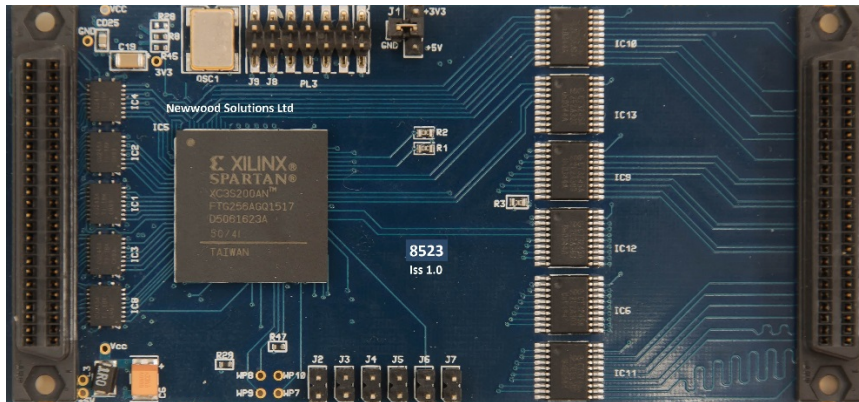# PCG8523   Programmable Clock Generator
IndustryPack®

Product Description

The PCG8523 is a single-width Industry Pack with the following characteristics:-
This clock generator allows the user to select the frequency of a clock signal which is connected to one of the I/O lines of the IP card.
The first five bits in the clock frequency select register are used to select the clock frequencies of 1 Hz to 1MHz in multiples of 1, 2, 5 or 10. (E.g. 0=1Hz, 1=2Hz, 2=5Hz, 3=10Hz and so on to 15=100KHz, 16=200KHz, 17=500KHz, 18=1MHz).

Product Specifications

Size:	Single width Industry Pack 1.8ins x 3.9 ins
Operating temp:	0 to 45 deg C ambient
Data format:	Binary
Clock rates:	From 1MHz to 1Hz in set steps
Input levels:	TTL/LTTL compatible with jumper selectable 470Ω resistor pull-up to 5V or 3.3V or pull-down with positive edge clocking
Internal clock:	50MHz
Clock accuracy:	+/-50ppm (0.005%)
Power:	+5V @ 180mA typical

Control & Status Register (CSR I/O Address 0)

D15	D14	D13	D12	D11	D10	D09	D08	D07	D06	D05	D04	D03	D02	D01	D00
x	x	x	x	x	x	x	x	EnScan	STrig	ARM	En Gate	En ExTrig H	En ExTrig L	En FP Strob	RST

RST   Reset - writing a 1 to this bit resets all bits in CSR registers to zero.
EnFPStrob   Enables IP Strobe input LOW going to start clock.
EnExTrig L   Enables External trigger LOW going to start clock
EnExTrig H   Enables External trigger HIGH going to start clock
EnGate   Enables any of the hardware triggers to act as a gate i.e. as long as the trigger is asserted the clock will be generated.
ARM   Arm then wait for Hardware Trigger, Strobe line or STrig to Start clock running. If ARM is removed then clock output is Stopped.
STrig   Software start trigger write only. Note EnGate must be
EnScan   Read only. This bit indicates that the Scan clock is running.

A front panel lemo on all Newwood Solutions IP carrier cards connects to the IP STROBE line of the all the IP cards. This line can be used to start the clock if the bit **EnFPStrob=1** in the CSR.

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