

DMT: system solutions

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for a profitable broadcasting business

Cost-effective network operation is certainly a key to make a broadcasting business profitable. In recent times, the achievement of such a goal has been complicated by a few elements. One is the dramatic increase in the cost of energy, directly impacting on the running costs of broadcasting equipment. Just considering that power consumption can weight yearly for more than 30% of the purchase cost of a transmitter, makes the importance of the issue immediately understood. Add to the cost-oriented view the environmental awareness, and this becomes THE issue in selecting transmission systems.

Instrumental to the optimization of the running costs is also what relates to equipment operation and maintenance. The keys are reliability and an effective use of the manpower for on-site inspections.

Also, as the network conversion from analog to digital is in progress worldwide, network operators could be interested in choosing transmission systems capable to operate in both transmission modes, without having to be replaced or modified. In this way, investments could be preserved, and also the off-air downtime could be minimized.

These have been the drivers for DMT in the development of its product lines, carried out with the usual flexibility, defining system solutions that can be tailored to the operator's specific needs.

First, a new product line of TV transmitters, named "Ultralinear", has been presented, matching strict control of power consumption with excellent performance.

Not only the equipment efficiency is more than 25% better than the average performance, also the power density (i.e. output power per PA module) is about 50% higher and the

linearity of the response make 40dB shoulders within reach for transmitters based on this technology.

It was not about a simple circuit adjustment. Further to the selection of the appropriate semiconductors, the achievement of optimum system efficiency was based on a very focused design of all the system parts, including also cooling fans or liquid circulation.



The new transmitters are now available in the product lines "V66", air cooled, and "V75", liquid cooled.

The sophisticated product engineering and the advanced features of the new technology developed by DMT have very interesting implications also for what concerns equipment size and footprint.

Operation of the products recently introduced by DMT is easy and cost-effective. SNMP interface is available for remote supervision, minimizing the need for on-site inspections. Also, man-machine interaction is very user friendly, saving headaches, loss of time and stress. A complete Graphical User Interface is available through web pages, both locally and remotely. The touch-screen display installed on exciters and system control units allows for a user friendly access to the systems directly from the front panel. Maintenance operations are simplified by the limited weight of the PAs.

The "split" configuration simplifies the handling of the more bulky modules, by dividing them in sub-modules each less than 20kg. Also, in line with its tradition, DMT has approached the definition of these new products with maximum care to reliability issues, aiming at minimizing the off-air time.

Finally, answering to the request for high flexibility regards to the transmission mode, the transmitters by DMT can be now equipped with B10, the multimode integrated exciter.

Total digital processing and a versatile platform make DMT's transmitters equipped with B10 capable to operate in analog as well as in digital. They are therefore the ideal choice for a prompt and effective conversion to digital of analog TV transmission networks.

Frequency-agile operation allows for easy changes of the operation channel, with the capability to recover the most appropriate setting and avoiding any set-up operation on the equipment (only the output RF filter must be appropriately tuned). B10 is therefore the ideal component also for the implementation of n+1 passive reserve system configurations.

B10 is available both in "European" configuration, for PAL/ DVB-T/H operation and in "USA" configuration, for NTSC/ATSC-DTV.

All the above listed features are enclosed in systems benefiting of the heritage of experience developed by DMT in solid-state medium and high power systems.

DMT is fully committed to help its customers to make the choice of its transmission systems a totally winning card, establishing with them partner-like relationships, focused on the achievement of the network operational goals and providing them with all the needed support for the related activities.