

SYM4435-DBH



RF Synthesizer 35MHz – 4.4GHz

SYM4435-DBH module is a very wideband / low noise RF synthesizer, providing many unprecedented features in its volume and price range. Offering as standard serial asynchronous, I2C and SPI interfaces, it allows very easy integration. The module accepts a wide single voltage power supply between 6 and 25V. 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 wide range of -60 to -10 dBm with 1 dB steps. SYM4435-DBH synthesizer module will ideally come as a replacement for laboratory synthesizers to integrate in production test benches, in multi-carriers automated test equipments (ATE), 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 SYM4435-DBH module can be controlled through a choice of I2C, SPI or asynchronous serial interfaces, all available on a Sub-D DB25 connector. Additional signals like external reference input/output and pulse modulation input are also provided.

Features :

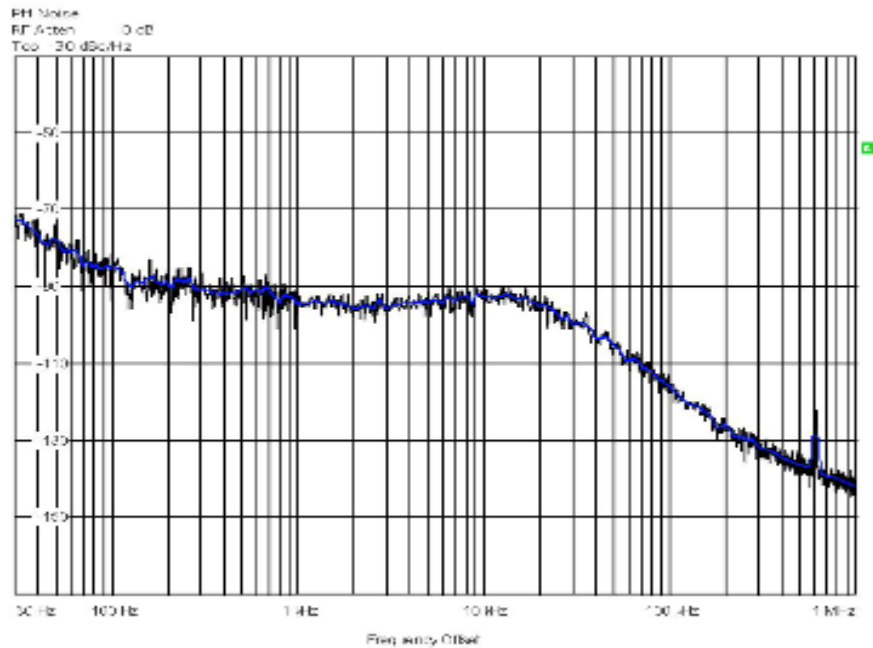
- 35 MHz to 4400 MHz, 1 kHz frequency step
- USB interface as standard with USB mini-B connector.
- Output level range -60 to -10 dBm
- Phase noise: <-100 dBc at 100kHz offset from carrier at 1GHz
- Frequency stability: +/- 0,5 ppm with internal reference. (+/-2,5ppm on temperature range)
- Harmonics : < -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

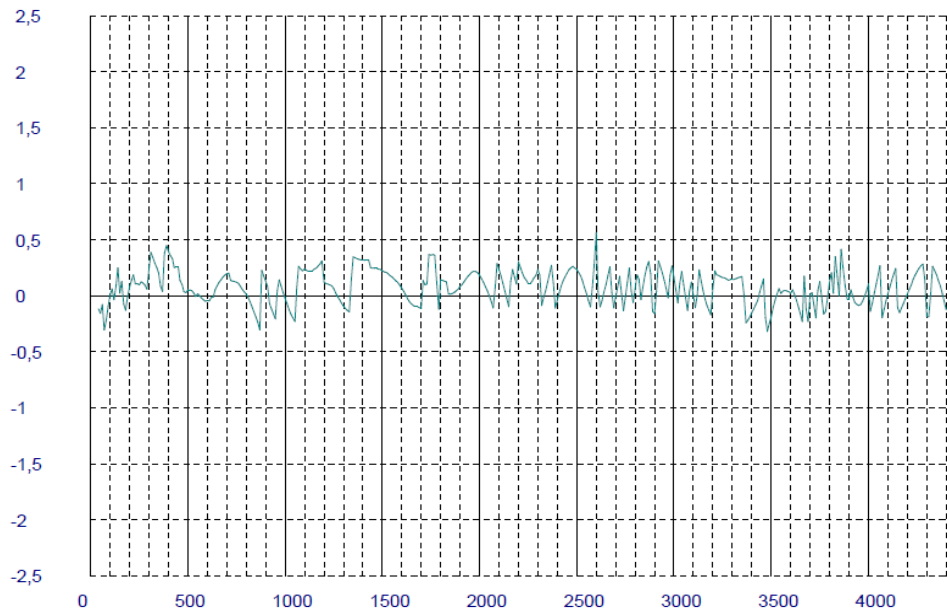
Typical phase noise at 500 MHz :

(level 0dBm, modulation off, internal reference)



Level precision at 0 dBm :

(at 25°C, Vusb = 5V)



Mechanical dimensions:

Dimensions of module (in mm):

