



SYM6025-USB

RF Synthesizer 25MHz - 6GHz

SYM6025-USB module is a very wideband / low noise new generation 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 -40 to +10 dBm with 1 dB steps.

SYM6025-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® 7/XP control software, it can also be used as an auxiliary RF signal generator in laboratory.

Interfacing :

The SYM6025-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.

Main features :

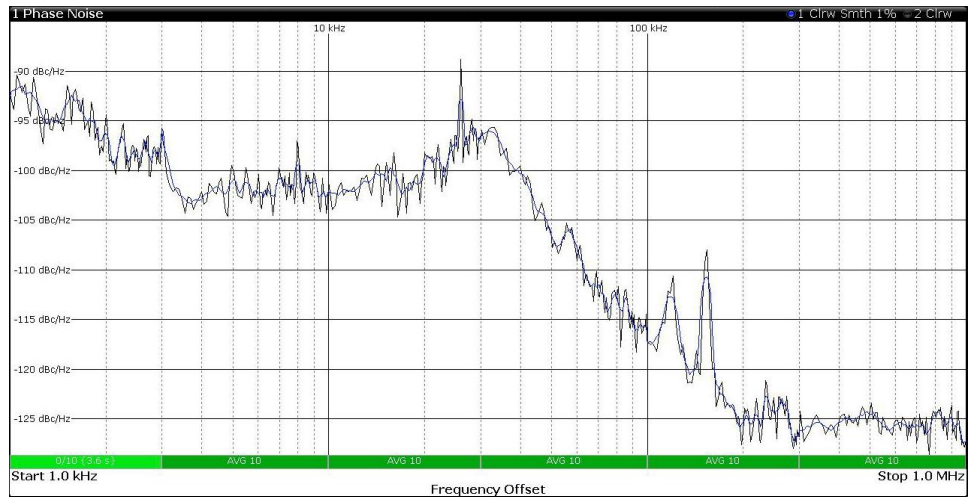
- 25 MHz to 6000 MHz, 1 kHz frequency step.
- USB interface as standard with USB mini-B connector.
- Output level range +10 to -40 dBm, 1 dB steps.
- 2 power measurement inputs (10MHz to 6 GHz, dynamic range 60 dB)
- Phase noise: <-105 dBc at 100kHz offset from carrier at 2GHz
- Frequency stability: +/- 0,5 ppm with internal reference. (+/-2,5ppm on temperature range)
- Harmonics : < -30 dBc (>100MHz), Non-harmonics : < -70 dBc
- Single voltage supply : 5 V dc, 250 mA through USB)
- External reference input, programmable frequency.
- Switching time: < 1 ms
- Temperature range: -40 .. +85°C
- Configuration memories: 100
- Dimensions : 135(L) x 69(l) x 28(h) mm
- Weight: 150 g.

Main commands:

- ◆ Frequency
- ◆ Amplitude
- ◆ RF on/off
- ◆ Modulation on/off
- ◆ Reference int. / external
- ◆ Save / load configuration memories.
- ◆ Sequencer Control
- ◆ Power meter

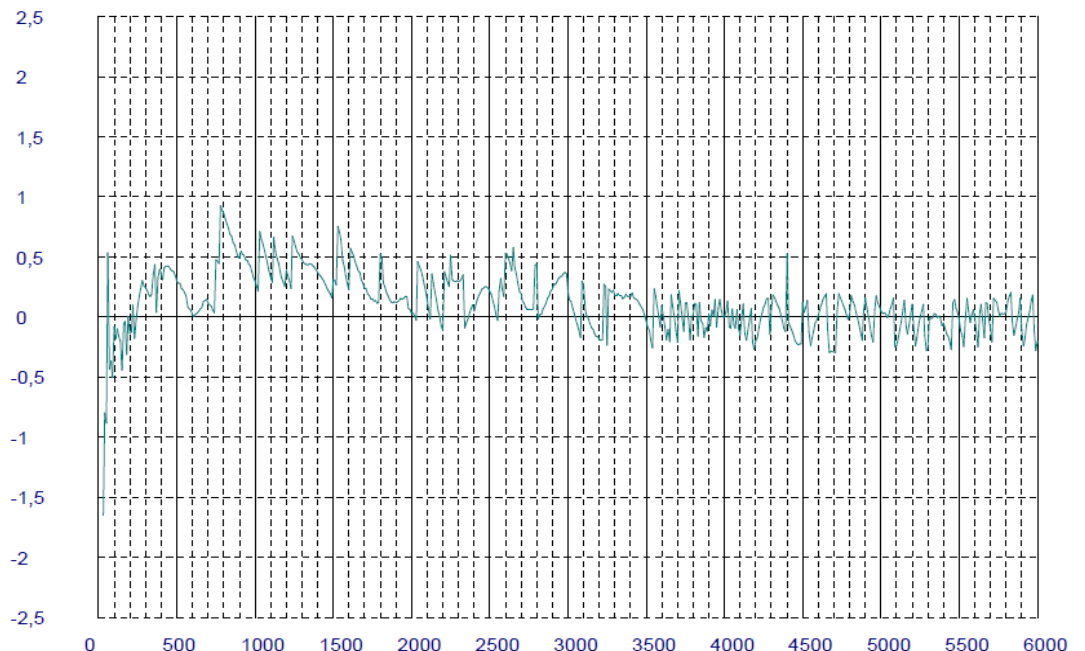
Typical phase noise at 1 GHz :

(Level 0dBm, modulation off, internal reference).



Level Precision at 0 dBm :

(at 25°C, Vusb = 5V)



Mechanical dimensions :
(in mm) :

