

## IP QAM Modulator with Re-multiplexer & Scrambler WA-3670

WA-3670 is such a device that can receive multiple MPEG-2 TS in form of IP data, and then re-multiplex and scramble it with insertion of local information, finally outputs RF signal after QAM modulation.

WA-3670 is one of the most important devices in WADT new generation DTV head-end equipment series. It forms the new generation highly integrated DTV head-end system together with the TS converters & encoders with IP outputs, traditional TS processing devices, as well as ASI/IP conversion devices.



### Main Features:

- Options to have GbE SFP port or RJ45 port as high speed IP data input, support IGMP 2.0
- Complete solution for multi-channel re-multiplexing, scrambling and QAM modulation
- All DTV stream processing & modulation tasks in single device (except trans-coding & bit rate conversion)
- Flexible network configuration, support input stream auto-detection and user configuration auto-saving
- Support up to 4 simul-crypt CAS and DVB-CSA scrambling
- Support tiered scrambling of all programs under VOD mode
- Support SI/PSI auto-generation and manual uploading during re-multiplexing
- Support PID filtering, pass-through and PCR auto-correction
- Able to process up to 250 input TS, 16 output TS and 1000 DTV programs simultaneously under broadcasting mode
- Simultaneous processing of up to 510 input TS, 16 multiplexed output TS under VOD mode
- Support auto-generation or manual editing of network information, as well as local network information sectors uploading
- Support ITU-T J.83 Annex A/B/C modulation, output frequency range: 30MHz~1000MHz
- Dual RF output ports with support of up to 16 QAM frequencies (4-adjacent-channels)
- Outstanding out-of-band rejection, in-band EPL balance capability, support gain fine-tuning
- Support Web-based network management, with online upgradable embedded programs
- Support SNMP management under VOD mode
- Multi-lingual management user interface and documentation to suit both regional and overseas markets
- Able to work in co-operate with WADT IP-based DTV service system such as EPG, data broadcasting, NVOD and VOD
- Dual power supply warm standby with seamless switching
- Support monitoring of operation temperature & power supplies, as well as intelligent control of fan speed, with considerate hardware design for ventilation

## Technical Specifications:

| GbE Input          |   |
|--------------------|---|
| Connector          | Optical/electrical Small Form Factor Pluggable (SFP*)   |
| Data rate          | 800 Mbps  |
| Syntax             | VBR and CBR MPEG SPTS and MPTS on UDP (RFC-768) (broadcast applied), only SPTS (edge VOD applied) |
| RF Outputs         |   |
| Number of outputs  | Up to 16 (options to have 4 x 4-adjacent-channel or 16- adjacent-channel)                         |
| Output bit rate    | 15.5~51.6Mbps (per channel)   |
| Symbol rate        | 4.2~7Mbaud/s (per channel)  |
| Bandwidth          | 4.83~8.05MHz (per channel, roll-over factor: 0.15)  |
| Frequency Range    | 30~900MHz   |
| Output Level       | 90dBuV ~110dBuV (per channel, step size: 0.5 dBuV)  |
| Gain Fine-tune     | -2.5~10.5dB   |
| Channel encoding   | ITU-T J.83 Annex A or B   |
| QAM constellations | 16/32/64/128/256QAM (Annex A)<br>64/256QAM(Annex B)   |

| Scrambling                      |                        |
|---------------------------------|------------------------|
| Syntax                          | DVB-CSA                |
| Scrambling bit rate per channel | 0~60Mbps               |
| Number of scramble              | 16                     |
| Management                      |                        |
| Interface type E                | Ethernet 10/100 Base-T |
| Connector                       | RJ-45                  |
| Power                           |                        |
| Input Voltage Range             | 85~260V AC             |
| Input Frequency Range           | 50/60Hz                |
| Typical Consumption             | <50W                   |
| DC Output                       | 5V/5A,12V/1A           |
| Environmental                   |                        |
| Operating Temperature Range     | 5°C ~45°C              |
| Storage Temperature Range       | -25 ~85°C              |
| Operating Humidity              | 10%~90%                |
| Physical                        |                        |
| Dimensions (W x H x D)          | 483mm x 44mm x 483mm   |
| Weight                          | 5.8Kg                  |

## Typical Application:

