

Features

- Programmable Output
 - Frequency Tuning Range 1 μ Hz to 120 MHz
 - Step Size 1 Hz
 - Amplitude Max 9 dBm
 - Phase
- Inverse SINC filter SIN (x)/x correction
- Harmonic Spurious – 37 dBc
- Non-Harmonic Spurious
 - -60 dBc with PLL off
 - -50 dBc with PLL on
- PLL off SSB Phase Noise
 - 1 KHz offset –110
 - 10 KHz offset –117
 - 100 KHz offset –120
- PLL on SSB Phase Noise dBc/Hz
 - 1 KHz offset –105
 - 10 KHz offset –110
 - 100 KHz offset –115
- Modulations Supported
 - Frequency Modulation
 - Amplitude Modulation
 - Phase Modulation
 - Frequency Shift Keying
 - Phase Shift Keying
 - Amplitude Shift Keying
- Reference Clock (CLK)
 - PLL On
 - 5 MHz to 75 MHz
 - 4 X to 20 X Ref CLK multiplier
 - PLL Off
 - DC to 300 MHz
- Single ended reference clock input
- 8 Bit ATMEL AVR Micro-Controller (Optional)
- Digital Control ports
 - 4 wire SPI (UPD, SCLK, SDI, and I/O RST)
 - RS-232 (TXD, RXD, and GND) Optional
- SPI interface speed 10 MHz (Freq Tune speed 6 μ s)
- RS-232 I/F speed 57 k baud (Freq Tune speed 900 μ s)

Maximum Operating conditions :

DC Power: 12 Volts @ 1 A

Operating Temperature:

Temp, Case Operating: -10 to 60 °C

Praxsym Part Number:

DDS Module: **310-010089-001**

No CPU; RS-232

External REF CLK

1 kHz to 10 MHz

DDS Module: **310-010089-002**

CPU; RS-232

TCXO 50 MHz REF CLK

1 kHz to 100 MHz

DDS Module: **310-010089-003**

CPU; RS-232

External MHz REF CLK

54 MHz to 86 MHz



Description:

An electronic method for digitally creating waveforms and frequencies from a single, fixed source frequency. Controlled by commands written to the RS-232 or the 4 wire SPI TTL interface. Only one interface can be contacted at a time. The synthesizer tunes from 1 μ Hz to 120 MHz in increments of 1 Hz. The digital control ports can accept commands to adjust the amplitude, phase, or frequency of the synthesizer output.

J4 -I/O Pin out

Pin Number	Pin Name	Comment
1	SCLK	SPI CLK
2	TXD	RS-232 Input
3	SDI	SPI Data
4	RXD	RS-232 Output
5	UPD	SPI Latch Enable
6-8, 10, 12-14, 16-20	GND	Power/Board GND
9	IO RESET	SPI I/O Reset
11	NC	NC
15	+12 V	+12 Volts DC