

## Dual DVB-S to DVB-T Transmodulator



The **DT-202** modules are DVB-S (QPSK) to DVB-T (COFDM) transmodulators. They have direct QPSK input that can be tuned to any satellite transponder and output in the UHF band. They are agile in frequency and output level.

With our exclusive PID filtering function the user can remove video, audio or data services from the original transport stream. The system allows reducing bit rate of the incoming satellite transponders to values compatible with COFDM.

Modulation, Forward Error Correction or Guard Interval can be set to the desired values depending on the application. This allows packing more programs in a single COFDM channel than a standard off air DTT channel. A Typical configuration for a coaxial TV distribution system can be 64QAM, FEC=3/4 and GI=1/32 so that the modulator accepts the highest bit rate possible.

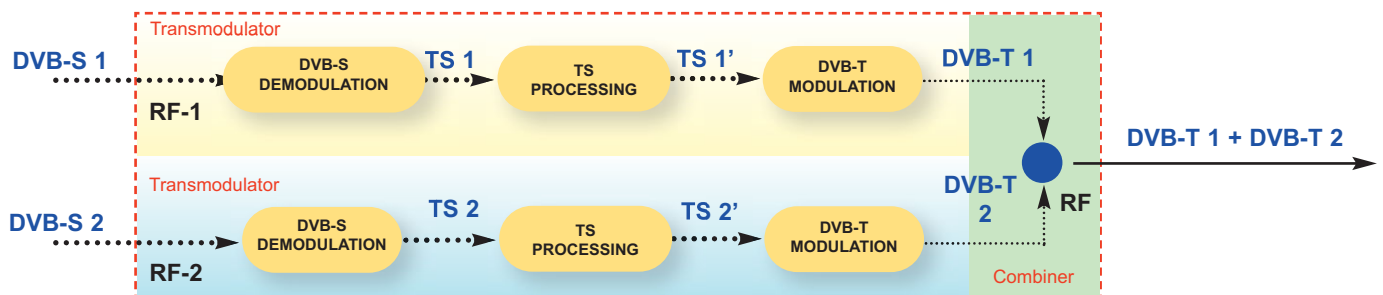
The dual DVB-S to DVB-T transmodulator (**DT-202**) includes an internal combiner that delivers a single DVB-T output with high C/N. This feature gives great robustness to the signal, allowing adding RF amplifiers in cascade during distribution with minimal loss of signal quality.

Especificaciones	DT-202
<b>DVB-S FI Input</b> Type Connectors Frequency range Input level Information	2 DVB-S FI independent inputs 75 $\Omega$ Type- F, Female From 950 MHz to 2150 MHz 40 – 110 dB $\mu$ V MER of the input signal
<b>LNB Power supply</b> Voltage Current 22 kHz signal Voltage Frequency	OFF, 13 V and 18 V ( $\pm 1$ V) < 400 mA ON, OFF 0,65 V $\pm$ 0,35 V 22 KHz $\pm$ 4 KHz
<b>DVB-S Parameters (input)</b> Symbol Rate Roll off Code Rate Spectral Inversion	2 – 45 Mbauds 0.35 Automatic (1/2, 2/3, 3/4, 5/6 or 7/8) Automatic (ON, OFF)
<b>DVB-T Parameters (Output)</b> Carriers Constellation Channel bandwidth Guard Interval Code Rate Spectral Inversion	2k / 8k QPSK, 16-QAM, 64-QAM 7 MHz, 8 MHz 1/4, 1/8, 1/16, 1/32 1/2, 2/3, 3/4, 5/6, 7/8 ON, OFF
<b>RF Output (DVB-T)</b> Type Connector Frequency Range Power level (average) Estabilidad en frecuencia MER Phase noise SSB	2 DVB-T independent combined multiplexes BNC female connector, 50 $\Omega$ impedance From 474 to 875 MHz, in 1Hz step (see options for output in VHF band) Aprox. 85 dB $\mu$ V without attenuation Variable attenuation from 0 to 30 dB (in 1 dB step) 10 ppm >37 dB from 650 MHz to 860 MHz >39 dB from 474 MHz to 650 MHz -87 dBc/Hz @ 2 kHz

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<b>Configuration</b>	Through the <b>DT-800</b> Control Module in local (keypad) or remote mode (PC). See <b>DT-800</b> spec.
<b>Transport Stream Processing</b>	<p>Selection of Services by Name or streams filtering by PID (PID Filtering with Filtering Table up to 32 PID) Automatic Regeneration of PAT and SDT tables</p> <p>Adaptation of NIT table: - Editable NID (Network IDentifier) - Management for LCN (Logic Channel Number)</p> <p>Measures on TS: - Bitrate of the output multiplex - Percentage of bitrate used relative to the maximum capacity of the multiplex</p>
<b>Power supply</b> Connector Voltage and highest consumption	Via the <b>DT-800</b> Control and Power module JST B08P-XL-HDS (Connecting Cable supplied with the <b>DT-800</b> module) +12 V < 0.55 A ; + 5 V < 1.4 A
<b>Operating environmental conditions</b> Altitude Temperature range Max Relative humidity	Up to 2000 m from 5 °C to 40 °C 80% (up to 31 °C), decreasing lineally up to 50% to 40 °C
<b>Mechanical features</b> Dimensions Weight	W. 50 x H. 262 x D. 230 mm 1.32 kg
<b>Included accessories</b> 4 x 0 TO4377 4 x 0 AR1942 1 x 0 CC024 1 x 0 CC027 1 x 0 MI1648	Screw M2.5x12 Flat Washer M2.5 BNC/BNC Cable 25 cm BNC/BNC Cable 50 cm User's Manual
<b>Options</b> <b>DT-202-V</b> - Output Frequency	VHF option From 170 to 650 MHz
<b>Minimal necessary configuration</b> 1 x <b>DT-800</b> 1 x <b>DT-900</b>	Power and Control Module Sub-rack framework to install in a rack or on a wall

### Functional diagram



\*Available functions to process TS depend on the chosen combination of "Digital To TV" modules. For more details, see modules specifications.