Reference Design

Microchip PIC16LF 8-Bit Flash Microcontroller with LCD Driver

PIC16LF1934/6/7	
Controller 8-Bit	A High Performance RISC CPU with integrated LCD Driver.
LCD Controller	• Up to 96 segments • Variable clock input • Contrast control • Internal voltage reference selections
Features	• Power-Saving Sleep mode • Power-on Reset (POR) • Power-up Timer (PWRT) • Oscillator Start-up Timer (OST) • Brown-out Reset (BOR)
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 3,6V
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

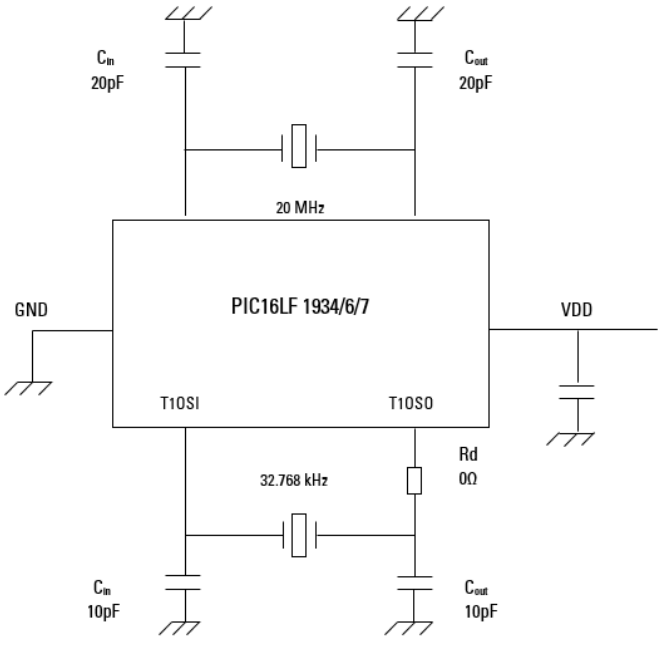
The 20MHz crystals are suitable for the HS Mode of the PIC16LF1934/6/7.

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.



Sleep Mode wake up has to be tested on application.

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.