



Winter 2011 NEWSLETTER

A.R.F.C.® All Radio Frequency Communications



TEX2000LIGHT front view

At the NAB Exhibition in Las Vegas this year, RVR Elettronica released their new "GREEN line" range of FM transmitters and RF power amplifiers. The new RVR GREEN line provides 70% overall efficiency (80% at the RF module output) for power levels of up to 2.5kW in only 3RU rack height.

The GREEN line is available in the RF power amplifier PJ-MCs series and the hugely popular TEX series as a complete, all in one transmitter. The new high efficiency transmitters and amplifiers are available in 1,600, 2,000 and 2,500 watts.

A 10kW FM transmitter was on display at NAB (pictured right), using five 2kW Green Series RF amplifiers, exciter and splitter/combiner unit.

RVR Elettronica also configures solid-state FM transmitters (up to 40kW) using their various amplifier designs. These include the PJC-LCD Compact Series (includes the new Green Line products), the PJ-MC Modular Series, the PJ-KPS Series (hot-pluggable PA modules), PJ LC series (liquid cooled) and the PJ-KPS-C Series (compact, hot-pluggable slide-out PA drawers).

If you would like information on any RVR products please contact our office



Peter, Gordon and Valentino Biavati (CEO of RVR) pictured in front of a 10kW, solid state, FM transmitter using the new GREEN line amplifiers

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NEW STEREO AUDIO MONITOR



Henry Engineering Announces New Stereo Audio Monitor

At the 2011 NAB exhibition in Las Vegas, Henry Engineering debuted their new Stereo Audio Monitor (SAM), an analogue and digital audio stereo level and phase meter. The SAM uses Single Stereo Display technology (patent pending) to display *both* channels of a stereo audio signal using *one* LED meter

The Single Stereo Display utilises tri-colour LEDs, showing the left channel in green, the right channel in red and both (L+R) displayed in yellow. By watching the Single Stereo Display, the user can easily read the levels of both audio channels, see balance between the channels and instantly see if a channel is missing.

SAM uses a second Single Stereo Display to show the (L+R) and (L-R) component of the stereo signal. The user can instantly see if excessive L-R levels could indicate a phase error polarity reversal in the audio chain. SAM's display is easier to read than a vectorscope, especially for a non-technical user.

SAM accepts either an AES/EBU digital or analogue inputs. It accurately indicates system levels over a range of -25 to +3 VU. A headphone jack is provided for aural monitoring.

Henry Engineering offer a complete selection of audio interface, mixing, distribution, switching, and control equipment.



Hank Landsberg and Peter Jamieson at the Henry Engineering stand



Elan Audio Price Reduction

Elan Audio are happy to announce a price reduction in their popular field reportage unit.

The **PhoneBox** is now priced at **\$1,450+GST** and is available for immediate shipping



New From NAB 2011

Inovonics introduced 2 new products at NAB in Las Vegas this year..

First was the **David IV** FM/HD Broadcast processor and the second is the **INOMini 632** FM/HD radio monitor receiver



Continuing on with the hugely popular 'David' range of processors, the **719 "DAVID-IV"** features comprehensive audio processing, including gain-riding AGC, 5 bands of dynamics compression and equalization, stereo enhancement and sub-bass augmentation, and Inovonics' patented PIPP limiter.

Processing is integrated with a high-performance stereocoder (stereo-gen) that includes active and metered RDS combining. The "DAVID-IV" can accept analog and AES-digital inputs, and has two separate composite/MPX outputs in addition to both analog and AES-digital line outputs. The line outputs can be configured for either FM or digital-radio transmission characteristics.

The **INOMini 632** is a FM and FM/HD-Radio™ receiver for off-air broadcast monitoring.

The analogue FM receiver decodes the digitised text and 'housekeeping' data from the FM RDS (Radio Data System) and that is displayed on the front-panel LCD screen of the 632, along with readouts for signal quality information.

The 632 has balanced analogue L/R and AES-digital program line outputs. There is also front panel indicators for alarms with rear panel 'contact closures', for Carrier Loss, Digital Program Loss and Audio Loss



With the strong Aussie Dollar sitting around parity with the US Dollar at the moment, the Inovonics range is becoming a more and more cost effective solution for the Australian market....

Along with the new 719 and 632, Inovonics offer a complete range of Audio Processors, RDS Encoders, Stereo Generators, Modulation Monitors for both AM and FM, RDS and SCA Monitors and Off-Air Receivers.

If you would like more information or pricing on any of the Inovonics range please contact our office



Lukas Hurwitz (Sales & Marketing Manager Inovonics) with Peter and Gordon at the Inovonics stand



ABE - MPEG-4 encoders

ABE's new products at NAB 2011 are related to the DVB-T and DVB-T2 standards. MPEG-4 encoders are now available. ABE are now supplying equipment that can be changed from DVB-T to DVB-T2 with a minimum of hardware changes. To this end the equipment is now being supplied such that only those modules that need to be changed for the new configuration can be changed without affecting the rest of the equipment. i.e. changing the MPEG-2 encoder for a MPEG-4 encoder within an item of equipment with no changes to the mechanical arrangements, connections, or power supplies.

With the push for "Green" transmitters ABE, apart from using power factor corrected high efficiency power supplies, is offering higher overall efficient digital TV Transmitter with other innovative applications of adaptive and automatic control systems. Such systems result in MER's of 38 dB or better with overall transmitter efficiencies of 30%.



Roberto Valentin (CEO of ABE) with Gordon and Peter at the ABE Stand



Indoor and outdoor enclosures

DDB Unlimited have been known in the radio business for over 30 years and have seen the need for user friendly cabinets. They started manufacturing their indoor line of cabinets and found a vast interest in outdoor cabinets and enclosures.



This was mainly because most manufacturers are still producing the same, huge, cumbersome steel enclosures used 40 years ago.

With the creation of ALUMIFLEX they have created a powder coated, light weight, durable range of cabinets at a very affordable price.

DDB have a wide range of standard enclosures available and also offer a complete customisation service without the usual "custom" price tag.



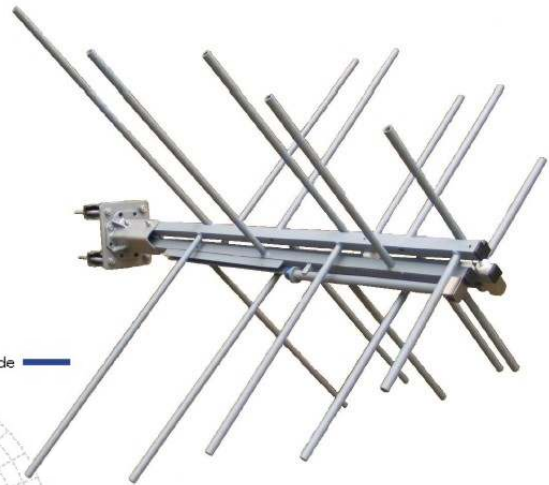
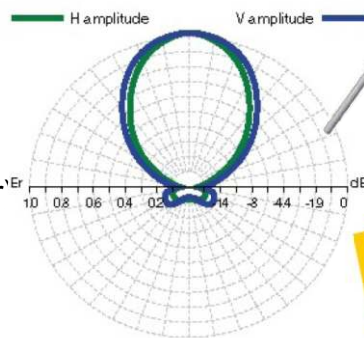


ALP.05.02.912 - FM band mixed polarisation antenna

The **ALP.05.02.912** is a new VHF - FM band, mixed polarisation antenna from Aldena. This log-periodic antenna has 5 elements and manufactured from welded and painted aluminium.

This ALP.05.02.912 has a directional radiation pattern with reduced side lobes. It is suitable for low and medium power FM broadcasting and can be used individually or in a stacked array.

Bandwidth - 87.5-108 MHz
 Average Gain - 5.5 dBd (7.7 dBi)
 Polarisation - circular, mixed
 Max Power - 2x3000w (single carrier)
 Connector - 2 x DIN 7/16 female
 Dimensions - 1761x1761x1490mm



NEW



elan
audio

RPF-03 - 3 input program fail detector



The RPF-03 Program Fail Detector is a versatile unit suitable for use at studio and transmitter sites as a general program fail detector, automatic line changeover and emergency program controller.

The RPF-03 is an upgrade of the very popular RPF-02 and is provided with 6 independent audio program fail detector channels which can be used as 6 independent mono or 3 independent stereo program fail detector channels. It also features adjustable fail delay, recovery delay and input sensitivity, front panel status indication, front panel USB port for PC or remote setting, front panel headphone jack with volume control and an optional LAN port for remote access.

The RPF-03 also features built in automatic stereo line changeover facilities, emergency program start, switched mains to the emergency device and line switching. This makes the RPF-03 extremely practical and of potential use in many applications.

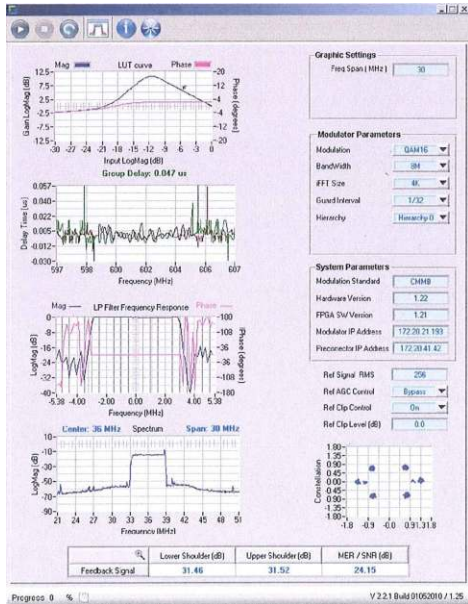
In addition to the individual fail alarm and common alarm relay contacts four open collector outputs are provided to show the output switching status of the RPF-03.



TSA 5000 - RF Signal analyser



The new Signal Analyser from UBS is a highly informative tool that can be used to evaluate the output performance of a UHF Transmitter or Repeater. The Signal Analyser can be used as a receiver for remote transmitter signal monitoring.



With a frequency range of **470 MHz to 860 MHz**, the Signal Analyser automatically detects the waveform in use and displays the active modulation parameters. The Signal Analyser supports **DVB-T, DVB-T2, CMMB** and **DTMB** waveforms.

A PC GUI application (pictured left) used to communicate with the Signal Analyser is provided.

Spectral regrowth (shoulders), MER/SNR, constellation, signal level, PAPR, spectrum, group delay and frequency response are provided by the PC GUI.



AC voltage stabilisers or AC voltage regulators maintain a stable AC voltage regardless of fluctuations in the supply system. Ortea AC voltage stabilisers are professional systems, safe, functional and made with premium materials. Ortea Automatic Voltage Regulators are state of the art products using both Static or Mechanical-Servo Type technologies.

Ortea is part of ICAR group, a leading power company in regulators, power conditioners and power factor correctors. All products are manufactured in Europe, ensuring the highest standards and quality control and meeting European and International standards.

The range of the AVR's span from 1KVA up to 5,000KVA and are suitable for all industrial applications, such as; offices, IT and Telecommunications. Besides the standard products, Ortea is extremely flexible in developing and manufacturing special equipment according to



the user's specifications, including special solutions for outdoor applications required in Telecommunications, Line Conditioners to reduce harmonics and Power Factor Correction.



IP Audio Encoders and Decoders

The **DB90-TX** is an integrated audio IP codec that converts an audio signal into a high quality compressed audio stream. The signal can be compressed by the HE-AAC or MPEG-1 Layer 3 encoder. The **DB90-TX** also supports an uncompressed PCM stream in order to ensure audio transmission without quality loss. Compression is performed in real time, and the output signal is transmitted directly by any IP-based network.

The **DB90-TX** has inputs for both analog and digital audio signals and is housed in a small and compact frame. All this allows you to quickly and painlessly integrate existing audio systems to the Internet or IP based networks.



The **DB90-RX** is an easy no fuss solution for receiving IP transmitted digital audio signals. It is a device designed to receive HE-AAC and MPEG-1 Layer 3 compressed audio streams and PCM uncompressed stream for audio transmission without quality loss. Decoding takes place in real

time by a powerful DSP processor and has both digital and analog audio outputs. Like the DB90-TX, the **DB90-RX** is housed in a compact frame and allows you to quickly and painlessly integrate existing audio systems to the Internet or IP based networks.

DB9000-TX is an integrated audio converter that converts an audio signal into a high quality compressed audio stream. The signal can be compressed by the HE-AAC or MPEG-1 Layer 3 encoder. The

DB9000-TX also supports uncompressed PCM stream. Compression is performed in real time, and the output signal is transmitted directly by TCP/ IP-based networks. The **DB9000-TX** has inputs for both analog and digital audio signals.



With its RS-232 port, **DB9000-TX** can be transformed into an Ethernet to serial Redirector, allowing the user to control any other existing equipment over the Internet. The **DB9000-TX** allows you to quickly and painlessly integrate existing audio systems to the Internet. Developed with ease of use in mind, the DB9000-TX can be managed through a standard Web browser, PC, PDA or other mobile device, making it the best choice for professional and consumer use.



The **DB9000-RX** is an integrated client for IP transmitted digital audio signal. This is a device designed to support HE-AAC and MPEG-1 Layer 3 compressed audio streams and a

PCM uncompressed stream. Decoding takes place in real time by a powerful DSP processor and outputs for both digital and analog audio are provided. The DB9000-RX has a built-in backup audio player for continuous play in case of signal loss or connection fault. With the optional Stereo and RDS Encoders, DB9000-RX becomes a complete tool for audio rebroadcast. The Stereo Encoder has its own DSP processor that allows generation of fully digital composite MPX signal with high stereo quality. With its RS-232 port, DB9000 could be transformed into an Ethernet to RS-232 Redirector, allowing users to control any other existing equipment over Internet.

Suppliers



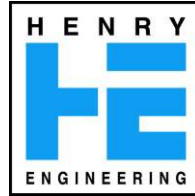
FM Radio Transmitters
Tube and Solid State FM
Amplifiers
STL Stereo Transmitters
and Receivers



Digital / Analog
Television Transmitters
Television Microwave Links,
UHF and VHF Channel
Combiners



FM Antennas
Dipole and Panel Antennas
TV Antennas
FM Channel Combiners



Analog / Digital Audio
Distribution Amplifiers,
Audio Switchers, Audio
Converters, Headphone
Amplifiers, Power Surge
Protection



Analog and Digital Audio
Processors, RDS Coders and
Decoders, Modulation Monitors,
Stereo Encoders



Digital Audio and Video Loggers,
Broadcast Consoles, Digital Audio
Processors, Automation
Systems



Audio Broadcast Consoles, Audio
Monitoring and Distribution
Amplifiers, Ancillary Studio
Equipment



Condenser Microphones,
Dynamic Microphones,
Headphones, Headsets,
Microphone Stands and
Accessories



Professional CD Players, Cassette
Decks, Portable IC Recorders



Semi conductors
General parts



Portable and rackmount
solid state recorders



Self supporting AM whip
antennas



IP codecs
POTS codecs
ISDN and, G3 options available



Transmit and Receive antennas
Filters and Combiners
Analog and Digital TV Power
Dividers
TV and FM broadcast antennas



FM Spectrum analysers
FM monitoring equipment
IP Codecs



Transmitting tubes
Vacuum capacitors



FMeXtra
Additional digital broadcast
channels on existing FM service



FM based emergency
broadcast system



Voltage regulators
Power conditioners
Surge protection



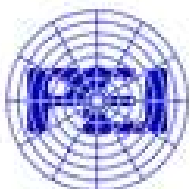
AM transmitters



Network audio
Intercom systems
Conference systems



GPS PC time synchronisers



Broadcast antennas
Combiners
Cable and accessories



Test & Measurement
AUSTRALIA PTY LTD

Coaxial loads

For more information on any of the products featured in this Newsletter simply fill out the form below and fax back to **02-4393 3726** or send an email to **arfc@arfc.com.au**

Company: _____

Contact Name: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

Please amend my contact details

I would like more information on:

RVR - Green LINE transmitters

Henry Engineering - Stereo Audio Monitor

Elan PhoneBox - Filed reportage unit

Inovonics 719 - David IV processor

Inovonics 632 - FM receiver

ABE - MPEG 4 encoders

DDB enclosures

Aldena - Mixed polaristaion antenna

Elan RPF-03 - Program fail detector

UBS TS9000A - Signal analyser

Ortea - Voltage stablisers

Deva Broadcast - IP codeca

Other: _____

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Please phone me to organise an appointment