DVB-T to DVB-T Regenerator

Product designed to correct and rebuild a poor quality DVB-T signal back to Quasi Transmission Standard.

DVB-T Input signal

Errors correction

DVB-T demodulated output signal

TGT Regenerator

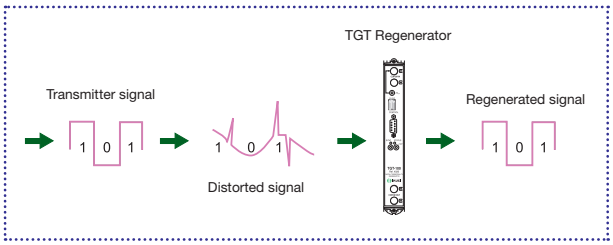
Main features

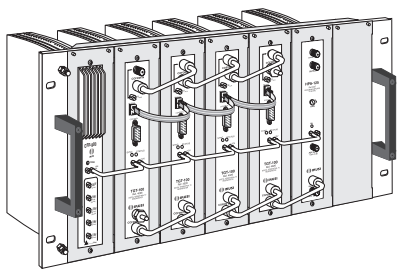
- The TGT is a DVB-T to DVB-T Transport Stream Regenerator/Processor.
- The product is designed to correct and rebuild a poor quality DVB-T signal back to Quasi Transmission Standard. The product also allows the user to change various parameters of the regenerated DVB-T stream at the output.
- A TGT headend includes:
  - As many TGT Regenerators as DVB-T channels being received.
  - One or more AMX-400 combiners if the headend being assembled is extensive.
  - One HPA Amplifier to launch the combined output DVB-T channels from the regenerators.
  - One or more CFP Power Supplies.
  - One or more Rack Frames or wall mounting Base Plates. The base plates can be joined horizontally.
  - Housing units for the base plates if required.
  - If the headend is large, one or more AMX-400 combiners.

The TGT headends deliver a multichannel DVB-T signal with sufficient power to drive a distribution network.
An extension input at the HPA amplifier allows easy coupling of the wideband 47-862 MHz signal provided by other existing headend equipment.

MODEL		TGT-100
REF.		4026
Remote mode		Yes
Transport Stream (TS) processing		Yes
Input section (DVB-T)		
Standard		EN 300 744
Input frequency band	MHz	174 - 230 and 470 - 862
Bandwidth	MHz	7 „ 8
Mode (automatic detection)		2K „ 8K
Constellation		QPSK „ 16QAM „ 64QAM
Hierarchy		High Priority „ Low Priority
Input level (contellation: 64QAM/code rate: 2/3)	dBµV	35 ... 100
Input loop-trhough gain	dB	0.5 (±1)
Guard interval (automatic detection)		1/4 „ 1/8 „ 1/16 „ 1/32
DVB-T Re-modulation section		
Data processing		2K „ 4K (DVB-H) „ 8K
Constellation		QPSK „ 16QAM „ 64QAM
Code rate		1/2 „ 2/3 „ 3/4 „ 5/6 „ 7/8
Guard interval (automatic detection)		1/4 „ 1/8 „ 1/16 „ 1/32
In-depth interleaving (only on DVB-H)		Applicable (on 2K and 4K modes)
MER	dB	> 38 (typ.)

Output section (DVB-T)		
Selectable output channel located between:	MHz	47 - 862
Bandwidth	MHz	5 (DVB-H) „ 6 „ 7 „ 8
Adjustable output level	dBµV	65 to 80
Frequency stability	ppm	≤ ±30
Output loop-through loss	dB	1.1
Spurious in band	dBc	< -50
Broadband noise (ΔB=8MHz)	dBc	< -75
General		
Supply voltage	VDC	+12
Consumption	mA	670
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





Example of TGT headend in rack for 4 channels. Contains 4 regenerators TGT-100, 1 amplifier HPA and 1 power supply CFP-900, all fixed on rack SMR-601.

FUNCTIONS OF THE TS PROCESSING

- Bit Rate adaptation with PCR restamping
- Adaptation of NIT table

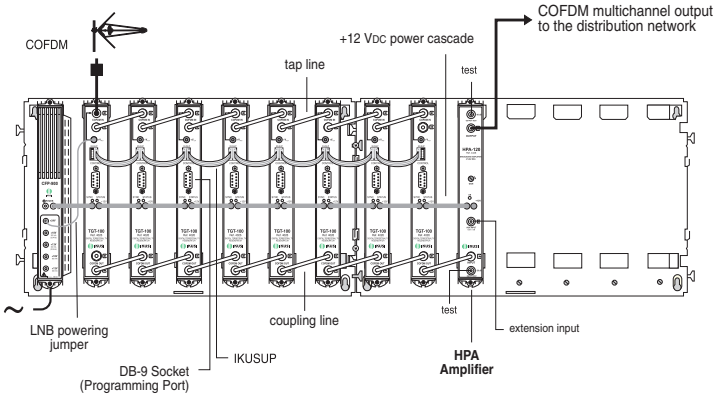
  Adaptation to the particular adjustments of the headend is automatic. Name and identifier of the new network can be edited.
- Service and CA blockade

  Blockade is at service level and at conditional access level.

  Automatic regeneration of PAT, SDT and CAT tables.
- TS monitoring

  Usage level of the Transport Stream —percentage of null packets— is presented along the programming process.
- LCN insertion.
- TS_ID, SID, ONID and NID edition.

Example d'installation



Example of TGT headend for 8 channels. Contains 8 regenerators TGT-100, 1 amplifier HPA and 1 power supply CFP-900, all fixed on 2 base-plates BAS-700.

IKUSI
Donostia ibilbidea, 28
20115 Astigarraga, Gipuzkoa España
Tel.: +34 943 44 88 95
television@ikusi.com - www.ikusi.tv