CatCast

HPS33XX-N Series

Multi-Protocol IP-Input Modulator

Product Outline

HPS33XX-N Series support multi-protocol IP inputs over UDP/RTP/RTSP/HLS/HTTP/SRT. It is flexible to choose different modulator cards to support different modulation output, such as DVB-C, DVB-T, ATSC and ISDB-T. HPS33XX-N Series bring a new level of intelligence and high performance to the CATV system at a cost-effective price offer.

Key Features

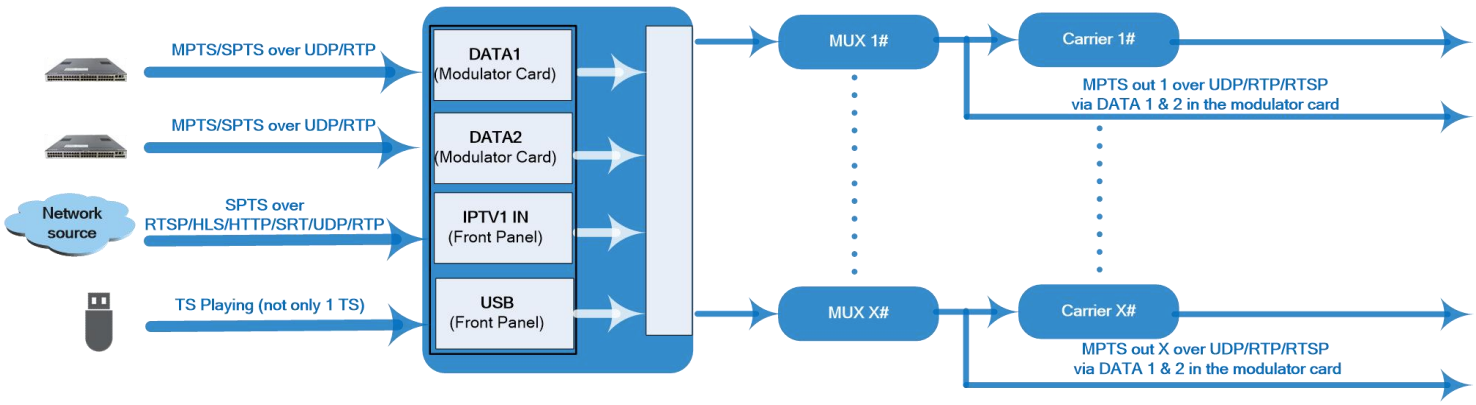
- **Support multi-protocol IP inputs over UDP/RTP/RTSP/HLS/HTTP/SRT**

*** SPTS input over UDP/RTP/RTSP/HLS/HTTP/SRT via the IPTV1 IN port in the front panel**

*** MPTS/SPTS input over UDP and RTP via the 2 DATA ports in the modulator board**

- **Support multi-type order options for modulator cards, DVB-C, DVB-T, ATSC and ISDB-T**
- **Support about 100Mbps-300Mbps data processing (IPTV1IN port in the front panel, up to the actual protocols etc) and max 840Mbps data processing(2 DATA ports in the modulator card)**
- **Support MPTS output over UDP/RTP via 2 DATA ports in the modulator card as mirror of carriers output**
- **IPTV1 IN port in the front panel is an unidirectional IP-input port; 2 DATA ports in the modulator card are the bidirectional IP-input/output ports.**
- **Support TS playing via USB Disk, USB 3.0**
- **Support the remote reboot in Web GUI**
- **Support Web management, Update via web**

Principle Chart



Modulation Specifications:

Order option 1: HPS3316-N & HPS3332-N DVB-C Modulator

Data input: Max 512/1024 IP inputs over UDP/RTP via 2 DATA Ports (RJ45/SFP) in the modulator card and over UDP/RTP/RTSP/HLS/HTTP/SRT via IPTV1 IN port in the front panel, unicast/multicast

Data output: 16 or 32 IP outputs over UDP/RTP/RTSP, unicast/multicast, 2 DATA Ports (RJ45/SFP) in the modulator card

RF output (F type): 16/32 channels of multiplexing, scrambling and modulation

Multiplexing:

Maximum PID Remapping: 180/256 per channel

Function: PID remapping (automatically or manually), Accurate PCR adjusting, generate PSI/SI table automatically

Scrambling:

Maximum simulcrypt CA: 6

Standard: ETR289, ETSI 101 197, ETSI 103 197

Connection: Local/remote connection

Modulation:

Standard: EN300 429/ITU-T J.83A/B

MER: ≥40dB

RF frequency: 50~960MHz, 1KHz step

RF output level: -20~+10dBm (87~117 dBμV), 0.1dB step for all carriers

Symbol Rate: 3600~7200Ksps, 1ksps stepping

5057Ksps (J.83B, 64QAM), 5361Ksps (J.83B, 256QAM)

Constellation/Bandwidth: J.83A: 16/32/64/128/256QAM, 8M

J.83B: 64/256QAM, 6M

J.83C: 64/256QAM, 8M

HPS3316-N Output: 16 non-adjacent carrier outputs within 192M bandwidth

HPS3332-N Output: 32 non-adjacent carrier outputs within 384M bandwidth

Order option 2: HPS3332D-N & HPS3348D-N DVB-C Modulator

Data input: Max 1024/1536 IP inputs over UDP/RTP via 2 DATA Ports (RJ45/SFP) in the modulator card and over UDP/RTP/RTSP/HLS/HTTP/SRT via IPTV1 IN port in the front panel, unicast/multicast

Data output: 32/48 IP output over UDP/RTP/RTSP, unicast/multicast, 2 DATA Ports (RJ45/SFP), DATA1 for IP #1-#16/24, DATA2 for IP #17/25-#32/48 in the modulator board

Multiplexing:

Maximum PID Remapping: 256/512 per channel

Function: PID remapping (automatically or manually), Accurate PCR adjusting, generate PSI/SI table automatically

Scrambling:

Maximum simulcrypt CA: 6

Standard： ETR289, ETSI 101 197, ETSI 103 197

Connection： Local/remote connection

Modulation:

Standard: EN300 429/ITU-T J.83A/B

MER: ≥40dB

RF frequency: 50~960MHz, 1KHz step

RF output level: -20~+10dBm (87~117 dBμV), 0.1dB step for all carriers

Symbol Rate: 3600~7200Ksps, 1ksps stepping

5057Ksps (J.83B, 64QAM), 5361Ksps (J.83B, 256QAM)

Constellation/Bandwidth: J.83A: 16/32/64/128/256QAM, 8M

J.83B: 64/256QAM, 6M

RF output: 2 F type output ports for 32/48 non-adjacent carriers, 75Ω

Order Guide:

HPS3332D-N: Carrier 1~16 out thru RF1, 17~32 thru RF2, each RF supports 384M bandwidth

HPS3348D-N: Carrier 1~24 out thru RF1, 25~48 thru RF2, each RF supports 384M bandwidth

Order option 3: HPS3308T-N DVB-T Modulator

Data input: Max 256/512 IP inputs over UDP/RTP via 2 DATA Ports (RJ45/SFP) in the modulator card and over UDP/RTP/RTSP/HLS/HTTP/SRT via IPTV1 IN port in the front panel, unicast/multicast

Data output: 8/16 IP output over UDP/RTP/RTSP, unicast/multicast, 2 GE Ports (RJ45/SFP) in the modulator card

Multiplexing:

Channel Number: 8/16 multiplexing channels

Maximum PID Remapping: 180/256 per channel

Function: PID remapping (automatically or manually), Accurate PCR adjusting, generate PSI/ SI table automatically

Modulation:

Standard: ETSI EN300 744

MER: ≥40db

RF Frequency: 50~960MHz, 1KHz step

Constellation: QPSK/16QAM/64QAM

Bandwidth: 6/7/8 MHz

Trans mode: 2K/4K/8K

FEC: 1/2, 2/3, 3/4, 5/6, 7/8

RF Output Level: -20~+10dbm (for all carriers), 0.1dB stepping

RF Output (F type): 8/16 non-adjacent carrier outputs

Order Guide:

HPS3308T-N-8: 8 non-adjacent DVB-T carrier output within 192M bandwidth

HPS3308T-N-16: 16 non-adjacent DVB-T carrier output within 384M bandwidth