

Alice

Unsifted key: 0x E199
0b 1110000110011001

Basis choice: 0x 279D
0b 0010011110011101

Bob's basis choice: 0x E269
0b 1110001001101001

0b 0011101000001011
Matched basis: 0x 3A0B

Matched Key Bits:
0b ~~1~~~~1~~10~~0~~~~0~~~~1~~~~1~~~~1~~1~~0~~1

Sifted Key Bits:
0b ~~1~~~~1~~~~0~~~~0~~~~1~~1000101

Secure Key: 0x ~~3~~~~A~~45
7 bits

Public Channel

Step 1: Bob shares his basis choices

Basis choice: 0x E269

Step 2: Alice shares the matched basis

Basis choice: 0x 3A0B

Step 3: Establish secure key

Bob

Measurement result: 0x 644D
0b 0110010001001101

Basis choice: 0x E269
0b 1110001001101001

Matched basis: 0x 3A0B
0b 0011101000001011

Matched Key Bits:
0b ~~1~~~~1~~10~~0~~~~0~~~~1~~~~1~~~~1~~1~~0~~1

Sifted Key Bits:
0b ~~1~~~~1~~~~0~~~~0~~~~1~~1000101

Secure Key: 0x ~~3~~~~A~~45
7 bits