

HIP/CUDA
source



Upstream LLVM/Clang

clang
Compiler Driver

clang-cc1
Host
compilation

clang-cc1
Device
compilation

clang-offload-
bundler

opt

SPIR-V
IR

LLVM-SPIR-V
translation

chipStar

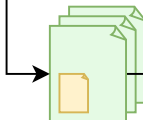
hipcc
HIP Compiler wrapper

Offline device builtin
library
LLVM IR

LLVM passes
via pass plugin

Khronos

llvm-spirv



Host linker



Host executable with
embedded SPIR-V IR
modules

