



OmniHub 16



OmniHub 6



OmniHub 6D



OmniHub 6RFX

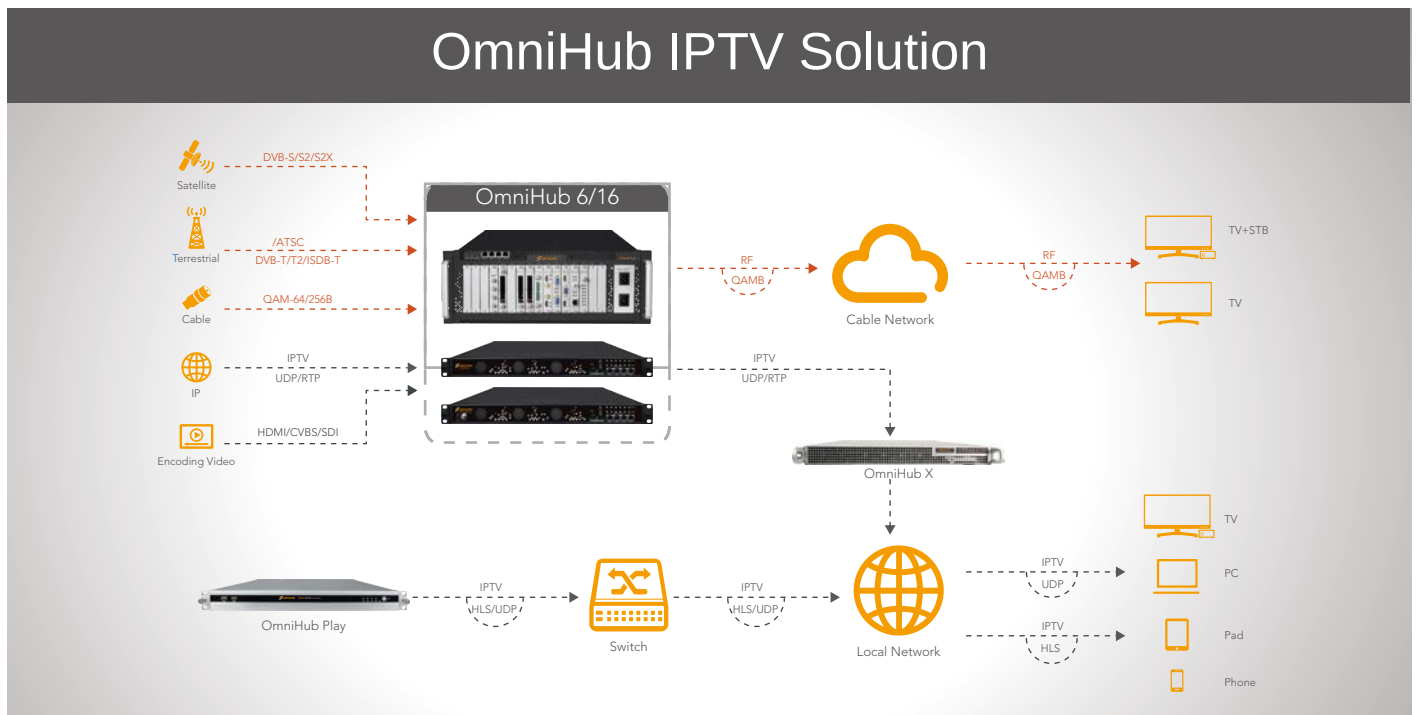
## INTRODUCTION

OmniHub 6/16 is the next generation of modular video processing by Sencore. There are two chassis sizes available accommodating up to 16 modules in a 4RU rack space, or 6 modules in a 1RU rack space. Using a built-in IP switch and diverse range of hot-swappable input/output options, OmniHub 6/16 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 6/16 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 PART NUMBERS | RU SIZE | MAXIMUM MODULES | POWER SUPPLIES | CHASSIS PORTS                               |
|----------------------|---------|-----------------|----------------|---------------------------------------------|
| OMNIHUB-16-02        | 4RU     | 16              | 2              | 2 MGMT, 2DATA                               |
| OMNIHUB 6-02         | 1RU     | 6               | 1              | 2 MGMT, 4 DATA (2x SFP, 2RJ45)              |
| OMNIHUB 6D-02        | 1RU     | 6               | 2              | 2 MGMT, 4 DATA (2x SFP, 2RJ45)              |
| OMNIHUB 6RFX-02      | 1RU     | 6               | 1              | 2 MGMT, 4 DATA (2x SFP, 2RJ45), 1RF (front) |

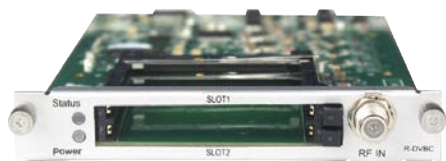
## APPLICATION



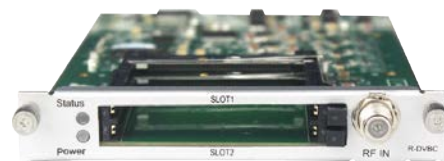
| Chassis                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------|
| 4RU with 16 slots for hot-swappable modules<br>1RU with 6 slots for hot-swappable modules                                      |
| Dual/redundant power supplies                                                                                                  |
| Service-level multiplexing                                                                                                     |
| 4 x Gigabit RJ45, 2 SFP (embedded):<br>• MPEG TS over UDP/RTP multicast/unicast SPTS/MPTS<br>• Max. 120 inputs and 120 outputs |
| Total bitrate 350Mbps of throughput (700Mbps aggregated IN+OUT)<br>VBR and CBR support                                         |
| Web-based Management and SNMP Support                                                                                          |

| Physical & Environment        |                                                                                                                                                                                           |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage                 | 100~240 VAC/50-60Hz                                                                                                                                                                       |
| Power Consumption             | 1RU: 400W 4RU: Max. 360                                                                                                                                                                   |
| Chassis Dimension (W x H x D) | 480mm x 44mm x 430mm (18.90" x 1.73" x 16.93"), 1 RU<br>480mm x 177mm x 345mm (18.90" x 6.97" x 13.58"), 4RU                                                                              |
| Chassis Weight                | OmniHub 6 Chassis: 5Kg/11.02LBS<br>OmniHub 6 Chassis + Modules (Average): 7.05Kg/15.53LBS<br>OmniHub 16 Chassis: 11Kg/24.25LBS<br>OmniHub 16 Chassis + Modules (Average): 13.4Kg/29.53LBS |
| Operating Temperature         | 0°C~40°C (32°F ~ 104°F)                                                                                                                                                                   |
| Storage Temperature           | -10°C~70°C (14°F ~ 174.2°F)                                                                                                                                                               |
| Operating Humidity            | <95%                                                                                                                                                                                      |
| MTBF                          | ≥100,000 hours                                                                                                                                                                            |

# SPECIFICATIONS



OHR6-DVBC-00



OHR6-DVBC-ISDBT-01

| QAM-A/C (DVB-C) Receiver/Descrambler |                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------|
| 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                         | -20~20dBmV                                                                        |
| CA System                            | Supports mainstream CAS                                                           |
| Power Consumption                    | Max. 9.5W                                                                         |

| QAM-B Receiver    |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| 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)<br>5.360Ms/s (256QAM)                                           |
| Signal Level      | -20~20dBmV                                                                        |
| CA System         | Supports mainstream CAS                                                           |
| Power Consumption | Max. 9.5W                                                                         |

OR



OHR6-DVBS2FTA-01

| DVB-S/S2/S2X Receiver |                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Input                 | 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<br>DVB-S2: QPSK, 8PSK, 16APSK,<br>DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK                                                   |
| Frequency Range       | 950~2150MHz                                                                                                                                 |
| Signal Level          | -22~28dBmV                                                                                                                                  |
| Roll-off Factor       | 0.15, 0.20, 0.25, 0.35                                                                                                                      |
| Symbol Rate           | DVB-S: 1~45Msps<br>DVB-S2: 1~45Msps<br>DVB-S2X: 1~34 Msps                                                                                   |
| FEC                   | DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8<br>DVB-S2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10<br>DVB-S2X: 11/15, 7/9, 4/5, 5/6<br>(Normal FEC FECFRAME) |
| Power Consumption     | Max. 38W                                                                                                                                    |

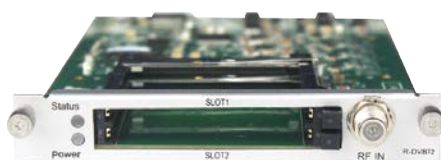
| ISDB-T Receiver   |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| Input             | 4 channels via 1 RF female connector                                              |
| 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         | 6/8MHz                                                                            |
| Constellation     | DQPSK, QPSK, 16QAM, 64QAM                                                         |
| FEC               | 1/2, 2/3, 3/4, 5/6, 7/8, Automatic                                                |
| Signal Level      | -20~20dBmV                                                                        |
| CA System         | Supports mainstream CAS                                                           |
| Power Consumption | Max. 9.5W                                                                         |

# SPECIFICATIONS



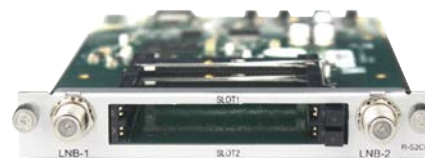
OHR6-DVBS2FTA-01A

| DVB-S/S2/S2X Receiver |                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Input                 | 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<br>DVB-S2: QPSK, 8PSK, 16APSK,<br>DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK                                                   |
| Frequency Range       | 950~2150MHz                                                                                                                                 |
| Signal Level          | -22~28dBmV                                                                                                                                  |
| Roll-off Factor       | 0.15, 0.20, 0.25, 0.35                                                                                                                      |
| Symbol Rate           | DVB-S: 1~45Msps<br>DVB-S2: 1~45Msps<br>DVB-S2X: 1~34 Msps                                                                                   |
| FEC                   | DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8<br>DVB-S2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10<br>DVB-S2X: 11/15, 7/9, 4/5, 5/6<br>(Normal FEC FECFRAME) |
| Power Consumption     | Max. 70W                                                                                                                                    |



OHR6-DVBT2CI-00

| DVB-T/T2 Receiver/Descrambler |                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------|
| 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<br>DVB-T2: QPSK/16QAM/64QAM                               |
| Guard Interval                | DVB-T: 1/4, 1/8, 1/16, 1/32<br>DVB-T2: 1/128                                      |
| FFT Size                      | DVB-T: 2K, 8K<br>DVB-T2: 8K, 16K, 32K                                             |
| Signal Level                  | -22~28dBmV                                                                        |
| CA System                     | Supports mainstream CAS                                                           |
| Power Consumption             | Max. 8W                                                                           |



OHR6-DVBS2CI-01

| DVB-S/S2/S2X Receiver/Descrambler |                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Input                             | 4 channels via 2 RF female connectors<br>CH1 & CH2 via LNB-1<br>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<br>DVB-S2: QPSK, 8PSK, 16APSK<br>DVB-S2X: QPSK, 8PSK, 16APSK, 32APSK, 64APSK                                                    |
| Frequency Range                   | 950~2150MHz                                                                                                                                 |
| Signal Level                      | -22~28dBmV                                                                                                                                  |
| Roll-off Factor                   | 0.15, 0.20, 0.25, 0.35                                                                                                                      |
| Symbol Rate                       | DVB-S: 1~45Msps<br>DVB-S2: 1~45Msps<br>DVB-S2X: 1~34 Msps                                                                                   |
| FEC                               | DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8<br>DVB-S2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10<br>DVB-S2X: 11/15, 7/9, 4/5, 5/6<br>(Normal FEC FECFRAME) |
| CA System                         | Supports mainstream CAS                                                                                                                     |
| Power Consumption                 | Max. 22W                                                                                                                                    |



OHR6-8VSB-00

| 8VSB Receiver     |                                      |
|-------------------|--------------------------------------|
| Input             | 4 channels via 4 RF female connector |
| Frequency Range   | 50~860MHz                            |
| Bandwidth         | 6MHz                                 |
| Modulation        | 8VSB                                 |
| Signal Level      | -22~28dBmV                           |
| Power Consumption | Max. 9.5W                            |

# SPECIFICATIONS



OHE6-HDMI-R01

| Basic HDMI Encoder    |                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Input                 | 4 channels via 4 HDMI female connectors (HDMI 1.4)                                                                                             |
| Video                 | H.264/AVC HD: MP/HP@L4.0<br>SD: MP/HP@L3.0<br>MPEG-2 SD: MP@ML                                                                                 |
| Resolution            | SD: 576i25, 480i29.97<br>HD: 1080p-25/30/50/59.94/60<br>1080i-25, 29.97, 30<br>720p-50/60<br>* Output resolution supports up to 1920 x 1080p30 |
| Bitrate Control       | CBR                                                                                                                                            |
| Video Bitrate         | 600~12,000Kbps                                                                                                                                 |
| GOP Structure         | IBBP, IPPP, IBP                                                                                                                                |
| GOP Size              | 1-60                                                                                                                                           |
| Aspect Ratio          | Automatic or Manual                                                                                                                            |
| Audio                 | MPEG-1 Layer II, AC3 (optional), AAC (optional)                                                                                                |
| Audio Bitrate         | 96~192Kbps                                                                                                                                     |
| Audio Mode            | Stereo (2.0, including downmix)                                                                                                                |
| Audio Sampling Rate   | 48kHz                                                                                                                                          |
| Audio Volume Leveling | -20dB~20dB                                                                                                                                     |
| Power Consumption     | Max. 12W                                                                                                                                       |



OHE6-SDI-01

| SDI Encoder       |                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Input             | 2 channels via 2 SDI SDI via BNC connector                                                                                               |
| Video             | H.264/AVC HD: MP/HP@L4.0, SD: MP/HP@L3.0<br>MPEG-2 SD: MP @ML HD: MP@HL                                                                  |
| Resolution        | SD: 576i25, 480i29.97<br>HD: 1080p-25/30/50/59.94/60<br>1080i-25, 29.97, 30<br>720p-50/60<br>* The maximum output resolution is 1080i30. |
| Bitrate Control   | CBR                                                                                                                                      |
| Bitrate           | 800 ~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)<br>Audio Pass through                                                                                    |
| Audio Processing  | 2 x audio services / PIDs per video                                                                                                      |
| Sampling Rate     | 48kHz                                                                                                                                    |
| Power Consumption | Max. 16W                                                                                                                                 |



OHE6-HDMI-02C

| HDMI/Composite Encoder |                                                                                                                                          |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Input                  | 2 channels via 2 HDMI or 2 component Female connectors (HDMI1.4)<br>CC/Component input via DB15 port                                     |
| Video                  | H.264/AVC HD: MP/HP@L4.0, SD: MP/HP@L3.0<br>MPEG-2 SD: MP @ML HD: MP@HL                                                                  |
| Resolution             | SD: 576i25, 480i29.97<br>HD: 1080p-25/30/50/59.94/60<br>1080i-25, 29.97, 30<br>720p-50/60<br>* The maximum output resolution is 1080i30. |
| 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)<br>Audio Pass through                                                                                    |
| Sampling Rate          | 48kHz                                                                                                                                    |
| Power Consumption      | Max. 16W                                                                                                                                 |

# SPECIFICATIONS



OHE6-HDMI-06

| HDMI Encoder          |                                                                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Input                 | 4 channels via 4 HDMI female connector (HDMI 1.4)                                                                                    |
| Video                 | H.264/AVC HD: MP/HP@ L4.0/4.1/4.2/5.0/5.1/5.2<br>H.265/HEVC HD: MP(High Tier)@L4.0/4.1/4.2/5.0/5.1/5.2                               |
| Resolution            | Input: 1080i-25/29.97/30, 1080P-25/29.97/30/50/59.94/60, 720P-50/59.94/60<br>Output: 1080P-25/29.97/30/50/59.94/60, 720P-50/59.94/60 |
| Max Output Resolution | 1080P60 for 2 channels, 1080P30 for 4 channels                                                                                       |
| Bitrate Control       | CBR                                                                                                                                  |
| Video Bitrate         | 600Kbps-12Mbps                                                                                                                       |
| GOP Structure         | IPPP, IBBP                                                                                                                           |
| Aspect Ratio          | 16:9                                                                                                                                 |
| Audio                 | MPEG-1 Layer II, AC3 (optional), AAC (optional)                                                                                      |
| Audio Bitrate         | 32~192 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)<br>Or 1 x static OSD overlay                                                         |
| Power Consumption     | Max.20W                                                                                                                              |

Notes: OHE6-HDMI-06 will output 4 HD programs with the same video resolution, which follows the highest video resolution among the input source, SD encoding is not supported.



OHE6-CVBS-03

| Composite Encoder with Captions |                                                 |
|---------------------------------|-------------------------------------------------|
| Interface                       | 2 channels via 2 CVBS<br>CVBS via BNC connector |
| Video                           | H.264/AVC SD: MP/HP@L3.0<br>MPEG-2 SD: MP @ML   |
| Bitrate Control                 | CBR                                             |
| Bitrate                         | 800~20,000Kbps                                  |
| GOP Structure                   | IBBP, IPPP, IBP                                 |
| Audio                           | MPEG-1 Layer II, AC3, AAC                       |
| GOP Size                        | 18-48                                           |
| Resolution                      | SD: 576i50, 480i59.94                           |
| Audio Mode                      | Stereo (2.0, including downmix)                 |
| Sampling Rate                   | 48kHz                                           |
| Closed Caption Input            | Support                                         |
| Power Consumption               | Max. 16W                                        |



OHE6-HDMI-02

| HDMI Encoder with Captions |                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Input                      | 2 channels via 2 HDMI<br>Female connectors (HDMI1.4)<br>CC via RCA connector                                                             |
| Video                      | H.264/AVC HD: MP/HP@L4.0, SD: MP/HP@L3.0<br>MPEG-2 SD: MP @ML HD: MP@HL                                                                  |
| Resolution                 | SD: 576i25, 480i29.97<br>HD: 1080p-25/30/50/59.94/60<br>1080i-25, 29.97, 30<br>720p-50/60<br>* The maximum output resolution is 1080i30. |
| 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)<br>Audio Pass through                                                                                    |
| Sampling Rate              | 48kHz                                                                                                                                    |
| Power Consumption          | Max. 16W                                                                                                                                 |



OHE6-CVBS-00

| Composite Encoder     |                                                                                                                      |
|-----------------------|----------------------------------------------------------------------------------------------------------------------|
| Input                 | 6 channels via 2 DB15 connector<br>each DB15 for 3 channels<br>2 x RCA-DB15 adaptor cables come<br>along with module |
| Video                 | H.264/AVC SD: MP/HP@L3.0<br>MPEG-2 SD: MP@ML                                                                         |
| Resolution            | SD: 576i25, 480i29.97                                                                                                |
| Bitrate Control       | CBR                                                                                                                  |
| Bitrate               | 1,000~6,000Kbps                                                                                                      |
| GOP Structure         | IBBP, IPPP, IBP                                                                                                      |
| GOP Size              | 15                                                                                                                   |
| Audio                 | MPEG-1 Layer II                                                                                                      |
| Audio Bitrate         | 64~384Kbps                                                                                                           |
| Audio Mode            | Stereo (2.0, including downmix)                                                                                      |
| Audio Sampling Rate   | 48kHz                                                                                                                |
| Audio Volume Leveling | 0dB~8dB                                                                                                              |
| Power Consumption     | Max. 17W                                                                                                             |

# SPECIFICATIONS



OHP6-IP-02

| IP Multiplexer    |                                                          |
|-------------------|----------------------------------------------------------|
| Ethernet          | 2 x RJ45, 100/1000Base-T                                 |
| Input             | UDP/RTP via Unicast/Multicast                            |
| Output            | UDP/RTP via Unicast/Multicast                            |
| Channels          | DATA 1: 120 input & output<br>DATA 2: 120 input & output |
| Effective Bitrate | Total bitrate 700Mbps throughput                         |
| Power Consumption | Max. 16 W                                                |



OHP6-IP-02-SFP

| IP Multiplexer with SFPs |                                                          |
|--------------------------|----------------------------------------------------------|
| Ethernet                 | 2 x SFP, 100/1000Base-T                                  |
| Input                    | UDP/RTP via Unicast/Multicast                            |
| Output                   | UDP/RTP via Unicast/Multicast                            |
| Channels                 | DATA 1: 120 input & output<br>DATA 2: 120 input & output |
| Effective Bitrate        | Total bitrate 700Mbps throughput                         |
| Power Consumption        | Max. 16 W                                                |



OHP6-ASI-00

| ASI Input and Output            |                                                                                                                    |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Connector                       | 5 x bidirectional ASI ports, BNC female                                                                            |
| Bit rate                        | 500Kbps to 150Mbps                                                                                                 |
| Reception/<br>Transmission mode | Byte mode(Continuous mode)                                                                                         |
| Packet Length                   | 188 Bytes or 204 Bytes                                                                                             |
| Configuration                   | 3 ASI input ports, 2 ASI output ports by default,<br>each port can be redefined as ASI input or ASI<br>output port |
| Multiplexing                    | Support PSI/SI or PSIP table regeneration<br>PID filtering<br>External PID insertion                               |
| Power Consumption               | Max. 12 W                                                                                                          |



OHP6-EAS-00

| EAS Encoder       |                                                                                                                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input             | Digital EAS input (SCTE-18) via 1 x RJ45 port<br>Analogue EAS input via 3PIN contact closure<br>CVBS input via 1 x RCA connector<br>Audio L/R input via 2 x RCA connector<br>TS input via 1 x BNC connector |
| Video             | H.264 SD: MP/HP@L3.0<br>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<br>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                                                                                                                                                                                                   |

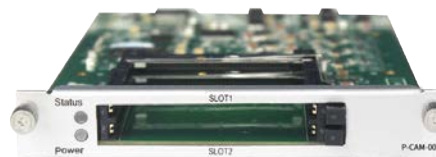
# SPECIFICATIONS



OHP6-GATEWAY-00

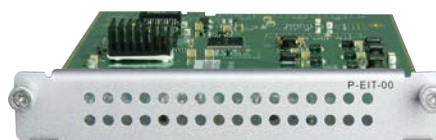
| IP Gateway                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network                                        | 2 x RJ45 ports, 100/100M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Input Protocols                                | UDP/RTP/SRT/RIST/Zixi/HLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Output Protocols                               | UDP/RTP/SRT/RIST/Zixi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Processing Capability For Typical Applications | <p>HLS to UDP –Up to 40 input streams max 500Mbps(total bitrate)</p> <p>SRT to UDP –Up to 40 input streams max 600Mbps(total bitrate)</p> <p>UDP to SRT –Up to 40 input streams max 600Mbps(total bitrate)</p> <p>RIST to UDP –Up to 40 input streams max 600Mbps(total bitrate)</p> <p>UDP to RIST –Up to 40 input streams max 600Mbps(total bitrate)</p> <p>Zixi to UDP –Up to 40 input streams max 600Mbps(total bitrate)</p> <p>UDP to Zixi –Up to 40 input streams max 600Mbps(total bitrate)</p> <p>Max. bitrate per stream/gateway: 50Mbps</p> <p>*Input stream bitrates above 15Mbps may lower the overall performance. Check with a Sencore representative for assistance with performance calculations.</p> |
| Number of Gateways                             | Default: 10 gateways, UDP/RTP/HLS input, UDP/RTP output<br>Notice: Additional licenses are required to support more gateways and network protocols                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power Consumption <sup>1</sup>                 | Max. 56W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

\*HDMI/USB: Only for module debugging function use, not for input/output



OHP6-CAM-00

| Descrambler       |                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------|
| Standard          | EN 50221                                                                                                        |
| Interface         | 2 x PCMCIA CI slots                                                                                             |
| CAM Scrambling    | Support Xcrypt CAMCAS                                                                                           |
| CAM Descrambling  | Supports mainstream CAS<br>Descrambled channel quantity depends on CAM capability,<br>2 CAMs could be different |
| Power Consumption | Max. 6W                                                                                                         |



OHP6-EIT-00

| EIT Multiplexer                      |                                                                                                                               |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 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<br>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<br>Signal source and output module<br>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                                                                                                                           |
| Power Consumption                    | Max. 5W                                                                                                                       |

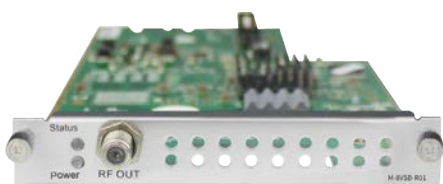
# SPECIFICATIONS



OHP6-IPTV-00

| IPTV System Host                                                        |                                                       |
|-------------------------------------------------------------------------|-------------------------------------------------------|
| IPTV solution for centralized management of Android-based set-top boxes |                                                       |
| Physical Ports                                                          |                                                       |
| Network                                                                 | 2 x external RJ45 ports, 100/1000M                    |
| HDMI                                                                    | 1 x HDMI 1.4 port<br>For installation and maintenance |
| Inputs                                                                  |                                                       |
| Input Protocols                                                         | UDP/RTP/HLS-TS                                        |
| IP Addressing                                                           | Unicast, Multicast, OTT URL                           |
| IGMP Support Version                                                    | 1, 2, and 3                                           |
| IP Encapsulation                                                        | 1 to 7 TS Packets per IP Packet                       |
| Outputs                                                                 |                                                       |
| Interface                                                               | RJ45, 100/1000M Auto-Negotiate                        |
| Output Protocols                                                        | UDP/RTP/HLS-TS/MPEG-DASH                              |
| Power Consumption                                                       | Max. 48W                                              |
| Processing                                                              |                                                       |
| Unicast (HLS) Mode                                                      | 30 live SD/HD Channels and 200 Devices                |
| Multicast Mode                                                          | 30 live SD/HD Channels and 200 Devices                |

\* Note: OHP6-IPTV-00 modules can be installed only in OMNIHUB 6-02/6D-02/ 6RFX-02.



OHM6-8VSB-R01

| 8VSB Modulator    |                                                      |
|-------------------|------------------------------------------------------|
| Output            | 4 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ATSC A/35                                            |
| Frequency Range   | 50~860 MHz                                           |
| Bandwidth         | 6MHz                                                 |
| Constellation     | 8VSB                                                 |
| Output Level      | 25-45dBmV                                            |
| MER               | ≥32dB                                                |
| Power Consumption | 4CH: Max. 12W; 8CH: Max. 14W                         |



OHX6-TXS-00

| Multi-Channel Transcoder                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network                                    | 2 x external RJ45 ports, 100/1000M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| HDMI                                       | 1 x HDMI 1.4 port<br>For installation and maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Audio                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Input Audio format                         | MPEG-1 Layer II, AAC 2.0 and 5.1, AC-3 2.0 and 5.1, E-AC3 2.0 and 5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Output Audio format                        | MPEG-1 Layer II, AAC 2.0 and 5.1, AC-3 2.0 and 5.1, E-AC3 2.0 and 5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Audio Process                              | Up to 4 audio PIDs per video<br>Pass-through supported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Video                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Input Video Decoding                       | Video Codec: MPEG-2/H.264/H.265<br>Video resolution: 576i25, 480i29.97, 720P50/60, 1080i25/29.97/30, 1080P25/30/50/59.94/60<br>Video bitrate: 1 to 40Mbps<br>Network protocol: UDP, RTP, unicast, multicast                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Output Video Encoding                      | Video Codec: MPEG-2/H.264/H.265<br>Video resolution: 576i25, 480i29.97, 720P50/60, 1080i25/29.97/30, 1080P25/30/50/59.94/60<br>Video bitrate: 1 to 20Mbps<br>Network protocol: UDP, RTP, unicast, multicast                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Downscale                                  | HD to SD video resolution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Closed Captions                            | CEA/EIA-708 Closed Caption passed through                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| DVB Subtitle                               | DVB subtitle passed through                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Minimum Channels per Card (by Application) | ATSC-Standard OTA/QAM Provisioning<br>Full HD HEVC to HD MPEG-2 - 6 Channels per Card<br>Full HD H264 to HD MPEG-2 - 7 Channels per Card<br>HD HEVC to HD MPEG-2 - 8 Channels per Card<br>HD H264 to HD MPEG-2 - 7 Channels per Card<br>SD HEVC to SD MPEG-2 - 20 Channels per Card<br>SD H264 to SD MPEG-2 - 28 Channels per Card<br><br>Rate-Shaping Applications<br>MPEG-2 HD to HD HEVC - 6 Channels per Card<br>MPEG-2 HD to HD H264 - 5 Channels per Card<br>HD H264 to HD H264 - 5 Channels per Card<br>HD HEVC to HD HEVC - 4 Channels per Card<br>Notes: The supported channels may vary from resolution/codec/bitrate. |
| Power Consumption                          | Max. 48W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

\* Note: OHX6-TXS-00 modules can be installed only in OMNIHUB 6-02/6D-02/ 6RFX-02.

# SPECIFICATIONS



OHD6-SDI-00

| SDI Decoder          |                                                                                                                                                                                              |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SD/HD/3G-SDI Output  | 4xSDI,BNC female connector, 75Ω                                                                                                                                                              |
| Video/Profile        | MPEG-2 SD MP@ML<br>MPEG-2 HD MP@ML<br>H.264 SD MP@L3/L3.1<br>H.264 HD MP@L4.1/HP@L4.1<br>H.265 Main/Main 10 profile@L5.1 High-tier<br>AVS-P 16(AVS+)<br>AVS2 P2 10-bit Profile @Level 8.2.60 |
| Bit depth            | 4:2:0 8bit                                                                                                                                                                                   |
| Resolution           | Automatic/Manual mode<br>(with manual mode resolution):<br>720x576i@25<br>720x480i@29.97<br>1280x720p@50/59.94/60<br>1920x1080i@25/29.97/30<br>1920x1080p@25/30/50/ 59.94/60                 |
| Downscale            | 4K to HD/SD resolution, HD to SD resolution                                                                                                                                                  |
| Aspect ratio         | 16:9、 4:3                                                                                                                                                                                    |
| Audio process        | 2 Audio channels decode per video                                                                                                                                                            |
| Audio format         | MPEG - I Layer II<br>Dolby Digital/AC-3<br>Dolby Digital Plus/E-AC3<br>AAC-LC/HE-AACV1/HE-AACV2                                                                                              |
| Audio mode           | Stereo                                                                                                                                                                                       |
| Audio volume control | 0-100%                                                                                                                                                                                       |
| Audio Sampling Rate  | 48KHZ,44.1KHZ                                                                                                                                                                                |
| Closed Captions      | Closed Caption(CEA/EIA-608/708)                                                                                                                                                              |
| Power Consumption    | Max. 25W                                                                                                                                                                                     |



OHM6-QAMA-8

| QAM-A/C Modulator |                                                                   |
|-------------------|-------------------------------------------------------------------|
| Output            | 8 Channels/Frequencies via 1 RF female connector 75Ω              |
| Standard          | ITU-T J.83 Annex A/C                                              |
| Frequency Range   | 47~862MHz, non adjacent                                           |
| Bandwidth         | 6/7/8MHz                                                          |
| Constellation     | 16QAM/32QAM/64QAM/128QAM/256QAM                                   |
| Symbol Rate       | 6M:4.035~5.217Mbaud<br>7M:4.035~6.087Mbaud<br>8M:4.035~6.956Mbaud |
| Output Level      | 25-45dBmV                                                         |
| MER               | ≥38dB (channel fully open)                                        |
| Power Consumption | Max. 23W                                                          |



OHM6-OFDM-8

| DVB-T Modulator   |                                                      |
|-------------------|------------------------------------------------------|
| Output            | 8 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ETSI EN 300744(DVB-T)                                |
| Frequency Range   | 47~862MHz, non adjacent                              |
| Bandwidth         | 6/7/8MHz                                             |
| Constellation     | QPSK/16QAM/64QAM                                     |
| Guard Intervals   | 1/4, 1/8, 1/16, 1/32                                 |
| FFT Size          | 2K                                                   |
| Code Rates        | 1/2, 2/3, 3/4, 5/6, 7/8                              |
| Output Level      | 25-45dBmV                                            |
| MER               | ≥32dB (channel fully open)                           |
| Power Consumption | Max. 23W                                             |

# SPECIFICATIONS



OHM6-QAMA-16

| QAM-A/C Modulator |                                                                   |
|-------------------|-------------------------------------------------------------------|
| Output            | 16 Channels/Frequencies via 1 RF female connector 75Ω             |
| Standard          | ITU-T J.83 Annex A/C                                              |
| Frequency Range   | 47~862MHz, non adjacent                                           |
| Bandwidth         | 6/7/8MHz                                                          |
| Constellation     | 16QAM/32QAM/64QAM/128QAM/256QAM                                   |
| Symbol Rate       | 6M:4.035~5.217Mbaud<br>7M:4.035~6.087Mbaud<br>8M:4.035~6.956Mbaud |
| Output Level      | 22-42dBmV                                                         |
| MER               | ≥38dB (channel fully open)                                        |
| Power Consumption | Max. 23W                                                          |



OHM6-QAMB-8

| QAM-B Modulator   |                                                      |
|-------------------|------------------------------------------------------|
| Output            | 8 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ITU-T J.83 Annex B                                   |
| Frequency Range   | 47~862MHz (STD/IRC/HRC), non adjacent                |
| Bandwidth         | 6MHz                                                 |
| Constellation     | 64QAM/256QAM                                         |
| Symbol Rate       | 5.057Mbaud: 64QAM<br>5.361Mbaud: 256QAM              |
| Output Level      | 25-45dBmV                                            |
| MER               | ≥38dB (channel fully open)                           |
| Power Consumption | Max. 23W                                             |



OHM6-OFDM-16

| DVB-T Modulator   |                                                       |
|-------------------|-------------------------------------------------------|
| Output            | 16 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ETSI EN 30074454(DVB-T)                               |
| Frequency Range   | 47~862MHz, non adjacent                               |
| Bandwidth         | 6/7/8MHz                                              |
| Constellation     | QPSK/16QAM/64QAM                                      |
| Guard Intervals   | 1/4, 1/8, 1/16, 1/32                                  |
| FFT Size          | 2K                                                    |
| Code Rates        | 1/2, 2/3, 3/4, 5/6, 7/8                               |
| Output Level      | 22-42dBmV                                             |
| MER               | ≥32dB (channel fully open)                            |
| Power Consumption | Max. 23W                                              |



OHM6-ISDBT-8

| ISDB-T Modulator  |                                                      |
|-------------------|------------------------------------------------------|
| Output            | 8 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ARIB STD-B31(ISDB-T)                                 |
| Frequency Range   | 47~862MHz, non adjacent                              |
| Bandwidth         | 6MHz                                                 |
| Constellation     | QPSK/16QAM/64QAM                                     |
| Guard Intervals   | 1/4, 1/8, 1/16, 1/32                                 |
| Transmission Mode | 2K                                                   |
| Code Rates        | 1/2, 2/3, 3/4, 5/6, 7/8                              |
| Output Level      | 25-45dBmV                                            |
| MER               | ≥32dB (channel fully open)                           |
| Power Consumption | Max. 23W                                             |

# SPECIFICATIONS



OHM6-QAMB-16

| QAM-B Modulator   |                                                       |
|-------------------|-------------------------------------------------------|
| Output            | 16 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ITU-T J.83 Annex B                                    |
| Frequency Range   | 47~862MHz (STD/IRC/HRC), non adjacent                 |
| Bandwidth         | 6MHz                                                  |
| Constellation     | 64QAM/256QAM                                          |
| Symbol Rate       | 5.057MBaud: 64QAM<br>5.361MBaud: 256QAM               |
| Output Level      | 22-42dBmV                                             |
| MER               | ≥38dB (channel fully open)                            |
| Power Consumption | Max. 23W                                              |



OHM6-8VSB-8

| 8VSB Modulator    |                                                      |
|-------------------|------------------------------------------------------|
| Output            | 8 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ATSC A/35                                            |
| Frequency Range   | 50~860 MHz(Off-Air/STD/IRC/HRC)                      |
| Bandwidth         | 6MHz                                                 |
| Constellation     | 8VSB                                                 |
| Output Level      | 25-45dBmV                                            |
| MER               | ≥32dB (channel fully open)                           |
| Power Consumption | Max. 19W                                             |



OHM6-ISDBT-16

| ISDB-T Modulator  |                                                       |
|-------------------|-------------------------------------------------------|
| Output            | 16 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ARIB STD-B31 (ISDB-T)                                 |
| Frequency Range   | 47~862MHz, non adjacent                               |
| Bandwidth         | 6MHz                                                  |
| Constellation     | QPSK/16QAM/64QAM                                      |
| Guard Intervals   | 1/4, 1/8, 1/16, 1/32                                  |
| Transmission Mode | 2K                                                    |
| Code Rates        | 1/2, 2/3, 3/4, 5/6, 7/8                               |
| Output Level      | 22-42dBmV                                             |
| MER               | ≥32dB (channel fully open)                            |
| Power Consumption | Max. 23W                                              |



OHM6-8VSB-16

| 8VSB Modulator    |                                                       |
|-------------------|-------------------------------------------------------|
| Output            | 16 Channels/Frequencies via 1 RF female connector 75Ω |
| Standard          | ATSC A/35                                             |
| Frequency Range   | 50~860 MHz(Off-Air/STD/IRC/HRC)                       |
| Bandwidth         | 6MHz                                                  |
| Constellation     | 8VSB                                                  |
| Output Level      | 22-42dBmV                                             |
| MER               | ≥32dB (channel fully open)                            |
| Power Consumption | Max. 19W                                              |

## SPECIFICATIONS



OHM6-QAMA/B-02

| IP to QAM Modulator   |                                                      |
|-----------------------|------------------------------------------------------|
| IP input              | 2x100/1000Mbps ports                                 |
| IP Encapsulation      | MPEG TS over UDP/RTP                                 |
| MPEG TS               | MPTS and SPTS                                        |
| I/O Processing        | Up to 512 channels via 2xGbE inputs                  |
| Addressing            | Unicast and multicast                                |
| IGMP Version          | IGMP v2, IGMP v3                                     |
| QAM Output            |                                                      |
| Output                | 1xRF port, max 16/32 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          | 30-45dBmV 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            |                                                      |
| 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                                             |



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