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## DVB-T to DVB-C Digital Transmodulation equipment

Tunes a Terrestrial digital channel, demodulates the signal being received, processes the transport stream and remodulates it in DVB-C format.



DVB-T input signal



DVB-C output signal

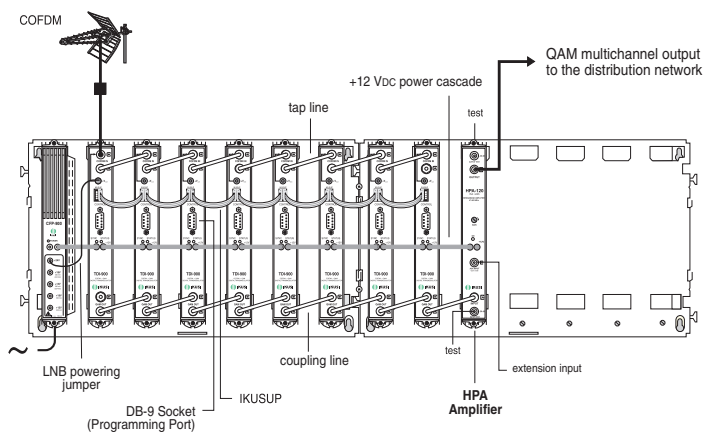
**TDI-900 Transmodulator**

## Main features

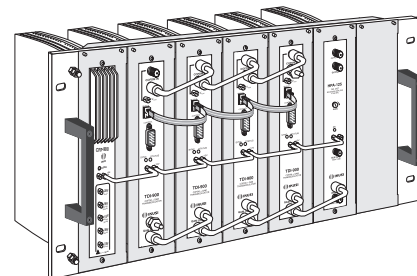
- Digital Transmutation (DVB-T to DVB-C) with Transport Stream Processing.  
The DVB-T channels located in the 174-230 MHz or 470-862 MHz bands are transformed to DVB-C channels (16 to 256 symbols) located in the 47-862 MHz band. NIT table can be adapted to the new network created.
- A TDI headend includes:
  - As many TDI Transmodulators as QAM channels to be distributed.
  - One HPA Amplifier that amplifies the sum of the combined output QAM channels from the transmodulators.
  - One or more CFP Power Supplies.
  - One or more Rack-Frames or wall-fixing Base-Plates. The base-plates can be joined horizontally.
  - Usually, housing units for the base-plates.
  - If the headend is large, one or more AMX-400 combiners.
- The TDI headends provide a QAM multichannel signal whose level is appropriate to feed the distribution network. An extension input at the HPA amplifier allows easy coupling of the wideband 47-862 MHz signal provided by another existing headend. The user requires a DVB-C Receiver to convert the QAM signals into the appropriate signals that can be accepted by a conventional TV set, and to control access to encrypted TV programmes.

MODEL		TDI-900
REF.		4021
Remote mode		Yes
Transport Stream (TS) processing		Yes
Input section (DVB-T)		
Standard		EN 300 744
Input frequency	MHz	174 - 230 and 470 - 862
Bandwidth	MHz	7 .. 8
Mode (automatic detection)		2K .. 8K
Constellation (automatic detection)		QPSK .. 16QAM .. 64QAM
Hierarchy		High Priority .. Low Priority
Input level	dBµV	35 ... 100
Input loop-through gain	dB	0.5 (±1)
Guard interval (automatic detection)		1/4 .. 1/8 .. 1/16 .. 1/32
Re-modulation section (DVB-C)		
Data processing		EN 300 429
Selectable Modulation Scheme of output signal		16QAM .. 32QAM .. 64QAM .. 128QAM .. 256QAM
MER (Modulation Error Ratio)	dB	> 40 (typ.)
Output symbol rate	MS/s	1 ... 8
Selectable Roll-Off factor	%	12 .. 13 .. 15

RF output section (DVB-C)		
Selectable output channel located between:	MHz	47 - 862
Adjustable output level	dBµV	65 to 80
Output loop-through loss	dB	1.1
Spurious in band	dBc	< -55
Broadband noise (ΔB=5 MHz)	dBc	< -75
General		
Supply voltage	VDC	+12
Consumption	mA	650
Operating temperature	°C	0 ... +45
Input RF connector type		(2x) female F
Output RF connector type		(2x) female F
DC connector type		banana socket
Programming Interface		RS-232 / DB-9
IKUSUP bus connector		(2x) 4-pin socket
Dimensions	mm	230 x 195 x 32
Dimensiones	mm	230 x 195 x 32



Example of TDI headend for 8 transponders. Contains 8 TDI-900 transmodulators, 1 amplifier HPA and 1 power supply CFP-900, all fixed on 2 base-plates BAS-700.



Example of TDI headend in rack for 4 transponders. Contains 4 TDI-900 transmodulators, 1 amplifier HPA and 1 power supply CFP-900, all fixed on rack SMR-601.