



## Features

- Drop-in module for Virtex-5™, Virtex-4™ and Spartan™-3A\_DSP FPGAs
- 1 SPI input / 1 SPI output
- Converts an MPEG TS constant mux rate into another
- Management of PSI/SI tables (automatic tables generator) according to ETS300468 and ISO 13818-1
- Configurable via a RS232 link
- Service filtering and insertion
- Full PCR re-stamping
- External or internal output mux rate
- Statistical service bandwidth estimation
- Optimize output mux rate thanks to smoothing FIFO
- Smoothing FIFO can be implemented as block RAM or external ZBT memory
- Configurable size of the smoothing FIFO
- Full synthesizable RTL design (not delivered) for easy customization
- Netlist version available for ISE 10 and later versions

## Description

The DVB remultiplexer core is a drop-in module for reducing the MPEG TS rate by filtering services selected by an external host controller.

The remultiplexer is managed by an external host via the RS232 link. The host is in charge to read the statistical data and to select the services to filter.

Generation of a new NIT or pass through of the current NIT.

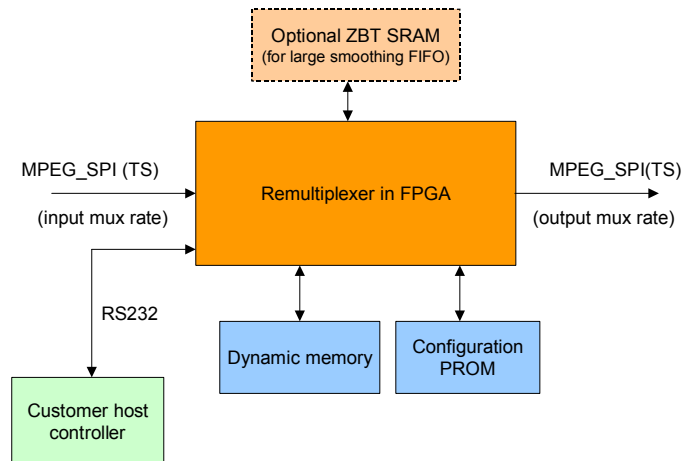
Regeneration of PSI/SI tables PAT and SDT.

Large smoothing FIFO to optimize the bandwidth of the output rate.

Complete application fits into Spartan3 1800A\_DSP.

## Applications

DVB remultiplexer may be used in applications related to transmodulation.



**Resource Utilization** The core configuration may be set by conditional synthesis . Typical configuration with ZBT external memory.

	Slices	BRAMs	Mults/DSP48	Deliverables : Datasheet and user's guide Netlist for core generation and testbench for simulation
Spartan3/E/A	3200	10	4	
Virtex 4	3200	10	4	
Virtex 5	2200	10	4	

*(values may vary depending on implementation options)*

### **Ordering information and related cores**

<b>Parameters</b>	<b>Memory type</b>	<b>Designation</b>
BRAM	DDR	<b>MVD_REMUX_BRAM_DDR_NET</b>
ZBT	DDR	<b>MVD_REMUX_ZBT_DDR_NET</b>
BRAM	DDR2	<b>MVD_REMUX_BRAM_DDR2_NET</b>
ZBT	DDR2	<b>MVD_REMUX_ZBT_DDR2_NET</b>

VHDL source code : can be delivered as an option under NDA and other specific clauses

Related cores : Cable Modulator J83B, DVB-C, DVB-S and/or DVB-T/H cores contact us at [info\\_cores@mvd-fpga.com](mailto:info_cores@mvd-fpga.com)

Documentation and support : Datasheet and user's guide. In addition MVD can provide on site or remote coaching.