

SYM2250H-USB



RF Synthesizer 50MHz – 2.5GHz

SYM2250H-USB module is a very wideband / low noise RF synthesizer, providing many unprecedented features in its volume and price range. Offering as standard fast serial USB hi-speed interface, it allows very easy integration. The module takes its single voltage power supply from the USB connector. On / off pulse modulation is also available as standard, allowing fast signals through very short rise and fall times (typ. 25ns).

Powered by a powerful ARM7 32 bits micro-controller, it reacts fast to control commands and can also work without an host thanks to an internal EEPROM memory and the possibility to store a number of discrete frequencies that can be programmed with a precise timing.

Output level can be set in the -10 to +20 dBm with 1 dB steps.

SYM2250H-USB synthesizer module will ideally come as a replacement for laboratory synthesizers to integrate in production test benches, in multi-carriers test equipments, or as local oscillator sources. Provided with Windows control software, it can also be used as an auxiliary RF signal generator in laboratory.

Interfacing:

The SYM2250H-USB module can be controlled through a USB serial link (hi-speed) which also provides power to the module.

SMB connectors on front panel give access to external reference input/output and pulse modulation input.

Features :

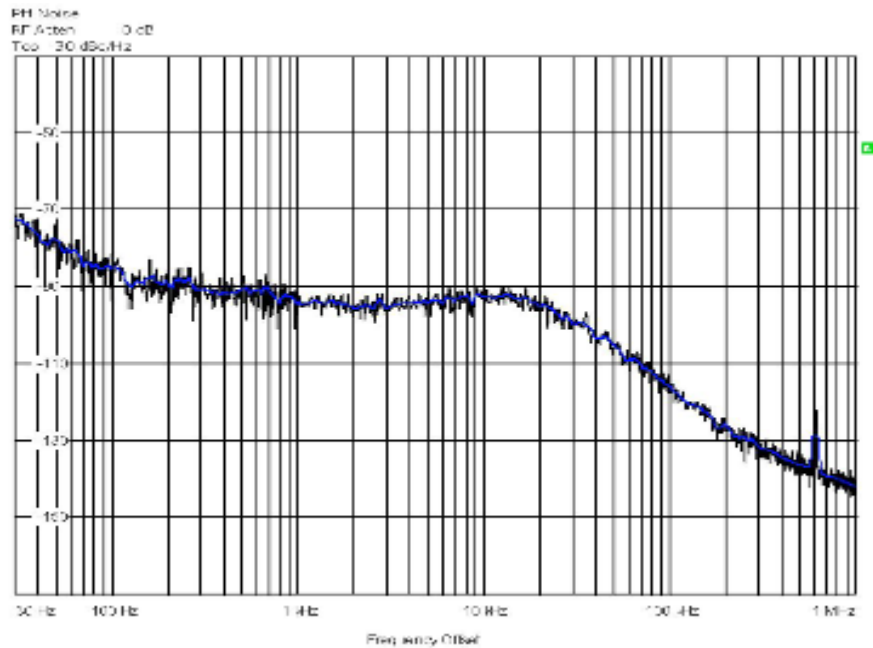
- 50 MHz to 2500 MHz, 1 kHz frequency step
- USB interface as standard with USB mini-B connector.
- Output level range +20 to -10 dBm
- Phase noise: <-100 dBc at 100kHz offset from carrier at 1GHz
- Frequency stability: +/- 0,5 ppm with internal reference. (+/-2,5ppm on temperature range)
- Harmonics : < -30 dBc (>200MHz), Non-harmonics : < -70 dBc
- Single voltage supply : 5 V dc, 250 mA through USB)
- External reference input, programmable frequency.
- Internal reference frequency output, 20 MHz.
- Switching time : < 1 ms
- Temperature range : -40 .. +85°C
- Configuration memories : 100
- Dimensions : 115(L) x 55(l) x 25(h) mm
- Weight : 125 g.

Main commands :

- Frequency
- Amplitude
- RF On/off
- Modulation on/off
- Ref int out / ext in
- Save/ load configuration memories.
- Sequencer control

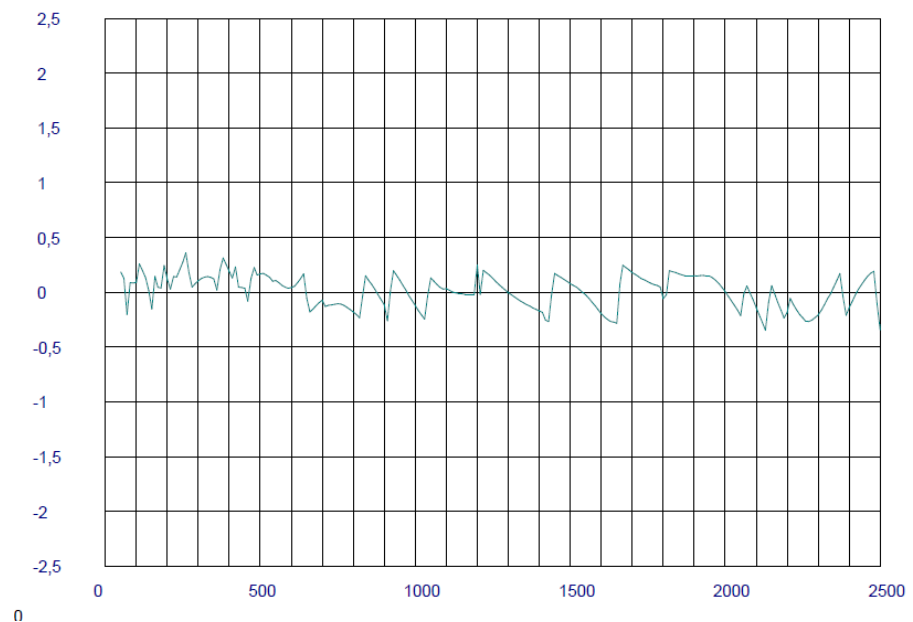
Typical phase noise at 500 MHz :

(level 0dBm, modulation off, internal reference)



Level precision at 0 dBm :

(at 25°C, Vusb = 5V)



Mechanical dimensions:

Dimensions of module (in mm):

