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SMP330T

Multi-Channel Transmodulator

Introduction

SMP330T Transmodulator is specially developed to help small cable TV, Telco systems, MDU, hotels and other commercial/residential buildings to convert HD ATSC signals to each subscriber room via the existing network. This 1RU equipment can receive digital programs from 8 QPSK/8PSK transponders, demodulate, multiplex and output the selected programs in 8 QAM-RF channels or in 4 DVB-T channels, and can be also used to receive 8 channels of ATSC programs, re-multiplex and configure to different available clear QAM frequencies.

Order Information

Model	Modules Combination	Feature
SQAM	2xDVBS2+1x QAM	8xDVB-S/S2 signals receiving, and transmodulation to QAM
ATQAM	2xATSC+1xQAM	8xATSC signals receiving, and transmodulation to QAM

Features

- Receive up to 8 ATSC channels and output 8 QAM- RF channels or 4 DVB-T channels.
- Supports both ASI and IP input/output for redistribution and transmission.
- ASI/IP input for local content and private data insertion.
- Supports Re-multiplexing and cherry picking.
- Option to add DVB-simulcrypt scrambling capability.
- Supports EPG/EIT re-multiplexing. (optional)
- Supports TS-level BISS descrambling (future option)
- Configuration and monitoring programs via NMS, Web GUI or SNMP.
- High efficiency with low power consumption in 1 RU compact chassis.

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DVB-S/S2 Input	
Constellation:	QPSK, 8 PSK
Symbol Rate	
DVB-S:	1~45 Msps (QPSK: 1/2,2/3,3/4,5/6,7/8)
DVB-S2:	1~31.5 Msps (QPSK: 1/2,3/5,2/3,3/4,5/6,8/9,9/10; 8PSK: 3/5,2/3,3/4,5/6,8/9, 9/10)
Input Frequency:	950~2150 MHz
Signal Level:	-65~-256 dBm
Acquisition Range:	+/- 5 MHz
Tuner Step Size:	100 KHz
Return Loss:	>10 dB
LNB Power	
Vertical:	11.5V~14.0V,
Horizontal:	16.0V~19.0V
22K Switch:	on/off
ATSC Input	
Inputs:	8 x F-Type (F), 75 Ohm
Modulation:	ATSC A/53 8-VSB
Input Frequency:	48~862MHz
Signal Level:	-83dBm ~ -8 dBm
Bit-rate:	19.39 Mbps
Standard:	ATSC Doc.A/74

QAM RF Output (per module)	
Physical Outputs:	one connector for 8XRF output (one for monitor)
Output Frequency Range:	48 - 862 MHz
Output Frequency Step	50 KHz
RF Channel:	8 (6/7/8 MHz)
QAM Modulation Mode:	16/32/64/128/256 QAM
QAM Type:	ITU-T J.83 Annex A/ C, Annex B (64/256QAM)
Symbol Rate:	4.4~6.9 MBauds
Output Level	
Effective,single channel:	30~55dBmV
Combined, 8 channel:	30~46dBmV
MER:	≥40dB (Equalized)
BER:	≤5×10-9 (64QAM,6.875Msps)

DVB-T Output	
Physical Outputs:	one connector for 4XRF output (one for monito
Output Frequency Range:	50 - 858 MHz
Output Frequency Step Size:	50 KHz
Transmission Mode:	2K, 8K
Guard Interval:	1/4, 1/8, 1/16 and 1/32
Constellation:	QPSK, 16QAM, 64 QAM
FEC:	1/2, 2/3, 3/4, 5/6, 7/8
Output Level	
Effective, Single channel:	30~55dBmV
Combined, 4 channel:	30~46dBmV

GBE IP Input	
Interface:	1 x 1000 Mbps per port
IP Encapsulation:	MPEG TS over UDP/RTP
MPEG TS:	MPTS and SPTS
I/O Processing:	Up to 12 channels (MPTS), 64 channels (SPTS)
Addressing:	Unicast and Multicast
Management:	IGMPv1, IGMPv2, IGMPv3
Forward Error Correction:	ProMPEG

DVB ASI Inputs	
Interface:	4 BNC connectors (2 ASI inputs and
MPEG Format:	188/204Bytes per TS
I/O Processing:	1 MPTS/SPTS per port, up to 100 Mbps per port

Re-multiplexing	
PID:	Re-mapping and Filtering
MPTS Output Synchronization:	
Routing:	Any Input to Any Output
Redundancy:	Input Service Redundancy & IP Port Redundancy

DVB Scrambling (future feature)	
TS Streams:	up to 8 TS streams (maximum 72 Mbps per TS)
Support DVB simulcrypt	Up to 4 CAS simultaneously
CAS support:	Irdeto,Conax, Viaccess, Nagravision, Verimatrix, Novel-Super TV, CTI, Dvcrypt and other DVB-simulcrypt CAS

CAS	
Scrambling level:	Program or PID

Management	
Interface:	100Base-TX, RJ45
NMS:	Wellav Digital Service Manager
Web-based	Yes
Support SNMP:	Yes

Physical & Environment	
Input Voltage:	90 - 260 VAC
Power Consumption:	Approx 100 W
Rack Space:	1 RU
Dimension (WxHxD):	480mm x 44mm x 440mm
Operating Temperature:	0 °C to 50 °C
Storage Temperature:	-40 °C to 65°C
Relative Operating	<95%
MTBF:	≥150000 hours

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