

Reference Design

Microchip PIC16F 8-Bit Flash Microcontroller

PIC16F1826/27	
Controller 8-Bit	A High Performance RISC CPU.
Features	<ul style="list-style-type: none"> • Fail-Safe Clock Monitor • Two-Speed Start-up • Power-Saving Sleep mode • Power-on Reset (POR) • Power-up Timer (PWRT) • Oscillator Start-up Timer (OST) • Brown-out Reset (BOR) • Extended Watch-Dog Timer (WDT)
Clock Specials	External Oscillator Block with - 4 crystal/resonator modes up to 32 MHz - 3 external clock modes up to 32 MHz
Operating Voltage Range	1,8V to 5,5V
Operating Temperatur Range	-40°C to + 85°C for industrial -40°C to +125°C for extended

Other Temperature Ranges are available. CL = Load Capacitance, for which the tolerance of the Crystal is trimmed. An additional capacitance of 4pF for each Pin (C-Stray) of the Quartz is used to calculate C_{in} and C_{out} .

Geyer Crystal 20MHz

CL=12pF

Size (mm)	Type	Temperature	Part No.
2.0 x 1.6	KX-5E	-40°C to +105°C	12.85648
2.5 x 2.0	KX-6T	-40°C to +85°C	12.86633
3.2 x 2.5	KX-7T	-40°C to +85°C	12.60067

The 20MHz crystals are suitable for the HS Mode of the PIC16F1826/27.

Geyer Crystal 32.768kHz

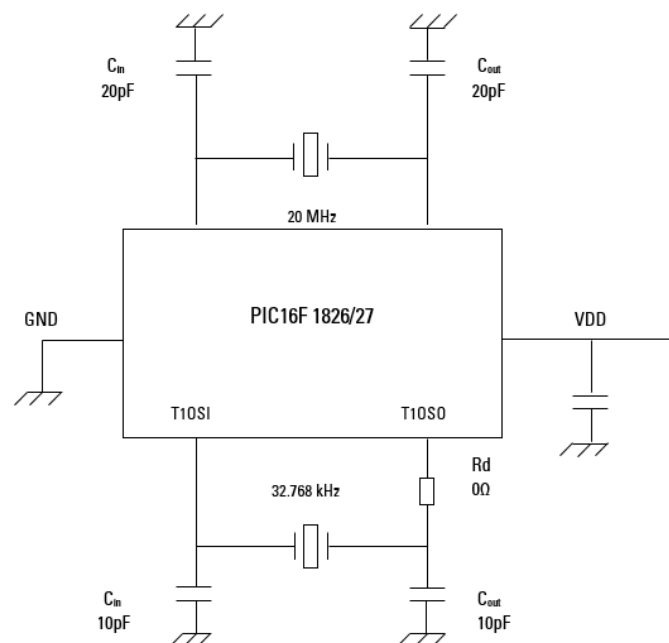
CL=7pF

Size (mm)	Type	Part No.
1.25 x 1.05	KX-327VT	12.87002
1.6 x 1.0	KX-327FT	12.87175
2.0 x 1.2	KX-327RT	12.87033
3.2 x 1.5	KX-327NHT	12.87147

Please contact us to find the right crystal.
You are welcome, to send us your device,
and we will Test in our D+T Center,
if the oscillaton works well
at your conditions and over temperature.

Caution:

The evaluation results above be used as a reference. The circuit characteristics may differ depending on the board properties. Therefore the end selection of the crystal should be done based on the actual circuit board.



Sleep Mode wake up has to be testet on application.