

Passive Splitter Isolation Module

Description

The Splitter Isolation Module (SIM) is designed to isolate the internal set-top network Multi Room-Digital Video Recorder (MR-DVR) communications from the outside plant and more specifically from the homes of other subscribers.

Product design includes filtering for communications from the MR-DVR set-top to the "client" set-tops, and filtering for communications from the "client" set-tops to the MR-DVR set-top.

The MR-DVR platform fills a gap that will allow MSO's to provide the end users with a way of providing DVR to multiple TVs without the expense of "High End" subscriber terminals for each TV. The splitter also allows broadcast, on-demand, and other services to all TVs.

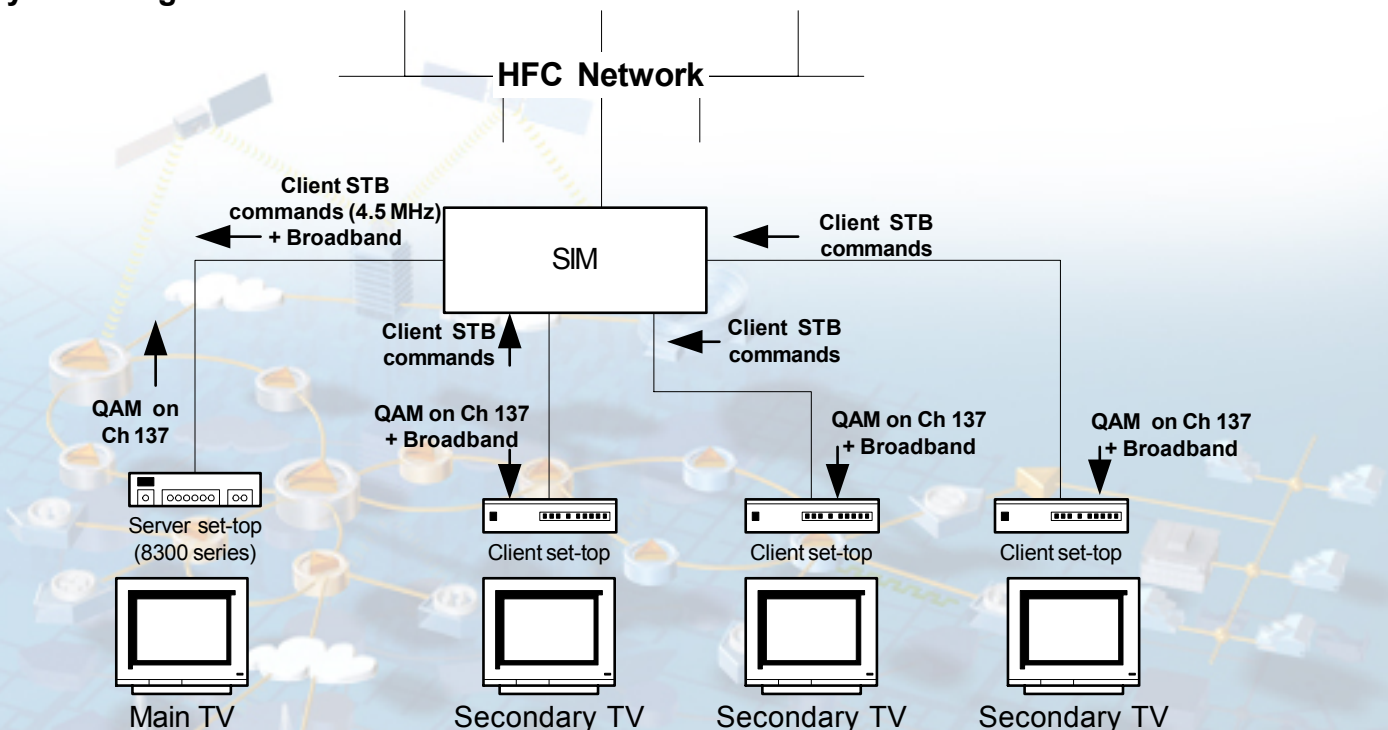
The SIM allows a new Explorer® 8300™ Multi Room Server set-top with an internal QAM modulator to play programs off its hard drive on up to 3 auxiliary set-tops in the home while continuing to perform all other Explorer 8300 set-top functions. The client set-tops transmit FSK commands associated with DVR functions to the Explorer 8300-server set-top. The client set-tops continue to run all existing applications and tune other channels. A user interface design is in development allowing the client set-tops to play the programs stored on the Explorer 8300 Server hard disk drive (HDD). "Homerun" wired splitters in the residence are replaced with a passive SIM module in order to allow all DVR related communications between set-tops to occur without impacting traditional services.



Features

- Provides controlled insertion loss path between DVR port and output ports in 2 frequency bands
- Provides isolation between the input port and output/DVR ports in 2 frequency bands
- Has low insertion loss from the input to the DVR port and output ports in the broadcast passband

System Diagram



Passive Splitter Isolation Module



Specifications

Description	Units	Specification
Isolation (in - out) (min): 4.25 - 4.75 MHz 870 - 876 MHz	dB	32 34
Isolation (out - out) (min): 7-550 MHz 550-858 MHz	dB	24 22
Insertion Loss (in - out) (typical): 7-550 MHz 550-852 MHz 852-858 MHz	dB	7.5 8.5 10.5
Insertion Loss (out - out) (typical): 4.25 - 4.75 MHz 870 - 876 MHz	dB	13 16
Return Loss (min): 7-42 MHz 50-858 MHz	dB	13 16
In - Out Delay: 7-12 MHz 12-18 MHz Any 6 MHz band, 18-852 MHz 852-858 870-876 MHz	ns	100 20 10 25 10
EMI Shielding: 5-1000 MHz	dB	115
Surge Resistance: All ports - (combination wave) All ports - (Ring wave)	KV	2 6
Operating temperature	°C °F	-40 to +65 -40 to +149
Emissions	FCC – Part 76, Subpart K FCC – Part 15, Subpart B EN 50083-2: 2001	
Environmental	ASTM G 53 - weathering specification ASTM B 117 - salt spray specification ASTM D 31 - chip resistance specification Bellcore GR-63-CORE – vibration/transportation ANSI/IEEE C62.41 – lightning IEC 60529 2.1: 2001 IP68	

Ordering Information

Description	Part Number
Passive Splitter Isolation Module, 4 output,(5 per box),	4004725



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Scientific-Atlanta, Inc.
1-800-722-2009 or 770-236-6900
www.scientificatlanta.com

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