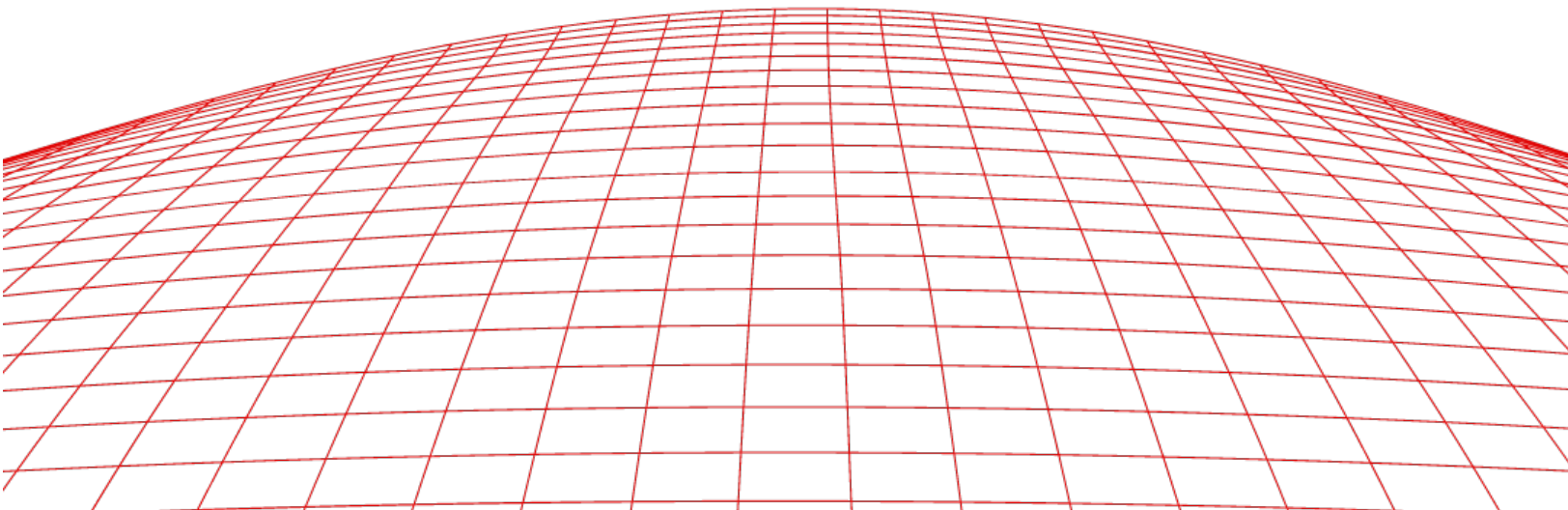
Introducing the Technalogix TP-4000RFX and Supporting Modules



White Paper: Introducing the Technalogix TP-4000RFX and Supporting Modules

Introduction

The ever-evolving landscape of video processing demands adaptable solutions that cater to the diverse needs of industries such as Hospitality, Education, Government, MDU, and more. In recognition of this demand, Technalogix proudly introduces the TP-4000RFX, a revolutionary upgrade to its TP-1000/400 series, designed to transform modular video processing. This white paper unveils the remarkable features and capabilities of the TP-4000RFX, along with its supporting modules, demonstrating how it effectively addresses the modern challenges of video distribution, encoding, and beyond.

TP-4000RFX: Empowering Versatile Video Processing

The TP-4000RFX represents the epitome of innovation in modular video processing, setting unprecedented standards for performance, adaptability, and user experience. Leveraging the strong foundation of the TP-1000/400 series, the TP-4000RFX propels video processing to new horizons with its distinctive features and capabilities.

Key Features and Applications

1. **Modular Design**: The TP-4000RFX underscores Technalogix's dedication to modular solutions. As a 1RU standard rack unit, it accommodates up to six hot-swappable modules on its rear panel, enabling organizations to tailor their video processing configuration according to their precise needs.
2. **Advanced Power Options**: Organizations can choose between single or dual power supply configurations, with the TP-4000D offering the dual power supply choice. This redundancy elevates system reliability, ensuring uninterrupted operation even in demanding scenarios.
3. **Front-Panel Modulation**: The TP-4000RFX introduces the 8-CH adjacent QAM/DTMB/OFDM/8VSB modulation module on its front panel. This distinct feature empowers organizations to seamlessly integrate adjacent QAM/8VSB

modulation, expanding the platform's capabilities in video distribution and reception.

4. **High-Speed Connectivity**: Boasting 4 GbE Ethernet ports on its front panel, the TP-4000RFX features 2 ports dedicated to management and 2 for IP stream input and output. This high-speed connectivity streamlines IP stream handling, simplifying setup and management.
5. **Versatile Input/Output Options**: The platform supports up to 120 IP inputs and 120 IP outputs, accommodating both SPTS and MPTS streams. With capabilities for up to 24 HDMI HD encodings, 48 CVBS SD encodings, and the reception of 24 coax channel frequencies, the TP-4000RFX emerges as an all-encompassing solution for diverse video processing requirements.
6. **User-Friendly Interface**: The web interface of the TP-4000 platform simplifies installation, configuration, and module upgrades. This user-centric interface empowers organizations to efficiently deploy and operate the system, minimizing downtime and maximizing efficiency.
7. **Reliable Support**: Backed by a US/Canada-based support team, the TP-4000 platform ensures organizations have access to expert assistance whenever necessary, bolstering confidence in the system's performance and dependability.

Supporting Modules: Expanding Horizons

The TP-4000RFX is accompanied by a suite of supporting modules, each meticulously designed to enhance the platform's capabilities and offer comprehensive solutions across diverse use cases. Please see the end of this white paper for more information on expansion modules.

Physical and Environmental Specifications

- **Input Voltage**: The system operates within a versatile input voltage range of 100~240 VAC at 50-60Hz, ensuring compatibility with diverse power sources.
- **Power Consumption**: With a maximum power consumption of 120W, the TP-4000RFX strikes a harmonious balance between performance and efficiency.
- **Chassis Dimension**: The compact 1RU chassis measures 480mm x 44mm x 430mm (18.90” x 1.73” x 16.93”), rendering it suitable for rack installations of varying sizes.
- **Operating Temperature**: The system functions seamlessly within a temperature range of 0°C~50°C (32°F ~ 122°F), guaranteeing dependable performance even in challenging environments.

- **Storage Temperature**: The TP-4000RFX is engineered to withstand storage temperatures ranging from -10°C~70°C (14°F ~ 174.2°F), ensuring its integrity during periods of non-operation.
- **Operating Humidity**: With an operating humidity of less than 95%, the system maintains reliability in humid conditions, ensuring consistent performance.
- **MTBF**: The TP-4000RFX boasts a Mean Time Between Failures (MTBF) of ≥100,000 hours, underscoring its resilience and durability.

Conclusion

The Technalogix TP-4000RFX is a transformative solution that redefines modular video processing. Through its advanced features, versatile supporting modules, and user-centric interface, it empowers organizations to deliver top-notch content across diverse applications. The TP-4000RFX stands as a testament to Technalogix's dedication to innovation, reliability, and customer satisfaction, ushering in a new era in video processing technology.

Module Specifications:

OHR6-DVBC-00

DVB-C	
Input	4 channels via1 RF female connector
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
QAM Mode	Annex A/C
Frequency Range	47~862MHz
Bandwidth	6/7/8MHz
Constellation	16QAM/32QAM/64QAM/128QAM/256QAM
Symbol Rate	3.6~6.952Ms/s
Signal Level	40~80dBuV
CA System	Supports mainstream CAS
Power Consumption	Max. 9.5W

DTMB	
Input	4 channels via 1 RF female connector
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
Modulation Mode	TDS-OFDM
Frequency Range	47~862MHz
Constellation	4QAM-NR/4QAM/16QAM/32QAM/64QAM
Signal Level	-65~-25dm
CA System	Supports mainstream CAS
Power Consumption	Max. 9.5W

OHR6-DVBC-ISDBT-01

DVBC Annex B	
Input	4 channels via1 RF female connector
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
QAM Mode	Annex B
Frequency Range	47~862MHz
Bandwidth	6MHz
Constellation	64QAM, 256QAM
Symbol Rate	5.057Ms/s (64QAM) 5.360Ms/s (256QAM)
Signal Level	40~80dBuV
CA System	Supports mainstream CAS
Power Consumption	Max. 9.5W

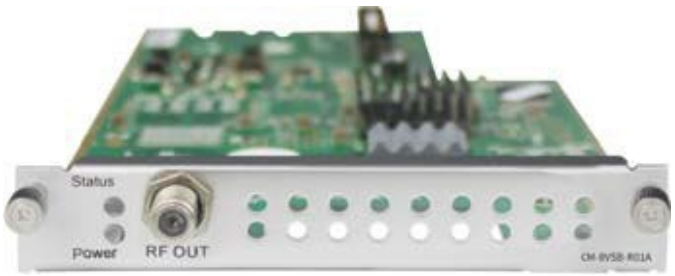
ISDB-T	
Input	4 channels via1 RF female connector
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
Frequency Range	177.143-863.143 MHz
Bandwidth	6/7/8MHz
Constellation	DQPSK, QPSK, 16QAM, 64QAM
FEC	1/2, 2/3, 3/4, 5/6, 7/8, Automatic
Signal Level	-80~-20dBm
CA System	Supports mainstream CAS
Power Consumption	Max. 9.5W

DVB-S/S2/S2X	
Input	C/Ku Band, 4 channels via 4 RF female connectors
LNB Power	Independent power supplies for each LNB
LNB Voltage	13V/18V
LNB Current	Max. 400mA
Constellation	DVB-S: QPSK, 8PSK DVB-S2: QPSK, 8PSK, 16APSK, 32APSK DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Frequency Range	950~2150MHz
Signal Level	-70~-20dBm
Roll-off Factor	0.15, 0.20, 0.25, 0.35
Symbol Rate	DVB-S: 1~45Msps DVB-S2: 1~45Msps DVB-S2X: 1~34 Msps
FEC	DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2X: 11/15, 7/9, 4/5, 5/6 (Normal FEC FECFRAME)
Power Consumption	Max. 30W

OHR6-DVBS2FTA-01A

DVB-S/S2/S2X	
Input	C/Ku Band, 8 channels via 8 RF female connectors
LNB Power	Independent power supplies for each LNB
LNB Voltage	13V/18V
LNB Current	Max. 400mA
Constellation	DVB-S: QPSK, 8PSK DVB-S2: QPSK, 8PSK, 16APSK, 32APSK DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Frequency Range	950~2150MHz
Signal Level	-70~-20dBm
Roll-off Factor	0.15, 0.20, 0.25, 0.35
Symbol Rate	DVB-S: 1~45Msps DVB-S2: 1~45Msps DVB-S2X: 1~34 Msps
FEC	DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2X: 11/15, 7/9, 4/5, 5/6 (Normal FEC FECFRAME)
Power Consumption	Max. 30W

Notes: If 2 or 3 modules are needed in the same chassis, please contact your sales.



8VSB	
Output	4/8 frequencies via 1 RF female connector 75Ω
Standard	ATSC A/35
Frequency Range	50~860 MHz
Bandwidth	6MHz
Constellation	8VSB
Output Level	Max. 105dBμV
MER	≥40dB
Power Consumption	4CH: Max. 12W; 8CH: Max. 14W

OHR6-DVBS2CI-01

DVB-S/S2/S2X	
Input	C/Ku Band, 4 channels via 2 RF female connectors CH1 & CH2 via LNB-1 CH3 & CH4 via LNB-2
LNB Power	Independent power supplies for each LNB
LNB Voltage	13V/18V
LNB Current	Max. 400mA
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
Constellation	DVB-S: QPSK, 8PSK DVB-S2: QPSK, 8PSK, 16APSK, 32APSK DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Frequency Range	950~2150MHz
Signal Level	-70~-20dBm
Roll-off Factor	0.15, 0.20, 0.25, 0.35
Symbol Rate	DVB-S: 1~45Msps DVB-S2: 1~45Msps DVB-S2X: 1~34 Msps
FEC	DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2X: 11/15, 7/9, 4/5, 5/6 (Normal FEC FECFRAME)
CA System	Supports mainstream CAS
Power Consumption	Max. 22W

OHR6-DVBT2CI-00

DVB-T/T2	
Input	4 channels via 1 RF female connector
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
Frequency Range	47~862MHz
Bandwidth	6/7/8MHz
Constellation	DVB-T: QPSK/16QAM/64QAM DVB-T2: QPSK/16QAM/64QAM/256QAM
Guard Interval	DVB-T: 1/4, 1/8, 1/16, 1/32 DVB-T2: 1/4, 1/8, 1/16, 1/32, 1/128 19/256, 19/128
FFT Size	DVB-T: 2K, 8K DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
Signal Level	-80~-20dBm
CA System	Supports mainstream CAS
Power Consumption	Max. 8W

OHP6-EIT-00

Encoding	
Input	DVB-S/S2/S2X/T/T2/C/ISDB-T/DTMB/IP
Output	QAM/OFDM/ISDB-T/DTMB/IP
Standard	DVB standard
Processing Capability	32 TS stream input, 16 TS stream output Up to 100 services depending on the EIT complexity of signal source
Content Processing	Automatic update for Original Network ID, TS ID and Service ID
EIT Table Generation	EIT table with PID 18 will be generated after the processing
TDT/TOT Table	TDT/TOT table with PID 20 will be passed through to the output
EIT Enable/Disable Control	Module Level, TS Level, Service Level
Supported EIT Module in Each Chassis	1
Status Display	Service name and service list Signal source and output module EIT multiplexing success/failure display at service level
Configuration	Configuration can be exported and imported to the module
Software Upgrade	Web-based software upgrade
Log	Support Enable/Disable control, Live logging and log file export
License	License control is available for authorization time control
Management	
Web-based Management	Yes
SNMP	SNMP V1/V2 (coming soon)

OHP6-CAM-00

CI	
Standard	EN 50221
Interface	2 x PCMCIA CI slots
CAM Scrambling	Support Xcrypt CAMCAS
CAM Descrambling	Supports mainstream CAS Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
Power Consumption	Max. 8W

OHR6-8VSB-00

8VSB	
Input	4 channels via 4 RF female connector
Frequency Range	50~860MHz
Bandwidth	6MHz
Modulation	8VSB
Signal Level	-80~-20dBm
Power Consumption	Max. 9.5W

OHP6-EAS-00

EAS	
Input	Digital EAS input (SCTE-18) via 1 × RJ45 port Analogue EAS input via 3PIN contact closure CVBS input via 1 × RCA connector Audio L/R input via 2 × RCA connector TS input via 1 × BNC connector
Video	H.264 SD: MP/HP@L3.0 MPEG-2 SD: MP @ML (By default)
Resolution	SD: 480i59.94
ASI	500Kbps to 100Mbps
Contact Closure	3PIN Connector with Dry Contact or 5~24V DC input for EAS trigger
RJ45	10/100M Ethernet for SCTE-18 digital EAS input
Bitrate Control	CBR
Bitrate	5,00~8,000Kbps
GOP Structure	IBBP, IPPP, IBP
GOP Size	6~63
Audio	MPEG-1 Layer II, AC3, AAC
Audio Mode	Stereo (2.0, including downmix)
Sampling Rate	48kHz
Power Consumption	Max. 5.5W

OHM6-OFDM-03

OFDM	
Output	8 agile frequencies via 1 RF female connector 75Ω
Standard	ETSI EN 300744
Frequency Range	47~862MHz
Bandwidth	6/7/8MHz
Constellation	QPSK/16QAM/64QAM
Guard Intervals	1/4, 1/8, 1/16, 1/32
FFT Size	2K, 8K
Code Rates	1/2, 2/3, 3/4, 5/6, 7/8
Output Level	Max. 105dBμV
MER	≥42dB
Power Consumption	4CH: Max. 23W; 8CH: Max. 27W

OHM6-QAMA/B-R00

QAM	
Output	16 agile frequencies via 1 RF female connector 75Ω
1 x RJ45	Reserved for scrambling
Standard	ITU-T J.83 Annex A/B/C
Frequency Range	47~862MHz
Bandwidth	6/7/8MHz

OHM6-QAMA-03

QAMA	
Output	8 agile frequencies via 1 RF female connector 75Ω
Standard	ITU-T J.83 Annex A/C
Frequency Range	47~1002MHz
Bandwidth	6/7/8MHz
Constellation	16QAM/32QAM/64QAM/128QAM/256QAM

OHM6-QAMB4-R00

QAM	
Output	4 agile frequencies via 1 RF female connector 75Ω
1 x RJ45	Reserved for scrambling
Standard	ITU-T J.83 Annex B
Frequency Range	47~862MHz
Bandwidth	6/7/8MHz
Constellation	64QAM/256QAM
Symbol Rate	3.6~6.9Ms/s
Output Level	Max. 106dBμV
MER	>40dB
Power Consumption	Max. 28W

OHM6-ISDB-T-03

ISDB-T	
Output	8 agile frequencies via 1 RF female connector, 75Ω
Standard	ARIB STD-B31
Frequency Range	47-862MHz
Bandwidth	6MHz
Constellation	QPSK, 16QAM, 64QAM
Transmission Mode	2K
RS Code	RS(204.188)
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/4, 1/8, 1/16, 1/32
Hierarchy Mode	Layer A
Segment Mode	Full Seg
Output Level	Max. 105dBμV
MER	≥42dB
Power Consumption	4CH: Max. 23W; 8CH: Max. 27W

OHM6-QAMA/B-02

IPQAM	
IP input	2x100/1000Mbps ports, 1xSFP+/10Gbps port (Future)
IP Encapsulation	MPEG TS over UDP/RTP
MPEG TS	MPTS and SPTS
I/O Processing	Up to 1024 channels either via each 2xGbE input
Addressing	Unicast and multicast
IGMP Version	IGMP v2, IGMP v3
QAM Output	
Output	1xRF port, max 32 agile channels QAM modulation
Standard	ITU-T J.83 Annex A/B/C
QAM Constellation	64/256 QAM, configurable for each frequency
Symbol Rate	3.6~7Mbauds
Output Level	85~117dBuV according to modulation frequency quantity
Output Range	57~858MHz
Bandwidth	6/7/8MHz
MER	≥43dB(equalized)
PCR Correction	Support
Multiplexing	
Table Supported	SI/PSI
PID Processing	Pass-through, remapping, filtering
EIT Processing	Pass-through
External Data	EPG, PID and SI insertion
Scrambling (QAM A/C)	
Interface	1x100/1000 Mbps port
Scrambling Algorithms	CSA
SCS	Internal
CAS Connections	Up to 4 different CA systems
Supported CAS	Support major CA systems
Max. TS rate	1.6Gbps
EMM Bitrate	Up to 3Mbps
Power Consumption	Max. 45W

OHE6-HDMI-02C

HDMI	
Input	2 channels via 2 HDMI or 2 component Female connectors (HDMI1.4) CC/Component input via DB15 port
Video	H.264/AVC HD: MP/HP@L4.0, SD: MP/HP@L3.0 MPEG-2 SD: MP @ML HD: MP@HL
Resolution	SD: 576i50, 480i59.94 HD: 1080p-25/30/50/59.94/60 1080i-50/60 720p-50/60 * The maximum output resolution is 1080i60.
Bitrate Control	CBR
Bitrate	1,000~18,000Kbps
GOP Structure	IBBP, IPPP, IBP
GOP Size	6~63
Audio	MPEG-1 Layer II, AC3, AAC
Audio Mode	Stereo (2.0, including downmix)
Sampling Rate	48kHz
Power Consumption	Max. 16W

OHE6-HDMI-02

HDMI	
Input	2 channels via 2 HDMI Female connectors (HDMI1.4) CC via RCA connector
Video	H.264/AVC HD: MP/HP@L4.0, SD: MP/HP@L3.0 MPEG-2 SD: MP @ML HD: MP@HL
Resolution	SD: 576i50, 480i59.94 HD: 1080p-25/30/50/59.94/60 1080i-50/60 720p-50/60 * The maximum output resolution is 1080i60.
Bitrate Control	CBR
Bitrate	1,000~18,000Kbps
GOP Structure	IBBP, IPPP, IBP
GOP Size	6~63
Audio	MPEG-1 Layer II, AC3, AAC
Audio Mode	Stereo (2.0, including downmix)
Sampling Rate	48kHz
Power Consumption	Max. 16W

OHE6-HDMI-R01

HDMI	
Input	4 channels via 4 HDMI female connectors (HDMI 1.4)
Video	H.264/AVC HD: MP/HP@L4.0 SD: MP/HP@L3.0 MPEG-2 SD: MP@ML
Resolution	SD: 576i50, 480i59.94 HD: 1080p-25/30/50/59.94/60 1080i-50/59.94/60 720p-50/60 * Output resolution supports up to 1920 x 1080p30
Bitrate Control	CBR
Video Bitrate	1,000~14,000Kbps
GOP Structure	IBBP, IPPP, IBP
GOP Size	6~63
Aspect Ratio	Automatic or Manual
Audio	MPEG-1 Layer II, AC3 (optional), AAC (optional)
Audio Bitrate	32~384Kbps
Audio Mode	Stereo (2.0, including downmix)
Audio Sampling Rate	48kHz
Audio Volume Leveling	-20dB~20dB
Power Consumption	Max. 12W

OHE6-HDMI-06

HEVC	
Input	4 channels via 4 HDMI female connector (HDMI 1.4)
Video	H.264/AVC HD: MP/HP@L4.0/4.1/4.2 H.265/HEVC HD: MP(High Tier)@L4.0/4.1
Resolution	Input: 1080i-50/59.94/60, 1080P-50/59.94/60, 720P-50/59.94/60 Output: 1080P-50/59.94/60, 720P-50/59.94/60
Bitrate Control	CBR
Video Bitrate	600Kbps-12Mbps
GOP Structure	IPPP, IBBP
Aspect Ratio	Automatic or manual (4:3, 16:9)
Audio	MPEG-1 Layer II, AC3 (optional), AAC (optional)
Audio Bitrate	32~384 Kbps
Audio Mode	Stereo
Audio Sampling Rate	48KHz
Audio Volume Leveling	-20dB~20dB
OSD Overlay	2 x Logo/QR code overlay (40 x 40 to 256 x 256) Or 1 x static OSD overlay
Power Consumption	Max.65W

Notes: CE2-HDMI-06 will forcefully output 4 HD programs with same video resolution which follows the largest video resolution among the input source and SD encoding is not supported yet.

OHE6-CVBS-00

CVBS	
Input	6 channels via 2 DB15 connector each DB15 for 3 channels 2 x RCA-DB15 adaptor cables come along with module
Video	H.264/AVC SD: MP/HP@L3.0 MPEG-2 SD: MP@ML
Resolution	SD: 576i50, 480i59.94
Bitrate Control	CBR
Bitrate	1,000~6,000Kbps
GOP Structure	IBBP, IPPP, IBP
GOP Size	6~63
Aspect Ratio	Automatic or Manual
Audio	MPEG-1 Layer II
Audio Bitrate	32~384Kbps
Audio Mode	Stereo (2.0, including downmix)
Audio Sampling Rate	48kHz
Audio Volume Leveling	-20dB~20dB
Power Consumption	Max. 17W

OHE6-CVBS-R01

CVBS	
Input	16 channels via 4 DB15 connectors, each DB15 for 4 channels 4 x RCA-DB15 adaptor cables come along with module
Video	H.264/AVC SD: MP/HP@L3.0/3.1/3.2
Resolution	SD: 576i50, 480i59.94
Bitrate Control	CBR
Bitrate	1,000~8,000Kbps
GOP Structure	IPPP
GOP Size	1~99
Aspect Ratio	Automatic or Manual
Audio	MPEG-1 Layer II
Audio Bitrate	32~384Kbps
Audio Mode	Stereo (2.0, including downmix)
Sampling Rate	48kHz
Audio Volume Leveling	-20dB~20dB
OSD Overlay	Text, Image, QR Code
Power Consumption	Max. 18W

* Does NOT support PAL-N

OHE6-SDI-01

SDI	
Input	2 channels via 2 SDI SDI via BNC connector
Video	H.264/AVC HD: MP/HP@L4.0, SD: MP/HP@L3.0 MPEG-2 SD: MP @ML HD: MP@HL
Resolution	SD: 576i50, 480i59.94 HD: 1080p-25/30/50/59.94/60, 1080i-50/60 720p-50/60 * The maximum output resolution is 1080i60.
Bitrate Control	CBR
Bitrate	1,000~18,000Kbps
GOP Structure	IBBP, IPPP, IBP
GOP Size	6~63
Audio	MPEG-1 Layer II, AC3, AAC
Audio Mode	Stereo (2.0, including downmix)
Sampling Rate	48kHz
Power Consumption	Max. 16W

OHP6-ASI-00

ASI	
Connector	5 x bidirectional ASI ports, BNC female
Bit rate	500Kbps to 150Mbps
Reception/ Transmission mode	Byte mode(Continuous mode) Packet mode (Burst mode)
Packet Length	188 Bytes or 204 Bytes
Working mode	3 ASI input ports, 2 ASI output ports by default, each port can be redefined as ASI input or ASI output port
Multiplexing	Support PSI/SI or PSIP table regeneration PID filtering External PID insertion
Power Consumption	Max. 16 W

OHP6-IP-00

IP	
Network	3 x Internal port, 100/1000M 3 x External RJ45 ports, 100/1000M Intel NIC chipset
HDMI	1 x HDMI 2.0 port Connect to LCD Monitor
USB	1 x USB 2.0 port Connect to external USB Hub for keyboard/mouse/USB DVD drive
Input Protocols	UDP/RTP/HLS/SRT RIST/Zixi/RTMP/RTMPS (future option)
Output Protocols	UDP/RTP/SRT RIST/Zixi/RTMP/RTMPS (future option)
Processing Capability For Typical Applications	HLS to UDP – up to 20 input streams , max 150mbps SRT to UDP – up to 20 input streams, max 150mbps UDP to SRT – up to 20 streams, max 150mbps, max 70 sessions.
Number of Gateways	Default: 10 gateways, UDP/RTP/HLS input, UDP/RTP output Notice: Additional license are required to support more gateways and network protocols

OHP6-IP-02

IP	
Ethernet	2 x RJ45, 100/1000Base-T
Input	UDP/RTP via Unicast/Multicast
Output	UDP/RTP via Unicast/Multicast
Channels	DATA 1: 128 input & output DATA 2: 120 input & output
Effective Bitrate	Maximum 700 Mbps (total 2 ports)
Power Consumption	Max. 16 W