

ABE latest news...

New DVB-S2 modulator for satellite uplinks and microwave links

In its digital modulators, ABE has implemented, in addition to the existing DVB-S and DVB-DSNG standards, the DVB-S2 standard.

The new modulator (which can cover all three standards) can have both IF 70MHz and L-BAND outputs. Moreover, the solution can also include up to four MPEG encoders and a multiplexer.

The modulation schemes supported for the DVB-S2 are QPSK, 8PSK, 16APSK and 32APSK. The implemented error-correction codes are the LDPC (low density parity check), much more efficient than the convolutional codes employed in the DVB-S standard (approximately 2dB) and really close to the theoretical Shannon limit.

In comparison with the DVB-S standard, in the same bandwidth and with the same signal level, the DVB-S2 standard can support an increase in transmission capacity (bitrate) higher than 30 percent.

The DVB-S2 modulator is mainly employed in satellite uplinks and terrestrial microwave links.

Furthermore, ABE has developed a DVB-S/S2 receiver



board that can be included in digital and/or analog transmitters or provided in a standalone unit.

Last but not least, the average price of the DVB-S2 modulator is similar to that of the DVB-S/DSNG modulator, even though market prices are normally much higher.

supplied at 24V. Then, devices working at 28V were introduced, followed by those operating with 32V power supply. Now, ABE is introducing the new 50V

generation.

This technological innovation makes a significant step forward possible: amplifier output power increase, better efficiency, improved linearity and a reduction in power amplifier size.

As regards digital UHF amplifiers (DVB-T-H/ATSC), ABE

system. Some of the technological solutions developed by ABE and implemented in this new 50V technology power amplifier series are patent pending.

ABE and Alcatel-Lucent renew DVB-T/H transmitter agreement

In 2007, ABE Elettronica signed an agreement with Alcatel-Lucent (the biggest world player in the telecommunications field) for the development and production of DVB-T/H digital terrestrial transmitters, in relation to the integration of



RF power amplifiers employing new 50V technology devices

ABE is definitely among the first companies in the world to have developed a new series of VHF/UHF band amplifiers employing last-generation MOS and LD-MOS devices (transistors) supplied at 50V.

In the solid-state transmitter technological evolution, at the beginning, power devices were

has been able to develop a wide-band power amplifier, which fits into a single 5U air-cooled rack drawer, has an output power of 1.2 kWavg, an MER higher than 35dB and an efficiency better than 15 percent.

The 5U rack drawer houses, in addition to the power amplifier, the pre-amplifier stage, the switch-mode power supplies with PFC (power factor corrector) and the air cooling

mobile communication solutions.

The agreement, which led to important technological and commercial developments, has recently been renewed and extended in order to also include medium-high power equipment.

ABE reaffirms itself as a technological partner able to develop advanced and reliable solutions in the digital broadcasting field.

ABE: the company

ABE Elettronica, a company established in 1979, is one of the best known and most appreciated European manufacturers of TV transmitters and microwave links. For over 30 years, ABE has been developing and producing a complete range of digital and analog TV equipment: MPEG encoders and multiplexers, TV transmitters and transposers, microwave links in the range up to 24 GHz, satellite uplinks, antennas and radiation systems. ABE stands for Advanced Broadcasting Electronics, which perfectly reflects the flair of the company for original development and innovation. Thanks to the continuous investments in R&D, ABE constantly increases its technological knowledge: innovation and excellence in product design are logical consequences of the careful study and accumulated experience of evolving technologies. ABE equipment is today present and operating in more than 80 countries worldwide; an all-Italian success story in the ideal field to emphasize knowhow and work quality.





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From ABE's Web site you can download:

- Full **technical documentation** and product innovation news for digital and analog TV transmitters, microwave links, MPEG encoders and... much, much more;
- **Manuals, technical notes and tutorials** on main TV broadcasting topics including digital technology;
- **Software** utilities for microwave path analysis and terrestrial transmission/distribution network design.

Furthermore, you can easily request a quote.

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ABE: a highly cost-effective range of professional broadcast telecommunications equipment from an ISO 9001-certified company.

The new ABE equipment management system through LAN interface (Web server, SNMP, e-mail)

More than 10 years ago, ABE Elettronica was among the pioneering companies to integrate in its equipment (TV transmitters, microwave links, encoders) a remote management system operating through modems

(telephone/data/GSM/GPRS) in order to remotely control all the equipment parameters and notify (e.g. via SMS) in the event of alarms.

Now, ABE has developed a new equipment control board, which is going to be implemented in all the equipment manufactured. It features a LAN interface (Ethernet 10/100 base-T – RJ45 connector) with the following functionalities:

- **Web Server** with access

protected through username/password (with three different control level possibilities) able to read and set all the equipment parameters.

- **Event Logger** (register all the alarms, switch-on, faults, etc. with date and time) with a storage capacity of over 5,000 events that can be downloaded through the Web server (embedded in the equipment).

- **Control board remote software** (firmware) upgrade capability.

- **E-Mail Client** to automatically notify, via e-mail (to some pre-registered e-mail addresses) variations in alarm conditions.

- **SNMP Agent** able to send alarms (traps), read the equipment parameters (e.g. the output power through the 'get'

command), manage the equipment (e.g. to reset through the 'set' command).

The LAN connection between the ABE equipment and the control center can be established through a GPRS or UMTS modem/router, a data link or an ADSL/PSTN modem.

As clearly emerges from the description above, among the remote management systems existing in the market to date, ABE has created, without any doubt, one of the most complete, sophisticated and advanced.

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