels of audio in 1 rack unit. The 1U Oslo platform can accommodate up to 4 AoIP modules, each being equivalent to a stand-alone stereo duplex codec combining audio, dual IP transport and auxiliary data on board. The unit can also be used for audio transport over T1/E1 with up to three audio cards, delivering simplex or duplex audio with analog or digital 1/O via a DB37 connector. The 1U Oslo is compatible with the larger 3U Oslo platform, and features a DSP-based architecture for 24/7/365 operation, redundant power supplies, hot-swappable cards for uninterrupted audio. Linear, Enhanced apt-X and many other audio coding schemes are supported.





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Order your system today and receive it tomorrow... call us at 970-461-0730 ext 309



ARRAKIS SYSTEMS INC



Link | Getting your content from here to there

GatesAir)) IP Link

The IP Link family of IP audio codecs provides an array of audio coding options, and is suitable for use in Studio to Transmitter Links (STLs) as well as audio contribution and distribution networks. Support for IP multicast and multiple unicast streams enable one encoder to feed multiple decoders. By incorporating three IP interfaces that can be used for streaming and management, the IP Link systems can provide a high level of reliability over multiple IP connections.

www.gatesair.com





Tieline)) Bridge-IT Xtra

Bridge-IT Xtra supports multicasting and can deliver six stereo multi-unicast audio streams over the public Internet. Alternatively you can connect it to Tieline's Report-IT Enterprise smartphone app to create a cost-effective, high-quality remote solution. The codec offers dual internal power supplies, simultaneous analog and digital AES/EBU audio outputs via XLR connectors, plus front-panel and rear-panel stereo headphone sockets. A variety of encoding algorithms are supported. It features an SD/SDHC card slot for automatic audio file backup, and will connect to any SIP-enabled IP codec brand. Bridge-IT XTRA is also EBU N/ACIP Tech 3326 compatible over SIP for compatibility with other codec brands and devices.

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Remote Control for Simian 2.2 PRO Radio Automation



Simian Gateway opens a portal into your Simian 2.2 PRO Radio Automation, enabling real-time remote control and advanced Remote Voice Track creation over the internet.

Live Remote Control

The Simian Gateway offers a TCP/IP portal into your Simian 2.2 Pro automation system so that Simian Remote for PC and Simian Remote for iPad can connect to your automation system. The Simian Gateway manages up to ten connections from Simian Remote clients to a single Simian 2.2 Pro On-Air or Production installation over your local area network or across the internet. Each person in a multi-talent program can have their own interface!

Full Featured Remote Voice Tracking

With Simian Gateway and Simian Remote clients, you now have the ability to create and insert voice tracks remotely! We aren't talking a simple insertion of a recorded audio file. Simian Remote's advanced voice track editor can download intro and segue cuts that the Simian Gateway creates for the songs surrounding your voice track so that you can fully preview and set cross-over points for your voice track!

Cost Effective

Simian Gateway comes at a very affordable add-on price to Simian 2.2 Pro. Contact BSI Sales for pricing information.

Simian Remote clients are completely free. All you need is the Simian Gateway and you can install and run a Simian Remote client on as many devices as you wish. There are Simian Remote client versions for both Windows PC and iPad.



Simian 2.2 PRO to manage TCP/IP communications between Simian **Remote clients &** Simian 2.2 PRO

Broadcast | Launching your content from the transmitter site

2014 Radio

Wheatstone Corp. » SG-192

Wheatstone's SG-192 FM stereo generator can provide stereo generation for audio compressors and limiters that lack a stereo generator, or are installed in a location where the

stereo generator cannot be used. It offers a stereo multipath controller to help mitigate the effects of multipath-induced stereo receiver blending in the absence of clean reception. Audio interfaces for the exciter include composite analog (two separate outputs are available), or 192 kHz AES digital composite baseband for compatible exciters. A dedicated 10 MHz synchronizing input is useful for single frequency networks, translators, and repeater applications.

Dielectric)) DCR-T

The DCR-T antenna is a low-power version of the DCR-H, and is available in one through eight bays with an input power rating up



to 8 kW. Each array is field-tunable and can be optimized anywhere on the FM dial. The antenna is DC grounded for lightning protection and does not require shorting stubs. The antenna is also suitable for emergency applications where a lightweight, low-power, frequency-agile antenna is required to quickly restore service.

www.dielectric.com

Armstrong Solid-State Transmitters

Armstrong's "LCD Series" and "Series B" Solid-State FM Transmitters utilize a building block approach to achieve the required transmitter output power. Multiples of either the FM1000LCD or FM2000B self-contained Solid State Amplifier are rack-mounted with an appropriately sized driver and externally combined. The amplifiers use 300-watt RF modules that contain the commonly available and robust Philips BLF 278 MOSFET. Each output device is thermostatically protected and protected against excessive VSWR by a foldback circuit, which proportionally reduces power when VSWR is present. In addition,

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18 | 2014 Product Source

Launching your content from the transmitter site | Broadcast

Orban)) 5700

The 5700 provides the sound and features of the 8500 in a 1U package. It includes stereo en-

hancement, equalization, AGC, multiband compression, low-IM peak limiting, stereo encoding, and composite limiting. The front-panel display includes a 2x40-character LCD and LED bar graphs that show all metering functions of the processing structure in use. Navigation is by dedicated buttons, soft buttons, and a large rotary knob. Ethernet

OPTIMOD

connectivity is standard. Additional control mechanisms include GPIO, and ACSII control via serial and Ethernet. SNMP control is also supported. The 5700 is available for FM or HD and can be upgraded to the 8600S without removing the unit from the rack.

www.orban.com



Shively)) 6842

Featuring a broadband circularly polarized design, the Shively 6842 is designed for medium-power applications up to 7.5 kW per bay. Arrays are available up to 8 bays, with a total input power rating of 60 kW. Input connections are 7/8" for a single bay, 1 5/8" for up to five bays, and 3 1/8" for larger arrays. Pressurization of the antenna is not required. This antenna array is suitable for installation as an auxiliary antenna at a multi-station transmitter site that can be switched to different transmitters and frequencies as needed.

www.shively.com

the transmitter combiner also triggers foldback when external VSWR is detected. Metering and Alarm indications are available for each amplifier, the exciter, and the driver. Overall transmitter metering and alarms are available both on the transmitter front panel, and via DB25 connector located on the rear panel of their chassis for remote monitoring. www.armstrongtx.com





The ARC Plus Touch is designed front to back with one important mission...**Keeping you on the air.** From the intuitive touch screen to the new tablet-ready web page, from SmartPhone to dialup, you are never out of touch.

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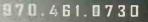
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- Cirrus[™] Player... for Windows & Mac .
- Stream in... HE-AACv2 (formerty AAC+)

Sign up for a Securenet Systems hosting plan and receive a FREE copy of Arrakis New~wave professional Internet Radio automation and production software for the life of the plan... a \$75C value.

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\$399 a month As many Listeners as you need New~wave Automation included

The New-wave automation software will function while a valid Securenet Systems stream hosting program is active. All plan prices are based on a 32 Kb/sec HE-AACv2 stream. All prices and features are subject to change without notice.

www.arrakis-systems.com

World Radio History

170.461.0730

Broadcast | La sching your content from the transmitter site

2014

BW Broadcast)) Vertus

The Vertus Encore AM/FM translator combines BW Broadcast receiver technology from their RBRX series with a 300 watt transmitter in a completely new hardware platform. One unique feature of this combination is the ability to translate AM stations to FM while enhancing the quality of the AM audio. Other features include the ability to failover to backup source audio from an alternate source station, streaming audio or MP3 files. Dual receive antenna inputs are provided. The Vertus can

also function as a standalone transmitter. An input for GPS synchronization is provided for SFN and booster applications. RBDS can be generated locally or derived from the incoming signal as necessary and the unit can be set to transmit only on reception of specific **RBDS** data.

www.bwbroadcast.com



Crown Broadcast)) E-250

The Crown Broadcast E-250 FM transmitter has been designed to offer a new solution for low-power transmission. This transmitter line offers increased reliability and efficiency with a sixth-generation MOSFET, and a digital direct-to-channel FM exciter. Features also include dynamic RBDS

encoding, an FM limiter, and extensive remote control by Web server, SNMP, RS232 or GPIOs. A 10-year warranty is standard when used with EMR maintenance reporting.

www.crownbroadcast.com





Thermo Bond) Lightweight Shelters

Thermo Bond equipment shelters are constructed to customers' specifications and shipped assembled, including lights, outlets, air conditioners, heaters, generators, transfer panels, ventilation systems, cable ladder, grounding systems, etc. Shelters are available in sizes ranging from 4' width x 6' length to 24' width by 42' length. Walls, floors, and ceilings are constructed with extensive insulation and environmental treatments to protect the building from the elements. The standard exterior finish is the Thermo Bond Aggregate Panel, and minimum wall wind load is 120 miles per hour.

www.thermobond.com

Nautel)) GV Series

Nautel's GV series is the followup to the company's NV series. New features include increased digital efficiency, reduced costs for IBOC operation, a new HD Spectrum/Efficiency optimizer, dedicated "backup" controller user interface, site control via AUI, low mains voltage operation at reduced output power, and dynamic RBDS scrolling. The GV series also integrates a number of features introduced in the NV series such as HD PowerBoost, modulation error rate measurement, asymmetrical



sidebands, constellation view of digital modulation, and HD reliable transport. Power levels are available from 3.5 kW to 88 kW

www.nautel.com



22 2014 Product Source

La nching your content from the transmitter site | Broadcast

Rohde & Schwarz)) THR9

The R&S THR9 high-power FM transmitter family features an energy efficiency of up to 75 percent. Liquid cooling and the integra-



tion of multiple transmitters in a single rack minimize space requirements. The liquid-cooled

transmitters deliver FM output power of up to 40 kW per rack. The integration versatility ranges from single transmitters with built-in pump unit and space for additional system components, to multi transmitter systems, and even N+1 configurations in a single rack. By making it possible to integrate high output power and multiple transmitters, Rohde & Schwarz offers the highest power density per rack. The R&S THR9 transmitter is capable of analog or digital operation.

2014

Radio

www.rohde-schwarz.com

Sabre)) S3TL

Sabre offers a pre-engineered lightweight line of self-supporting towers designed to carry lighter loads. Appropriate for a number of communication applications, these three-legged towers vary from ultra-light load capabilities to medium duty. All steel parts are hot-dip galvanized to ensure uncompromising integrity in the most severe climates. The S3TL series is suitable for medium loads, with tubular legs and angle bracing. Sections are available in 5, 10, 15, and 20



foot lengths at heights of up to 240 feet. www.sabretowersandpoles.com

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Monitor | Making sure your content is heard



Burk » ARC Solo

New for 2014, the Burk ARC Solo offers many of the features of the ARC Plus series in an integrated package at a lower cost. The unit features 16 metering inputs, 16 status inputs, and 16 raise/lower relay pairs. Connectivity is provided via POTS or Ethernet, and automatic intelligent control is included with Burk's JET active flowchart programming onboard. Management is available via the unit's internal mobile compatible web server, or from AutoPilot 2010.

www.burk.com

Audemat)) Mini Control Silver

Audemat's Mini Control Silver can be configured to connect with a variety of equipment at a site. 8 metering inputs, 8 status inputs, and 8 relay outputs are provided. The Mini Control Silver is also capable of direct connections to other equipment using serial protocols or SNMP via an IP network. Three devices can be monitored via SNMP simultaneously; additional SNMP licenses are optional. All units linked to the Mini Control Silver can be monitored and controlled locally and remotely via Ethernet or optional POTS modem. The Mini Control Silver can also trigger automatic actions providing a complete management solution.

www.audemat.com



Davicom » DV-Mini

Davicom offers a line of remote facility controls in several sizes. The DV-Mini is a 1RU package that offers 8 analog inputs for metering, 16 digital inputs for status, and 8 relay/open collector outputs. RS-232 serial and Ethernet ports are also provided for connecting to equipment via terminal ports or SNMP monitoring. An internal modem is available in place of the RS-232 serial port. "Virtual" channels are also provided to allow complex logic events without tying up physical inputs and outputs. iOS and Android apps are available for communicating with the unit, in addition to the Davicom software.

www.davicom.com



Broadcast Tools » Site Sentinel 16

The Site Sentinel 16 is a web-enabled 16-channel remote control system. The system is equipped with 16 metering channels, 4 virtual metering channels, 16 optically-isolated status inputs, 33 programmable SPDT relays, 4 temperature probe inputs, an internal temperature monitor, stereo silence sensor, and power failure monitor input. The unit can be monitored and controlled over any IP network from a web browser (including mobile devices). Alarm notification can be sent via e-mail and SMS. Metering and status values from the unit can also be sent via e-mail at selected intervals. SNMP and SMTP (including authenticated SMTP) are also supported.

www.broadcasttools.com





BDI)) DPS-100D power meter

The BDI DPS-100D is an RF Power Measurement System that includes a number of unique features. The metering electronics package is attached directly to the line section, which can be ordered in various sizes. Communication with the meter is via Ethernet and onboard web server. Multiple units can be connected to form a complete system, and external sensors can be attached to provide additional information. Eight programmable GPI ports are provided, along with two form C relay closures, and analog 0-5 volt scaled outputs for power indication. Line section temperature measurement, and a second temperature sensor input are also provided.

www.broadcast-devices.com



CircuitWerkes)) WAM-2

From CircuitWerkes, the WAM-2 Web Audio Monitor & Site Control combines two monitoring functions in one device. It features the ability to monitor a stereo (or dual mono) audio input from a local source or (optionally) monitor a source from a web stream. In addition to monitoring audio, two status inputs allow monitoring of other external site conditions. Six relays (four SPST, two DPDT) are provided for site control and alarms. These relays can be configured to alert based on audio input conditions, or can be controlled via the internal web interface. Alarms can be sent via E-Mail or SMS. Remote streaming of the input audio is also optionally available.

www.broadcastboxes.com

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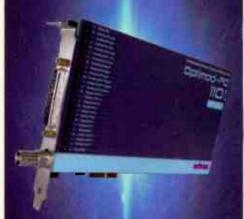
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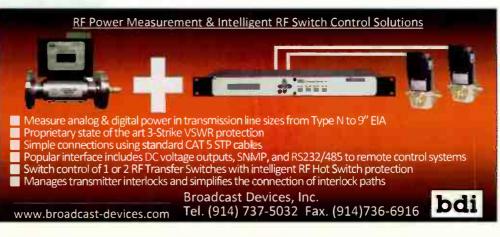


BW Broadcast Itd)) RBRX Encore

BW Broadcast introduces a followup to the successful RBRX1 with the RBRX Encore re-broadcast receiver. Encore is a new hardware platform, integrating a number of functions that would normally require additional external devices. Features include advanced noise reduction technology, and BW Broadcast audio processing to deliver enhanced audio quality and stereo separation. The unit also includes a second tuner, with full diversity reception from two antenna inputs. HD, AM, DAB, and DAB+ reception are supported as options. An RBDS generator is standard. Data can be re-generated from the incoming data, or modified. Receiver audio can be streamed via a web interface for remote monitoring, and backup audio can be played from MP3 and AAC files on internal or external USB storage, a web stream, or an external audio input should the incoming signal be lost.

2014





Making sure your content is beard | Monitor

DM Engineering >> Multi-Station Relay Expander

A new product from DM Engineering, the MSRE is an expansion accessory for the SAGE ENDEC and Digital Alerting Systems DASDEC. This unit provides six form C relays to control external routing switchers for audio insertion on up to three additional stations from the EAS unit, for a total of four. Two relays are provided for each station, but they may be programmed

to operate individually if necessary. Communication with the EAS unit is via RS-232 serial. A front-panel test switch is also provided for configuration and testing. Standalone and rack mount



versions are available (MSRE and MSRE-RM).

www.dmengineering.com

Veetronix)) 2TR9A Alerting Receiver

The 2TR9A is a dedicated alerting receiver in a desktop enclosure that will monitor an RF channel 24/7 for alert tones. Frequency and alert tone parameters are programmable. Volume, squelch, and a two watt amplified speaker are provided. A front-panel pushbutton allows the user to monitor the signal, or mute the receiver until a tone is received. A backup battery



power supply, DTMF or CTCSS tone decoding, and relays for controlling external devices are optionally available.

www.veetronix.com

2014

Radio

Inovonics)) AARON FM

The extremely sensitive and selective front end of the Aaron 640 digitally decodes the entire analog baseband. Outputs are low-latency MPX, balanced analog and AES-digital signals for retransmission. The back panel provides a 50 ohm (N) antenna connector, a true (off-air) composite output, balanced analog and AES-digital audio, and remote IP access. Rear-panel and self-logging alarms constantly check for

audio loss, RF loss, and RDS loss (or hijacking). Online notifications can alert personnel with e-mail or instant text messages when any of the alarms occur. The front panel displays left and right audio metering, local LED alarms and an LCD screen with jog wheel for advanced control and editing of all tuning and monitoring parameters.

www.inovonicsbroadcast.com



DEVA Broadcast)) DB7007

With an extensive internal monitoring system, the DB7007 can send a notification and automatically switch to a backup audio source when the input signal is lost. In case of a failure of the first backup audio source, the DB7007 can switch to a web stream or internal MP3/AAC audio file playback. The audio files and playlists can be uploaded directly to the device's internal

memory from via FTP. When the primary input signal is restored, the DB7007 will automatically switch back to it. Alerting options include e-mail, SMS, and SNMP. The DB7007 has an easy-toread, high-resolution OLED graphical display, front-panel alarm indicators, and bright LED bar graphs for MPX, left and right audio and RF level. Adjustable IF bandwidth filters maintain signal selectivity in difficult adjacentchannel conditions.



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2014

Radio



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The social studio reacts to what listeners are talking about, liking, following and tweeting. It responds to the music you are playing with up-to-the-minute information from both artists and

fans. It knows which feeds to aggregate and route to each studio. Radical new social media tools extract compelling content, help build lasting relationships and put intelligent sorting, filtering, routing and publishing tools at your fingertips. New for this year is the ability to automatically switch live video based on audio inputs. This makes it easier to produce a simultaneous webcast of the action in the studio during call in shows.

www.broadcastbionics.com

Broadcast Electronics)) Commotion

Broadcast Electronics Commotion Wall is a platform that was developed specifically for social media interaction in a radio station environment. The Commotion Wall is the central control center for the Commotion platform. It connects stations to listeners whether they are on Facebook, Twitter, SMS, IM, the request line, the station's website, or mobile app. The concept behind Commotion Wall is to make the communication source transparent to the station. All social media traffic from listeners comes into a single interface. When the station DJ replies, the

message is routed back automatically to the originating social media channel. One main difference between Commotion Wall and other social networking aggregators is that Commotion aggregates both sides of the conversation, displaying this traffic in the Activity Stream on the Commotion Bar.

R



Arctic Palm)) CenterStage Live/ CS Social

Center Stage Live is a software suite of tools to create, schedule and send information to various systems and devices. Schedule promotional, informational, or commercial messages in the RDS datacasting system, live copy in the on-air studio, or content to the web site and social media. CSSocial is a new plug-in for both Center Stage Live and CS Contest Management that will automatically post selected items along with Hash Tags and URL links to social media. Working in conjunction with Arctic Palm's CSRDS module, selected items will be posted to social media as they are displayed on RBDS encoders, updated to web sites, shown on HD Radio systems or on-line streaming players.

www.arcticpalm.com





Connecting with listeners on other platforms | Interact



Vidigo)) Visual Radio

VidiGo Visual Radio is an automated software solution that automatically switches cameras and plays graphics by analyzing audio signals, and XML data from the radio station's automation system. Visual Radio 2.0 comes with Audio Director, which offers numerous scripting possibilities for automated switching and video effects. In addition, the MADI support for Audio Director allows integration of a variety of professional digital audio and video hardware. The Sync Video Clip Starter allows lip-sync video playback simultaneously with radio tracks. Visual Radio 2.0 also offers support for Panasonic camera control, including automated pan/tilt and zoom. For the radio DJ, VidiGo created a remote tablet control for clip and graphic management.

www.vidigo.tv



Newtek)) Tricaster 410, 460, 480

All systems now offer four or eight full mix/effects (M/E) channels, expanding the system's switching performance. Producers can use these M/Es to generate layered and composited real-time video. produce sub-mixes in the main video program, and output content as a secondary program—all with switcher behaviors, transitions, overlays, multi-source layering and virtual sets. Additional enhancements now standard across the product line include advanced virtual sets with new camera motion controls; new "holographic" virtual sets that blend panoramic images with layered and composited video; broad media publishing functions for simultaneous multi-channel content delivery; expanded buffers for creating hundreds of custom motion and animated graphics; new, unique remote robotic camera controls; and extensive macro and automation functions that greatly simplify the execution of system commands during a live program and integrate with venues that already use comprehensive MIDI automation.



Rushworks)) Vdesk

VDESK Radio/TV integrates video in the radio studio with a simple touchscreen based operator interface. This video streaming and recording system allows broadcasters to generate additional revenue streams by producing video for mobile devices and Internet TV screens. Configured with PTZ cameras, the touchscreen interface replicates chair and microphone placements in the studio. Touching the corresponding screen icon places air personalities and guests on-the-air within seconds. The program includes a number of visual effects; from multiple animated text layers and automated "snipes" to double-box shots for Skype interviews. Programming can be streamed to PC, MAC, iPhone, iPad, Android, Roku and GoogleTV.

www.rushworks.

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www.newtek.com

Measure | Verifying performance of systems

Audemat)) FM MC5

The Audemat FM MC5 is a comprehensive and versatile measurement platform. In the broadcast environment, it can be used as portable equipment to perform detailed monitoring within the coverage area, or for static field measurements. It is also suitable for commissioning and maintaining FM equipment at the transmitter site. It offers RF scanning, mobile RF analysis and RDS decoding, MPX analysis, signal generation (RF MPX and audio), and a multitude of other test and analysis capabilities (frequency meter, distortion meter, spectrum analyzer and oscilloscope).

www.audemat.com



Keysight Technologies **) FieldFox**

FieldFox RF analyzers are designed to withstand tough working conditions and provide bench instrument accuracy in a portable and rugged package. To accelerate operation, each mode has a task-driven user interface that saves time in the field. The N9912A's base function is a cable and antenna analyzer. It can optionally be licensed to include a spectrum analyzer, and network analyzer (1 port transmission/ reflection, 2 port scalar). FieldFox can also be ordered with additional capabilities including power meter, preampli-



fier, independent signal generator, and interference analyzer. All options can be licensed and added to the base model as needed through software. Standard accessories include AC/DC adapter, battery, soft carrying case, LAN cable, Quick Reference Guide, and User's Guide. In addition, Keysight Technologies offers a standard 3-year warranty on all RF and microwave FieldFox analyzers.

www.keysight.com



Verifying performance of systems | Measure

DEVA Broadcast)) Radio Explorer II

This mobile tool evaluates FM broadcast signals and stores recorded parameters in a log file. An internal GPS receiver records position information for mobile signal analysis while driving around the coverage area. The built-in FTP server allows downloading and managing stored files through Deva Device Manager Software. A DSP-based I M radio tuner front-end processes the received signal for field surveys and on-site monitoring. Radio Explorer is also useful for analyzing signal strength and quality



after repairs, adjustments, or installa-



after repairs, adjustments, or installation of new equipment. This cost-effective device can measure RF level, MPX deviation, left and right audio levels, RF field strength, RBDS and pilot injection levels. Measurements are available on the unit's OLED graphical display.

NTI Audio) Flexus FX-100

The Flexus audio analyzer offers a modular hardware platform, which allows customization for two or four channel parallel operation. Analog and digital audio I/O modules are available. The impedance module supports speaker measurements for obtaining impedance plots and Thiele-Small-parameters. Individual input and output switcher modules extend the audio analyzer to 14 input channels or 14 output channels connected simultaneously. The FX-Control software can operate

several FX100 in parallel, thus offering cascaded system measurements. For measurement speed optimization, the analyzer performs all measurement functions in parallel. State-ofthe-art measurement technologies consisting of last glide sweeps, detailed stepped sweeps, and a continuous meter mode further support fast and accurate measurements.

www.nti-audio.com





The CableIQ tester can quickly determine if a new or existing cable is properly wired and capable of supporting a particular speed and application. This hand-held tool shows the

maximum speed the cabling can support, and helps solve network connectivity problems by performing wire mapping and other tests. The qualification test determines if the cabling can support 10Base-T, 100Base-TX, VoIP and Gigabit Ethernet. Its ability to see cabling bandwidth, coupled with device speed and duplex detection, allows cabling and



bandwidth problems to be isolated from other network related problems. When problems are determined to be cabling related, technicians can use CableIQ's diagnostics to locate the faults. www.flukenetworks.com

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www.scmsinc.com



RF Specialties

The RF Specialties Group is an alliance of independent broadcast suppliers. They have 18 offices throughout the United States and the Philippines, with technically qualified sales people, and represent more than 300 different product lines as well as custom work. Products include AM/FM, TV, and satellite transmitters; antennas, coaxial cable, STL, and RPU equipment. They also offer a complete range of studio products such as audio consoles, microphones, amplifiers, speakers, and digital audio management systems.

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takes care of everything. Family-owned since its inception, the business is now being run by the second generation of the Shute family. Broadcasters General Store knows how to get things done by coordinating the ordering from over 400 manufacturers' products and arranging delivery and staging of projects through reputable installers to deliver complete systems.

www.bgs.cc





Each year, *Radia* magazine conducts a survey of our readers to gather information about current salaries from a variety of professionals in various positions within the industry. The results from this survey can be used as a valuable reference point for you and your peers when searching for jobs or during salary negotiations. The survey only takes a few minutes of your time to complete and responses are completely anonymous.

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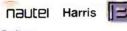
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7.5 KW	2002	Harris Z7.5CO, solid-state, S PH
10 KW	1988	BE FM10A
20 KW	1989	BE FM20B
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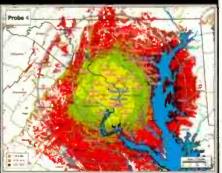
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Radio Automation...

ARRAKIS SYSTEMS INC.

48:57 AM

NEW WAVI

00:00-15

'NEW~WAVE'+'DAC'

ON AIR RADIO SOFTWARE FOR LIVE ON AIR & HARD DISK AUTOMATION ... PROFESSIONAL USB SOUND CARD WITH BALANCED ANALOG AND DIGITAL OUTPUTS ... ONE WEEK SCHEDULER ... EDITOR/RECORDER SOFTWARE FOR PRO-DUCTION ... VOICE TRACKER ... MUSIC SCHEDULER ... JUST ADD A WINDOWS PC AND STIR.

A perfect Live On Air & Automation solution for a single PC broadcast or Internet Radio station... only \$1,100 bundle price*

This NEW~WAVE software plus DHD-DAC hardware bundle combines the strengths of NEW~WAVE software with the professional features of the DHD-DAC USB player hardware. The software is perfect for live or automated on air radio or internet radio, while the hardware provides the high performance USB play sound card with professional balanced analog and SPDIF digital outputs that the PC lacks. And because it is an external box that connects to the PC by USB cable, there are no clumsy sound cards or drivers to install inside the PC. The internal PC sound card is used for appropriate background tasks such as Cueing and recording voice tracks. This remarkable combination of software and hardware, combined with a new PC, creates a powerful, professional digital audio workstation for today's diverse radio applications.

The NEW~WAVE software part of the bundle is designed specifically for playing audio files from hard disk, internet streams, FTP stored audio files. MP3 players, smart phones and much more. NEW~WAVE brings together all of the newest technologies to produce an exciting show for your radio audience. Play live broadcasts, automated broadcasts, podcasts, and stream for internet radio... all at the same time. Most important, NEW~WAVE is quick to learn and easy to use. Designed for both novice and professional alike, it has the simplicity required to get to air quickly and yet the sophisticated features for advanced users.

New~wave software only \$750

*save \$150 from the individual product pricing

www.arrakis-systems.com

970.461.0730

ARRAKIS SYSTEMS INC.

Radio Automation...

DIGILINK~HD

- MULTI-STATION, MULTI-SITE SUPPORT
- VOICE TRACK FROM ANYWHERE
- SCHEDULE FROM ANYWHERE
- SUPPORTS 'VPN' NETWORKING
- LARGE NETWORK FEATURES
- MULTI-STATION/SITE AUDIO DISTRIBUTION
- MULTI SOUND CARD CONSOLE INTERFACE
- LIVE AND AUTOMATED UNATTENDED GAMES



Get a complete Multi-station solution with software, hardware, upgrades, support, and training for...

only \$200 /month*

Designed for multi-station and multi-site radio groups, Digilink-HD is full featured, and it is easy to install, use, and maintain. Choose from either the no contract \$\$\$ per month 'Solutions Program' or the 'Digilink-HD' purchase option.

With the \$\$\$ per month 'Solutions Program,' you receive Digilink-HD on air software, DHD-tools Manager software for the on air PC, and "Bridge" hardware PLUS training, support, and upgrades for your ENTIRE radio station. You then purchase factory configured DELL PCs from Arrakis. For less than the cost of a customer support contract for most automation systems, you can be on air tomorrow with Digilink-HD.

With the 'Digilink-HD' purchase option for \$10,500, you purchase a complete system ready for air: DELL business PC, Arrakis 'Bridge', and Digilink-HD software for on air, production, scheduling, voice tracking and more. The system comes with a full year of the 'Solutions Program' with training, support, upgrades, and next business day 'Bridge' replacement if it should fail. The DELL PC comes with 3 years of next business day, on site service from DELL. The DHD-tools Manager software for scheduling, reporting, voice tracking etc is only \$500 per studio.

*There are substantial discounts for additional on air studios on the same site

Order your system today... call us at 970-461-0730 ext 309