UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
ADVANCED MICRO DEVICES, INC.
Petitioner
V.
AQUILA INNOVATIONS INC.
Patent Owner
Case IPR2019-01525 Patent 6,239,614 B1

PATENT OWNER'S RESPONSE



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Arthrex, Inc. v. Smith & Nephew, Inc., 941 F.3d 1320 (Fed. Cir. 2019)
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Cias, Inc. v. All. Gaming Corp., 504 F.3d 1356 (Fed. Cir. 2007)
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Free Enter. Fund v. Pub. Co. Accounting Oversight Bd., 561 U.S. 477 (2010)
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