DVB-S/S2 to DVB-C Digital Transmodulation equipment

Tunes a Sat-IF digital channel, demodulates the signal being received, processes the transport stream and remodulates it in DVB-C format.

MDI-910 Transmodulator
Mains features

- Digital Transmodulation (DVB-S/S2 to DVB-C).
  The DVB-S/S2 channels located in the Sat-IF frequency band (950-2150 MHz) are transformed to DVB-C channels (16 to 256 symbols) located in the 45-862 MHz band.
- A MDI headend includes:
  - As many MDI Transmodulators as QAM channels to be distributed.
  - One HPA Amplifier that amplifies the sum of the combined output QAM channels from the transmodulators.
  - One or more CFP Power Supplies.
  - One or more Rack-Frames or wall-fixing Base-Plates. The base-plates can be joined horizontally.
  - Usually, housing units for the base-plates.
  - If the headend is large, one or more AMX-400 combiners.
- The MDI headend provides a QAM multichannel signal whose level is appropriate to feed the distribution network. An extension input at the HPA amplifier allows easy coupling of the wideband 47-862 MHz signal provided by another existing headend. The user requires a DVB-C Receiver to convert the QAM signals into the appropriate signals that can be accepted by a conventional TV set, and to control access to encrypted TV programmes.

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### MODEL MDI-910

**REF.** 4020

<table>
<thead>
<tr>
<th>Reception</th>
<th>DVB-S2</th>
<th>DVB-S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Stream processing</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Common Interface</td>
<td>(EN 50221)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Input section (DVB-S/S2)**

- Standard: EN 302 307
- Input frequency band: MHz 950 - 2150
- Input level: dBµV 44 ... 84 (DVB-S2) 39 ... 84 (DVB-S)
- Input loop-through gain: dB 0 (±1)
- AFC pull-in range: MHz ±5
- Input symbol rate: MS/s 10 ... 30 (DVB-S2) 2 ... 45 (DVB-S)

**Re-modulation section (DVB-C)**

- Data processing: EN 300 744
- Selectable modulation scheme: 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
- MER (Modulation Error Ratio): dB > 40 (typ.)
- Output symbol ratio: MS/s 1 ... 8
- Selectable Roll-Off factor: % 12, 13, 15

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### Output section (DVB-C)

- Selectable output channel located between: MHz 47 - 862
- Bandwidth: MHz 5 (DVB-H) 6, 7, 8
- Adjustable output level: dBµV 65 to 80
- Output loop-through loss: dB 1.1
- Spurious in band: dBc < -55
- Broadband noise (dB): dBc < -75

### General

- Supply voltage: VDC +12
- Consumption mA 710 (without CAM)
- 850 (with CAM)
- Operating temperature: °C 0 ... +45
- DC connector type: banana socket
- CAM entrance: slot
- Programming Interface: RS-232 / DB-9
- IKUSUP bus connector: (2x) 4-pin socket
- Dimensions mm 230 x 195 x 32
- Interface de programación: RS-232 / DB-9
- Conector Bus IKUSUP: (2x) base 4 pines
- Dimensiones mm 230 x 195 x 32

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Example of MDI-910 headend for 8 transponders. Contains 8 MDI transmodulators, 1 amplifier HPA and 1 power supply CFP-900, all fixed on 2 base-plates BAS-700

Example of MDI-910 headend in rack for 4 transponders. Contains 4 MDI transmodulators, 1 amplifier HPA and 1 power supply CFP-900, all fixed on rack SMR-601