

DVB-S channel processor OSX 0200



Product information



OSX 0200

The OSX 0200 is a part of the OXM-system.

The OXM-system receives, handles, decodes, remuxes and remodulates any digital TV source to most other digital or analogue output format.

The OSX 0200 is a digital satellite receiver and processor that handles input signals in DVB-S/S2 formats.

Features:

- Complete DVB-S/S2 satellite receiver
- ASI input and output 1)
- Decryption of services via CI connection
- Embedded remultiplexer for creating your own output multiplexes 1)
- IPTV output 1)
- Supports DiSEqC 1.1

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DVB-S channel processor OSX 0200



- QAM (DVB-C), COFDM (DVB-T) or Analogue VSB- AM modulator output. 1)
 - Embedded web server for all controls and settings via the Ethernet connection
 - Extremely compact design and low power consumption
 - Extremely high flexibility and reliability for use in all sizes and types of networks
 - Software upgrades and options for adding new functionality now and in the future
 - Designed for environmentally friendly manufacturing and operation
- 1) Depending on selected software options

Connectors and Interfaces

| | |
|------------------------------|----------------------------------------------------|
| Control and IP out connector | RJ-45 (10/100 BaseT) |
| RF input connector | F female, 75 Ω |
| RF output connector | F female, 75 Ω |
| ASI input connector | BNC female, 75 Ω |
| ASI output connector | BNC female, 75 Ω |
| CAM connector | PCMCIA (5 VDC) |
| LED Indicator lights | Power on, QPSK/8PSK/Rx error TX/Access error |
| Remote management | RJ-45, 10/100 BaseT |
| Audio/Video out connector, | 3,5 mm, 4-pole |

QPSK/8PSK Satellite Receiver

| | |
|-----------------------|-----------------------------------------------------------------------------------|
| Input Frequency | 950 – 2150 MHz |
| Input Level | -65 to -25 dBm |
| Input impedance | 75 Ω |
| Spectral inversion | Yes, Auto for C-band LNB |
| LNB voltage | Auto, Off or 13/18V programmable. Max. 400 mA. (short circuit protected) |
| 22kHz to LNB | Auto, On or Off programmable |
| DiSEqC 1.1 | Yes, 4 port switch |
| Max input TS bit rate | 90 Mbit/s, S2 and 8PSK 72 Mbit/s, S and QPSK |
| DVB compliance | DVB-S (EN 300 421) DVB-S2 (EN 302 307) |

MPEG Decoder - Audio

| | |
|-------------------|-------------------------------------------------------|
| Supported formats | MPEG 1 layer II, AAC HE, selection of Dual mono in |
| Output | Stereo or Mono |
| Impedance | < 100 Ω |
| Output level | 0 dBu |
| Attenuation | 0 to -12dB |

MPEG Decoder - Video

| | |
|-------------------|-------------------------------------------------------------------------------|
| Supported formats | MPEG2 MP@ML, MPEG4 H.264 AVC |
| Output standards | PAL, SECAM or NTSC |
| Impedance | 75 Ω |
| Output level | 1 Vpp @ 75 Ω |
| Aspect Ratio | Letterbox, Pan/Scan, or conversion Combined (14:9) programmable, WSS |
| Teletext | Insertion in VBI |
| Subtitling | Teletext or DVB subtitling |
| Decryption | Common Interface (PCMCIA 5 VDC) |

RF Modulation (analogue)

| | |
|------------------|------------------------------------------------------------------------|
| Standards | B/G, I, D/K, L, M/N |
| Sound | Mono, NICAM stereo, A2/A2* stereo |
| Modulation video | VSB AM, neg. or pos. |
| Modulation mono | Audio FM or AM |
| Output frequency | 47 – 862 MHz |
| Output level | > 110 dBuV (47-470 MHz) > 105 dBuV (470-862 MHz) |
| S/N, weighted | > 57 dB |
| C/N, broadband | > 70 dB |
| NICAM standards | NICAM 728 (EN 300 163) |
| Power ratio | B/G -20dB, (Vision/NICAM carrier) I -24dB, D/K -24dB, L -27dB |
| Tolerance | +/- 1dB |
| Impedance | 75 Ω |

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QAM modulation (Option)

| | |
|----------------------|---------------------------------------------------------|
| QAM modes | 16, 32, 64, 128 or 256 QAM |
| Symbol rate | 4 – 7.2 Mbaud/s |
| MER (at RF out) | > 38 dB for 256-QAM |
| DVB compliance | DVB-C (EN 300 429) |
| QAM output frequency | 47 - 862 MHz (1 kHz step) |
| Output level | Min 105 dBuV (47-470 MHz) Min 100 dBuV (470-862 MHz) |
| PSI/SI management | Yes |
| Remultiplexing | Yes |

COFDM modulation (Option)

| | |
|--------------------|----------------------------------------------------------------------------------------------------|
| COFDM mode | 2K |
| Guard interval | 1/32 |
| FEC | 7/8 |
| MER | >34 dB |
| DVB compliance | DVB-T (EN 300 744) |
| Max output bitrate | 31,67 Mbit/s (8 MHz bandwidth) 27,71 Mbit/s (7 MHz bandwidth) 23,75 Mbit/s (6 MHz bandwidth) |
| Output frequency | 47 – 862 MHz (1 kHz step) |
| Output level | Min 100 dBuV (47-470 MHz) Min 95 dBuV (470-862 MHz) |
| PSI/SI management | Yes |
| Remultiplexing | Yes |

IPTV out (Option)

| | |
|---------------------|----------------------------|
| Max output bit rate | 55 Mbit/s 2) |
| Connector | RJ 45 (same as control) |
| Output protocol | UDP, Multicast and Unicast |
| PSI/SI management | Yes |
| Remultiplexing | Yes |

2) With single TS to IP

Graphical User Interface (GUI)

Graphical User Interface for easy set up of complex systems. Simple handling of remultiplexing and creation of new multiplexes from any input.

Default settings of PSI/SI tables to avoid clashes in the output multiplexes.

Simple menu structure for setting input, output and processing parameters.

Each OSX 0200 contains an embedded web server. Standard web browsers (Internet Explorer, Mozilla Firefox etc.) are supported

ASI input(option) - output

| | |
|------------------------|--------------|
| ASI bit rate | 270 Mbit/s |
| Max payload bit rates: | |
| Input bit rate | 55 Mbit/s 3) |
| Output bit rate | 55 Mbit/s 3) |
| PCR restamping | Yes |
| PSI/SI management | Yes |
| Remultiplexing | Yes |

3) The input, output and throughput bit rate is highly dependent on the type of application that is running in the unit.

Remultiplexing

Each OSX 0200 contains a remultiplexer for 2 incoming transport streams. The transport streams can be received from cable and from the ASI input. All PSI/SI regeneration in a Head end system handled over IP. The following components can be remultiplexed: Audio, Video, Subtitling, PAT, PMT, NIT, EIT, CAT, SDT



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Connections and indications



1. Common Interface slot
2. "On" indicator
3. QPSK/8PSK error
4. Access or TX error
5. Ethernet connection
6. DVB-S/S2 input
7. Supply voltage
8. AV output
9. ASI input
10. ASI output
11. RF output

Miscellaneous

| | |
|-----------------------|--------------------------------|
| Power supply | 7,5 VDC nom. (6-10 VDC) |
| Power consumption | Typ. 15 W |
| Dimensions | 165x105x37 mm (ex. connectors) |
| Weight | Approx. 390 g |
| Controller | Embedded web server |
| Operating temperature | -20 to +50°C, non-condensing |

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