

Programmable Frequency Synthesizer

PCK-50AF



Features

- Wideband (1Hz~50MHz), High resolution(1Hz)
- Single Power Supply +5V
- Frequency controlled by parallel and serial data
- Frequency stored in non-volatile memory
- CMOS/TTL level clock output and analog output
- High purity signal with low spurious
- Compact



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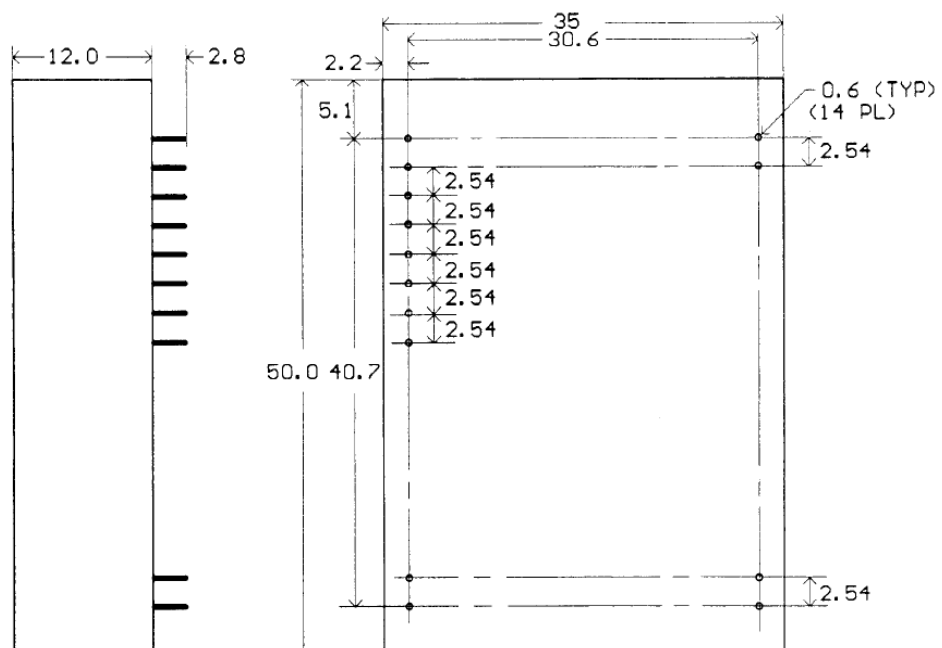
● Specification

Output level		
Digital output	CMOS/TTL	
Analog output	1V _{p-p} ±20% (without termination) 0.5V _{p-p} ±20% (50Ω termination)	
Analog output impedance	50Ω	
Output frequency range	1Hz ~ 50,000,000Hz(SQR output) 100Hz ~ 50,000,000Hz (Analog output 50Ω termination)(Sine output)	
Frequency resolution	1Hz	
Output wave duty	50%±10%(SQR output)	
Frequency accuracy	±50ppm 0°C ~ 50°C	
Phase noise	<-90dBc @ 1kHz OFFSET	
Spurious	-40dB (expect harmonics)	
Analog output harmonics spurious	-35dB	
Frequency save times	More than 10,000 times	
Frequency control	Parallel input Six(6) control pins	4-bit BCD input, 1 bit digit/data selection 1 bit strobe signal
	Serial input two(2) data pins	9600BPS, 8 bit non parity 1 stop bit, ASCII 8 digit numeric data and carriage return code
Frequency switching time	Within 6.5mS (time from the end of data loading)	
Dimensions	50 x 35 x 12 (mm)	
Power supply/current	+5V±5% 200mA	

● Option

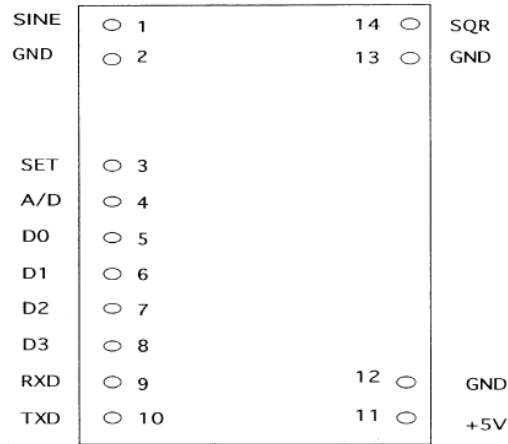
Option frequency setting board FIX-50

● Outline



● Pin assignment

PIN ASSIGNMENT



(TOP VIEW)

● Pin designation and description

Pin No.	Name	Description
1	SINE	Analog, sine wave output terminal
2	GND	GND of power supply and signal
3	SET	Strobe signal to set by parallel data. Pulled-up internally, the data of A/D, D0-D3 can be read into by falling to GND. The data is taken from loading edge.
4	A/D	Select the digit or value of parallel data D0-D3. Select the digit to be changed from the 8-digit frequency data, with A/D pin high (open). Set the value of selected digit with A/D pin low (short to GND). It is pulled up internally.
5	D0	Input of bit 0 (20) of frequency data digit or value data. Internally pulled-up, 0 for H (open), 1 for L (short to GND) due to complimentary input.
6	D1	Input of bit 1 (21) of frequency data digit or value data
7	D2	Input of bit 2 (22) of frequency data digit or value data
8	D3	Input of bit 3 (23) of frequency data digit or value data
9	RXD	A synchronous serial RX data, CMOS/ TTL. Input is pulled-up. Keep open when not used.
10	TXD	A synchronous serial TX data, CMOS/ TTL. Keep open when not used
11	+5V	Power supply pin. Supply +5V
12	GND	GND of power supply and signal
13	GND	GND of power supply and signal
14	SQR	Square wave output signal pin