MPLAB Harmony Compatibility Worksheet

The first column in this worksheet references by section number, the related information in the *MPLAB Harmony Compatibility Guide*. This guide is located within the MPLAB Harmony Help in *Volume IV: MPLAB Harmony Development*.

Use this compatibility worksheet to determine the level of MPLAB Harmony compatibility and to capture any exceptions or restrictions to the compatibility guidelines. In the Compliant column, enter one of the following values:

- Yes – If supported and fully compliant
- No – If not compliant (list exceptions or provide an explanation)
- Not Applicable – If not applicable (list exceptions or provide an explanation)

Section Number	Description	Compliant
3	List module name, describe what it abstracts, and identify if it integrates the functionality of any other known modules.	
Module Name & Abstraction:		

Section Number	Description	Compliant
3.1	Interface completely documented and isolated from implementation	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.2	Respects all other abstractions (or list any globally accessed resources).	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.3, 3.3.1	Protects internal (owned) resources from potential corruption by multiple clients. (Identify if module is single client.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.3, 3.3.2	Protects internal (owned) resources from potential corruption by multiple threads (in OS configurations).	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.3, 3.3.3	Protects internal (owned) resources from potential corruption by ISR (if supported).	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.4	Accesses shared resources only via system services or device drivers.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.5	Supports MPLAB Harmony module model (or is fully reentrant)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.5, 3.5.1	Supports a MPLAB Harmony module “Initialize” function.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.5, 3.5.2	Supports one or more MPLAB Harmony module “Tasks” function(s).	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.5, 3.5.3	Supports a MPLAB Harmony module “Deinitialize” function.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.5, 3.5.4	Supports a MPLAB Harmony module “Status” function.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.5, 3.5.5	Supports a MPLAB Harmony module “Reinitialize” function.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.6	Follows driver-client model (identify if static/dynamic, and/or single/multi-client)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.6, 3.6.1	Supports driver “Open” routine (identify if static wrapper is used).	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.6, 3.6.2	All client interface routines accept an opened handle as first parameter (identify if static wrapper used).	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.6, 3.6.3	Supports driver “Close” routine (identify if static wrapper is used).	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.7	Uses a common data transfer model. (Identify if an existing model is used that is not described below, list it here. Otherwise, explain why an existing model was not used.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.7, 3.7.1	Supports FIFO based (byte-by-byte) data transfer model.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.7, 3.7.2	Supports file system (read/write) data transfer model.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.7, 3.7.3	Supports buffer queuing data transfer model.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.8	Uses an existing abstraction model. (Identify the existing abstraction model used, if not listed below. Otherwise, explain why an existing abstraction model was not used.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.8, 3.8.1	Uses file system (SYS FS) plug-in interface model.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.8, 3.8.2	Uses file system media manager driver model.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.8, 3.8.3	Uses TCP/IP MAC driver model.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.8, 3.8.4	Uses Graphics display driver model.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
3.9	Emulates or extends an existing interface model. (Explain below.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
4	Identify if this is a fully flexible (supports all MPLAB Harmony flexibility options) or targeted implementation. (If targeted, describe target environment/configuration.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
4, 4.1, 4.1.1	Supports execution one or more RTOS environments. (Identify if module uses OSAL or is OS-specific.)	
Supported RTOS or OSAL Use:		

Section Number	Description	Compliant
4, 4.1, 4.1.2	Supports interrupt driven execution. (Identify interrupt-safe “Tasks” functions and callbacks.)	
Interrupt Safe Routines:		

Section Number	Description	Compliant
4, 4.1, 4.1.3	Supports polled execution in a super loop with no RTOS.	
Exceptions/Restrictions:		

Section Number	Description	Compliant
4.2	Support a broad set of PIC32 microcontrollers. (Identify supported devices. Identify if supported by PLIB, driver, system service, or direct register access.)	
Supported Parts and/or Restrictions:		

Section Number	Description	Compliant
4.3	Supports dynamic multi-instance, multi-client capable interface. (Identify static interfaces and mapping options and/or restrictions.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
4.4	Support dynamic, static, or feature implementation variants. (Identify supported implementation variants.)	
Implementation(s):		

Section Number	Description	Compliant
4.5, 4.5.1	Identify required configuration options. (Ensure all legal values are documented.)	
Required Configuration Options:		

Section Number	Description	Compliant
4.5, 4.5.2	Identify optional configuration options. (Ensure default value and all legal values are documented.)	
Optional Configuration Options:		

Section Number	Description	Compliant
5	Describe general testing strategy. (Identify limitations, were testing recommendations were not followed. Document and publish test results.)	
Strategy & Limitations:		

Section Number	Description	Compliant
5.1	Test all possible build configurations. (Identify configurations not tested. Document and publish test results.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
5.2	Test for correct functionality. (Identify features/functionality not tested. Document and publish test results.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
5.3	Stress test and measure performance. (Identify metrics and methods used. Document and publish test results.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
5.4	Test error handling. (Identify fatal error conditions that could cause system crashes. Document and publish test results.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
5.5	Test all supported execution environments (polled, interrupt driven, and RTOS). (Identify tested configurations. Document and publish test results.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
5.5, 5.5.1	Test for thread safe execution in all supported RTOS configurations. (Identify different threading models, priorities and configurations tested.)	
Thread configurations:		

Section Number	Description	Compliant
5.5, 5.5.2	Test for correct interrupt-driven execution, if supported. (Identify interrupt safe functions and list configurations tested.)	
Interrupt Support:		

Section Number	Description	Compliant
5.5, 5.5.3	Test for correct polled execution, if supported. (Identify non-OS polling configurations tested.)	
Polling Support:		

Section Number	Description	Compliant
5.6	Test multi-instance support, if applicable. (Identify test environment. Document restrictions if static.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
5.7	Test multi-client support, if applicable. (Identify test environment. Document restrictions on number of clients.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
5.8	Test for correct interoperability with other MPLAB Harmony modules. (Identify combinations of modules tested.)	
Combinations Tested:		

Section Number	Description	Compliant
5.9	Test on all major PIC32 families. (Identify part families/numbers used in testing.)	
Devices Tested:		

Section Number	Description	Compliant
6	Clearly document all restrictions and discrepancies. (Identify all restrictions.)	
Exceptions/Restrictions:		

Section Number	Description	Compliant
7	Identify version of MPLAB Harmony required for compatibility.	
MPLAB Harmony Version (or greater):		