

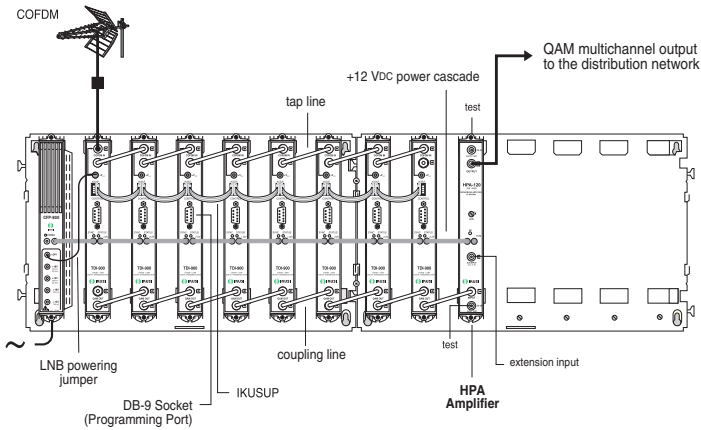
TDI 900

Class A.
DVB-T to DVB-C Digital
Transmodulation equipment

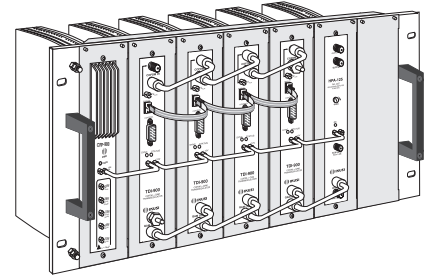
Tunes a Terrestrial digital channel, demodulates the signal being received, processes the transport stream and remodulates it in QAM format.



Application Examples



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.

Main features

Model	TDI-900	
Ref.	4021	
Remote mode	Yes	
Transport Stream processing (TS)	Yes	
Input section (COFDM)		
Standard	EN 300 744	
Input frequency band	MHz	174 – 230 and 470 – 862
Bandwidth	MHz	7, 8
Operation mode (auto. detection)	2K, 8K	
Constellation (auto. detection)	QPSK, 16QAM, 64QAM	
Hierarchy	High Priority Low Priority	
Input level	dB μ V	35 ... 100
Input loop-through gain	dB	0.5 (\pm 1)
Guard interval (auto. detection)	1/4, 1/8, 1/16, 1/32	
Re-modulation section (QAM)		
Data processing	EN 300 429	
Selectable modulation scheme	16QAM, 32QAM, 64QAM, 128QAM, 256QAM	
MER (modulation error ratio)	dB	> 40 (typ.)
Output symbol ratio	MS/s	1 ... 8
Selectable Roll-Off factor	%	12, 13, 15
Output section (QAM)		
Selectable output channel located between:	MHz	47 – 862
Adjustable output level	dB μ V	65 ... 80
Output loop-through loss	dB	1.1
Spurious in band	dBc	< -55
Ruido banda ancha ($\Delta B=5$ MHz)	dBc	< -75

- Digital Transmodulation (COFDM to QAM) with Transport Stream Processing
- Optional Blockade of Services, PIDs and Conditional Accesses, with Regeneration of Tables.
- The COFDM channels located in the 174-230 MHz or 470-862 MHz bands are transformed to QAM channels located in the 47-862 MHz band

A TDI transmodulator carries out the complete channel processing from the input to the output:

- tunes a COFDM digital channel,
- demodulates the signal being received,
- processes the transport stream, and
- re-modulates it in QAM format (16, 32, 64, 128 or 256 symbols) on an RF channel that is selectable within the 45-862 MHz frequency range.

TDI-900

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

The module is packed with:

- 2 F plug bridges, 64 mm length, for input tap line and output coupling line.
- 1 DC plug bridge, 53 mm length, for connection of +12 VDC voltage.



HEADQUARTER

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