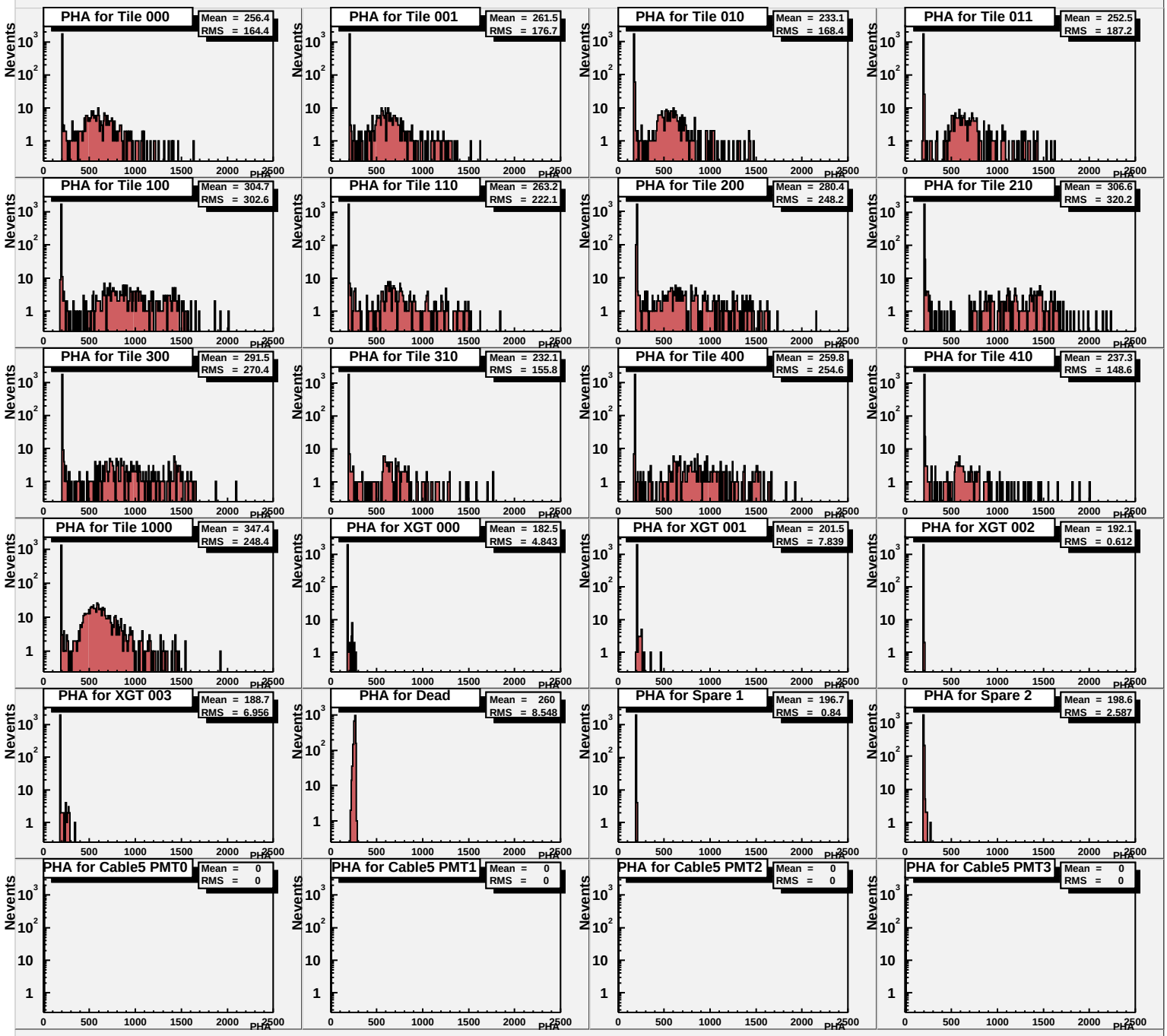BFEM ACD and XGT PHAs