

ROCm Compatibility Tables

Compatible ROCm & Cray MPICH versions

Compatibility between Cray MPICH and ROCm is required in order to use a specific version of ROCm, and compatibility across multiple versions is not guaranteed. To determine compatibility, you can review the *Pro* displayed by running `module show cray-mpich/<version>`. If the notes in

Note

If you are loading compatible ROCm and Cray MPICH versions but still the default MPICH version is being used at run-time. If it is not, verify you are properly setting `LD_LIBRARY_PATH` and `LD_LIBRARY_PATH` modification.

The following compatibility table below was determined by testing of `cray-mpich` and ROCm modules on Frontier. Alongside `cray-mpich`, we load `cray-pmi` and `craype`. It is strongly encouraged to load a `cpe` module as well. An asterisk indicates the latest officially supported version.

cray-mpich	cpe	ROCm
8.1.23	22.12	5.4.3, 5.4.0, 5.3.0*
8.1.25	23.03	5.4.3, 5.4.0*, 5.3.0
8.1.26	23.05	5.7.1, 5.7.0, 5.6.0, 5.5.1*, 5.4.3, 5.4.0, 5.3.0

Compatible Compiler & ROCm toolchain versions

All compilers in the same HPE/Cray Programming Environment (CPE) code compiled by GCC). However, the AMD and CCE compilers are not supported when cross-compiling. CCE's module version indicates the recommended ROCm version for each CCE version, along with the

CCE	CPE	Recommended ROCm Version
15.0.0	22.12	5.3.0
15.0.1	23.03	5.3.0
16.0.0	23.05	5.5.1
16.0.1	23.09	5.5.1
17.0.0	23.12	5.7.0 or 5.7.1
17.0.1	24.03	6.0.0
18.0.0	24.07	6.1.3
18.0.1	24.11	6.2.4

- Looking to use a specific ROCm version? Look at the compatibility tables in the Frontier docs first!
- Note that when using a non-default CPE module paired with ROCm, make sure to prepend `CRAY_LD_LIBRARY_PATH` to your `LD_LIBRARY_PATH`:

```
module load PrgEnv-cray
module load cpe/26.03
module load rocm/7.0.2
```

```
# Since these modules are not default, make sure to prepend CRAY_LD_LIBRARY_PATH
export LD_LIBRARY_PATH=${CRAY_LD_LIBRARY_PATH}:${LD_LIBRARY_PATH}
```