All possible pairing term of four
state in Fock representation

```
term: (0, 1, 'ANNIHILATION') mat_elmt: ( 0,  3), -1
term: (0, 1, 'ANNIHILATION') mat_elmt: ( 4,  7), -1
term: (0, 1, 'ANNIHILATION') mat_elmt: ( 8, 11), -1
term: (0, 1, 'ANNIHILATION') mat_elmt: (12, 15), -1
====================================================

term: (0, 2, 'ANNIHILATION') mat_elmt: ( 0,  5), -1
term: (0, 2, 'ANNIHILATION') mat_elmt: ( 2,  7),  1
term: (0, 2, 'ANNIHILATION') mat_elmt: ( 8, 13), -1
term: (0, 2, 'ANNIHILATION') mat_elmt: (10, 15),  1
====================================================

term: (0, 3, 'ANNIHILATION') mat_elmt: ( 0,  9), -1
term: (0, 3, 'ANNIHILATION') mat_elmt: ( 2, 11),  1
term: (0, 3, 'ANNIHILATION') mat_elmt: ( 4, 13),  1
term: (0, 3, 'ANNIHILATION') mat_elmt: ( 6, 15), -1
====================================================

term: (1, 0, 'ANNIHILATION') mat_elmt: ( 0,  3),  1
term: (1, 0, 'ANNIHILATION') mat_elmt: ( 4,  7),  1
term: (1, 0, 'ANNIHILATION') mat_elmt: ( 8, 11),  1
term: (1, 0, 'ANNIHILATION') mat_elmt: (12, 15),  1
====================================================

====================================================

term: (1, 2, 'ANNIHILATION') mat_elmt: ( 0,  6), -1
term: (1, 2, 'ANNIHILATION') mat_elmt: ( 1,  7), -1
term: (1, 2, 'ANNIHILATION') mat_elmt: ( 8, 14), -1
term: (1, 2, 'ANNIHILATION') mat_elmt: ( 9, 15), -1
====================================================

term: (1, 3, 'ANNIHILATION') mat_elmt: ( 0, 10), -1
term: (1, 3, 'ANNIHILATION') mat_elmt: ( 1, 11), -1
term: (1, 3, 'ANNIHILATION') mat_elmt: ( 4, 14),  1
term: (1, 3, 'ANNIHILATION') mat_elmt: ( 5, 15),  1
====================================================

term: (2, 0, 'ANNIHILATION') mat_elmt: ( 0,  5),  1
term: (2, 0, 'ANNIHILATION') mat_elmt: ( 2,  7), -1
term: (2, 0, 'ANNIHILATION') mat_elmt: ( 8, 13),  1
```

```
term: (2, 0, 'ANNIHILATION') mat_elmt: (10, 15), -1
=====================================================

term: (2, 1, 'ANNIHILATION') mat_elmt: ( 0,  6),  1
term: (2, 1, 'ANNIHILATION') mat_elmt: ( 1,  7),  1
term: (2, 1, 'ANNIHILATION') mat_elmt: ( 8, 14),  1
term: (2, 1, 'ANNIHILATION') mat_elmt: ( 9, 15),  1
=====================================================

=====================================================

term: (2, 3, 'ANNIHILATION') mat_elmt: ( 0, 12), -1
term: (2, 3, 'ANNIHILATION') mat_elmt: ( 1, 13), -1
term: (2, 3, 'ANNIHILATION') mat_elmt: ( 2, 14), -1
term: (2, 3, 'ANNIHILATION') mat_elmt: ( 3, 15), -1
=====================================================

term: (3, 0, 'ANNIHILATION') mat_elmt: ( 0,  9),  1
term: (3, 0, 'ANNIHILATION') mat_elmt: ( 2, 11), -1
term: (3, 0, 'ANNIHILATION') mat_elmt: ( 4, 13), -1
term: (3, 0, 'ANNIHILATION') mat_elmt: ( 6, 15),  1
=====================================================

term: (3, 1, 'ANNIHILATION') mat_elmt: ( 0, 10),  1
term: (3, 1, 'ANNIHILATION') mat_elmt: ( 1, 11),  1
term: (3, 1, 'ANNIHILATION') mat_elmt: ( 4, 14), -1
term: (3, 1, 'ANNIHILATION') mat_elmt: ( 5, 15), -1
=====================================================

term: (3, 2, 'ANNIHILATION') mat_elmt: ( 0, 12),  1
term: (3, 2, 'ANNIHILATION') mat_elmt: ( 1, 13),  1
term: (3, 2, 'ANNIHILATION') mat_elmt: ( 2, 14),  1
term: (3, 2, 'ANNIHILATION') mat_elmt: ( 3, 15),  1
```

```
  term: (0, 1, 'CREATION') mat_elmt: ( 3,  0),  1
  term: (0, 1, 'CREATION') mat_elmt: ( 7,  4),  1
  term: (0, 1, 'CREATION') mat_elmt: (11,  8),  1
  term: (0, 1, 'CREATION') mat_elmt: (15, 12),  1
  ================================================

  term: (0, 2, 'CREATION') mat_elmt: ( 5,  0),  1
  term: (0, 2, 'CREATION') mat_elmt: ( 7,  2), -1
  term: (0, 2, 'CREATION') mat_elmt: (13,  8),  1
```

```
term: (0, 2, 'CREATION') mat_elmt: (15, 10), -1
================================================

term: (0, 3, 'CREATION') mat_elmt: ( 9,  0),  1
term: (0, 3, 'CREATION') mat_elmt: (11,  2), -1
term: (0, 3, 'CREATION') mat_elmt: (13,  4), -1
term: (0, 3, 'CREATION') mat_elmt: (15,  6),  1
================================================

term: (1, 0, 'CREATION') mat_elmt: ( 3,  0), -1
term: (1, 0, 'CREATION') mat_elmt: ( 7,  4), -1
term: (1, 0, 'CREATION') mat_elmt: (11,  8), -1
term: (1, 0, 'CREATION') mat_elmt: (15, 12), -1
================================================

================================================

term: (1, 2, 'CREATION') mat_elmt: ( 6,  0),  1
term: (1, 2, 'CREATION') mat_elmt: ( 7,  1),  1
term: (1, 2, 'CREATION') mat_elmt: (14,  8),  1
term: (1, 2, 'CREATION') mat_elmt: (15,  9),  1
================================================

term: (1, 3, 'CREATION') mat_elmt: (10,  0),  1
term: (1, 3, 'CREATION') mat_elmt: (11,  1),  1
term: (1, 3, 'CREATION') mat_elmt: (14,  4), -1
term: (1, 3, 'CREATION') mat_elmt: (15,  5), -1
================================================

term: (2, 0, 'CREATION') mat_elmt: ( 5,  0), -1
term: (2, 0, 'CREATION') mat_elmt: ( 7,  2),  1
term: (2, 0, 'CREATION') mat_elmt: (13,  8), -1
term: (2, 0, 'CREATION') mat_elmt: (15, 10),  1
================================================

term: (2, 1, 'CREATION') mat_elmt: ( 6,  0), -1
term: (2, 1, 'CREATION') mat_elmt: ( 7,  1), -1
term: (2, 1, 'CREATION') mat_elmt: (14,  8), -1
term: (2, 1, 'CREATION') mat_elmt: (15,  9), -1
================================================

================================================

term: (2, 3, 'CREATION') mat_elmt: (12,  0),  1
```

```
term: (2, 3, 'CREATION') mat_elmt: (13,  1),  1
term: (2, 3, 'CREATION') mat_elmt: (14,  2),  1
term: (2, 3, 'CREATION') mat_elmt: (15,  3),  1
================================================

term: (3, 0, 'CREATION') mat_elmt: ( 9,  0), -1
term: (3, 0, 'CREATION') mat_elmt: (11,  2),  1
term: (3, 0, 'CREATION') mat_elmt: (13,  4),  1
term: (3, 0, 'CREATION') mat_elmt: (15,  6), -1
================================================

term: (3, 1, 'CREATION') mat_elmt: (10,  0), -1
term: (3, 1, 'CREATION') mat_elmt: (11,  1), -1
term: (3, 1, 'CREATION') mat_elmt: (14,  4),  1
term: (3, 1, 'CREATION') mat_elmt: (15,  5),  1
================================================

term: (3, 2, 'CREATION') mat_elmt: (12,  0), -1
term: (3, 2, 'CREATION') mat_elmt: (13,  1), -1
term: (3, 2, 'CREATION') mat_elmt: (14,  2), -1
term: (3, 2, 'CREATION') mat_elmt: (15,  3), -1
================================================
```