

## FreeRTOS

M Ext.  
(A Ext.)  
(Zifencei Ext.)  
Zicsr Ext.  
(Counters Ext.)  
(F/D/Q Ext.)  
C Ext.  
unpriv

M-Mode  
(S-Mode)  
(H-Mode)  
(MMU)  
priv

## Zephyr RTOS

M Ext.  
(A Ext.)  
(Zifencei Ext.)  
Zicsr Ext.  
(Counters Ext.)  
(F/D/Q Ext.)  
C Ext.  
unpriv

M-Mode  
(S-Mode)  
(H-Mode)  
(MMU)  
priv

buildroot 2022.08  
Linux 5.17  
(glibc + busybox)

M Ext.  
A Ext.  
Zifencei Ext.  
Zicsr Ext.  
Counters Ext.  
F/D/Q Ext.  
C Ext.  
unpriv

M-Mode  
S-Mode  
(H-Mode)  
MMU  
priv

buildroot 2022.05  
Linux 5.18  
(uClibc + busybox)

M Ext.  
A Ext.  
Zifencei Ext.  
Zicsr Ext.  
(Counters Ext.)  
F/D/Q Ext.  
C Ext.  
unpriv

M-Mode  
S-Mode  
(H-Mode)  
MMU  
priv

## Legend

strictly necessary

performance enhancing

convenient

(expendable)