

MEPT - a WSPR beacon

VERSATILE WSPR BEACON for MOBILE and FIXED applications

MEPT = Manned Experimental Propagation Transmitter



It took me a couple of month - but now it's (almost) ready.

A versatile beacon concept that consists of a number modules that can be combined according to the application.

Connectors\:

- **USB interface** to connect to a Windows application for configuration
- **serial interface** to attach a GPS mouse
- **SPI bus** to interconnect the modules
- **ICSP** for in circuit serial programming of the PIC processor

Features\:

- Configuration software for Windows
- Beacon runs independent from PC
- Time and Location can be derived from GPS signal
- Autonomous generation of WSPR data string in local microcontroller
- Up to 8 different filters selectable through filter switch box
- Up to 4 Attenuator networks selectable through attenuator switch box
- Multiple DDS & PA modules attachable to one controller
- DDS & PA module for 1.8-50MHz with up to 15W

At the moment there are two modules. The CPU box with a DDS/PA module and a switch box that can hold up to 8 filter and one attenuator modules



Here you can find an overview of the possible configurations

MEPT CONFIGURATIONS

A detailed description of the individual modules can be found here

MEPT CPU

MEPT switch module

I have a long list of improvements and additions I want to create to my beacon system. Here is a list of my plans (Although I don't know yet where to find the time to do all that)

MEPT_Development_Plan