



OmniHub 6



OmniHub 6D

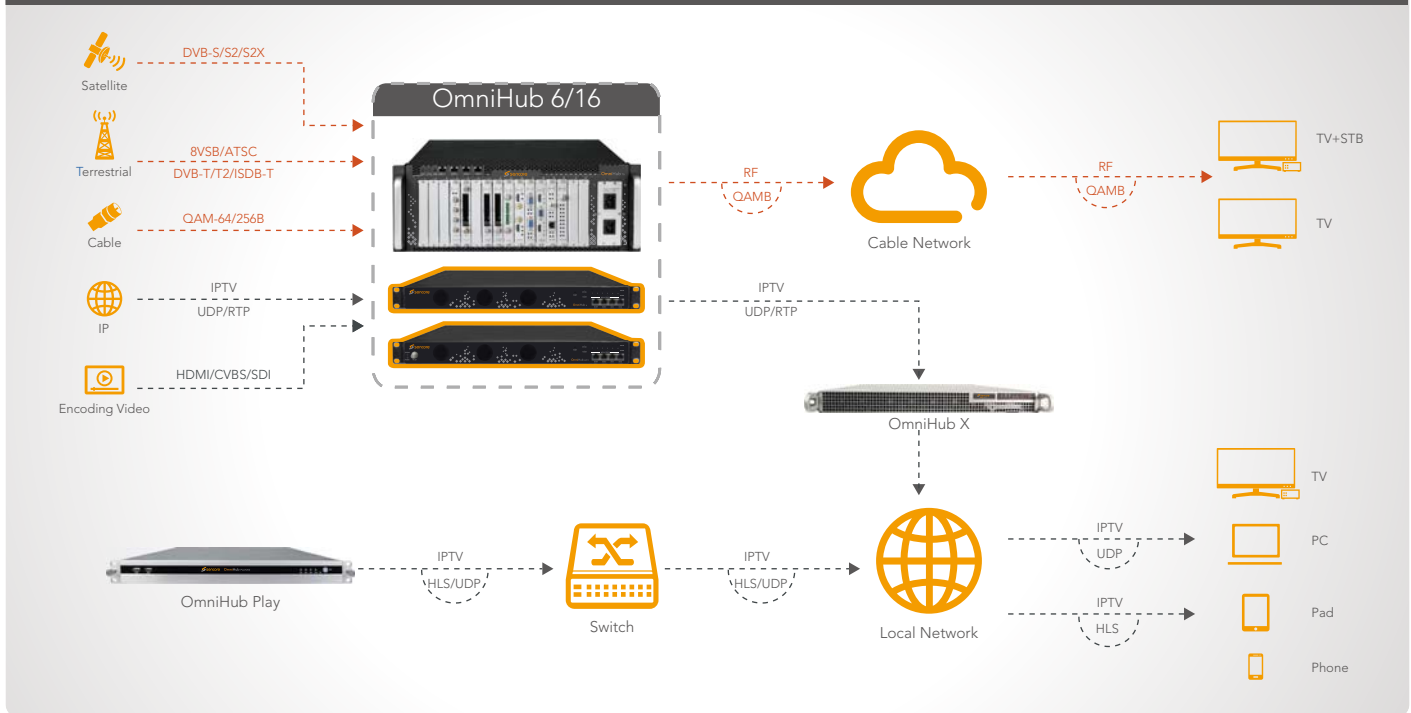


OmniHub 6RFX

INTRODUCTION

OmniHub 6 is the next generation of modular video processing by Sencore. The chassis comes with a single or dual power supply option and accommodates up to six modules. Using a built-in IP switch and diverse range of hot-swappable input/output options, OmniHub 6 is a highly flexible solution perfect for a variety of applications including Hospitality, Education, Government, MDU, and more. Offering an excellent balance of performance VS value, the Omnihub 6 is ideal for dense multi-channel encoding, signal reception, digital turn around, and simultaneous IPTV + QAM distribution without an excessive price tag. Backed by a US based support team and a intuitive Web-Interface, the OmniHub platform is easy for any organization to deploy and operate.

OmniHub IPTV Solution



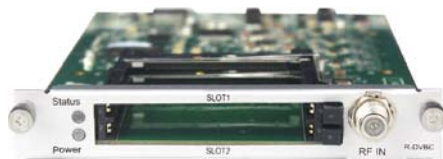
FEATURES

- 19" 1RU standard rack unit
- Optional dual power supplies (OmniHub 6D)
- Optional 8-CH adjacent QAM/DTMB/OFDM modulation module on front panel (OmniHub 6RFX)
- 4 GbE Ethernet ports on front panel (2 for management, 2 for IP stream in/out)
- Supports 120 IP inputs and 120 IP outputs, SPTS/MPTS
- 6 slots for hot-swappable functional modules on rear panel
- Supports up to 24 HDMI HD encoding
- Supports up to 48 CVBS SD encoding
- Supports reception of up to 24 coax channel frequencies (QAM-B, DVB-S/S2/S2X, 8VSB)
- User-friendly web-interface setup and module upgrades
- Simple installation and easy configuration

Chassis	
1RU with 6 slots for hot-swappable modules	
Dual redundant power supplies	
Service-level multiplexing	
4 x Gigabit RJ45 (embedded):	
• MPEG TS over UDP/RTP multicast/unicast SPTS/MPTS	
• Max. 120 inputs and 120 outputs	

Physical & Environment	
Input Voltage	100~240 VAC/50-60Hz
Power Consumption	Max. 120W
Chassis Dimension (W x H x D)	480mm x 44mm x 430mm (18.90" x 1.73" x 16.93"), 1 RU
Operating Temperature	0°C~50°C (32°F ~ 122°F)
Storage Temperature	-10°C~70°C (14°F ~ 174.2°F)
Operating Humidity	<95%
MTBF	≥100,000 hours

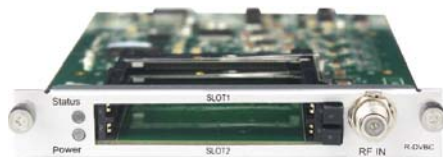
SPECIFICATIONS



OHR6-DVBC-00

DVB-C	
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
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 via 1 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 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	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

SPECIFICATIONS



OHR6-DVBS2FTA-01

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

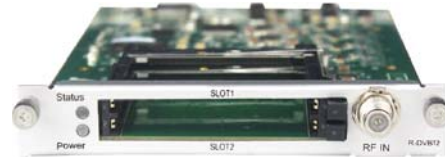
DVB-S/S2/S2X	
Input	C/Ku Band, 8 channels via 8 RF female connectors
LNB Power	Independent power supplies for each LNB
LNB Voltage	13V/18V
LNB Current	Max. 400mA
Constellation	DVB-S: QPSK, 8PSK DVB-S2: QPSK, 8PSK, 16APSK, 32APSK DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Frequency Range	950~2150MHz
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.



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

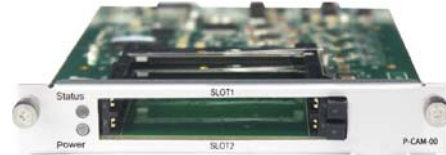
DVB-T/T2	
Input	4 channels via 1 RF female connector
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
Frequency Range	47~862MHz
Bandwidth	6/7/8MHz
Constellation	DVB-T: QPSK/16QAM/64QAM DVB-T2: QPSK/16QAM/64QAM/256QAM
Guard Interval	DVB-T: 1/4, 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

SPECIFICATIONS



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-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



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-EAS-00

EAS	
Input	Digital EAS input (SCTE-18) via 1 x RJ45 port Analogue EAS input via 3PIN contact closure CVBS input via 1 x RCA connector Audio L/R input via 2 x RCA connector TS input via 1 x 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

SPECIFICATIONS



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
Constellation	16QAM/32QAM/64QAM/128QAM/256QAM
Symbol Rate	3.6~6.9Ms/s
Output Level	Max. 106dBμV
MER	>40dB
Power Consumption	QAMA: Max. 22W; QAMB: Max. 28W



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
Symbol Rate	3.6~6.9 Ms/s
Output Level	Max. 105dBμV
MER	≥42dB
Power Consumption	4CH: Max. 23W; 8CH: Max. 27W



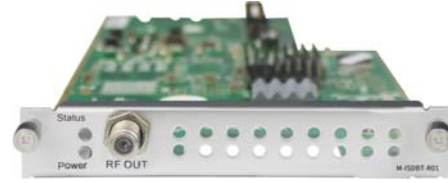
OHM6-QAMB4-R00

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

SPECIFICATIONS



OHM6-QAMA/B-02



OHM6-ISDB-T-03

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

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

SPECIFICATIONS



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-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-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-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.

SPECIFICATIONS



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

SPECIFICATIONS



OHP6-IP-00



OHP6-IP-02

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

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

* The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



INTRODUCTION

The most powerful video headend packed in 4 RU! Perfect for hotels, schools, hospitals, and MDUs yet flexible and feature rich to meet the needs of professional and commercial CATV and IPTV systems.

POWERFUL & COMPACT

With up to 16 hot-swappable modules, the OmniHub 16 makes it easy to support high-density delivery requirements including receiving, descrambling, encoding, multiplexing and modulating.

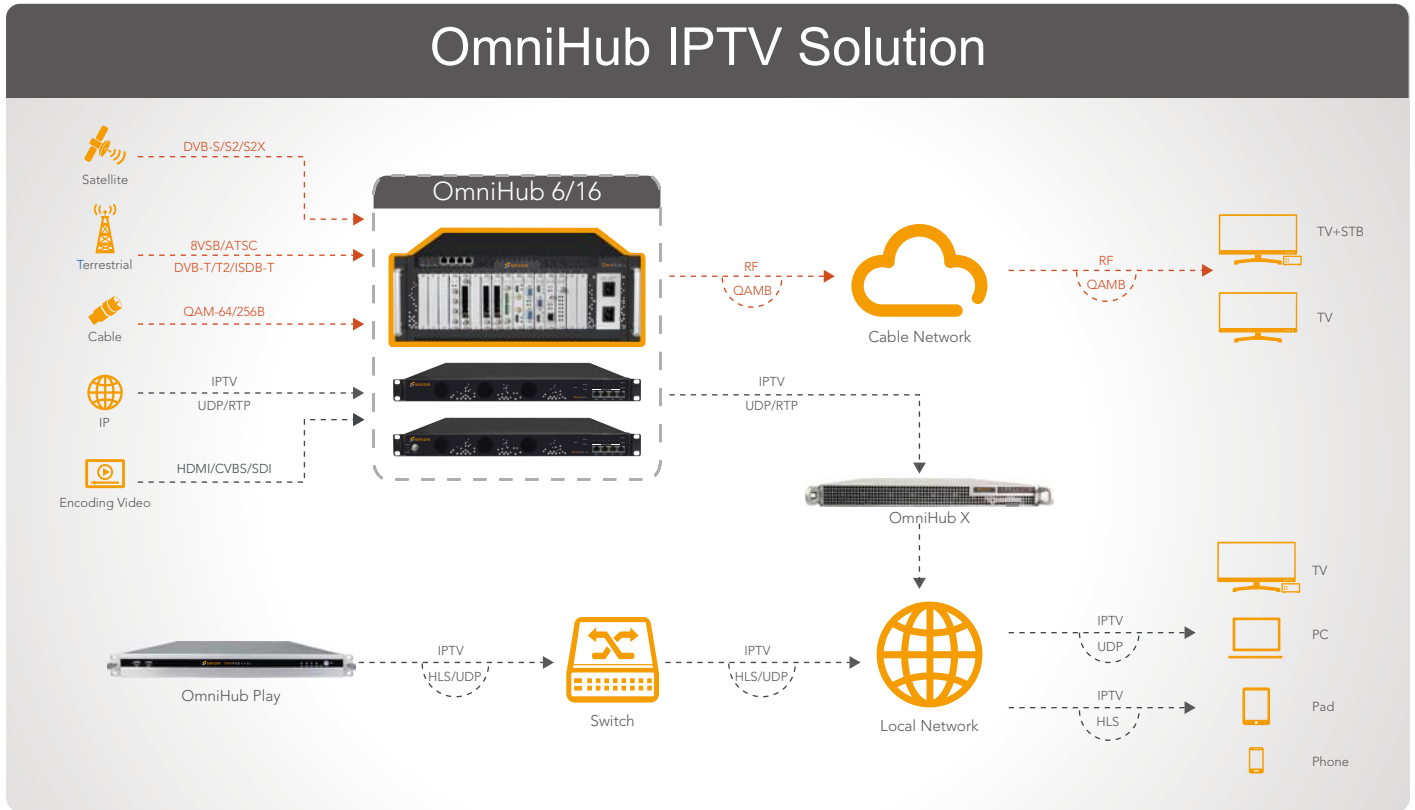
RELIABLE & ENVIRONMENT FRIENDLY

OmniHub 16 provides service-level monitoring. Combine this with dual power supplies, and you are ready for 24/7 non-stop operation. With this condensed form factor and low power consumption, OmniHub 16 saves more space while lowering operating costs for years to come.

FEATURES

- Dense design: 4 RU with up to 16 functional modules
- Supports 120 IP inputs and 120 IP outputs, SPTS/MPTS
- Service level multiplexing
- PSI/SI analysis and regeneration
- Low noise design
- Supports reception of up to 64 coax channel frequencies (QAM, DVB-S/S2/S2X, 8VSB and more)
- Up to 64 channels HD encoding (via HDMI inputs)
- Up to 96 channels SD encoding (via CVBS inputs)
- Up to 256 QAM modulated frequency outputs
- Hot-swappable modules
- Service-level monitoring
- Dual redundant power supplies
- Flexible and scalable
- User-friendly web-interface setup and module upgrades
- Low power consumption and high reliability with MTBF (Mean Time Between Failure) $\geq 100,000$ hours

OmniHub IPTV Solution

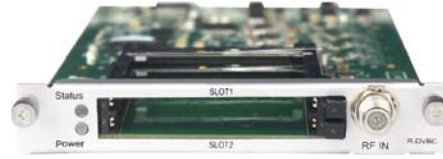


OmniHub 16 is the next generation of modular video processing by Sencore. The chassis comes with dual power supply and accommodates up to sixteen modules. Using a built-in IP switch and diverse range of hot-swappable input/output options, OmniHub 16 is a highly flexible solution perfect for a variety of applications including Hospitality, Education, Government, MDU, and more. Offering an excellent balance of performance VS value, the OmniHub 16 is ideal for dense multi-channel encoding, signal reception, digital turn around, and simultaneous IPTV + QAM distribution without an excessive price tag. Backed by a US based support team and a intuitive Web-Interface, the OmniHub platform is easy for any organization to deploy and operate.

Chassis	
4RU with 16 slots for hot-swappable modules	
Dual redundant power supplies	
Service level multiplexing	
4 x Gigabit RJ45 (embedded) :	
<ul style="list-style-type: none"> • MPEG TS over UDP/RTP multicast/unicast • SPTS/MPTS • Max. 120 inputs and 120 outputs 	

Physical & Environment	
Input Voltage	100~240 VAC/50-60Hz
Power Consumption	Max. 350W
Chassis Dimension (W x H x D)	480mm x 177mm x 345mm (18.90" x 6.97" x 13.58"), 4RU
Operating Temperature	0°C~50°C (32°F ~ 122°F)
Storage Temperature	-10°C~70°C (14°F ~ 174.2°F)
Operating Humidity	<95%
MTBF	≥100,000 hours

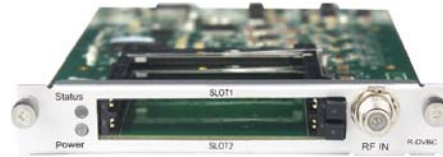
SPECIFICATIONS



OHR6-DVBC-00

DVB-C	
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
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 via 1 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 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	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

SPECIFICATIONS



OHR6-DVBS2FTA-01

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

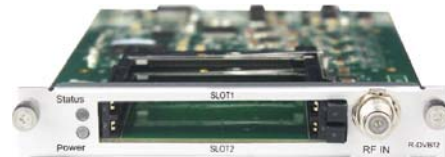
DVB-S/S2/S2X	
Input	C/Ku Band, 8 channels via 8 RF female connectors
LNB Power	Independent power supplies for each LNB
LNB Voltage	13V/18V
LNB Current	Max. 400mA
Constellation	DVB-S: QPSK, 8PSK DVB-S2: QPSK, 8PSK, 16APSK, 32APSK DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Frequency Range	950~2150MHz
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.



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

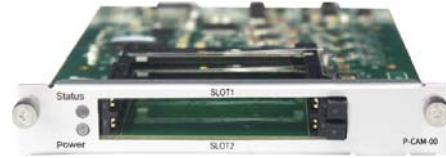
DVB-T/T2	
Input	4 channels via 1 RF female connector
CI	2 x PCMCIA CI slots
CAM	Descrambled channel quantity depends on CAM capability, 2 CAMs could be different
Frequency Range	47~862MHz
Bandwidth	6/7/8MHz
Constellation	DVB-T: QPSK/16QAM/64QAM DVB-T2: QPSK/16QAM/64QAM/256QAM
Guard Interval	DVB-T: 1/4, 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

SPECIFICATIONS



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-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



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-EAS-00

EAS	
Input	Digital EAS input (SCTE-18) via 1 x RJ45 port Analogue EAS input via 3PIN contact closure CVBS input via 1 x RCA connector Audio L/R input via 2 x RCA connector TS input via 1 x 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

SPECIFICATIONS



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
Constellation	16QAM/32QAM/64QAM/128QAM/256QAM
Symbol Rate	3.6~6.9Ms/s
Output Level	Max. 106dBμV
MER	>40dB
Power Consumption	QAMA: Max. 22W; QAMB: Max. 28W



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
Symbol Rate	3.6~6.9 Ms/s
Output Level	Max. 105dBμV
MER	≥42dB
Power Consumption	4CH: Max. 23W; 8CH: Max. 27W



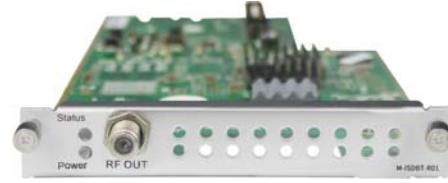
OHM6-QAMB4-R00

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

SPECIFICATIONS



OHM6-QAMA/B-02



OHM6-ISDB-T-03

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

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

SPECIFICATIONS



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-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-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-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.

SPECIFICATIONS



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

SPECIFICATIONS



OHP6-IP-00



OHP6-IP-02

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

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

* The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.