

# MB1

DUC/DDC HF/6M/VHF STANDALONE SDR TRANSCEIVER



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## Software Defined Radio

The MB1 transceiver represents a new generation of ham radio. It's an up-to-date DUC/DDC direct conversion transceiver and a full blown PC in one box. All the hardware you need for your shack is found in one single ergonomic device. The MB1 is made for the true amateur radio aficionado, it's a modern Software Defined Radio with the physical touch and feel of a classic radio. MB1 is a high performance radio!

RF ADC clock frequency, MHz	160	DAC clock frequency, MHz	640
RF ADC resolution, bit	16	RF DAC resolution, bit	14
Receiving frequencies bandwidth, MHz	0.09-65, 95-148	Dynamic Range over IMD3, dB	98
Amount of independent receive channels	2	MDS level, dBm	-128
Blocking Dynamic Range (BDR), dB	129	Local oscillator's stability, ppm	+/- 0.5
Maximum output power in HF, W	100	Operating Temperature, °C	0 - +50
Maximum output power in VHF, W	50	Power voltage range, V, Hz	~100-240, 50-60
Frequency coverage in VHF in TX mode, MHz	144-148	Dimensions, mm	320x140x250
Frequency coverage in HF in TX mode, MHz	All amateur frequencies	Weight, kg	10



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## Features:

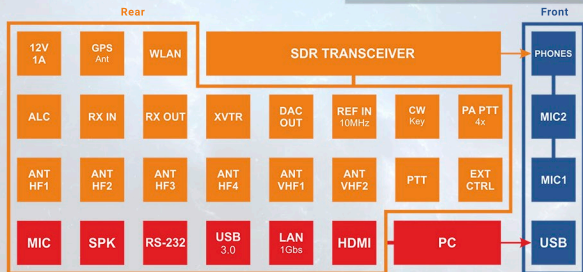
- Independent receiver with Direct Down Conversion (DDC)
- Separate independent transmitter with Digital Up Conversion (DUC)
- Install digital modes software
- Contest loggers and other contest software
- Embedded suboctave band pass filters
- Opportunity to connect VHF transverters
- Opportunity to connect transceiver to LAN or WLAN internet
- Opportunity to connect external display, mouse and keyboard
- Full blown computer inside is based on Intel Core i5 CPU
- Frequency synchronization from 10 MHz reference oscillator
- Automatic Tuner Unit for HF band: Available as option
- Four programmable PTT outputs for independent external PA control
- COM port for connecting external devices (power amplifiers, rotators, external PC, etc.)
- Work with internet browser, internet clusters and other opportunities (e-mail, Skype, Media, etc.)
- Two independent channels with bandwidth up to 312 kHz and two sub-receivers in each channel
- Remote control. PTT foot switch and CW keyer are connected to E-Coder SDR-control panel
- Connecting two CW Skimmers to two independent receiving channels on different bands
- Very small delay in CW mode (about 10 ms)
- Opportunity to use transceiver in SO2R mode
- Antenna switch for four HF antennas



And many other opportunities limited only by your fantasy.  
All that inside one MB1 transceiver!



## Block diagram



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