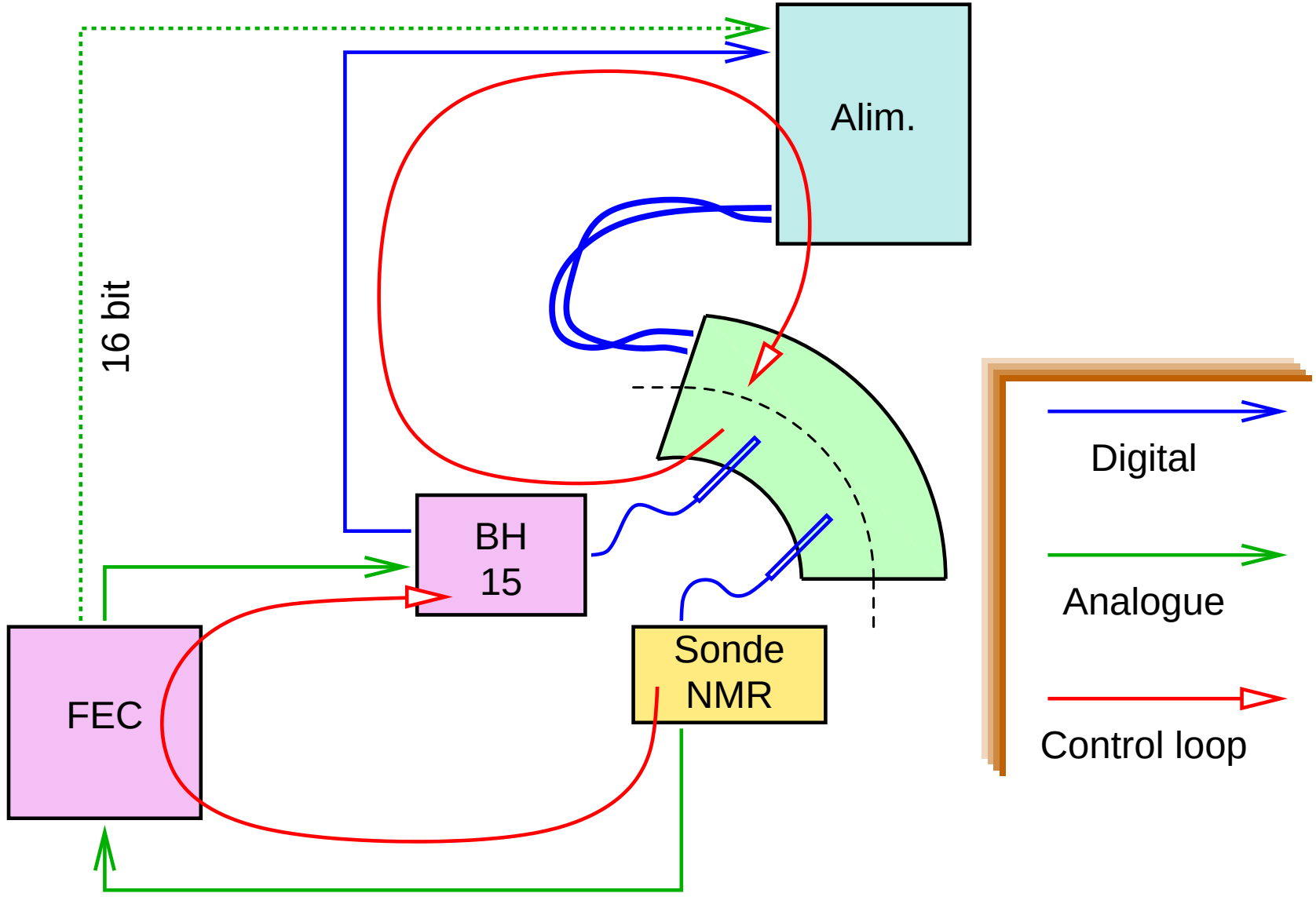HRS: OLD CONTROL LOOP