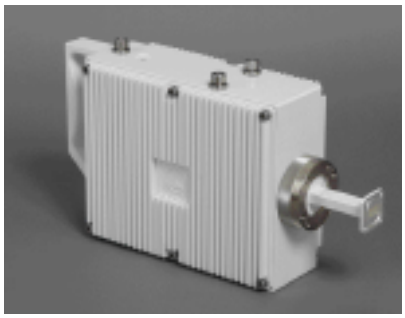
Elber is launching an innovative and technological system whose functionality goes well beyond that required for basic broadcasting

The conversion from analog to digital signals has accelerated the development of equipment for signal transportation.
Many years of research have enabled Elber to perfect products capable of managing the passage to the digital era of Italian radio and TV broadcasters.
For many years, this range of equipment has allowed the transport of digital signals, forming the backbone of installations and maintaining compatibility and price competitiveness on both a technological and reliability level.
The transition to digital technology has favored the improvement of the specific characteristics of transmission equipment while also allowing a reduction in size.
Elber is preparing the launch of a particularly innovative and technologically advanced system, which completes the existing range of products and is designed for use that goes well beyond that of simple broadcasting.
The development of a new bidirectional system, integrating ASI and IP, is now at an advanced stage. A multi-purpose combined receiver-transmitter will be able to contain in just one rack unit the TX and RX RF sections, together with a compact low-frequency section, also in a 1U rack, able to manage four ASI inputs and four ASI outputs. Additionally, it is able to manage an IP input and output.
What, until now, had been contained in two modules, is now enclosed in one single rack.
The system will be available in an indoor version as well as an outdoor version in the range from 2 up to 23 GHz.
The *indoor* version foresees the use of two 1U 19-inch racks with an interconnection at an IF, DC and data level.
The *outdoor* version comprises a weatherproof aerial head with the same interconnection at an IF, DC and data level.
Looking at this new technological jewel in more detail, the system consists of two parts, entirely designed and engineered by Elber's research and development department:
1 - high-frequency section (HF);
2 - low-frequency sections (LF).



The AF section allows different configurations:
1- 1+0 monodirectional (separate TX and RX);
2 - 1+0 bidirectional (TX and RX together);
3 - 1+0 monodirectional repeater (TX and RX together).
Compatibility with the existing digital DDM310 modem, one of the fundamental elements in the Elber production line for many years, is guaranteed.
As mentioned, the low-frequency section manages by default four ASI signals, one IP signal and, as an option, one E1 signal. This powerful modem tolerates heavy distortions due to selective fading and is ideal for signal transport in broadcast and telecom applications.
The DDM310 can function in modulator mode, in demodulator mode or in modem mode with a variable data rate up to 310 MBit/s.
The versatility and adaptability based on the bitrate are guaranteed by the different modulation schemes that can be used (QPSK, 16 QAM, 32 QAM, 64 QAM, 128 QAM e 256 QAM), assuring optimal performance and an efficient use of the band, and guaranteeing, in addition, a high level of flexibility even at an advanced level.
Alternatively, peripheral boards can be installed acting as front-end STM-1, E3, DS-3, as already is the case for the DDM310.
The low-frequency part integrates the functionalities of hitless-switch, ASI distributor and ASI switch.
The configurations can be changed externally using the menu on the alphanumeric display or via the SNMP interface, allowing remote control and the possibility to update the firmware.
Compatibility with earlier systems has been maintained, in particular with the ASI concentrators and deconcentrators of the RK210 series, where it is possible to insert the new slot hitless switch, ASI switch and ASI distributor.

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