# Asteroid-1U – the channel bank for Asterisk



Asteroid-1U is designed for connection of telephone lines and GSM channels to Asterisk/Freeswitch. Server connection is made through Ethernet port using TDMoE protocol. The device is delivered as a chassis for 4 slots and a set of plug-in modules.

## Basic features

- Up to 32 FXS/FXO ports, up to 8 GSM ports
- Connection via Ethernet 10/100
- Hardware echo canceller
- Several banks may be connected to one Asterisk server
- Point-to-point mode for complementary FXO/FXS ports if Asterisk server is not used

## Line of products

| Designation | Number of serviced ports | Description |
|---|---|---|
| Asteroid-1UT | 32 FXO/FXS, 8 GSM, 4 slots for modules | Modular chassis with controller, power supply, Ethernet. |
| Asteroid-1UT-EC | 32 FXO/FXS, 8 GSM, 4 slots for modules | Modular chassis with controller, power supply, Ethernet and echo canceller module. |
| MFXO-8 | 8 | Module for connection of external lines |
| MFXS-8 | 8 | Module for connection of internal lines (telephone sets) |
| MGSM-2 | 2 | GSM module |

# Technical characteristics

| General | |
|---|---|
| Dimensions | 430x250x45 mm |
| Weight | 3 kg |
| Power consumption | 50 W |
| working temperature | +5°C to +45°C |
| relative humidity | Up to 80% |
| power voltage (AC socket) | 220V +- 20% |
| **Ethernet** | |
| connector type | RJ45, 8 pins |
| cable type | Symmetrical twisted pair (UTP) |
| data transmission speed, mbit/s | 100/10 |
| corresponding standard | IEEE 802.3 |
| **FXS/FXO ports** | |
| coding | PCM A or μ -law |
| nominal signal level | 0 dBm +- 0.5 dB |
| nominal line impedance | 600 Ohm |
| echoed signal (300..3400 Hz), FXS | Less than -20 dB |
| echoed signal (300..3400 Hz), FXO | Less than -12 dB |
| gain-frequency variation | +- 1 dB in the range of 300..3400 Hz |
| noise level | Less than -47 dBm |
| loop current (FXS) | 20 mA |
| ring voltage (FXS) | 100 V (peak-to-peak), 25 Hz |
| pulse dialing | Yes |
| **GSM ports** | |
| Frequency range | 850/900/1800/1900 |
| External antenna connector | SMA |
| Signaling type on the side of Asterisk | E & M |

## Delivery set

- **Chassis Asteroid-1U, power cable 220V, USB console cable**
- **CD with the driver and the user manual**
- **Warranty certificate**
- **Shipping box 52x30x8 cm**

**Port modules and echo canceller modules are not included in the delivery set.**

## Warranty obligations

**Repair or replacement of the device free of charge within 2 years from the purchase**

## Supplier

**Parabel, ltd.**

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