

MDI 910

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

Tunes a Sat-IF digital channel,
demodulates the signal being
received, processes the trans-
port stream and remodulates it
in QAM format.

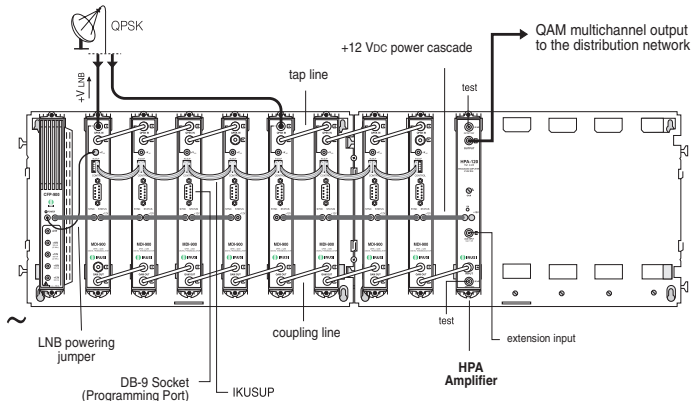


DVB-S/S2 input signal

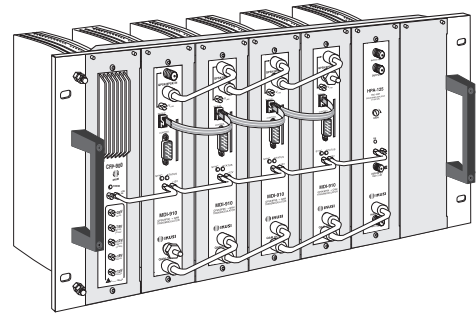


DVB-C output signal

Application Examples



Example of MDI 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 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.

Main features

Model	MDI-910	
Ref.	4020	
Reception	DVB-S2 (QPSK/8PSK), DVB-S (QPSK)	
Transport Stream processing (TS)	Yes	
Common Interface (EN 50221)	Yes	
Number of encrypted programmes being supported	Variable (depends on the CAM)	
Input section (QPSK/8PSK)		
Standard	EN 302 307	
Input frequency band	MHz	950 – 2150
Input level	dBm	-70 ... -25 (DVB-S2), -65 ... -25 (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 (QAM)		
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
Output section (QAM)		
Selectable output channel located between:	MHz	47 – 862
Bandwidth	MHz	5 (DVB-H), 6, 7, 8
Adjustable output level	dBµV	65 – 80
Output loop-through loss	dB	1.1
Spurious in band	dBc	< -55

- Digital Transmutation (QPSK/8PSK to QAM). The QPSK or 8PSK channels located in the Sat-IF frequency band (950-2150 MHz) are transformed to QAM 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.
- A MDI transmodulator carries out the complete channel processing from the input to the output:
 - tunes a Sat-IF digital channel,
 - demodulates the signal being received,
 - processes the transport stream, and
 - re-modulates it in QAM format (16, 32, 64, 128 or 256 symbols) on an RF channel that is selectable within the 45-862 MHz frequency range.

MDI-910

General

Supply voltage	V _{DC}	+12
Consumption	mA	710 (without CAM), 850 (with CAM)
Operating temperature	°C	0 ... +45
Input RF connector type		(2x) female F
Output RF connector type		(2x) female F
DC connector type		banana socket
CAM entrance		slot
Programming interface		RS-232/DB-9
IKUSUP bus connector		(2x) base 4 pines
Dimensions	mm	230 x 195 x 32

The module is packed with:

- 2 F plug bridges, 64 mm length, for input tap line and output coupling line.
- 1 DC plug bridge, 53 mm length, for connection of +12 VDC voltage.



HEADQUARTER

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