Additional information for Octopus NET manual Octopus Net Rack / Octopus Net mini ITX (Construction Kit)



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1. Classification

The Digital Devices Octopus Net Series consists of the desktop version (Octopus Net) and the customizable version of the Octopus Net Rack/mini-ITX



The Octopus Net is a pre-configured box with a built-in Twin-CI module and, depending on the configuration, equipped with 2, 4 or 8 tuners. The housing is made entirely of metal, which not only looks smart but also helps to dissipate heat, and can either be placed on its own or attached to the wall using the bracket provided. The built-in tuners can be easily exchanged or expanded at any time with additional or alternative DuoFlex twin-tuner modules or a Max S8/A8 card. Due to the space available in the 13 cm x 13 cm x 5 cm Octopus Net housing, the maximum has been reached with the expansion stage (2/4/8 tuners + 1x DuoFlex-CI).

This is where the Octopus Net mini ITX (Construction Kit) comes in, which provides up to 12 tuners without CI or 8 tuners + 4 CI slots in the maximum expansion stage. Among other things, the Octopus Net mini ITX always comes with a mini ITX base frame so that it can be installed in an individual case according to mini-ITX or ITX specifications. It can therefore be excellently adapted to individual solution situations. For installation in its own enclosure, the model is supplied with a comprehensive installation kit.



2. Delivery Content

(Abb. 1)

- 1) Power cable (EU standard)
- 2) 15V table power supply
- 3) 4x 25 cm power adapters
- 4) mini ITX rear panel (I/O panel)
- 5) mini ITX base plate
- 6) Octopus Net board
- 7) Mounting bridge
- 8) Mounting material

3. Extension

The Octopus Net mini ITX can be expanded with DuoFlex twin tuner modules

(revision >= DuoFlex V2) for DVB-S/S2, DVB-T/T2 and DVB-C/C2, one Max S8, M4 or A8 as well as the DuoFlex-CI module. The maximum expansion level is 12 tuners without CI or 8 tuners with CI. Mixed operation of the reception mode is also possible. The extensions can be reassembled at any time.

4. Configuration Sample:



(Abb.2)

<u>Without CI:</u> 1-4x DuoFlex Twin-Tuner 1x Max S8 oder A8 + 2x DuoFlex Twin-Tuner

With CI: 2x DuoFlex Twin-Tuner + 1x DuoFlex CI 1x Max S8 oder A8 + 1x DuoFlex CI 1x Max S8 oder A8 + 2x DuoFlex CI

Info: Mixed operation between DuoFlex S/S2 and DuoFlex C2/T2 modules is possible at any time. However, only one card of the Max series can be installed at a time.

All extensions must be supplied with a data cable and a power adapter; the corresponding cables are included either with the Octopus Net mini ITX or the respective extension. The Octopus Net mini ITX must be supplied with power by a power supply unit. Depending on the solution situation, an internal or external supply is possible.



5. Description of the mainboard

(Abb. 3)

- 1) E/A Switch with LED
- 2) Status LED 1 and 2
- 3) Pin header for power switch and power LED (See Page 8)
- 4) Molex P4 socket for internal power supply
- 5-8) Power Port 1-4 (See info below)
- 9-12) Connection extension TAB1-TAB4
- 13) Status LEDs, for production purposes
- 14) Connection Max S8/SX8, Max M4 or Max A8/A8I PCIe (GT Link Port- no DuoFlex possible)
- 15) Power Port 5
- 16) Socket for external power supply unit
- 17) Reset-Button
- 18) 5 Port Gigabit Switch

Info: When installing a Max card without fan control (No fan socket on the Max Series card), the power ports 1+2 (Fig.3) are intended for the connection of fans and no extensions can be operated on them. However, if a Max board with fan control (Fan socket available on the Max Series Card) is used and a fan is connected to it, power ports 1+2 (fig.3) can be used normally.

6. Installation

The Octopus Net mini ITX board is delivered pre-assembled on the mini ITX base frame. To mount the base plate in a suitable mini ITX enclosure, the Octopus Net board must be dismantled with 3 screws to access the hidden fourth fastening point. Once the board has been removed, the base plate can be properly mounted in the enclosure using the enclosed screws at the 4 fastening points (black arrows). Finally, the Octopus Net board is mounted back onto the base plate (green arrows).



Octopus Net mini ITX board on base frame

The DuoFlex Twin-Tuner is installed as follows. The slot cover is removed from the Twin-Tuner by loosening the two screws and is no longer needed. The two screws, on the other hand, are used to fix the Twin-Tuner to the mounting bridge (green arrows). These fastening steps must be repeated for each Twin Tuner.



The two black arrows mark the position of the enclosed fastening screws for the fastening bridge to the base frames. The power supply for the DuoFlex modules or the Max S8/SX8/A8(i)/M4 card is provided directly from the mainboard to the respective extension. The ribbon cables still required for the extension and included with the respective extension. Special lengths of data cable can be ordered as optional accessories.

7. Specials

Internal power supply

When using the internal power supply, connector (4) is used by an ATX power supply unit.



However, the ATX power supply unit will not start until it receives a request to do so. To do this, a circuit must be closed, either by a cable bridge, whereby pin 14 (20-pin plug) or pin 16 (24-pin plug) must be closed to earth in order to close the circuit. Attention: Colours may vary if the standard is not adhered to. Alternatively, an ATX test cable can be used.

+3,3 VDC/3,3 V sense	1	+3,3 VDC	+3,3 VDC	13 1	+3,3 VDC
-12 VDC	12 2	+3,3 VDC	-12 VDC	14 2	+3,3 VDC
Masse	13 3	Masse	Masse	15 3	Masse
PS_ON	14 4	+5 VDC	PS_ON	16 4	+5 VDC
Masse	15 5	Masse	Masse	17 5	Masse
Masse	16 6	+5 VDC	Masse	18 6	+5 VDC
Masse	17 7	Masse	Masse	19 7	Masse
-5 VDC	18 8	Power OK	-5 VDC	20 8	Power OK
+5 VDC	19 9	+5 VSB	+5 VDC	21 9	+5 VSB
+5 VDC	20 10	+12 VDC	+5 VDC	22 10	+12 V1DC
			+5 VDC	23 11	+12 V1DC
			Masse	24 12	+3,3 VDC

Octopus NET mini ITX cannot control the ATX power supply unit. The power supply unit must run and supply power, the connection for the power button is only used to switch the Octopus Net mini ITX on and off.

The pin strip (3) has the following configuration and can be used as a supplement if required.



1.	PWR LED	+3V
2.	PWR LED	GND
3.	PWR Switch	Wake Up
4.	PWR Switch	GND

5. Molex P4 connector

Attention: An ATX power supply unit should not be operated for a longer period of time without a consumer.

Warning: Any modification to the hardware must be carried out by trained specialists.