

## Reference Design

**Microchip USB2517      USB - Hub Controller      Networking USB/LAN**

<b>USB2517</b>	
Networking USB / LAN	Controller for USB Networking. A High-Speed 7-Port Hub Controller.
Communication Standards	Compliant with the USB 2.0 Specification
Characteristics	Low Power OEM Selectable Features
Supply Voltage	1,8V ad 3,3V
Operating Temperatur Range	0°C to +70°C
Application	<ul style="list-style-type: none"> <li>• LCD monitors and TVs</li> <li>• Multi-function USB peripherals</li> <li>• PC mother boards</li> <li>• Set-top boxes, DVD players, DVR/PVR</li> <li>• Printers and Scanners</li> <li>• PC media drive bay</li> <li>• Portable hub boxes</li> <li>• Mobile PC docking</li> <li>• Embedded systems</li> </ul>

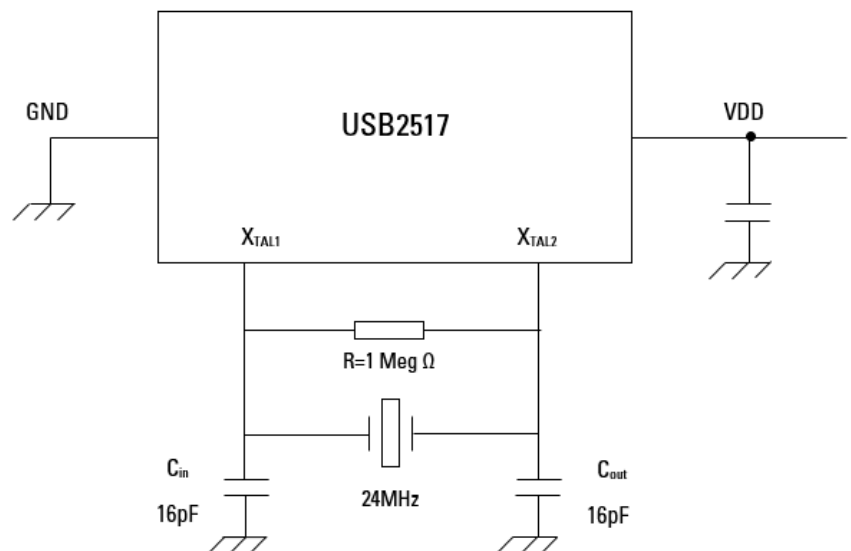
Temperature Range for the listed crystals: -20°C to +70°C (Other Temperature Ranges are available)

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<sub>in</sub> and C<sub>out</sub>.

### Geyer Crystal 24MHz

CL=10pF

Size (mm)	Type	Part No.
1.6 x 1.2	KX-4	12.84830
2.0 x 1.6	KX-5	12.85502
2.5 x 2.0	KX-6	12.86546
3.2 x 2.5	KX-7	12.60159



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.