

❖ ***Company***

❖ ***Technological Highlights***

❖ ***Relevant Experience***



Apr. 2005



An Italian company operating in the industry of communication infrastructures, offering transmission systems, infrastructures and services to radio-television networks.



DMT was incorporated at the beginning of 2000 through the acquisition of a company branch of Elettronica Industriale SpA (Mediaset Group).

Since June 2004, DMT is listed at the Italian SE market.

Products

Among the main products:

- Automatic emission systems (playout);
- MHP carousel generators (MHP DataCaster);
- Digital and Analog television transmitters;
- Equipment for digital and analog terrestrial radio link;
- Antennas and ancillary equipment, radio-electric planning services;



Playout systems



MHP DataCaster



Radio Link Equipment



Transmitters



Antennas

Market



On the Italian market, DMT has been a leader ever since its incorporation, with a growing market share, now around 70%.

At international level, DMT-Technology is among the five most prominent players, present and credited above all where the most advanced and technologically sophisticated projects are developed.



Technological Highlights

Digital Modulation

Digital-ready Technology and Dual Cast® systems

Low power transmitters and repeaters

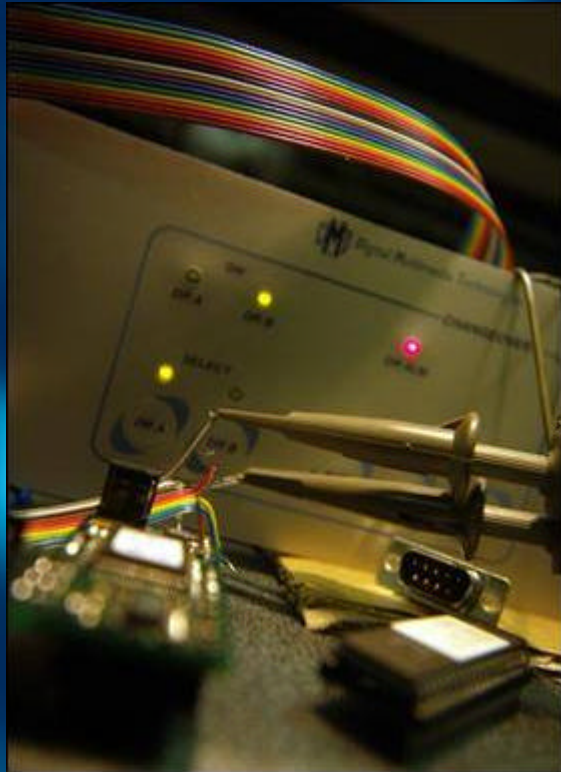
Medium-High power air cooled transmitters

High power liquid-cooled transmitters

Digital Modulation



DMT's credentials for digital terrestrial TV:



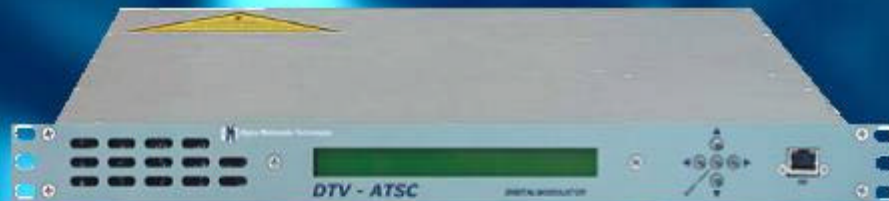
- *An involvement in digital TV dates back to the beginning of digital technology development.*
- *Based on a policy of continuous investment in R&D.*
- *Prestigious projects developed at the international level, including digital TV network implementation in UK, Australia, France, Spain, Italy and the pilot-projects carried out at a regional level in China.*
- *Over 1000 field installations with excellent results in terms of quality of performance, reliability, interoperability.*

Digital Modulation

Digital modulators and excitors:



COFDM modulator for DVB-T



8VSB modulator for ATSC-DTV



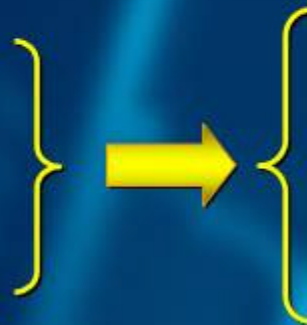
Frequency-agile integrated exciter

Digital Modulation

Frequency-agile integrated exciter



- *frequency-agile operation*
- *digital precorrection*
- *high operating flexibility*



- great freedom for network planning*
- efficient management of equipment maintenance and spare stocks*

- *powerful control logic*



- control the operation of the whole transmitter through advanced communication protocols*

- *integrated GPS receiver (option)*



- SFN isofrequency networks*

- *Hierarchical modulation*



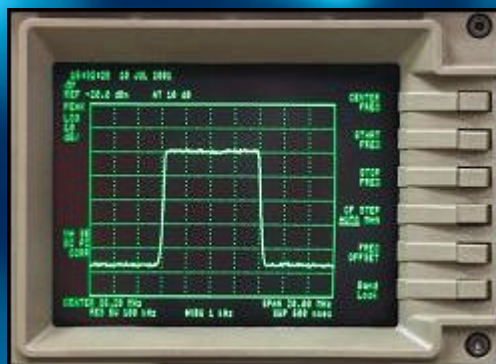
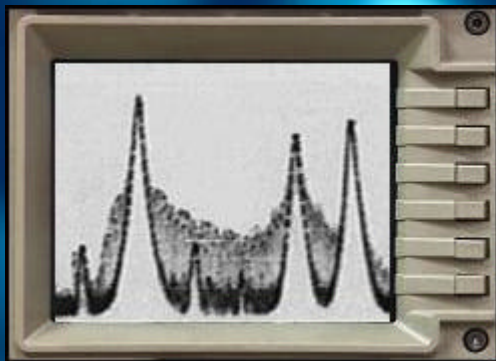
- ready to support HDTV and mixed DVB-T - DVB-H services*

- *Near-seamless switching*



- Failure-proof operation*

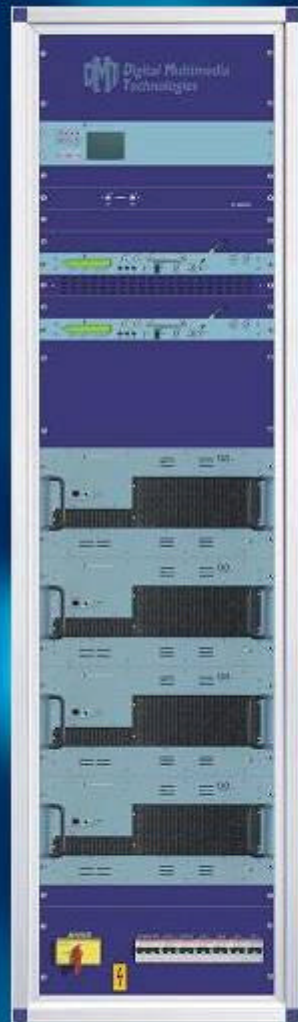
Digital-ready technology



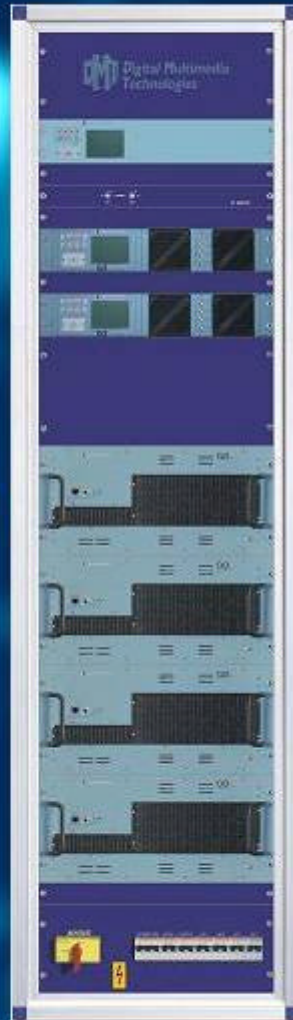
- *The commitment to facilitate the conversion from analog to digital has led to the development of digital ready technology for DMT products.*
- *The solid-state amplifier modules are capable of self-detecting the input type, adapting bias and equalization and allowing interchangeability between analog and digital transmission.*
- *Due to this feature and to a proper system layout, DMT's digital ready transmission systems can be converted from analog to digital by simply adding the digital exciter.*
- *The "digital ready" approach has now been extended by DMT to the entire production of analog transmitters.*

Digital-ready technology

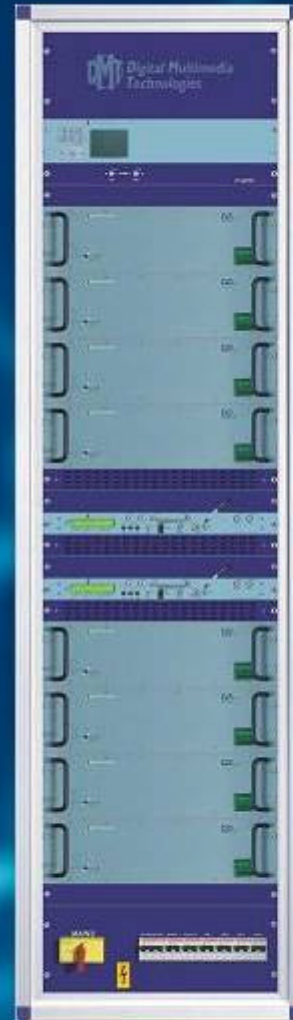
Examples:



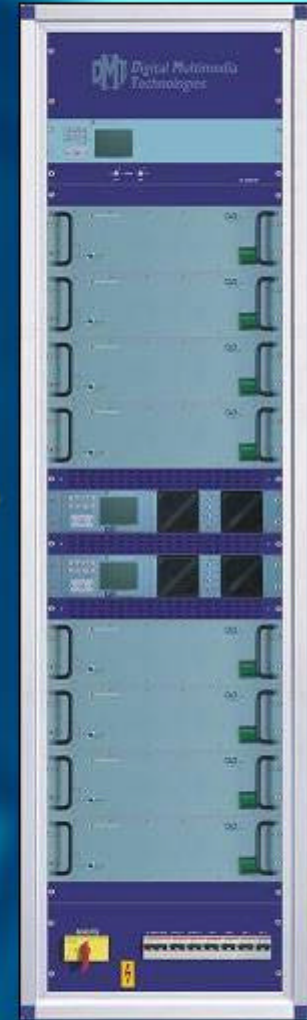
**UHF analog TX
2500W p.s.**



**UHF DVB-T TX
800W rms**



**UHF analog TX
10kW p.s.**

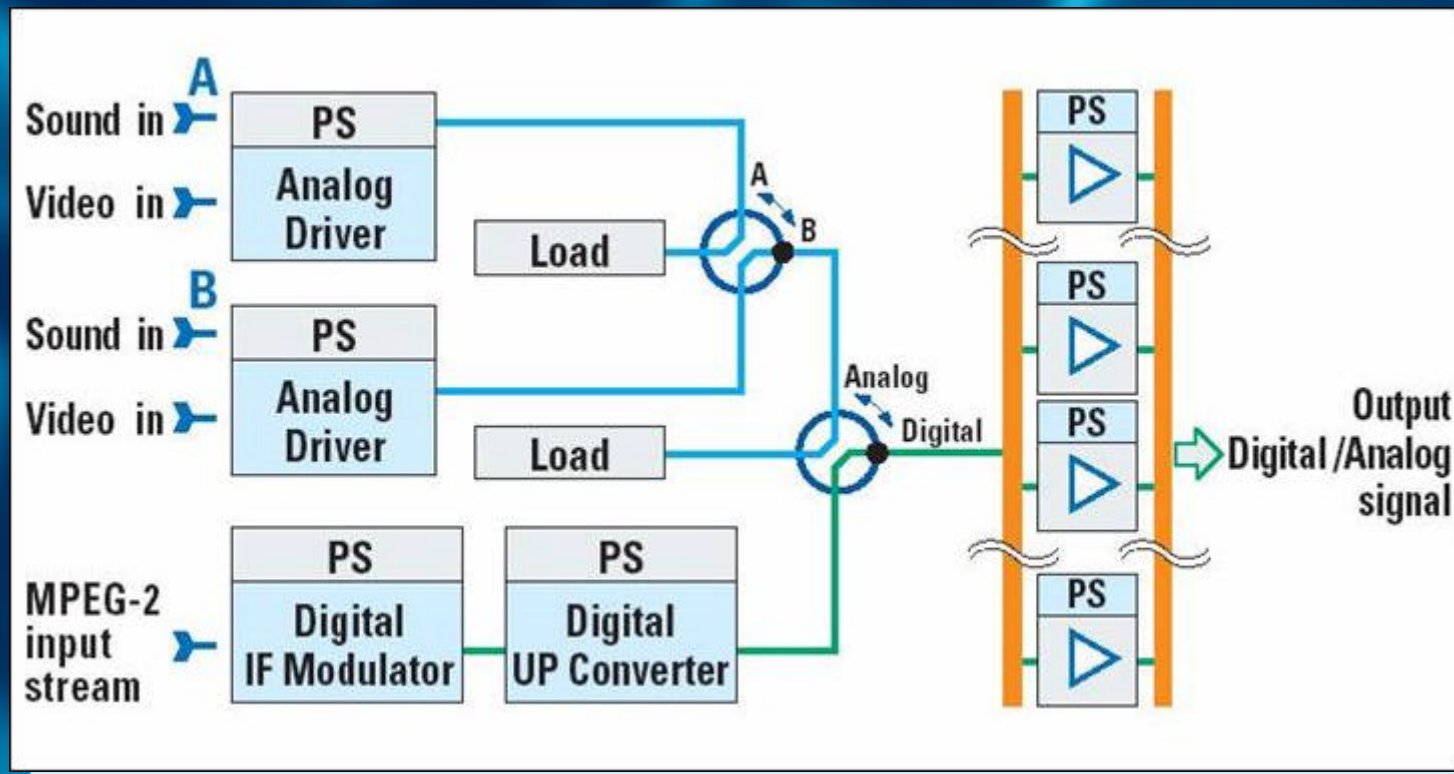


**UHF DVB-T TX
3.2kW rms**

Digital-ready technology

Dual-cast systems:

- *Based on the features of the "digital ready" technology developed by DMT, the "dual cast" system configuration allows real-time switching of the equipment operation between analog and digital transmission standards on the same RF channel.*



Low power transmitters and repeaters ❖



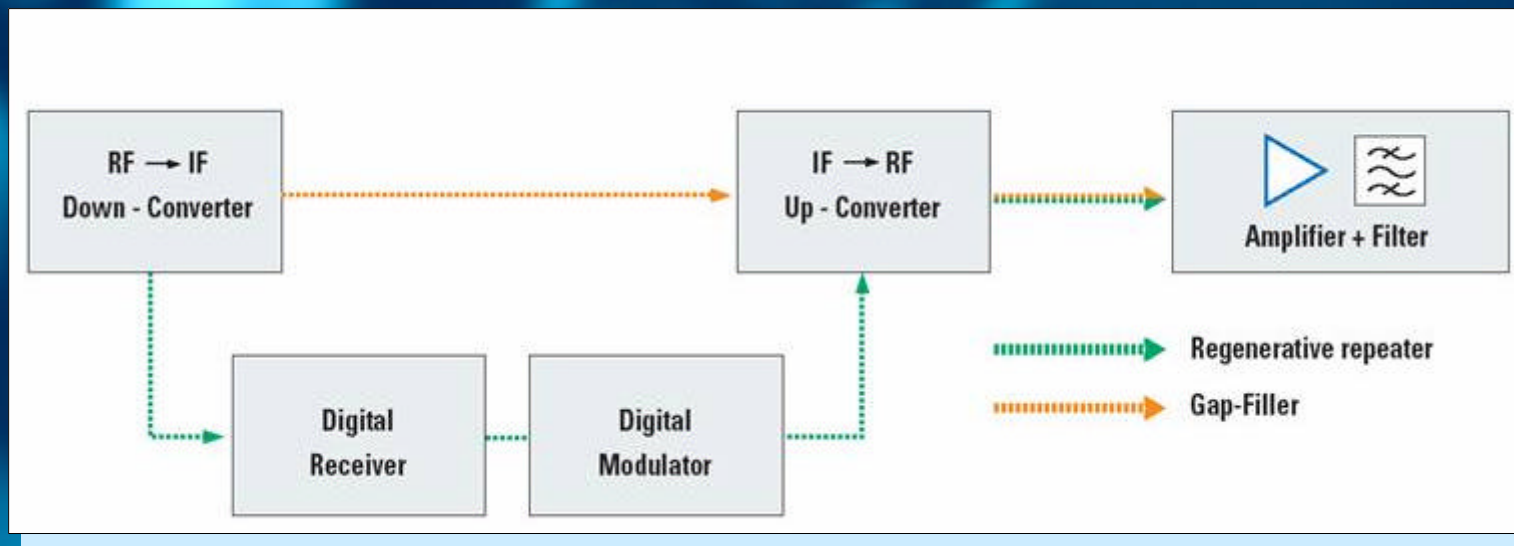
Basic-6

- ***VHF and UHF bands***
- ***output power values: from 1 W rms to 500 W rms digital, or up to 1000 W p.s analog.***
- ***BASIC6: includes amplifier, up-converter, filter, and modulator within the same frame, with output power values from 2 W to 10 W rms digital and from 5 to 25W p.s. analog.***
- ***For higher output power values, and up to about 150 W rms digital and 500W p.s. analog, the PAs are supplied in single phase and feature the PFC (Power Factor Corrector) system that is key to achieving optimum efficiency.***

Low power transmitters and repeaters

Repeaters:

- All DMT's low-power TX are available also in translator/repeater configuration
- Analog translators
- Digital :
 - ✓ "regenerative" translators
 - ✓ "gap-filler" (non-regenerative) SFN and MFN



Medium High power transmitters



➤ *VHF and UHF bands*

➤ *Max output power*



VHF-digital: 2000Wrms (DVB-T) / 3000Wrms (ATSC-DTV)
VHF-analog: 7000 W p.s.

UHF-digital: 2000Wrms (DVB-T) / 2500Wrms (ATSC-DTV)
UHF-analog: 5000 W p.s.

➤ *"Split-type" air cooled PA in 2 submodules: power supply and RF amplification.*

➤ *Power supply: three-phase switch-mode, connected directly to the mains distribution, easily field replaceable.*

➤ *LDMOS technology: optimum linearity and reliability, low power consumption.*

➤ *PA easily removed and serviced/replaced while on-air.*



Medium High power transmitters



Examples:



*UHF digital TX ATSC-DTV
2500W rms- dual driver*



*UHF analog TX
2000W rms- dual driver*

High power liquid-cooled transmitters



- **VHF and UHF bands**

- **Output power**



VHF-digital: over 10kWrms (DVB-T) / 20kWrms (ATSC-DTV)
VHF-analog: over 50kW rms
UHF-digital: over 10kWrms (DVB-T) / 20kWrms (ATSC-DTV)
UHF-analog: over 40kW rms

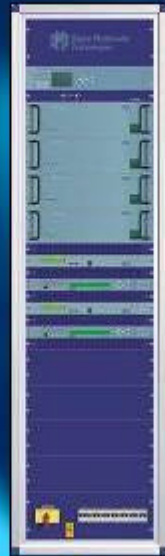


- **near silent operation**
- **four times the power output of air cooled transmitters with the same footprint.**
- **high-power amplifier modules (HPA), boasting 50dB of gain.**
- **superior cooling using "cold plate" technology.**
- **"hot swapping" of PA modules, without service interruption, thanks to "No-spill" hydraulic self-engaging connectors.**
- **Isolation transformer for electrostatic protection at the mains input of the system.**

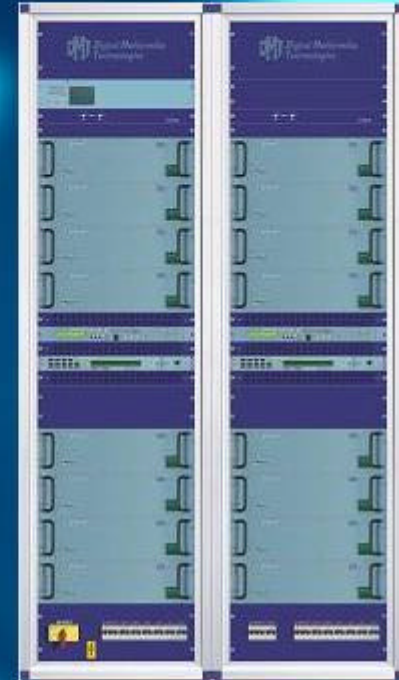
High power liquid-cooled transmitters



Examples:



*VHF digital TX DVB-T
2kW rms- dual driver*



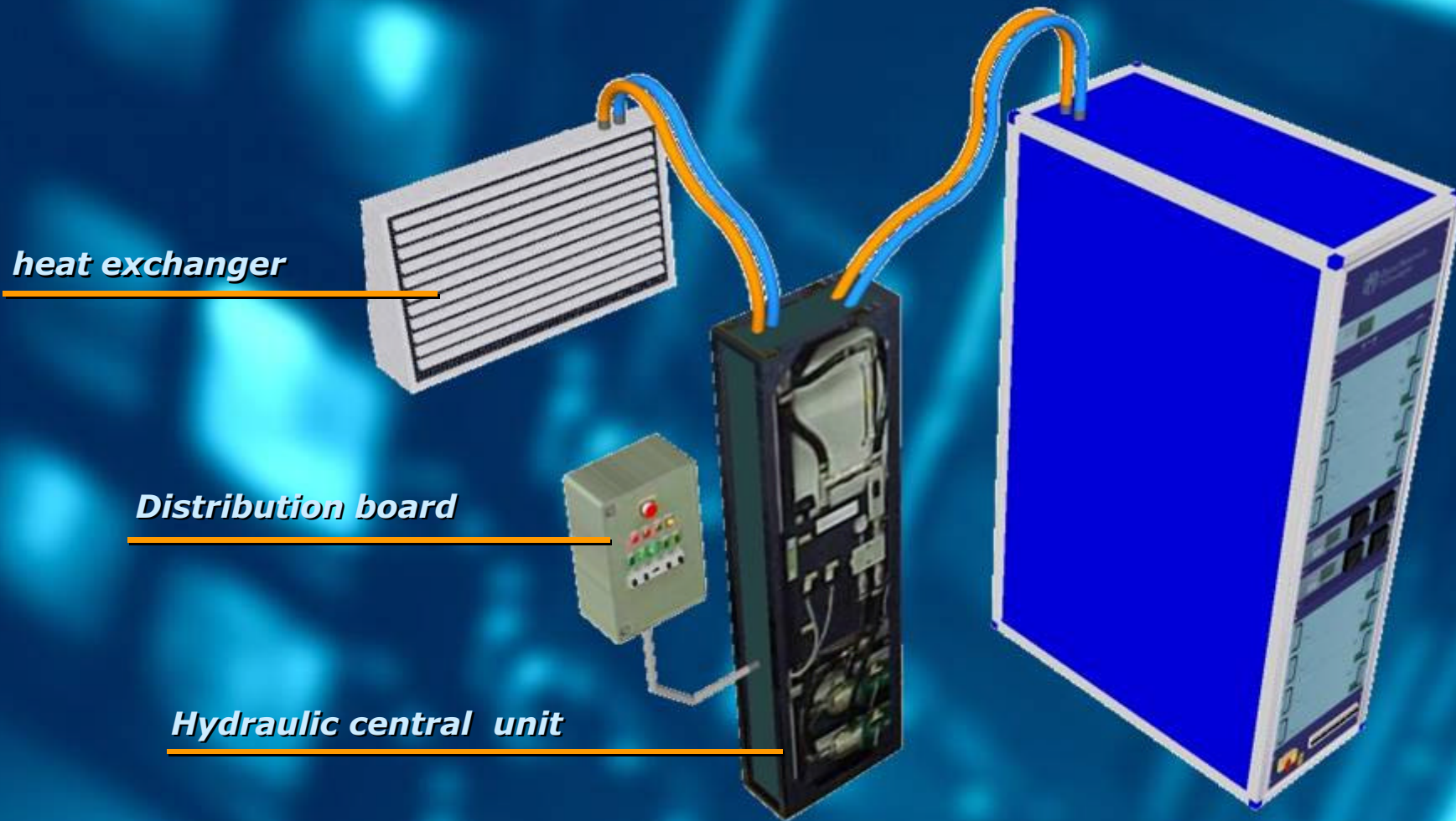
*UHF digital TX ATSC-DTV
10kW rms- dual driver*



*UHF analog TX
40kW p.s.- active reserve*

High power liquid-cooled transmitters ❖

Typical cooling circuit layout



❖ ***Come and visit us***

***Stand nr. C3016
Central Hall***

❖ ***Contacts***

Paulo Ricardo Balduino

c/o Spectrum Latina

Setor Comercial Sul

Edifício Camarco Correia, 3 Andar

Tel +55 61 321 9020

E-mail: paulo.ricardo@spectrumla.com.br

www.dmtonline.com

Alberto Morello

DMT Australia

Unit62/18 Edgewood Crescent

Cabarita - Sydney 2137 NSW - Australia

Tel +61.2.876.590.01 - Fax +61.2.876.590.02

E-mail: a.morello@dmtonline.com

www.dmtonline.com