

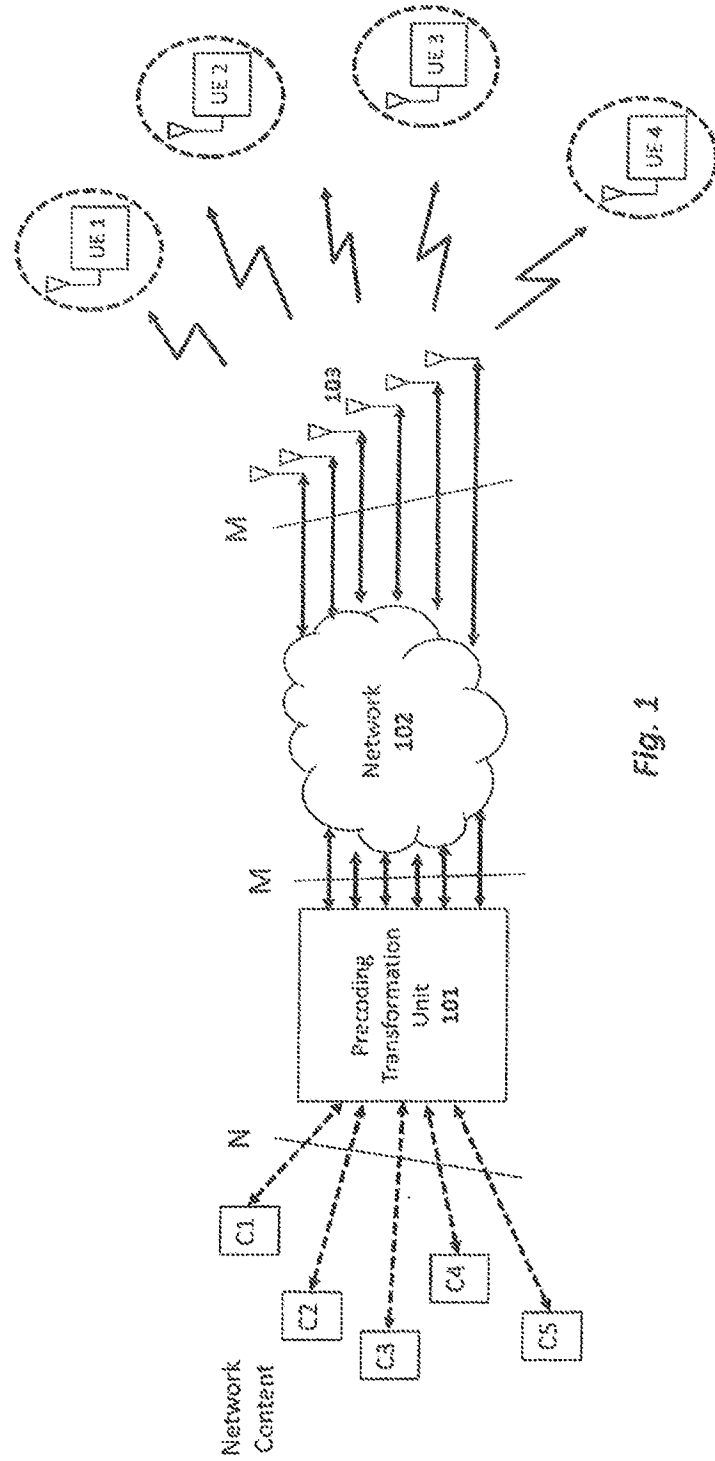
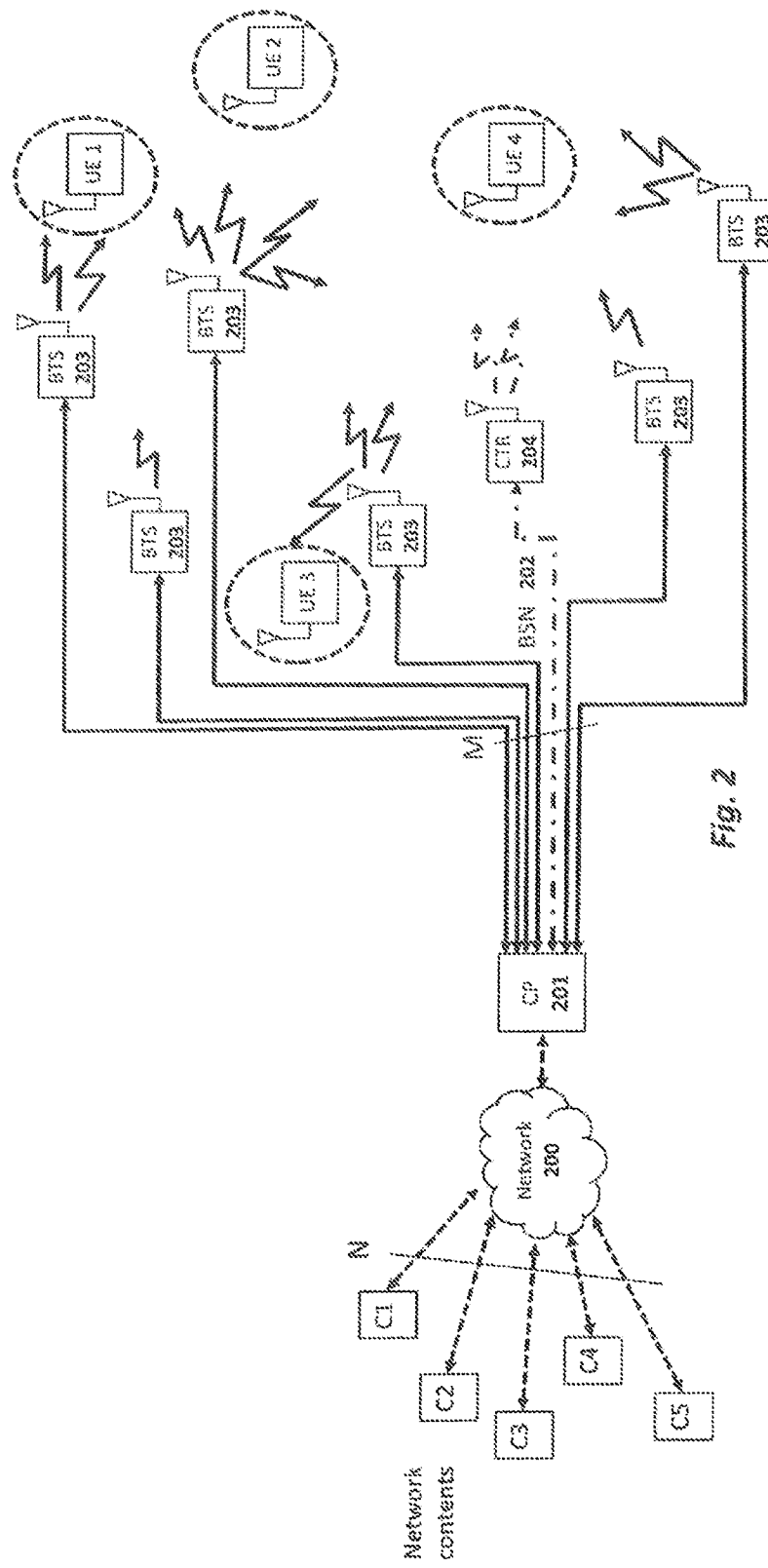


Fig. 1



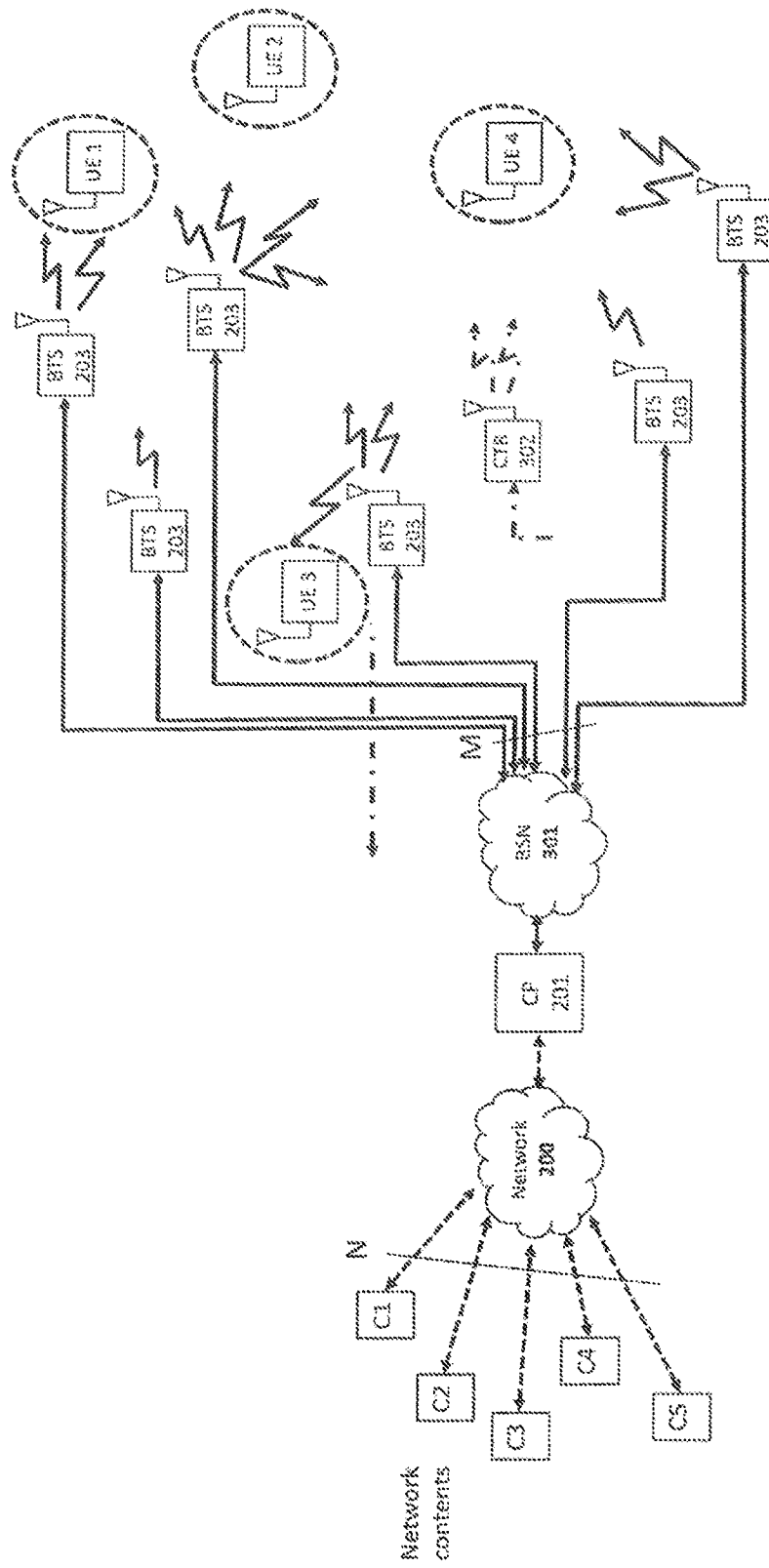
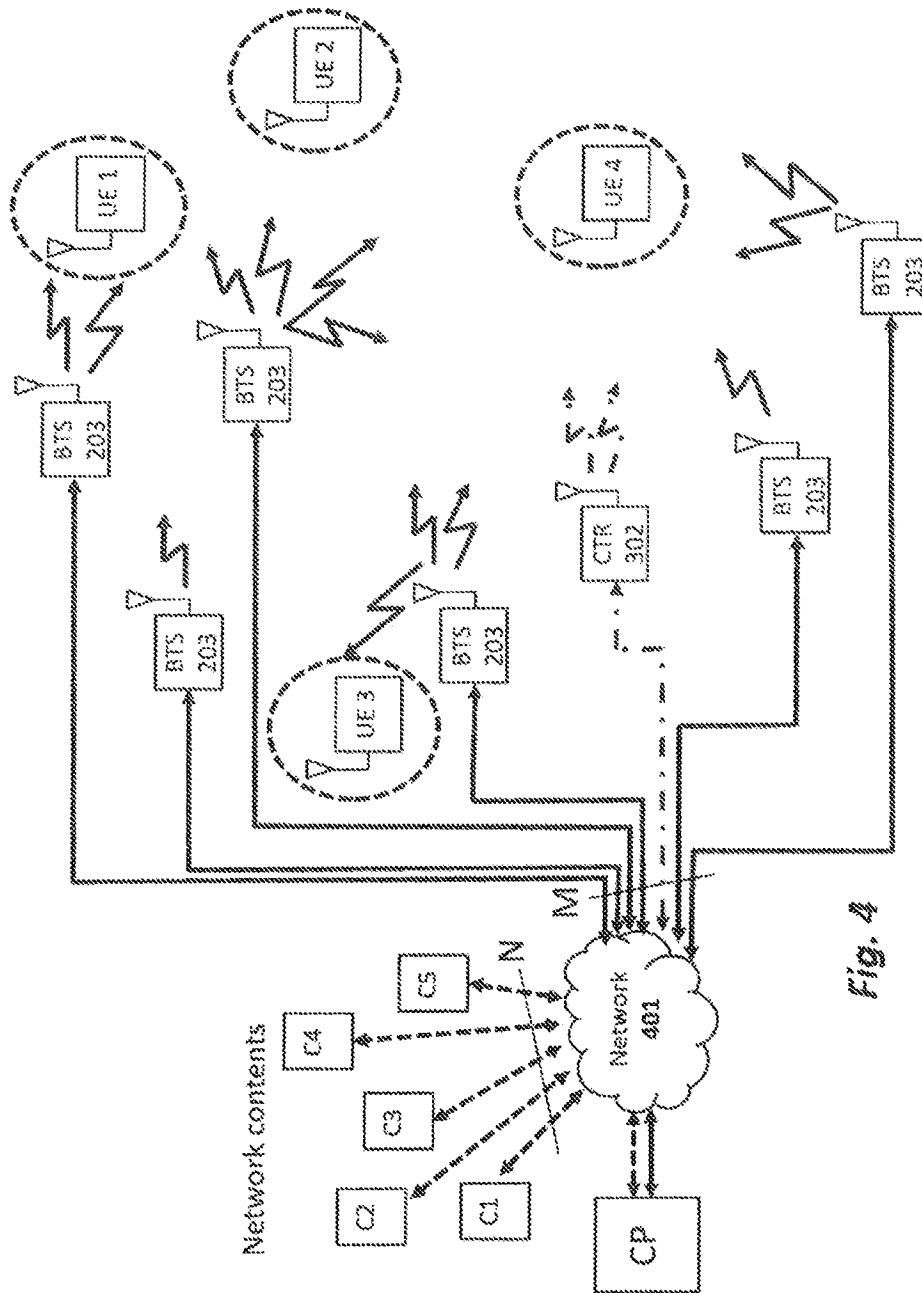


Fig. 3



- **i.i.d. channel model (low TX-spatial correlation, low power imbalance)**

$$\rho_c = 0.00001, \rho_a = 1$$

```

1.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
0.0000 1.0000 0.0000 0.0000 0.0000 0.0000 0.0000
0.0000 0.0000 1.0000 0.0000 0.0000 0.0000 0.0000
0.0000 0.0000 0.0000 1.0000 0.0000 0.0000 0.0000
0.0000 0.0000 0.0000 0.0000 1.0000 0.0000 0.0000
0.0000 0.0000 0.0000 0.0000 0.0000 1.0000 0.0000
0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 1.0000

```

- **High cross-correlation (high TX-spatial correlation, low power imbalance)**

$$\rho_c = 0.8, \rho_a = 1$$

```

1.0000 0.8000 0.6400 0.5120 0.4096 0.3277 0.2684
0.8000 1.0000 0.8000 0.6400 0.5120 0.4096 0.3277
0.6400 0.8000 1.0000 0.8000 0.6400 0.5120 0.4096
0.5120 0.6400 0.8000 1.0000 0.8000 0.6400 0.5120
0.4096 0.5120 0.6400 0.8000 1.0000 0.8000 0.6400
0.3277 0.4096 0.5120 0.6400 0.8000 1.0000 0.8000
0.2684 0.3277 0.4096 0.5120 0.6400 0.8000 1.0000

```

- **High auto-correlation (low TX-spatial correlation, high power imbalance)**

$$\rho_c = 0.00001, \rho_a = 5.9$$

```

5.9000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
0.0000 5.9000 0.0333 0.0000 0.0000 0.0000 0.0000
0.0000 0.0333 0.0000 0.0267 0.0000 0.0000 0.0000
0.0000 0.0000 0.0000 0.0000 0.0200 0.0000 0.0000
0.0000 0.0000 0.0000 0.0000 0.0000 0.0133 0.0000
0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0067

```

Fig. 5

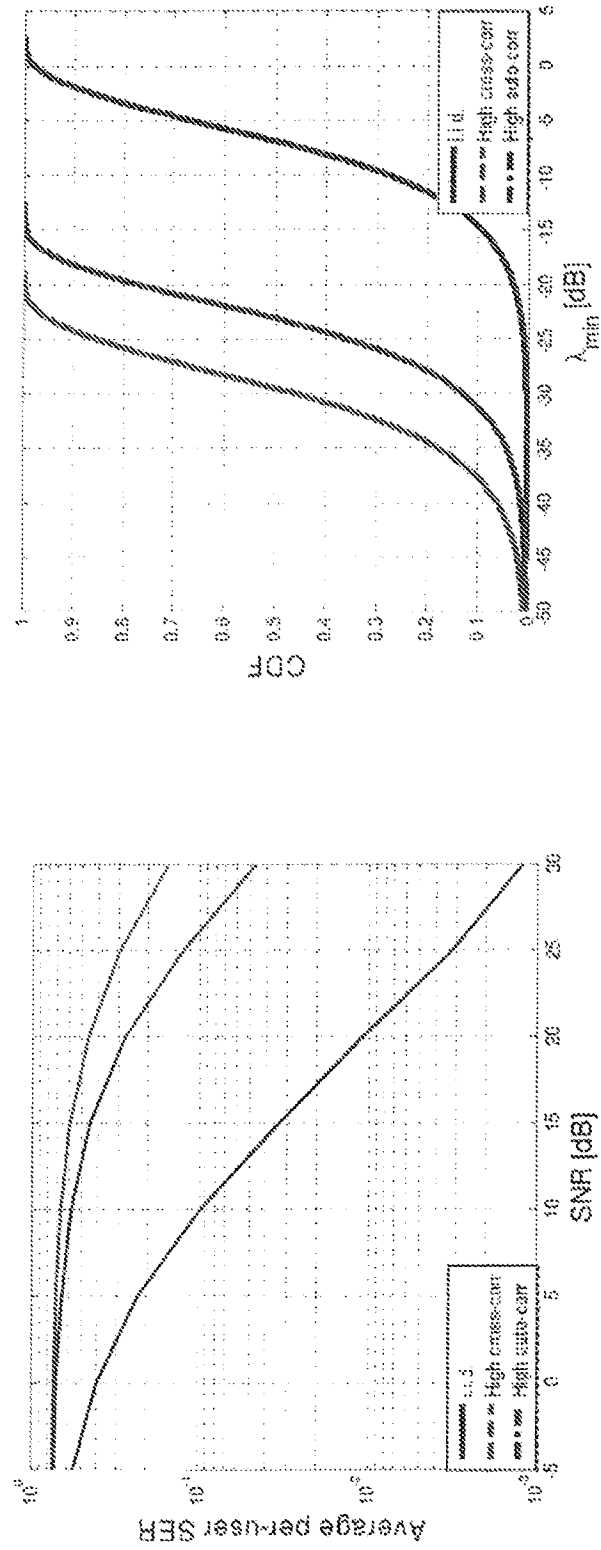


Fig. 6



Fig. 7

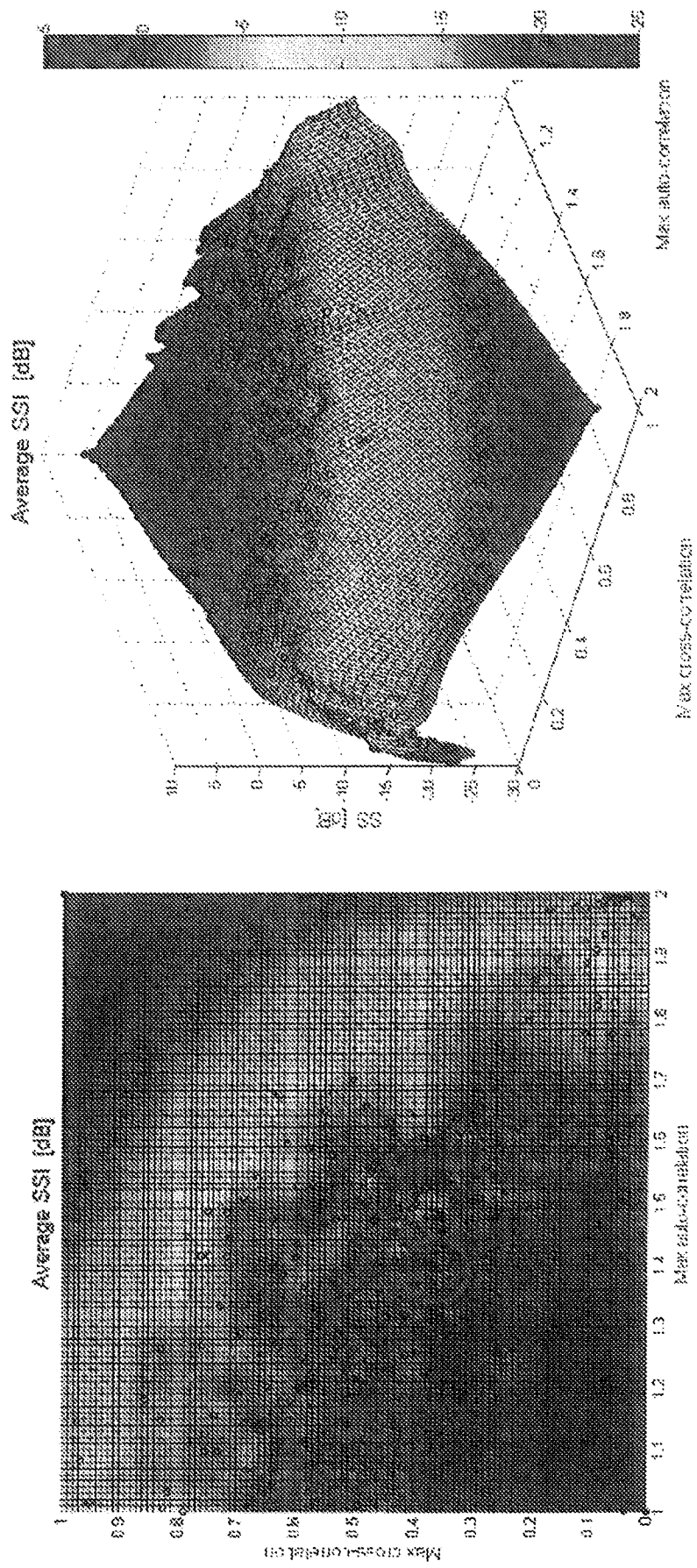


Fig. 8

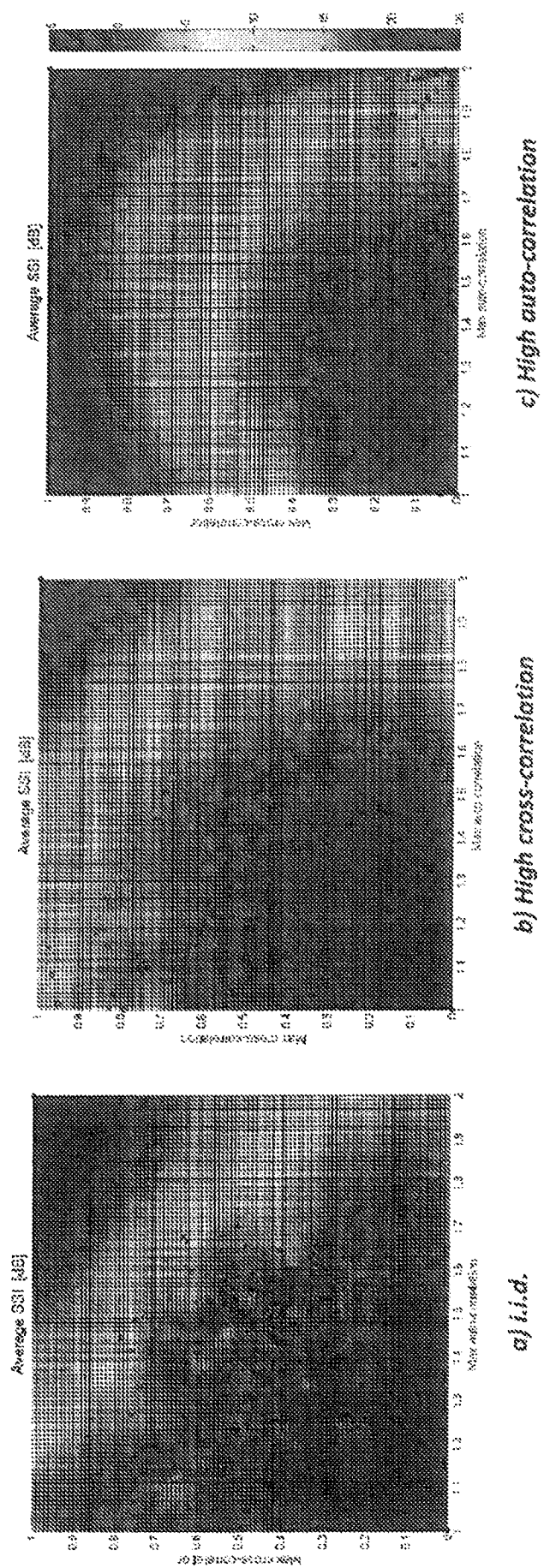


Fig. 9

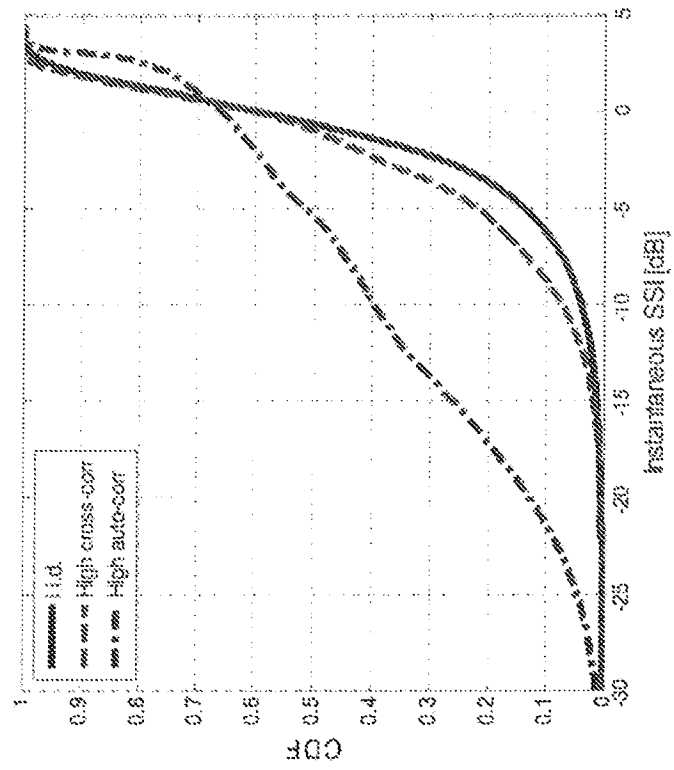


Fig. 10

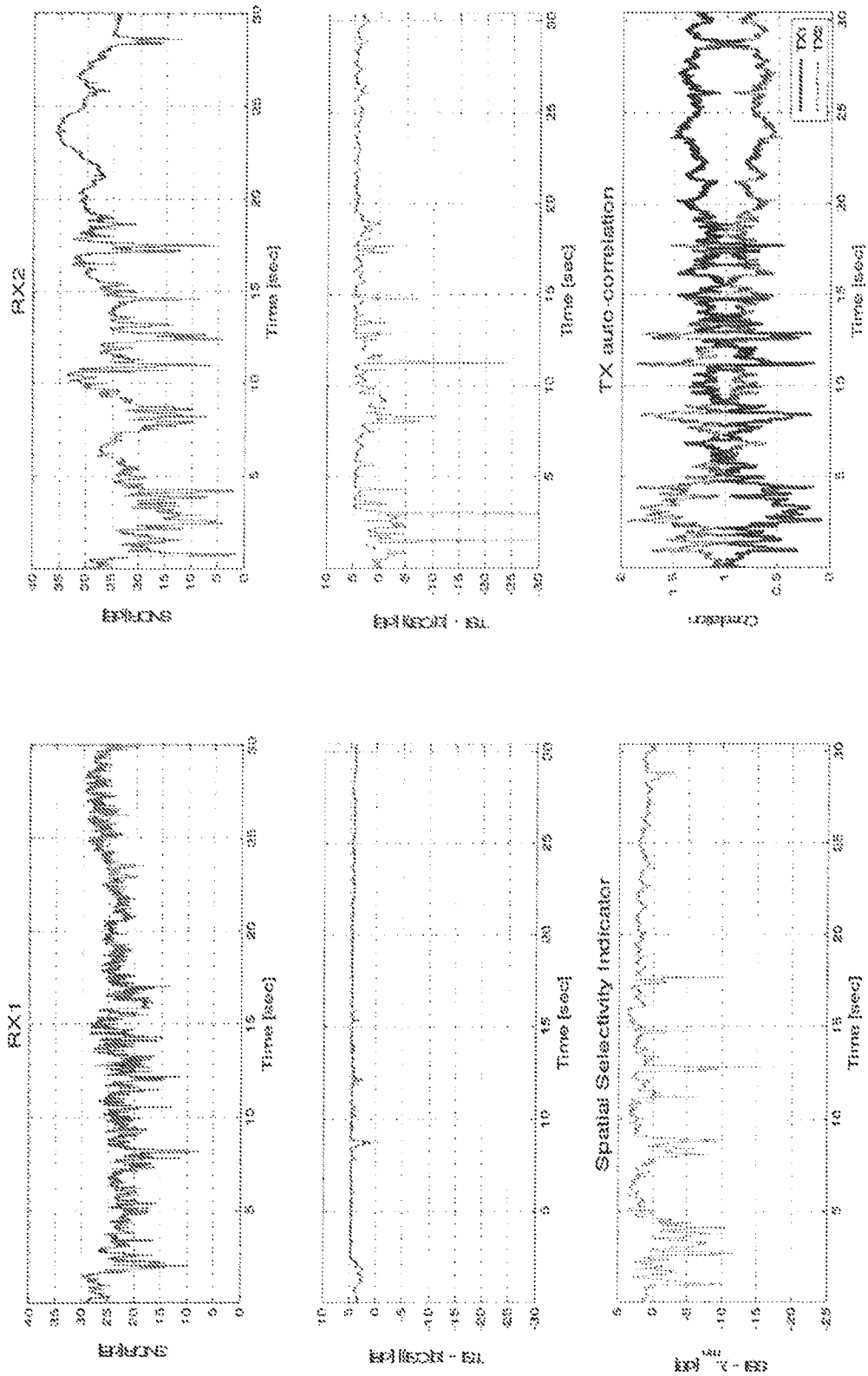


Fig. 11

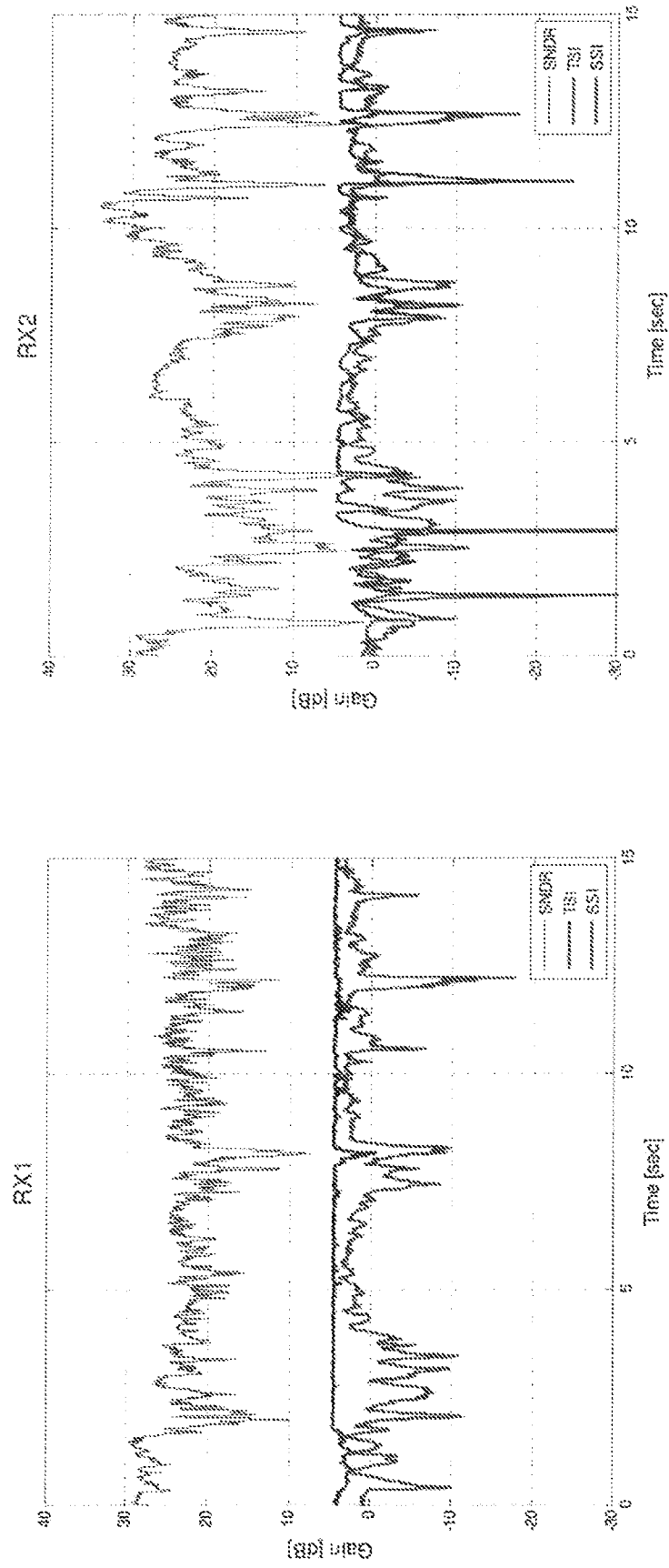


Fig. 12

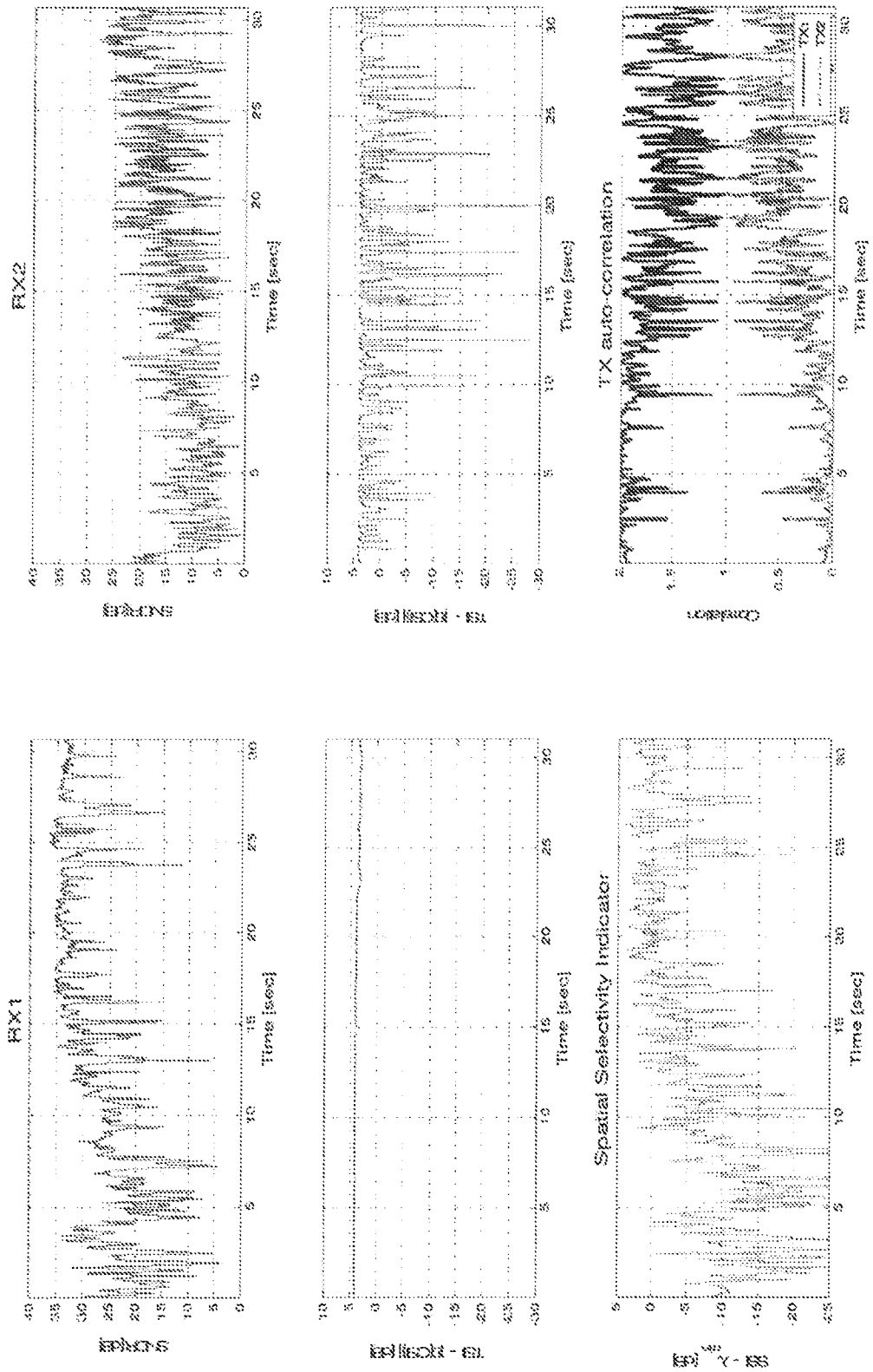


Fig. 13

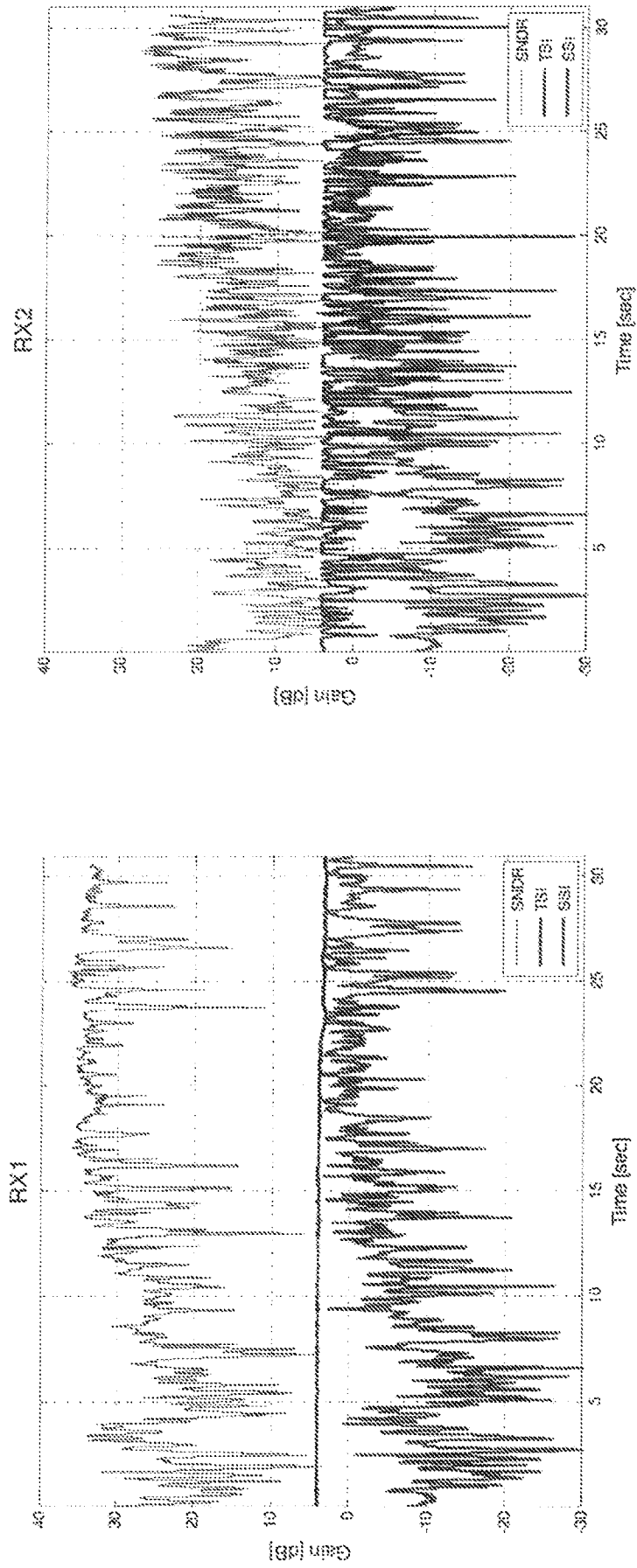


Fig. 14

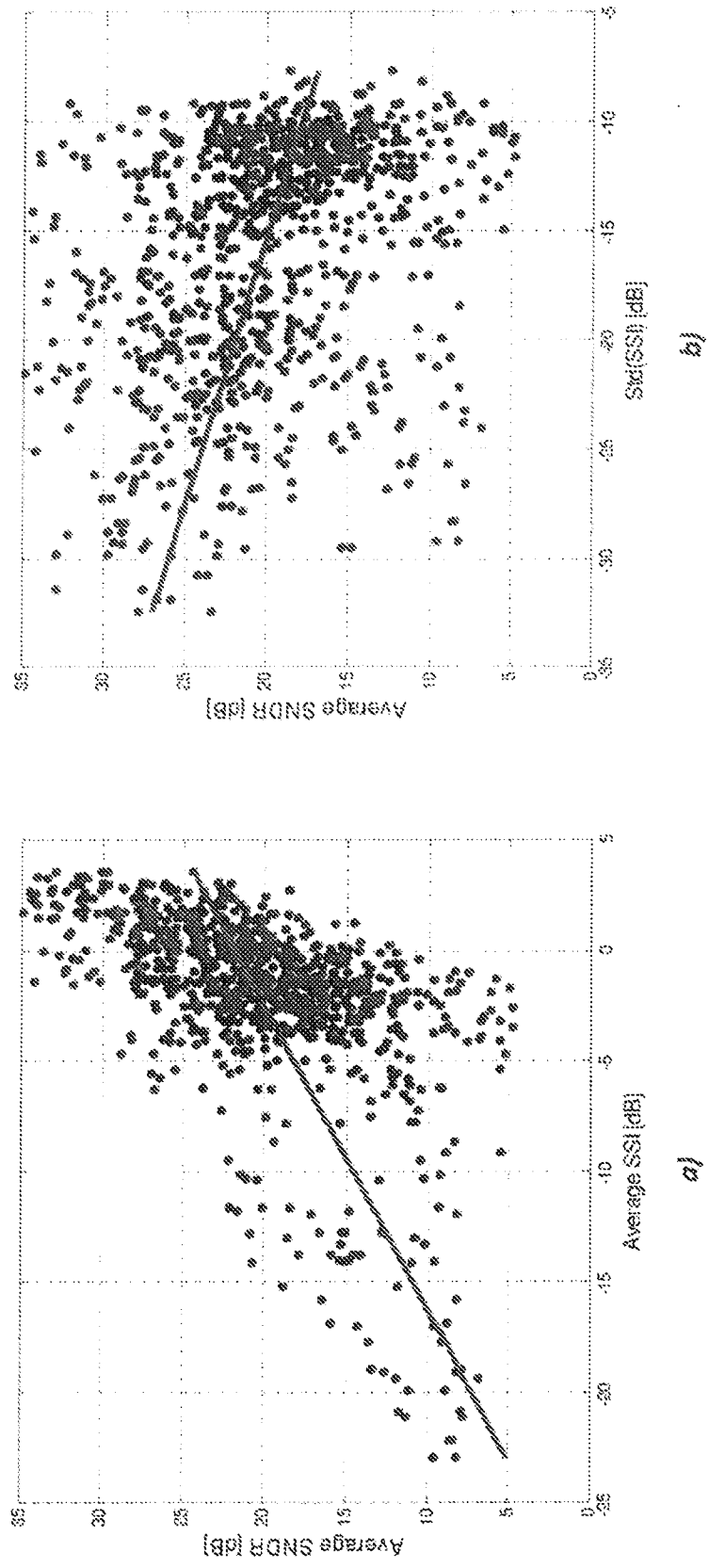


Fig. 15

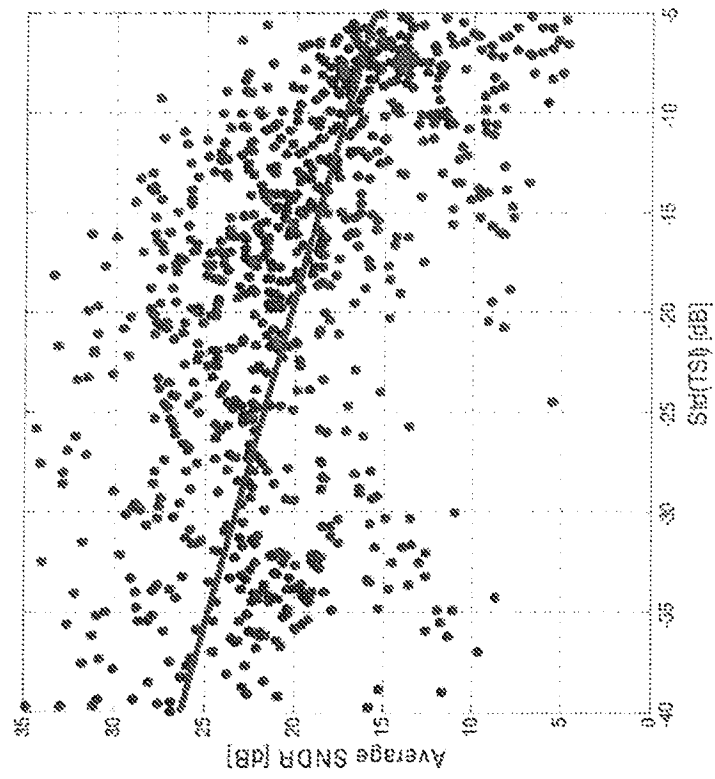


Fig. 16

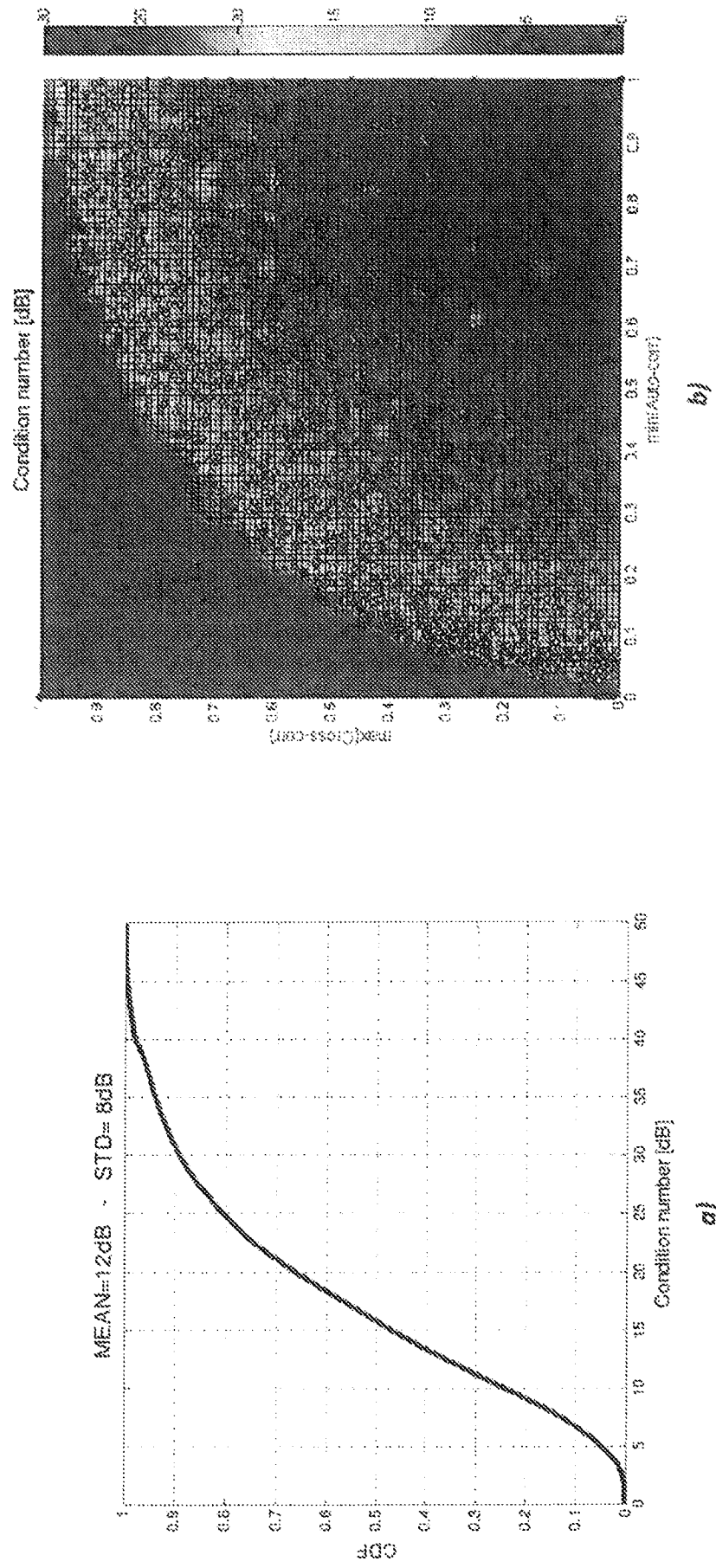
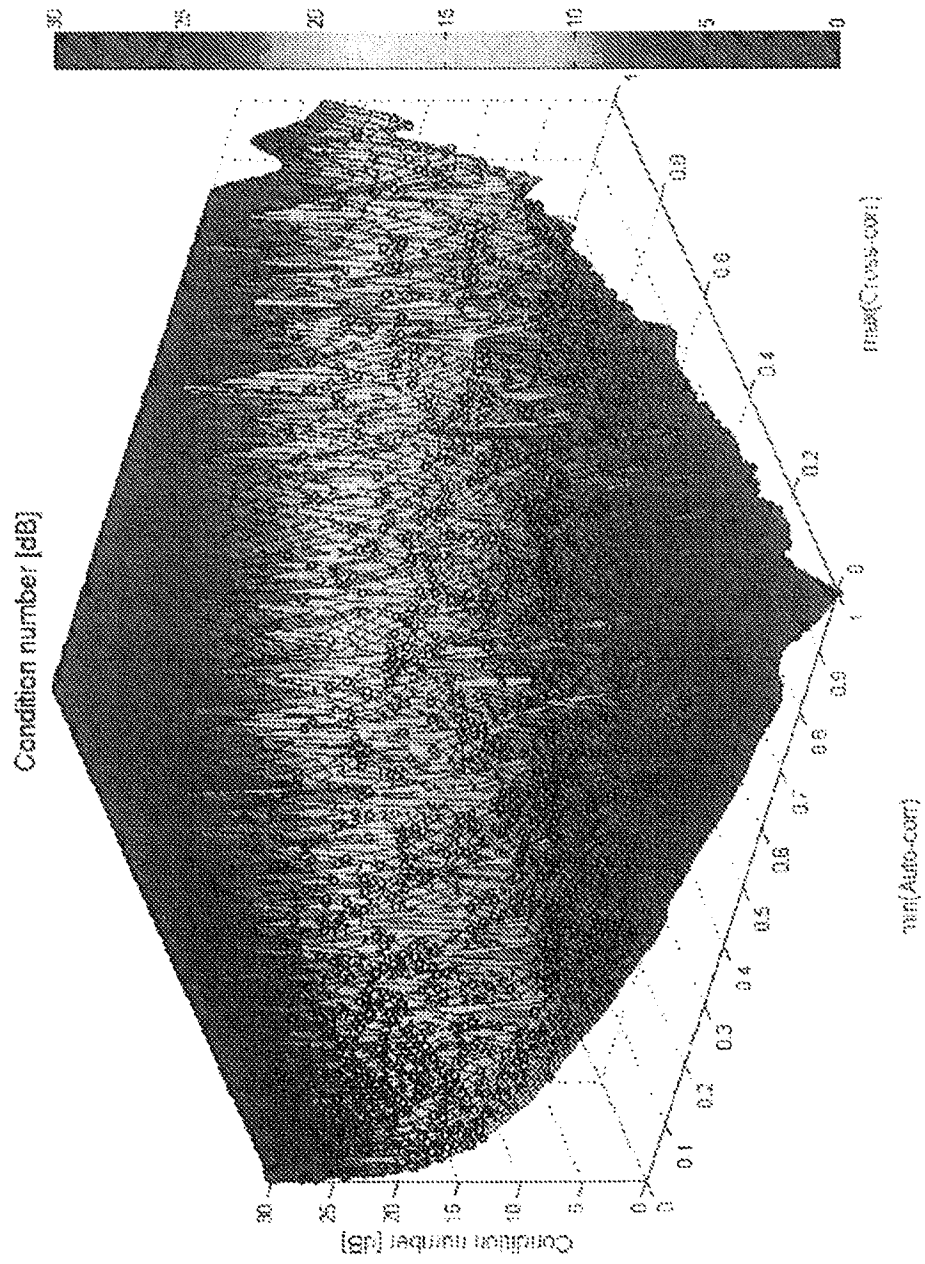


Fig. 17

**Fig. 18**

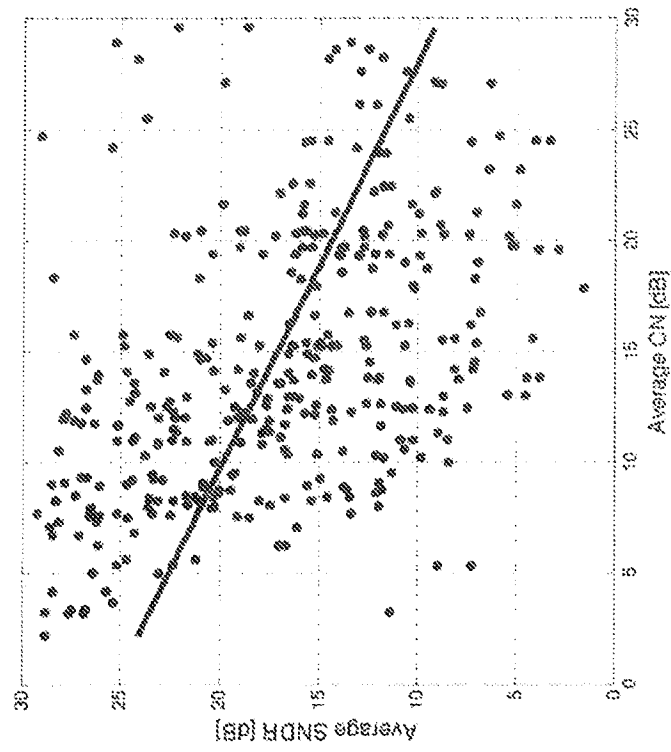


Fig. 19

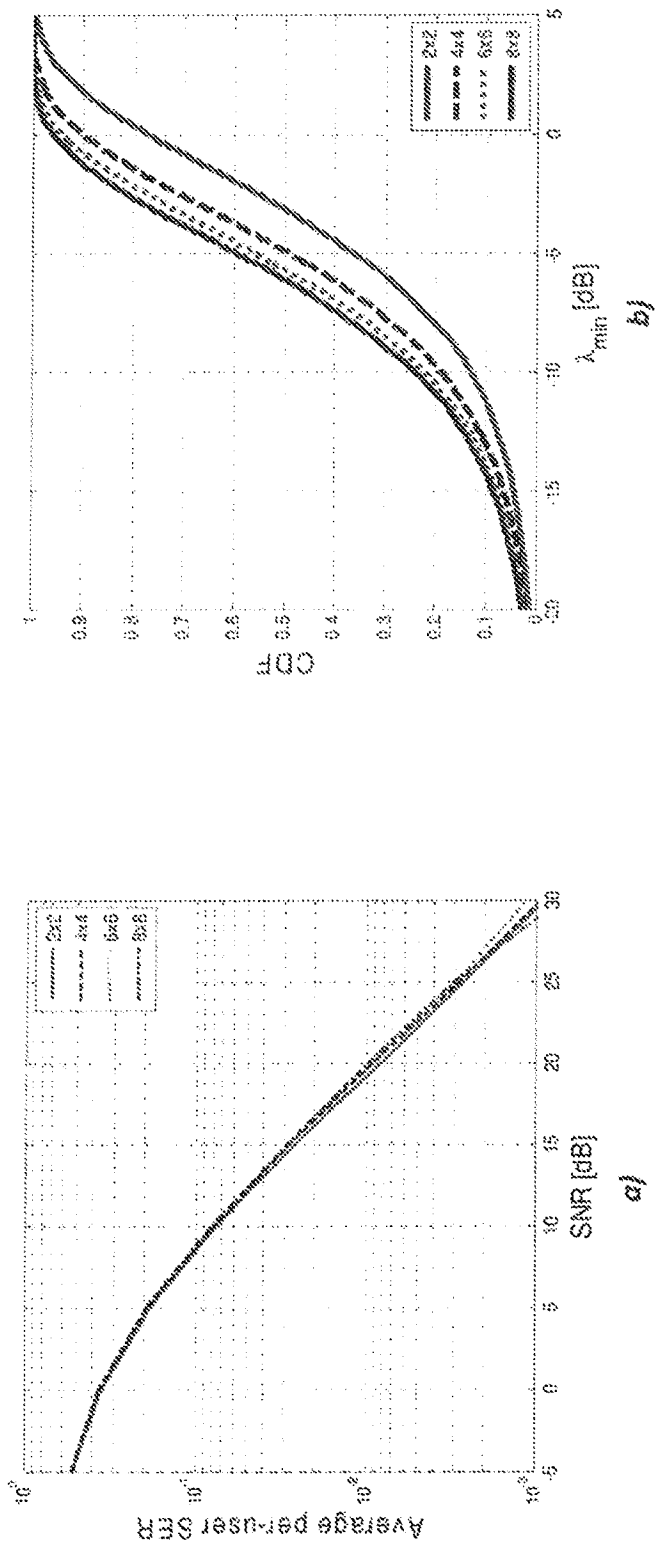


Fig. 20

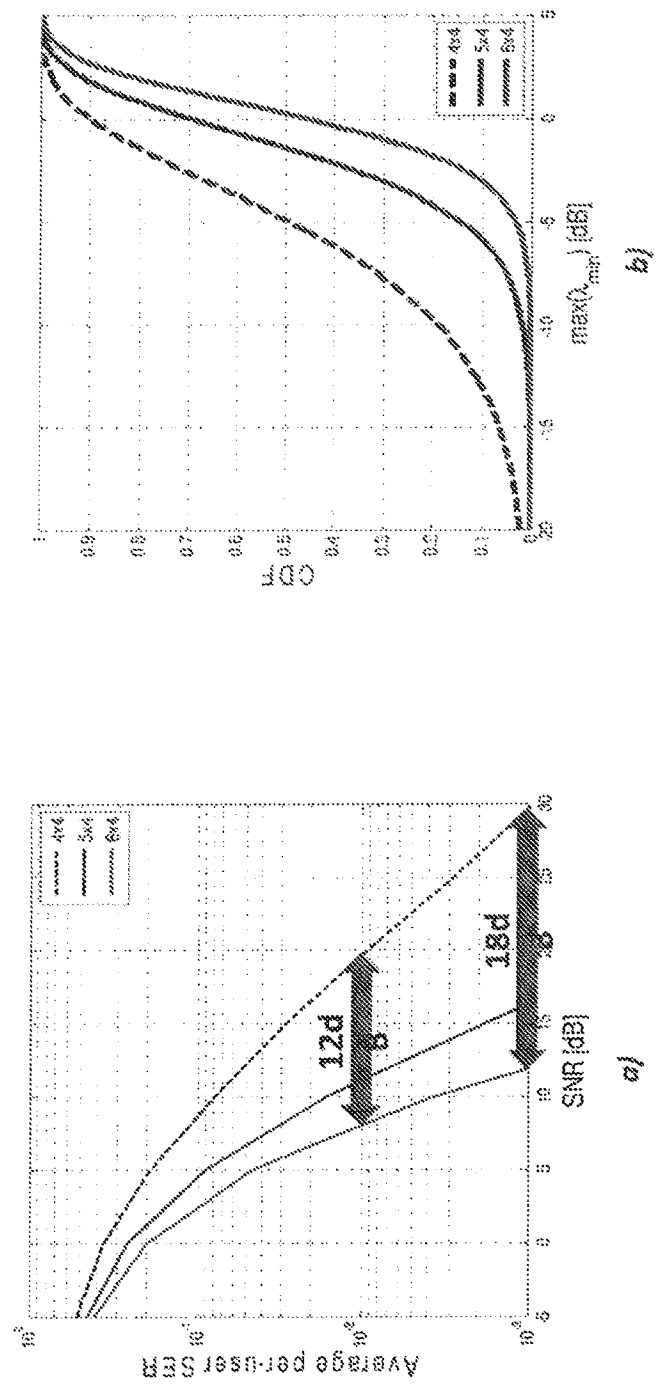
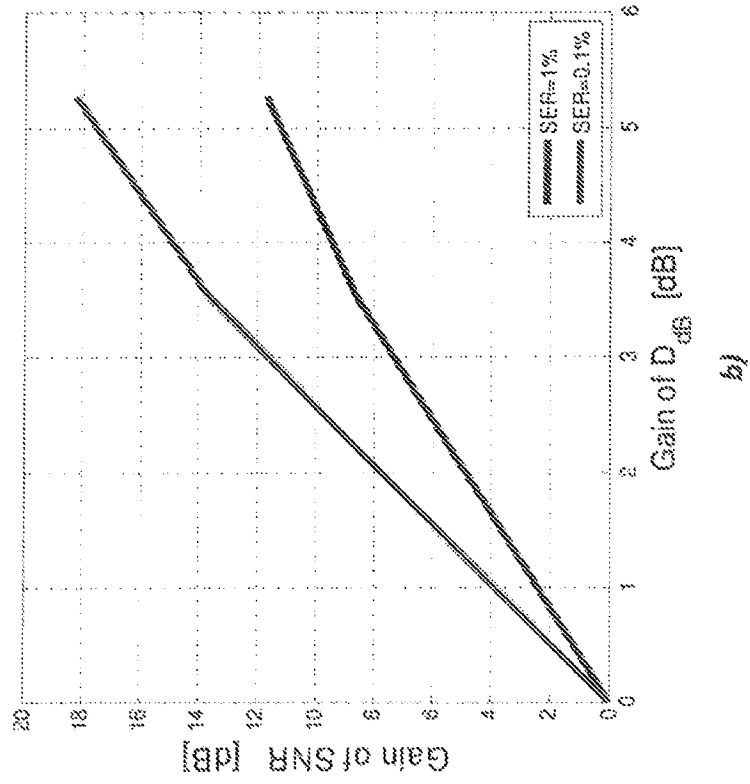


Fig. 21

DIDO order	4x4	5x4	6x4
D_{dB}	-5	-15	0.3
SNR [dB] (SER=1%)	19.7	11.1	8.0
SNR [dB] (SER=0.1%)	30	16.3	11.8

a)



b)

Fig. 22

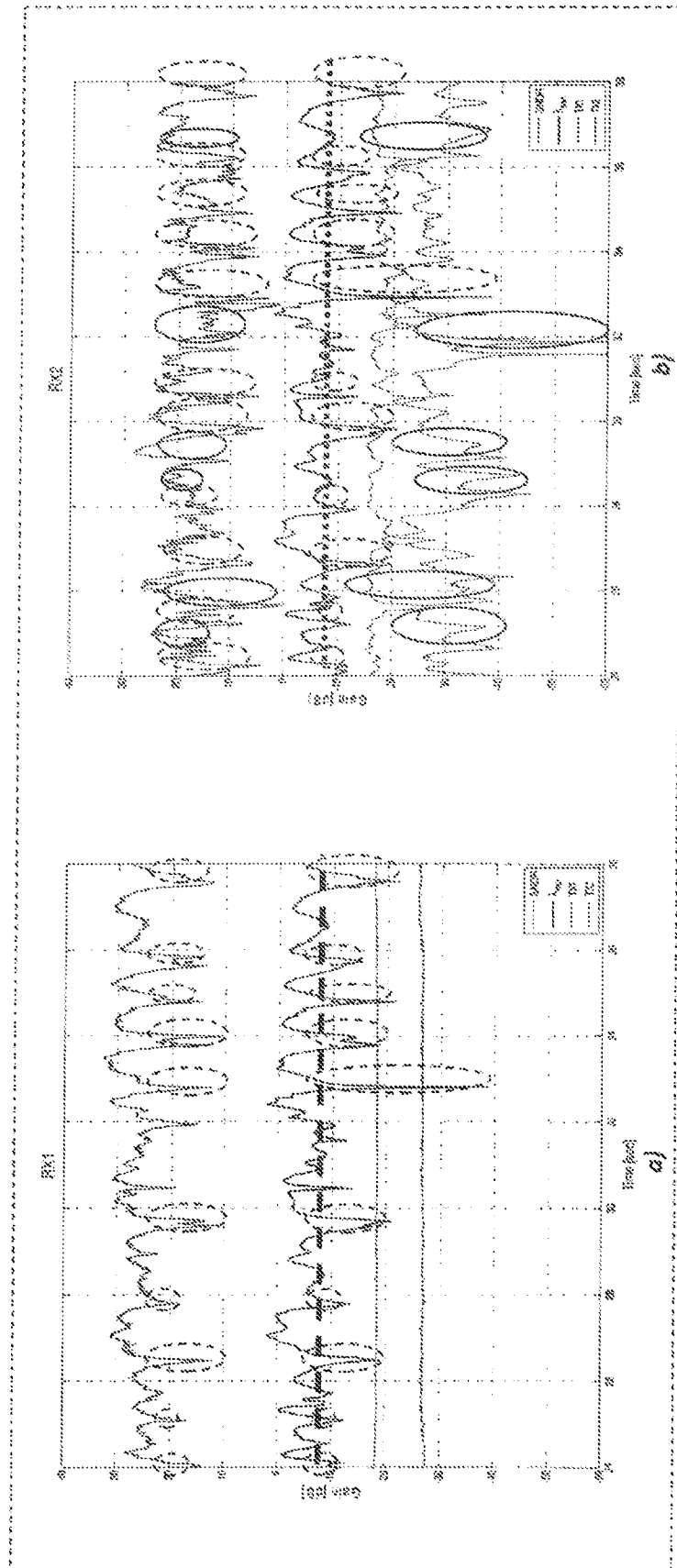


Fig. 23

- 2x UEs case with different numbers of antenna sets

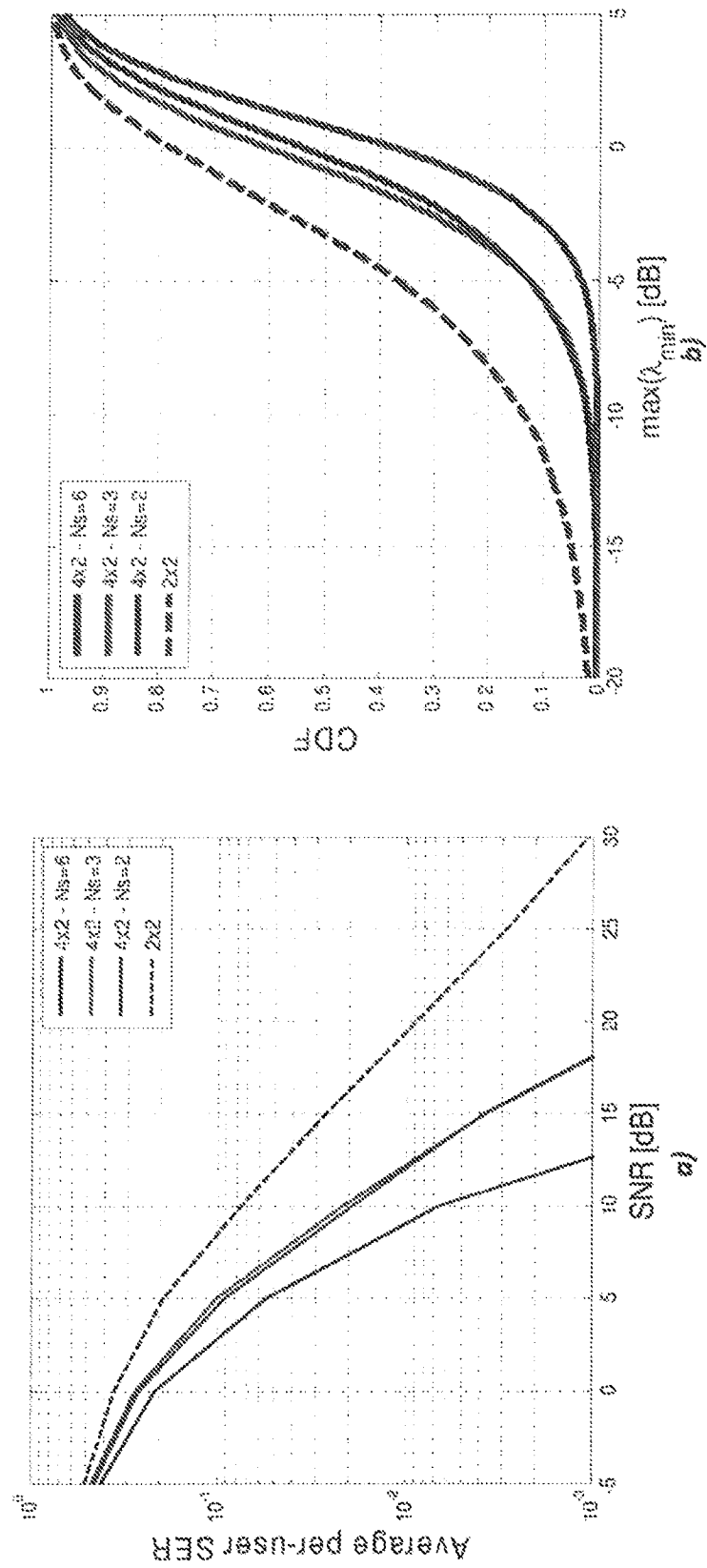


Fig. 25

- 4x UEs case with different numbers of antenna sets

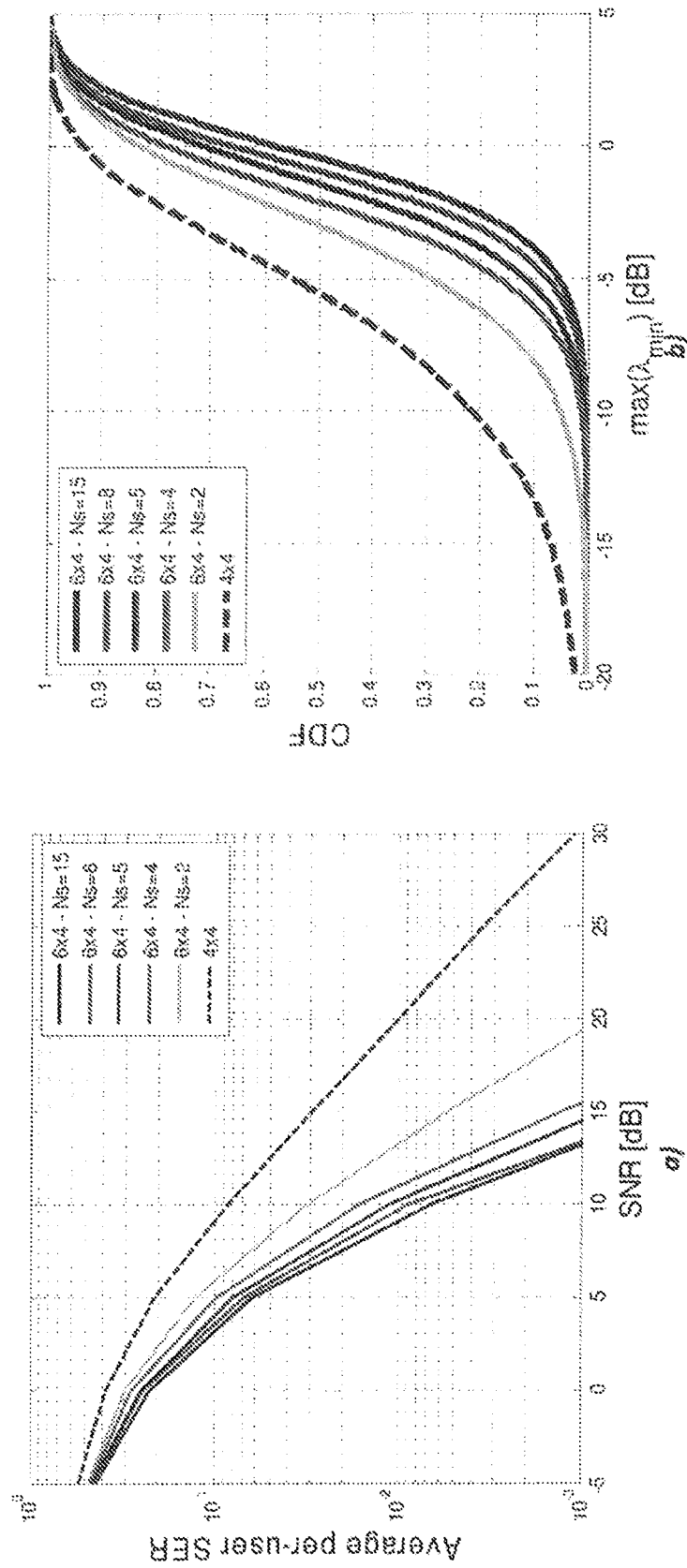


Fig. 26

- 6x UEs case with different numbers of antenna sets

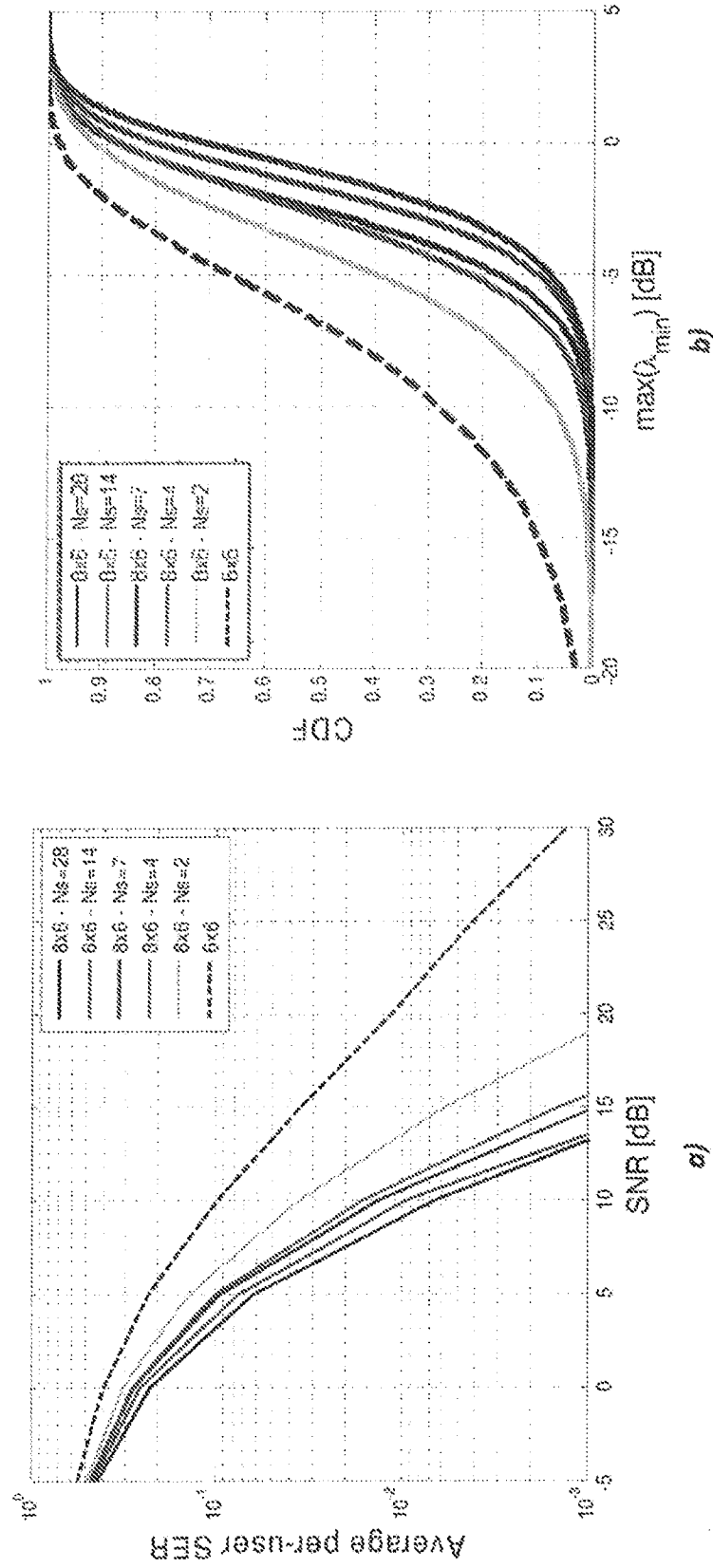


Fig. 27

- 8x UEs case with different numbers of antenna sets

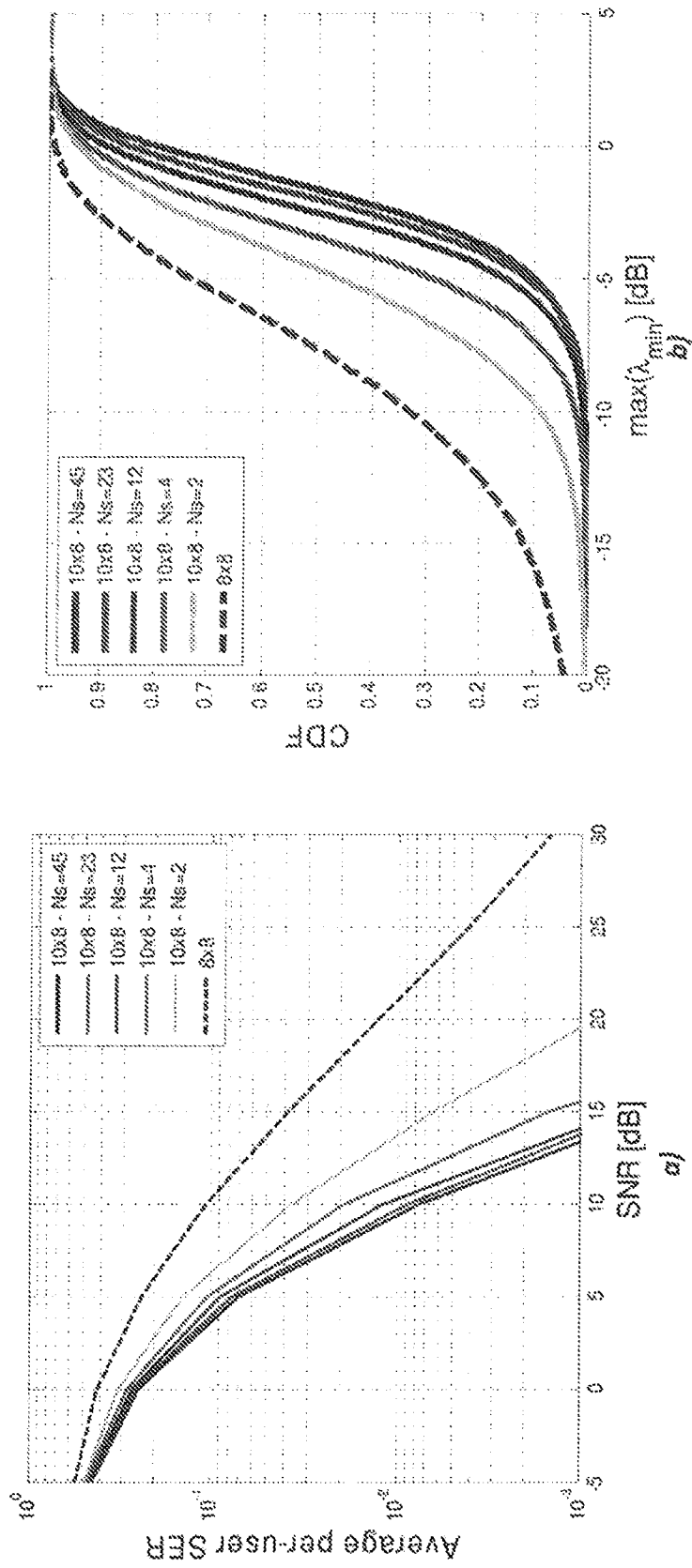


Fig. 28

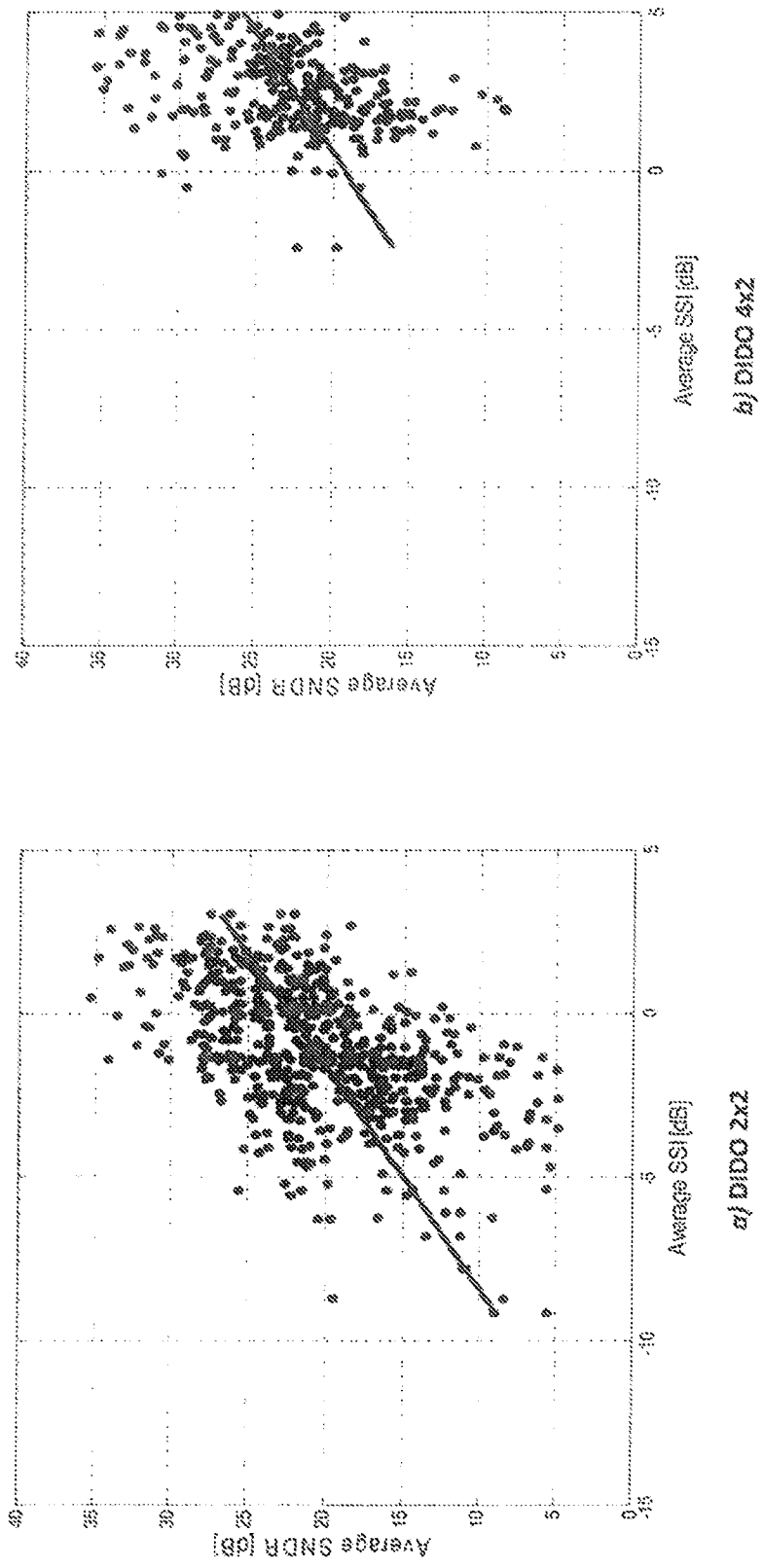
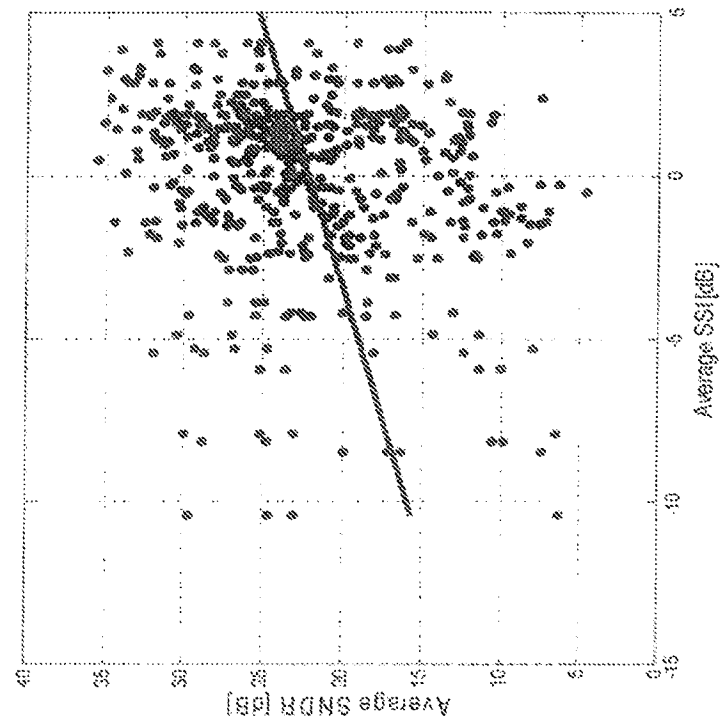
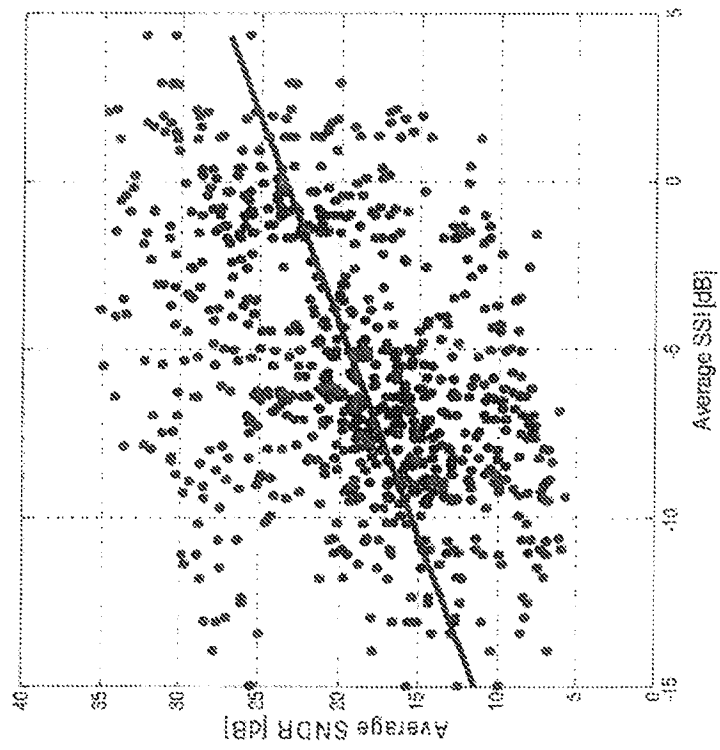


Fig. 29



b) DDO 6x4



c) DDO 4x4

Fig. 30

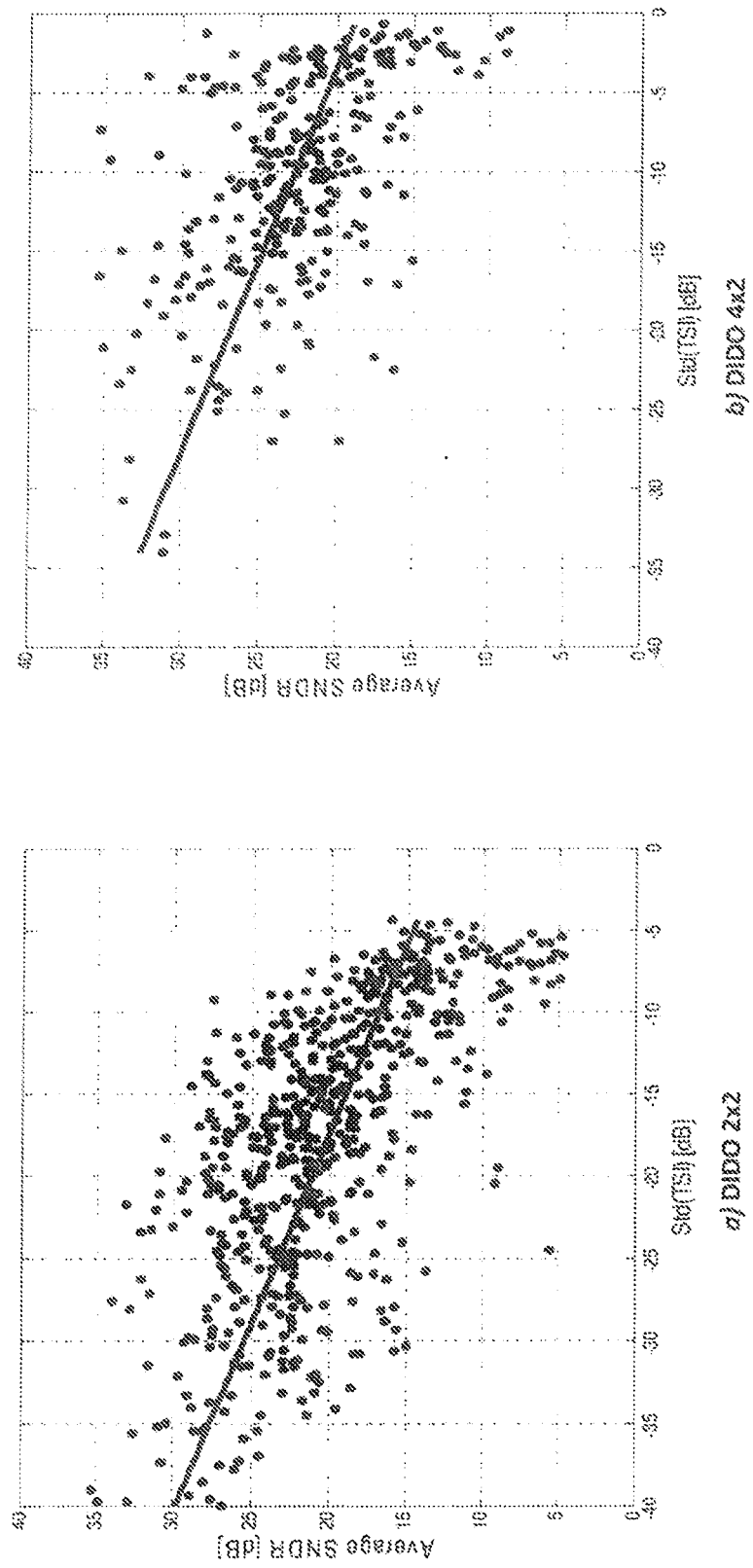


Fig. 31

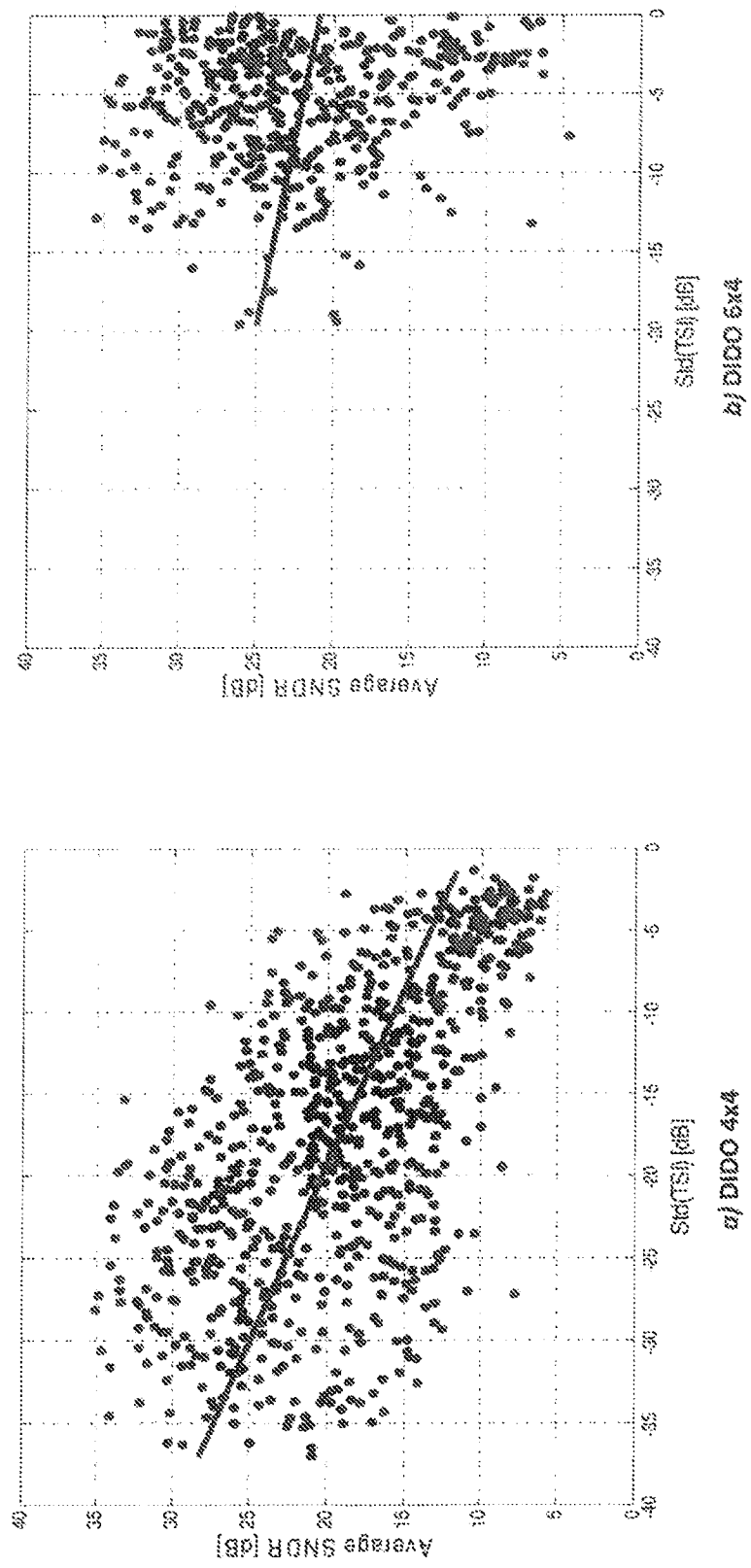


Fig. 32

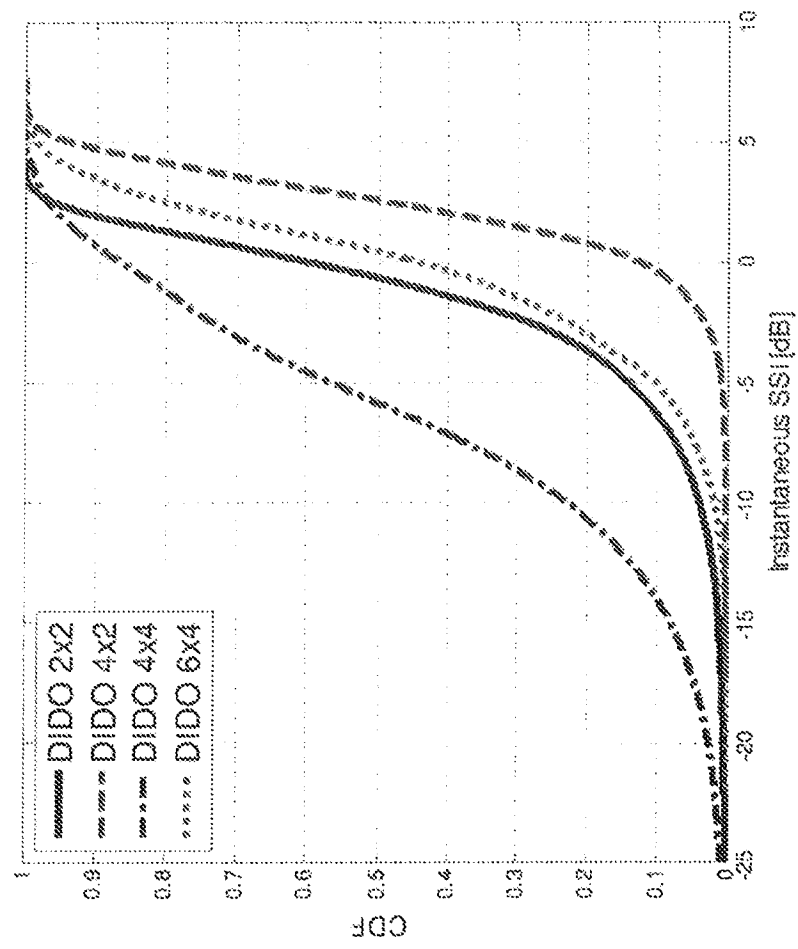


Fig. 33

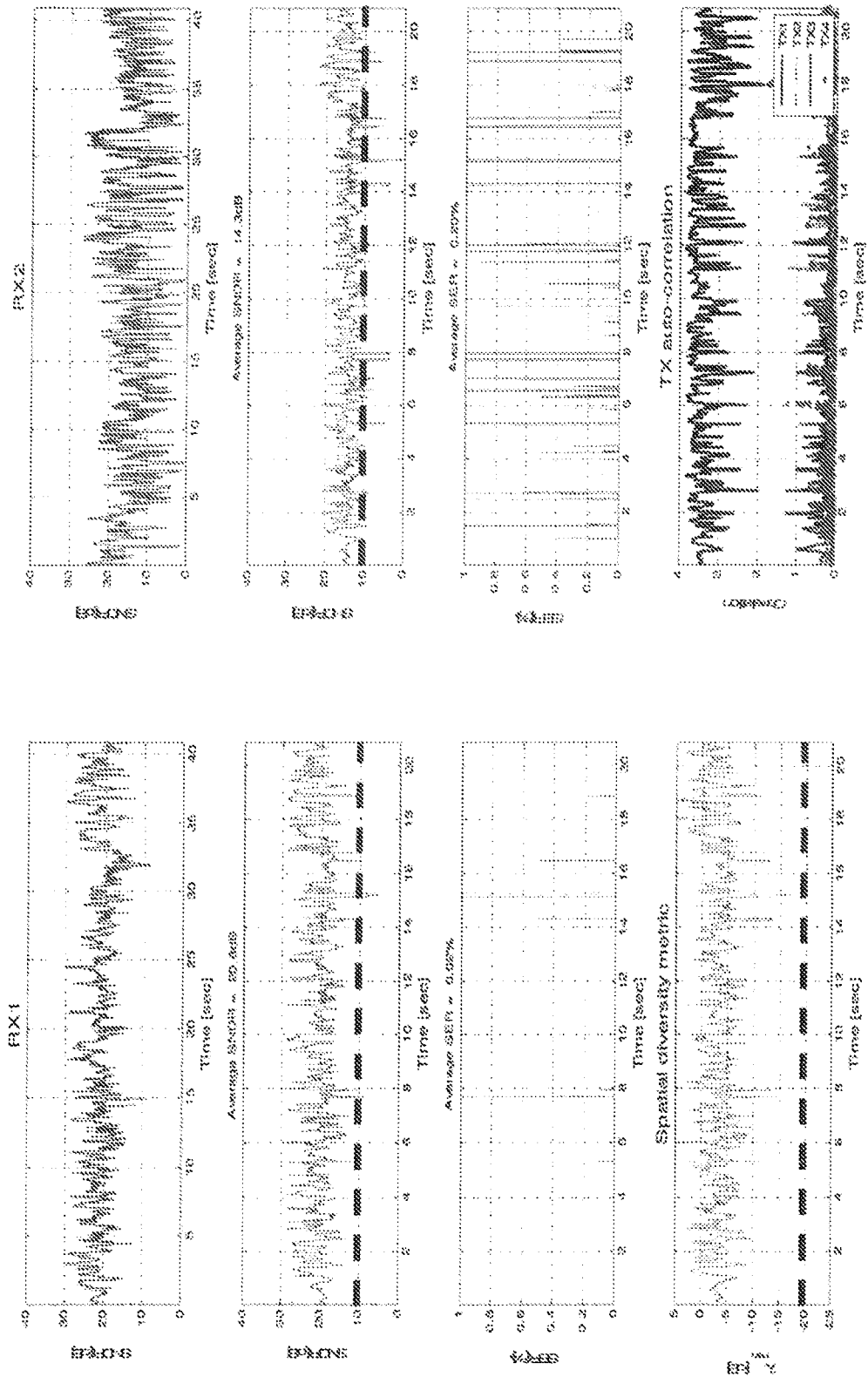


Fig. 34

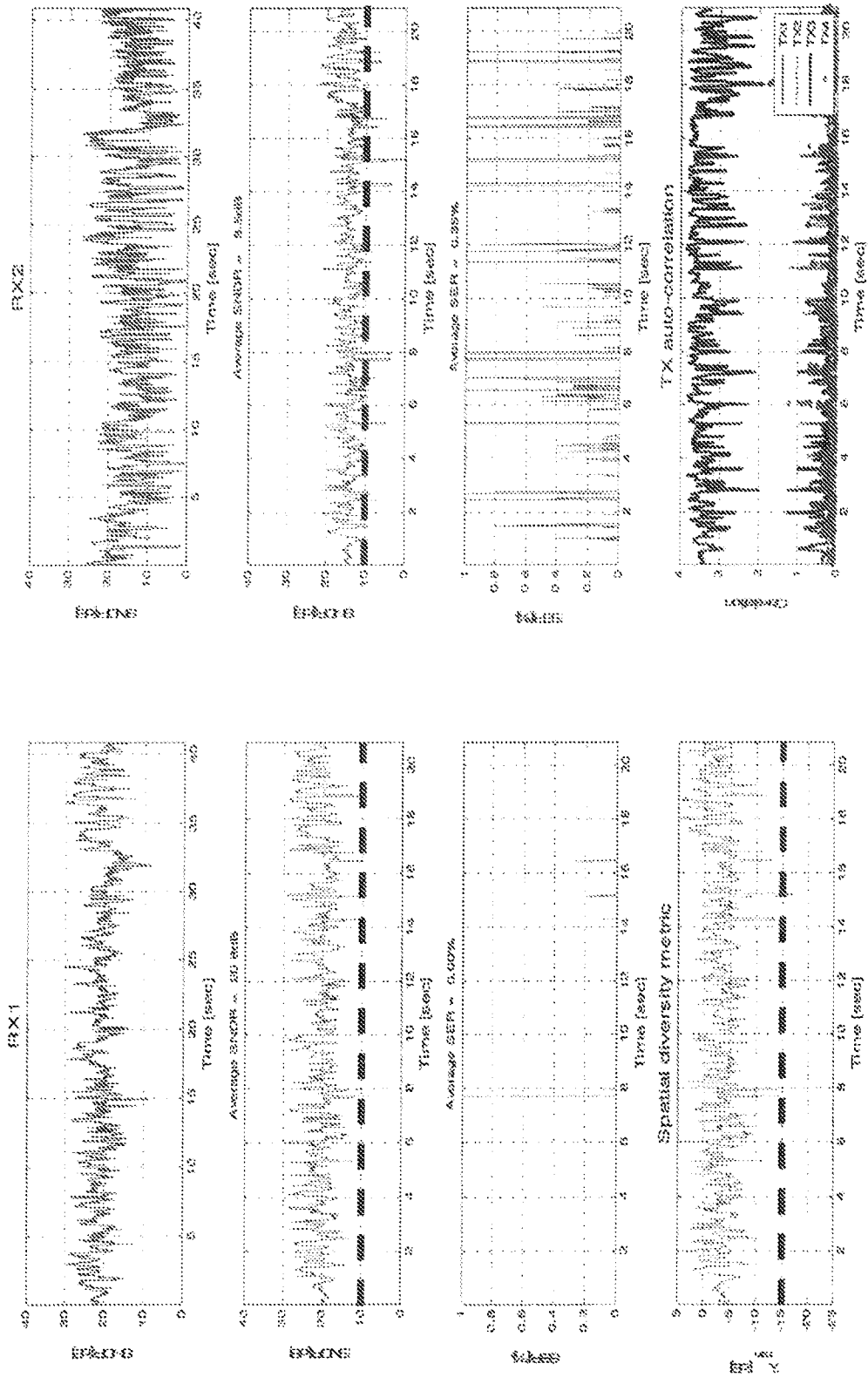


Fig. 35

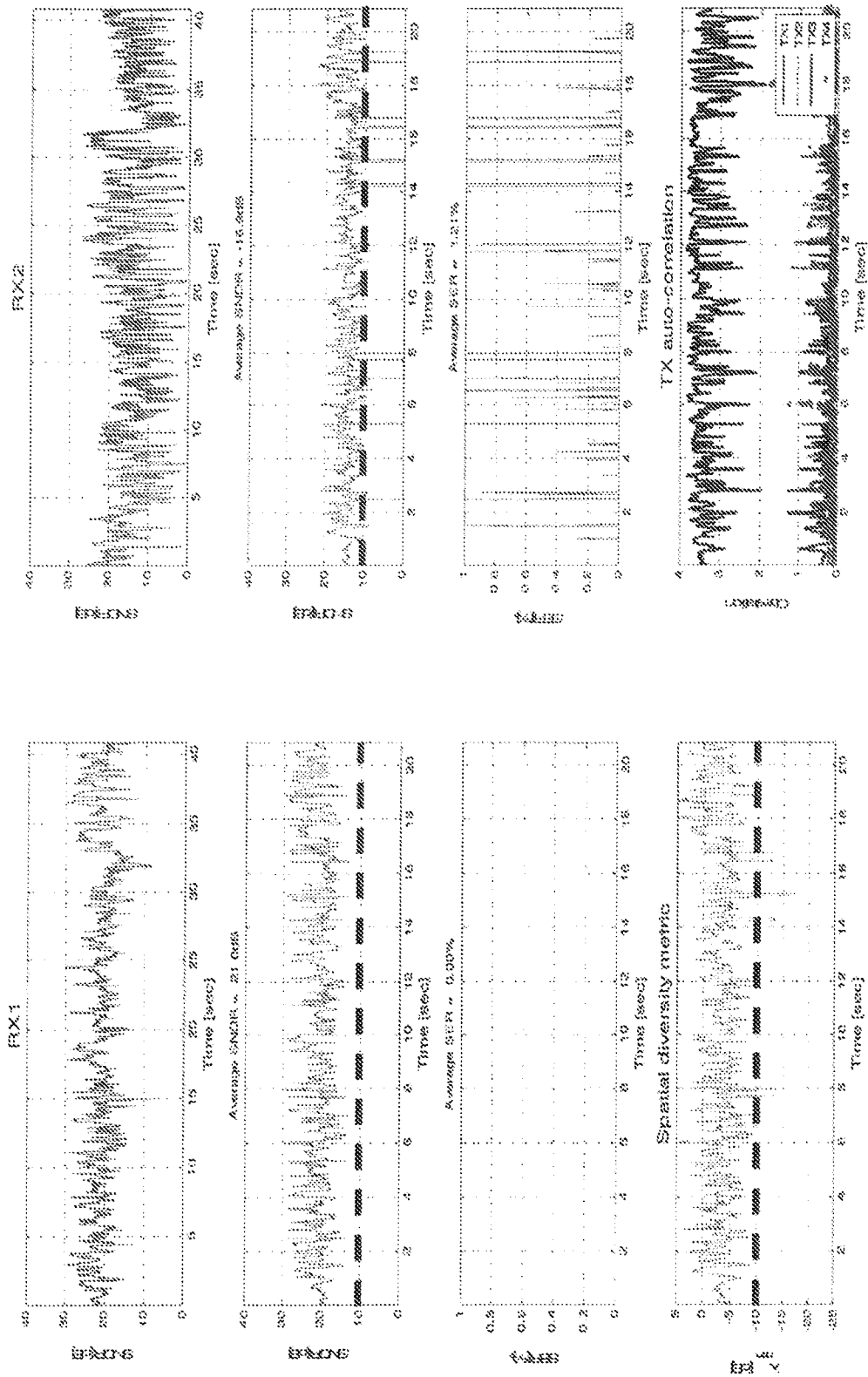


Fig. 36

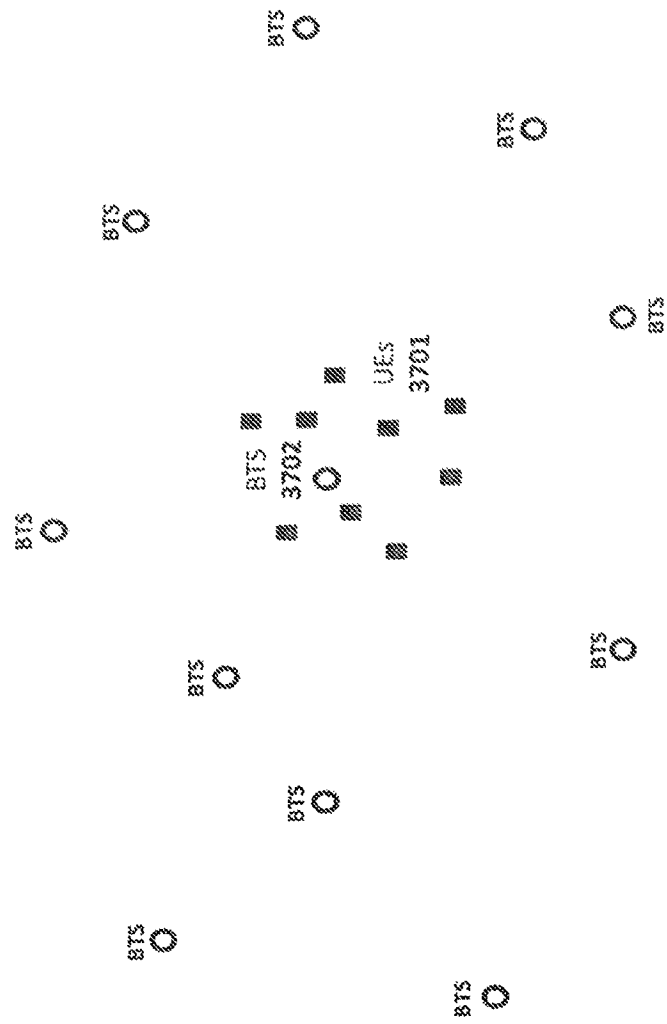
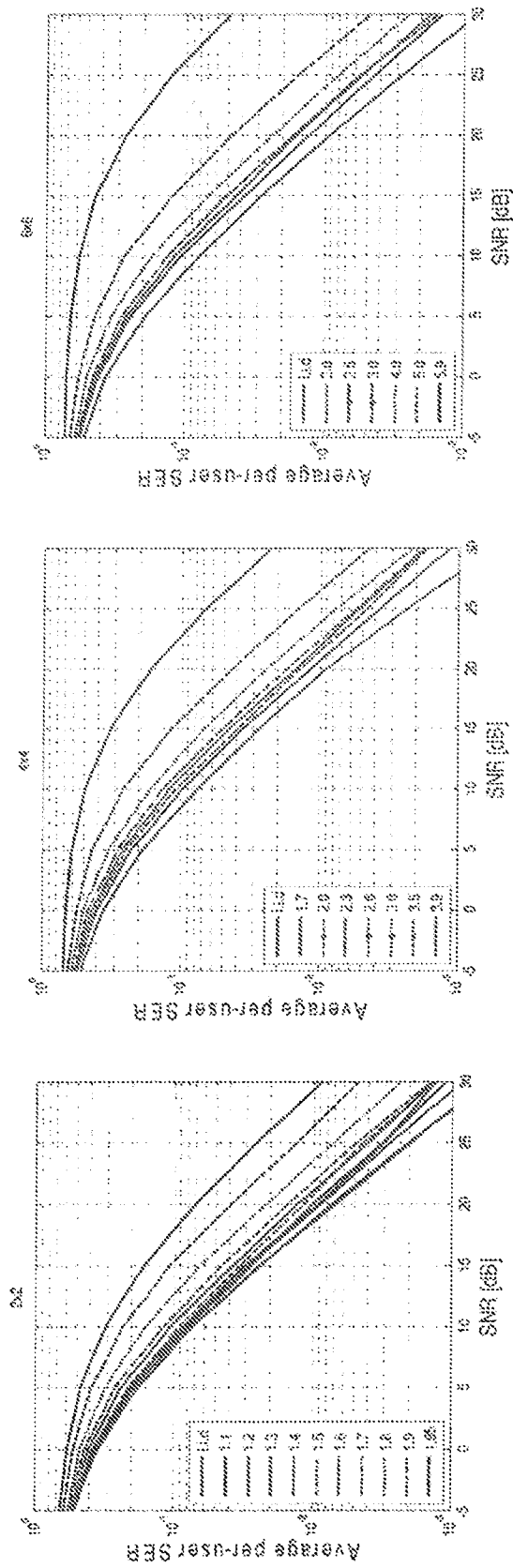


Fig. 37



Thresholds	2x2	4x4	6x6
MAX_AUTO_CORR	1.4	1.7	2.0
MIN_AUTO_CORR	1.7	2.6	3.0

Fig. 38

- Minimum singular value

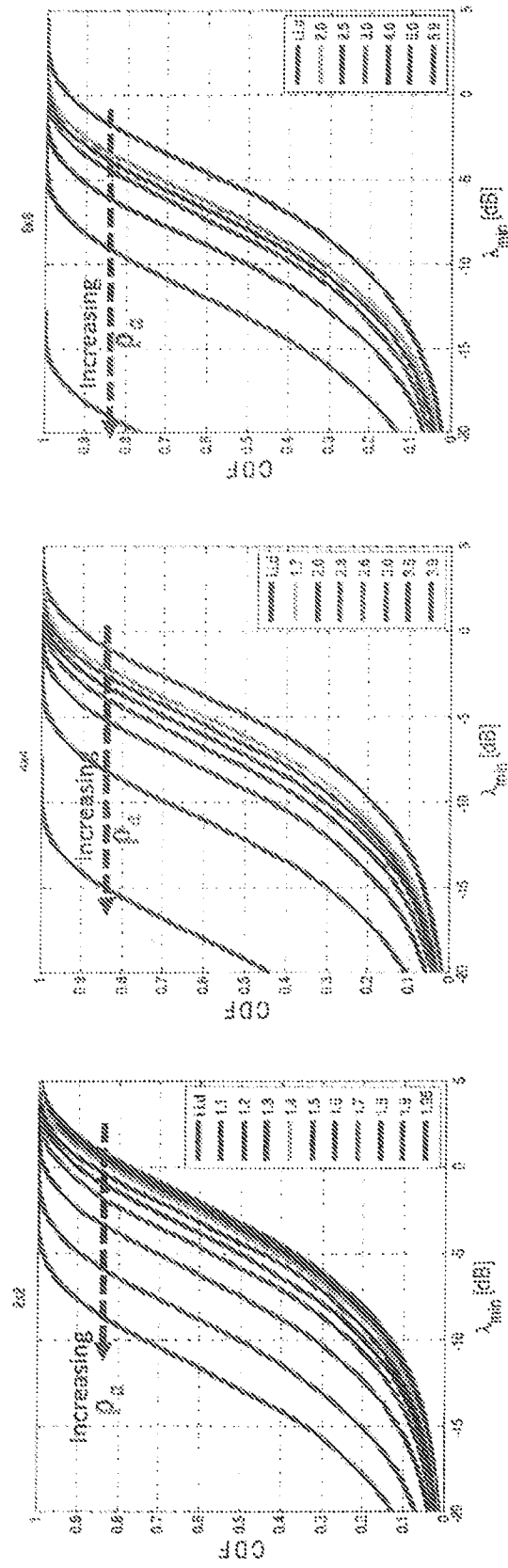


Fig. 39

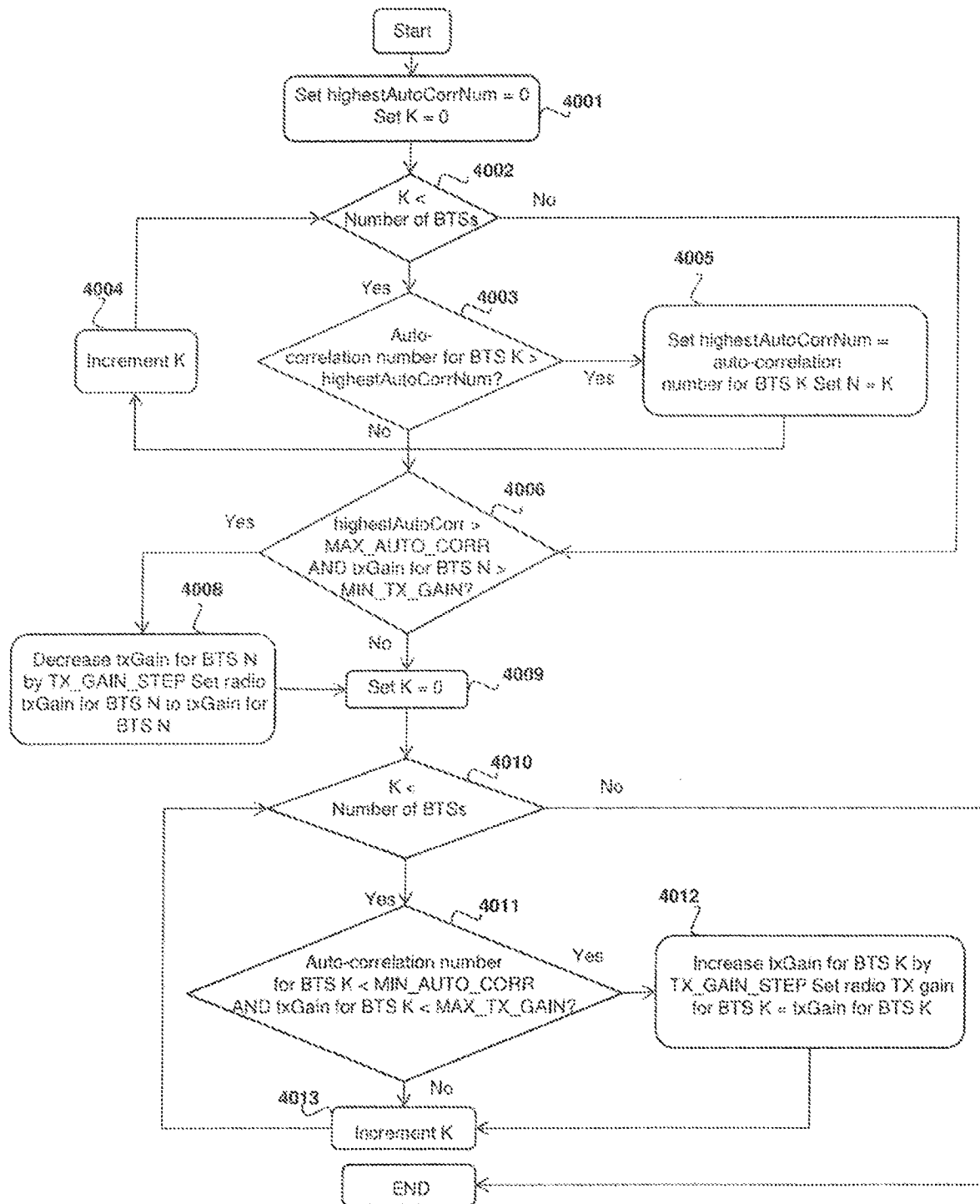
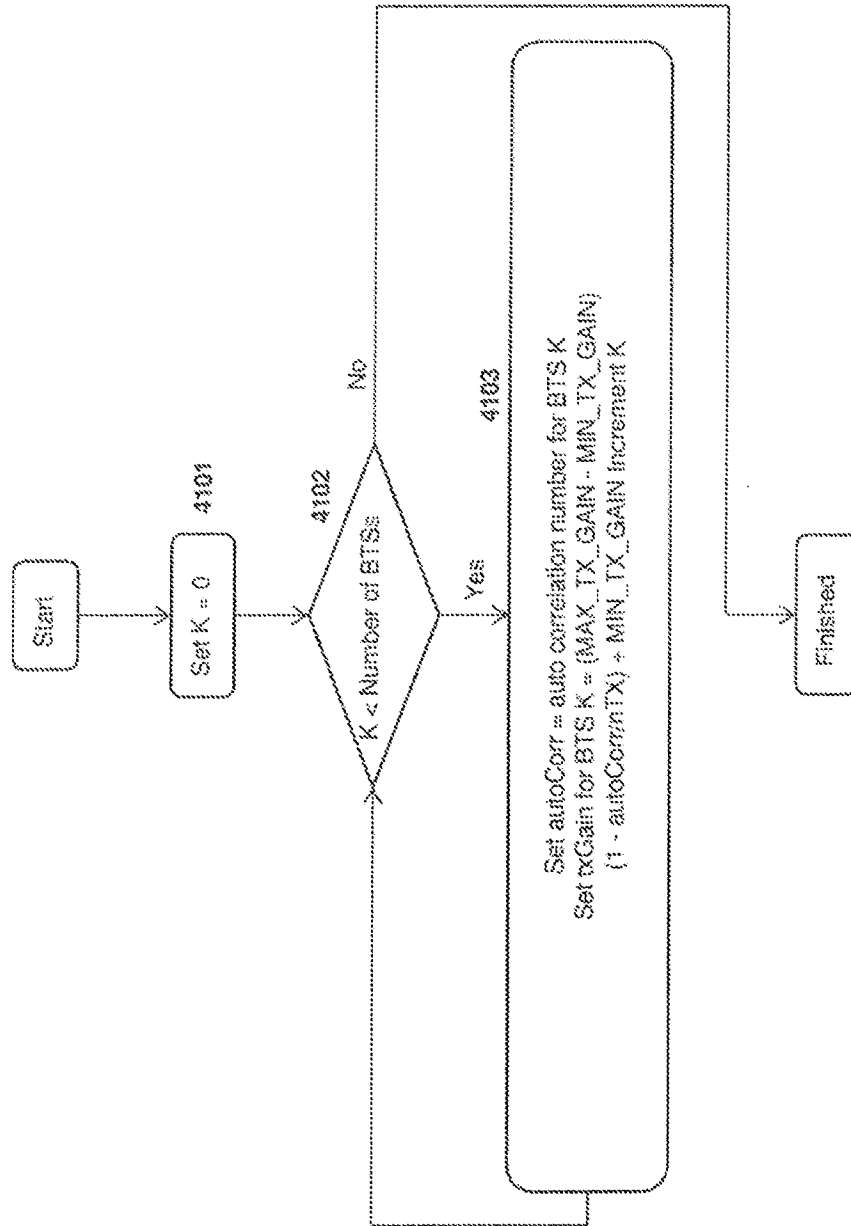


Fig. 40

**Fig. 41**

Scenario 1

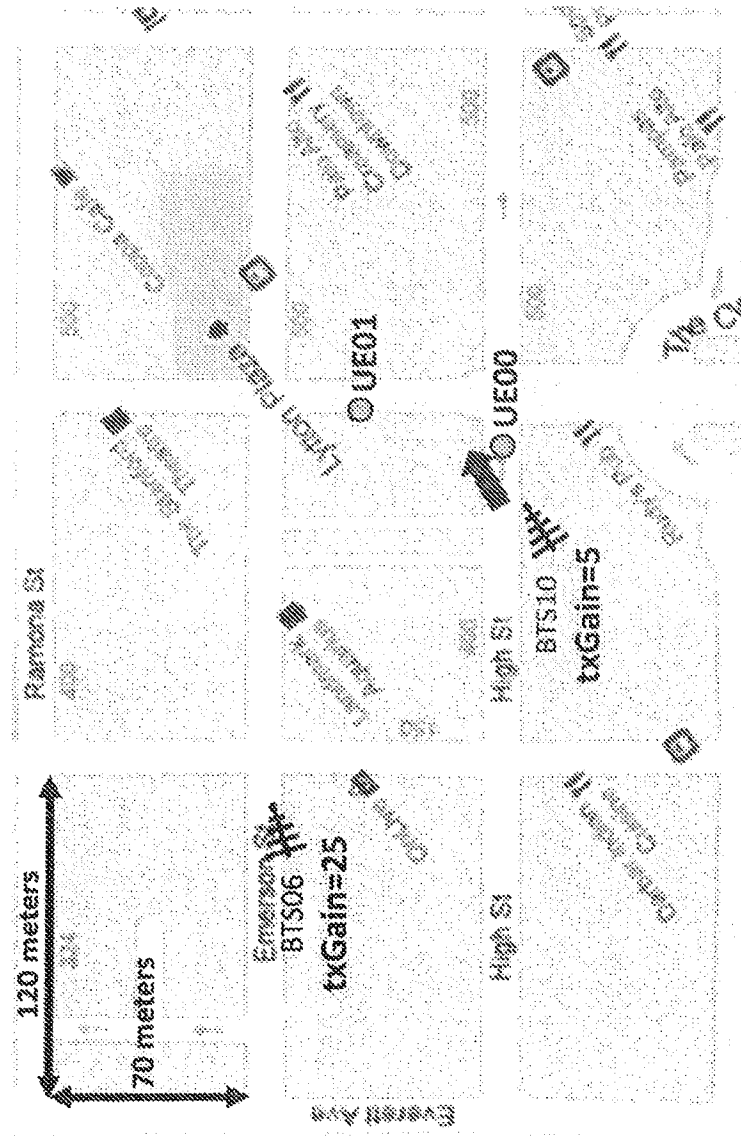


Fig. 42

Scenario 1: Condition Number

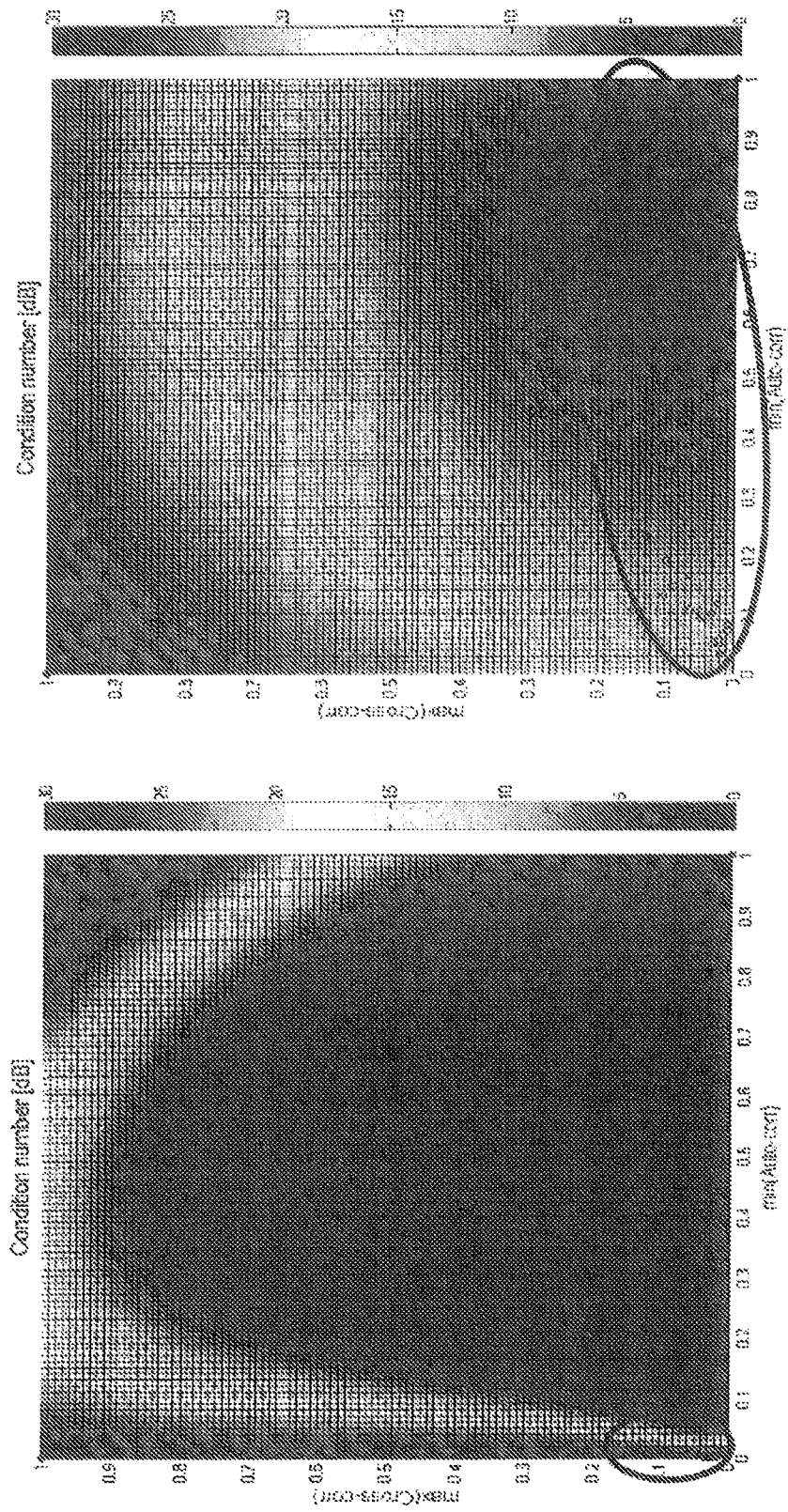


Fig. 43

Scenario 1: DIDO 2x2 without TX Balancing

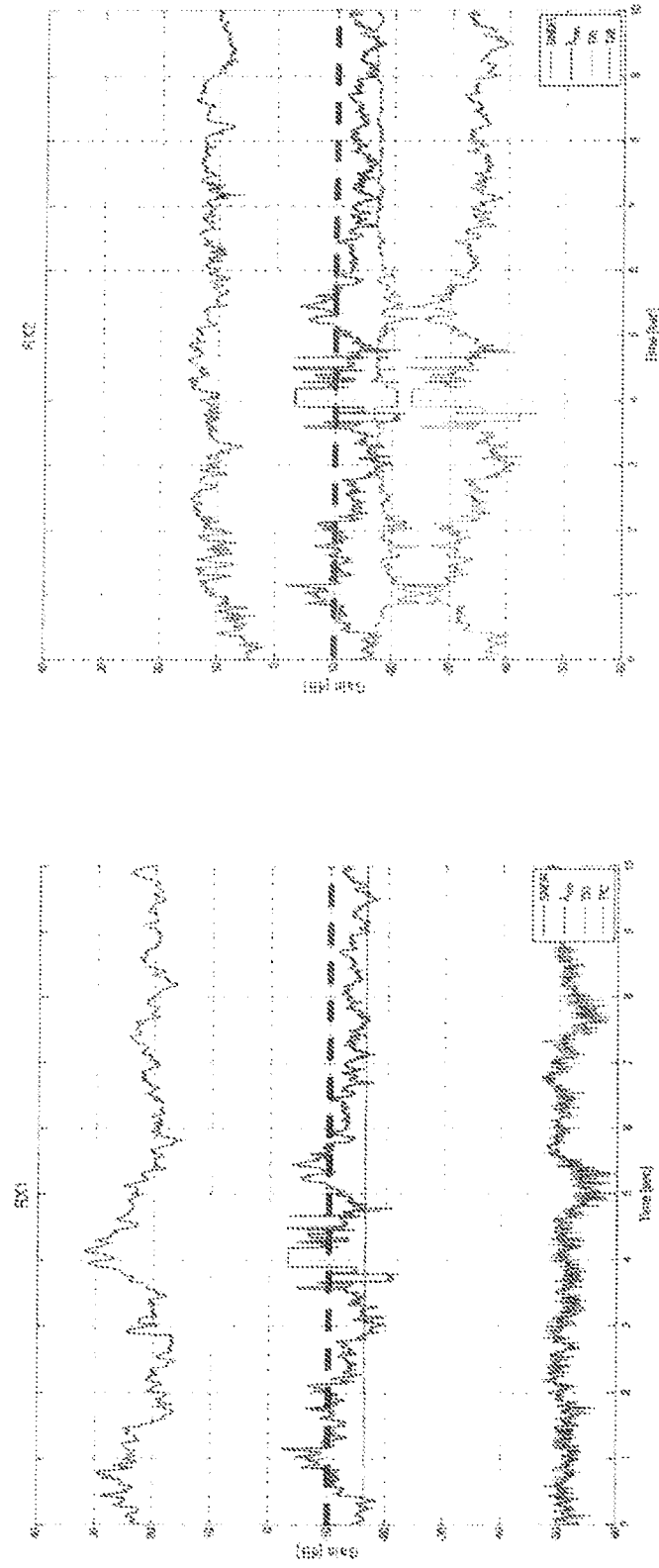


Fig. 44

Scenario 1: DIDO 2x2 with TX Balancing

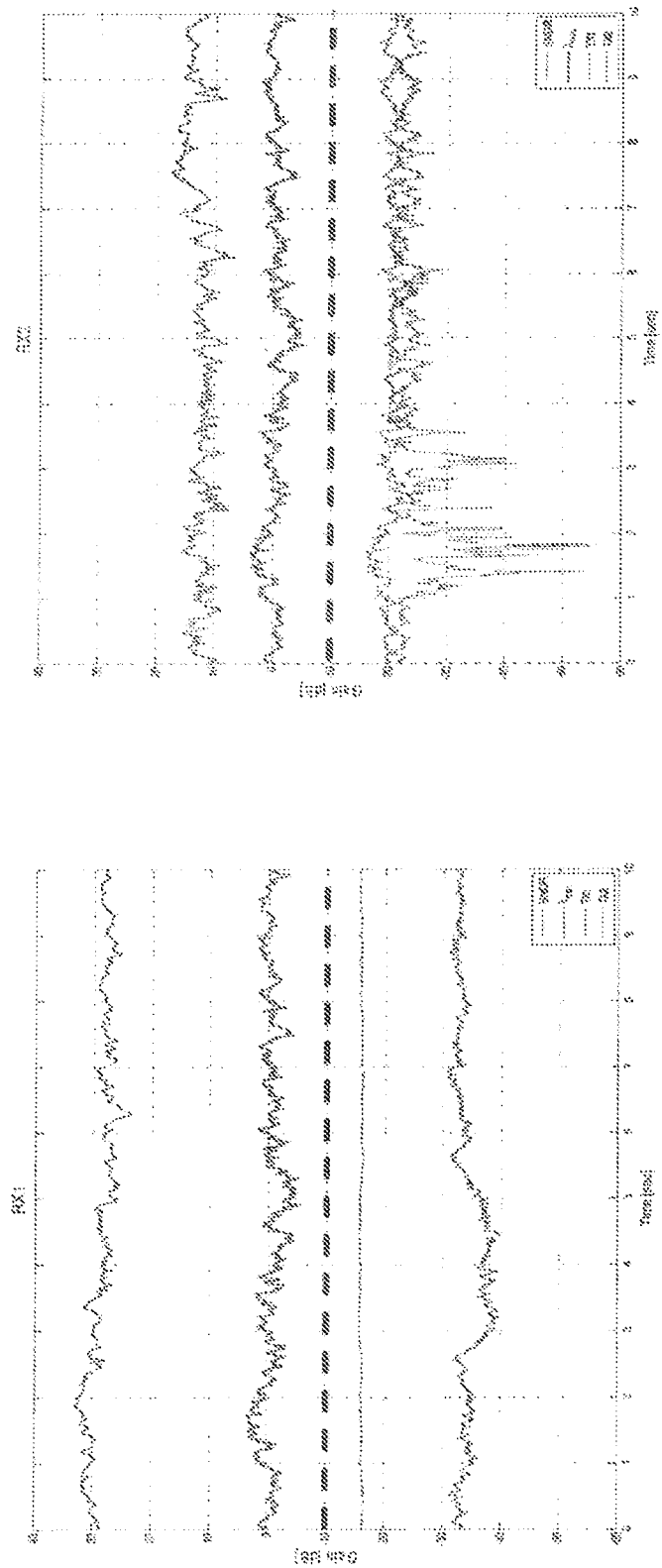


Fig. 45

Scenario 1: DfDO 4x2 with TX Balancing

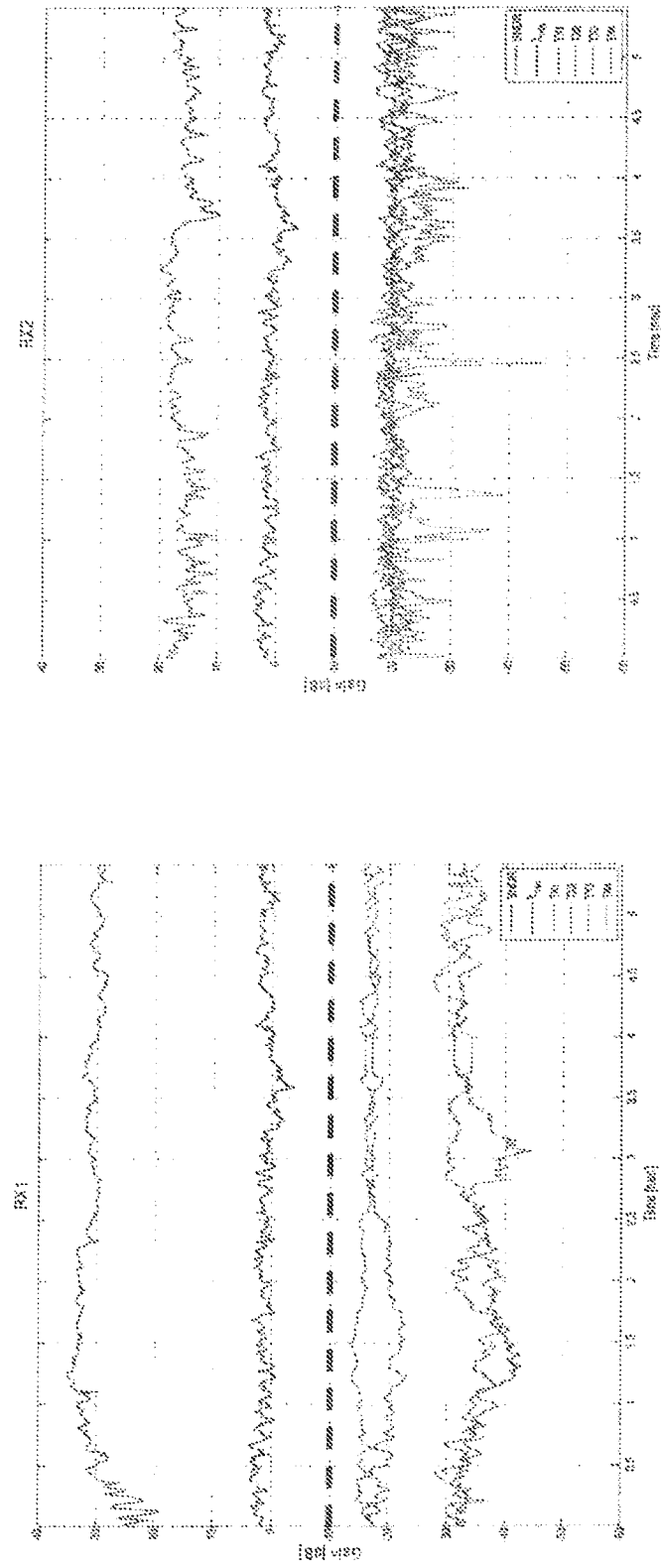


Fig. 46

Scenario 2

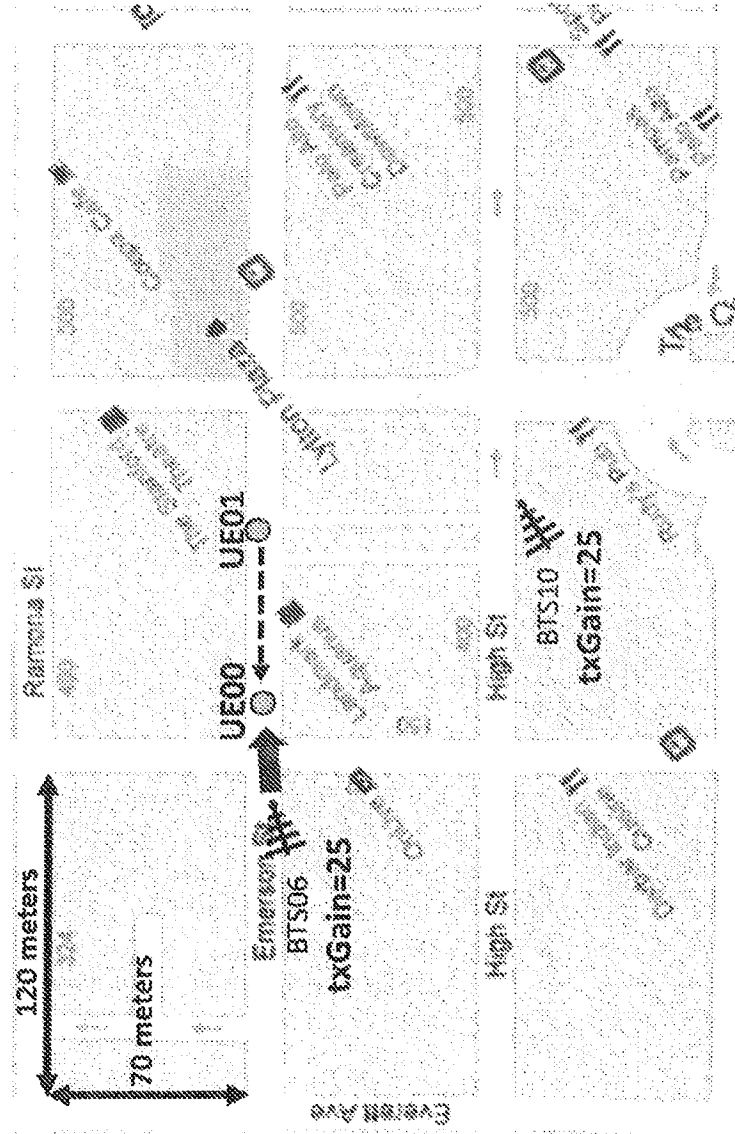


Fig. 47

Scenario 2: Condition Number

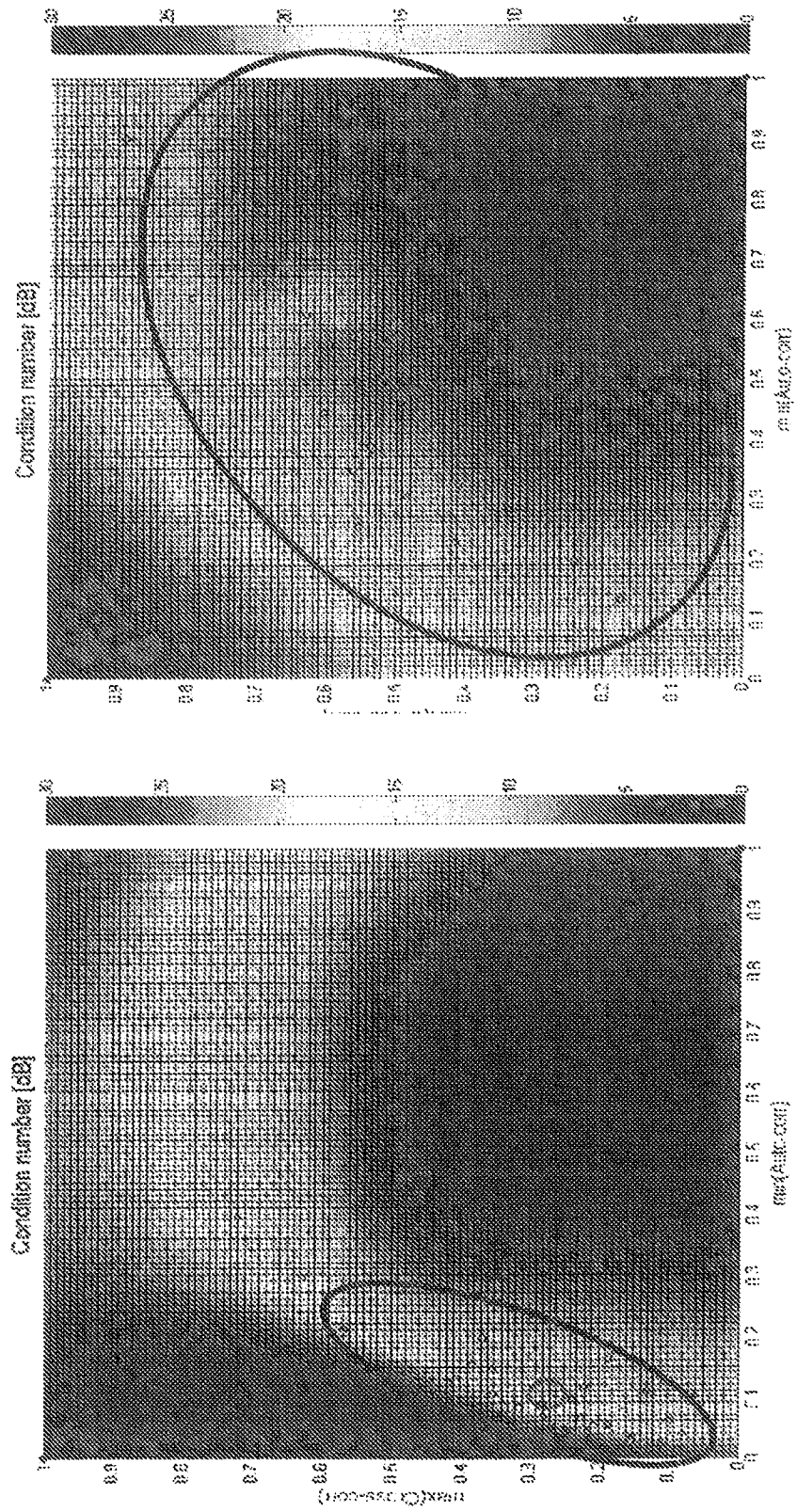


Fig. 48

Scenario 2: DIDO 2x2 without TX Balancing

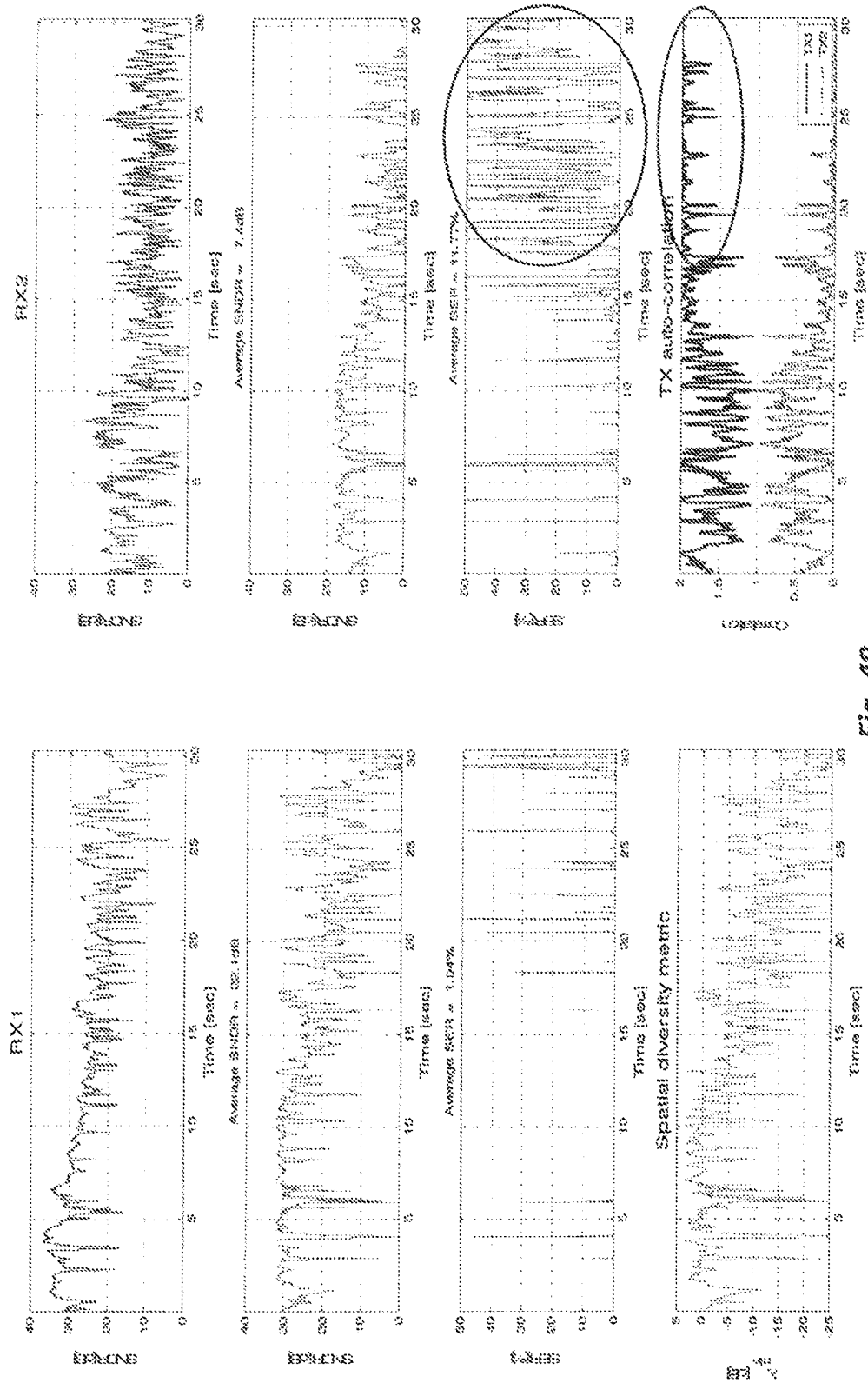


Fig. 49

Scenario 2: DIDO 2x2 with TX Balancing

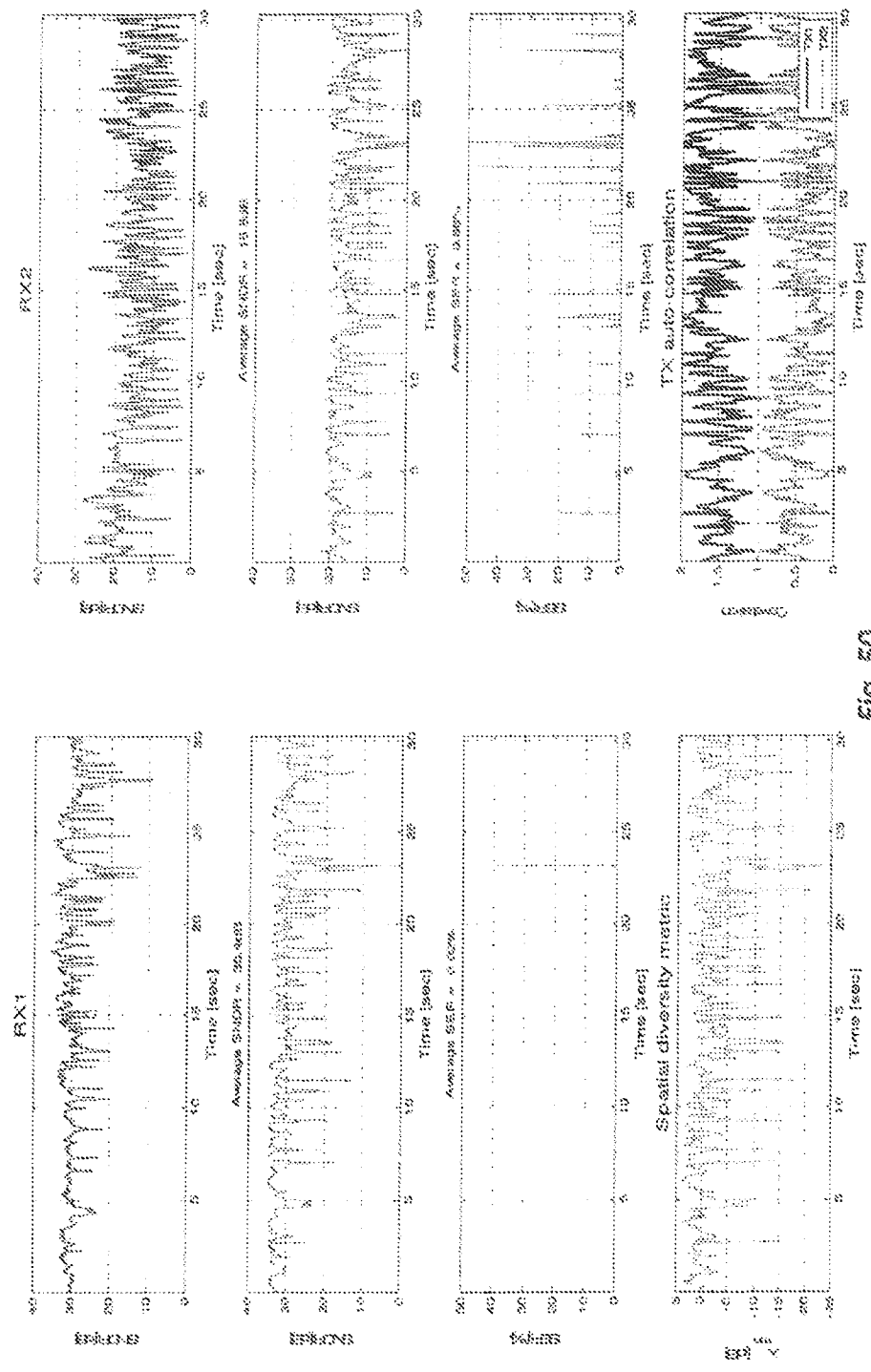


Fig. 50

Scenario 2: DIDO 4x2 with TX Balancing

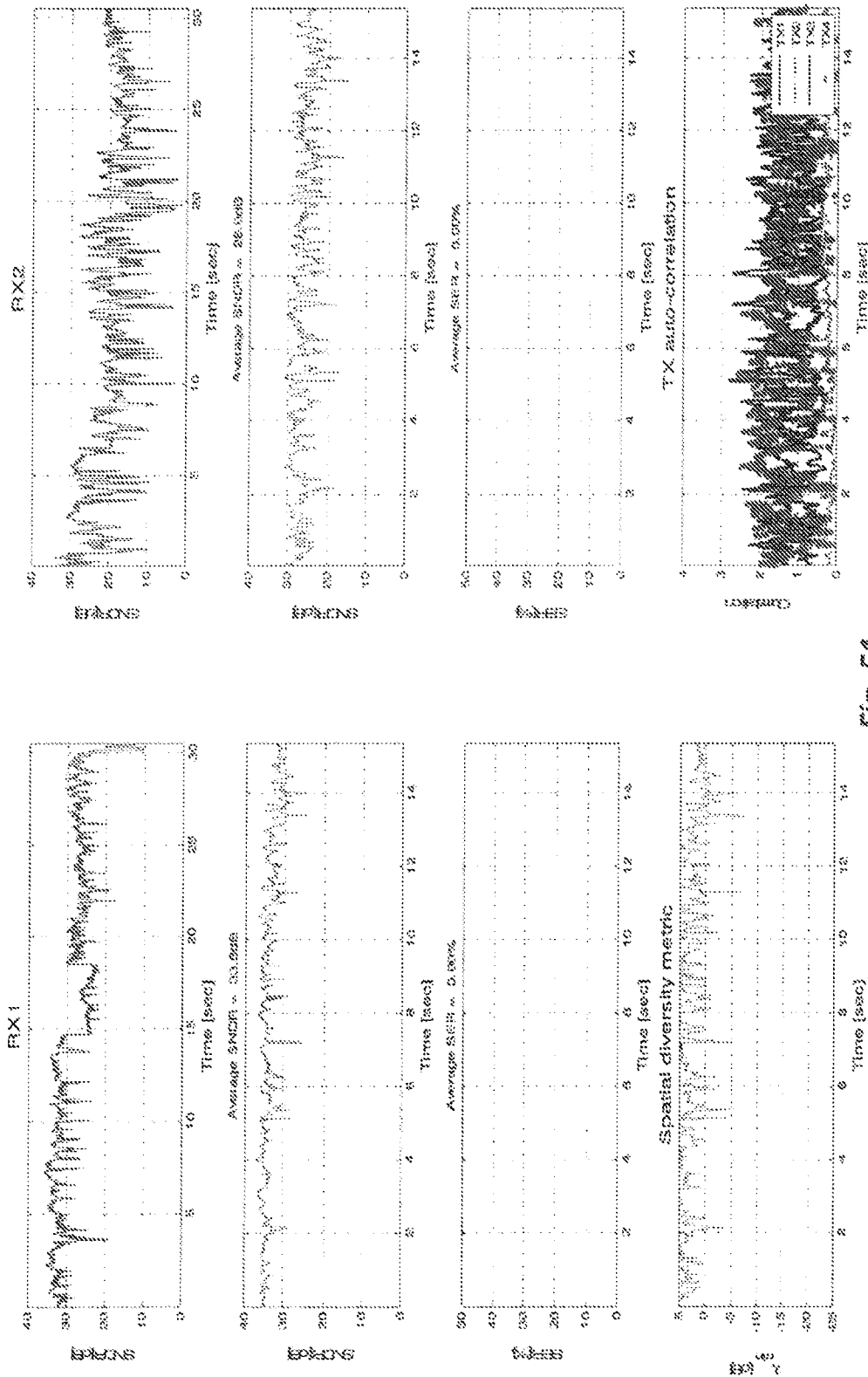


Fig. 51

Antenna Selection with TX Power Imbalance

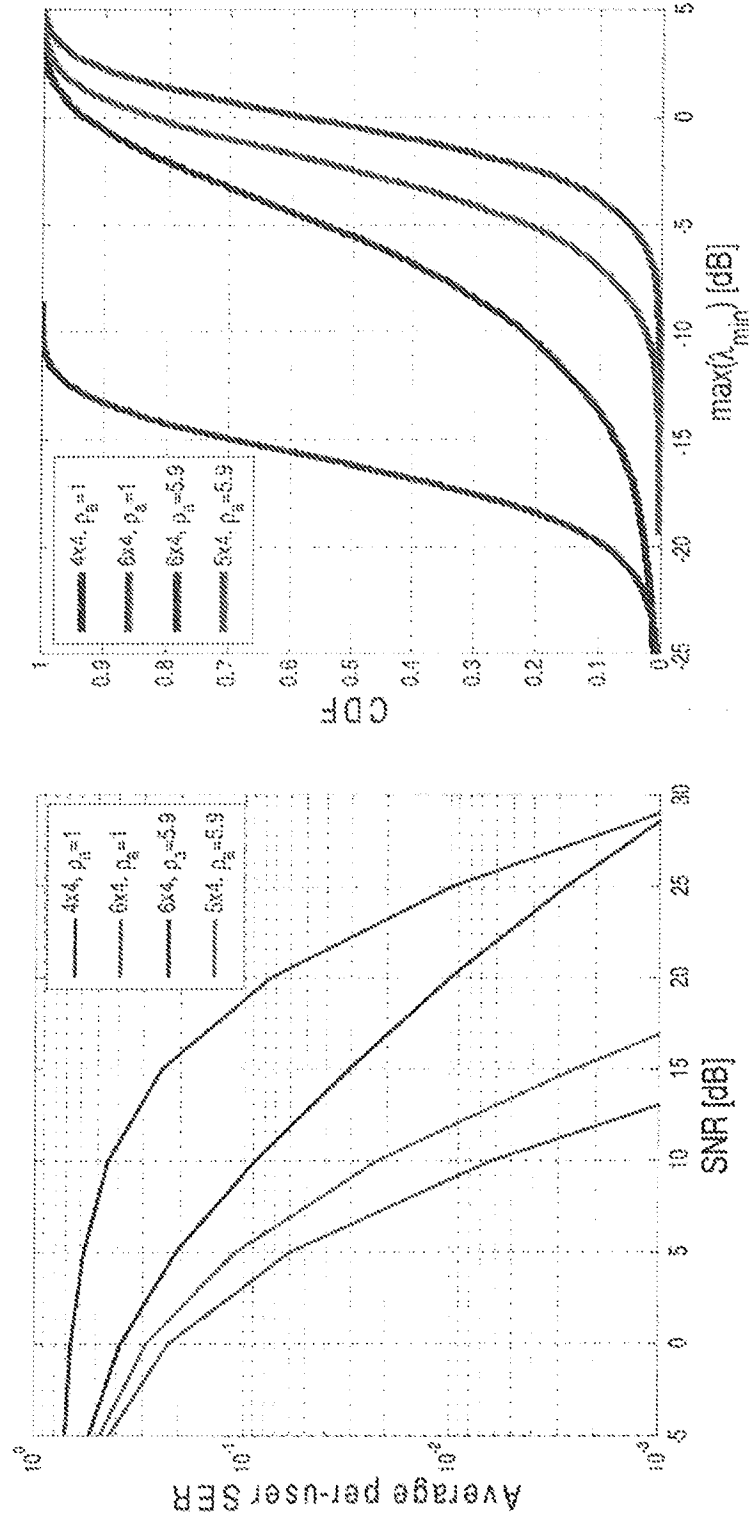
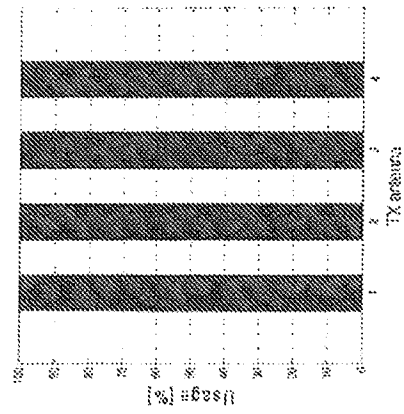


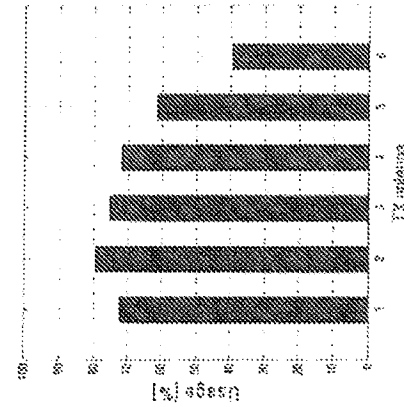
Fig. 52

Antenna Selection with TX Power Imbalance

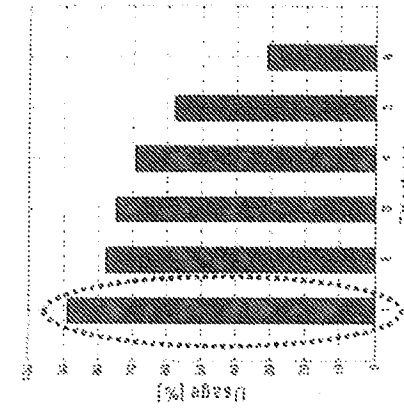
4x4, $\rho_a = 1$



6x4, $\rho_a = 1$



6x4, $\rho_a = 5.9$



5x4, $\rho_a = 5.9$

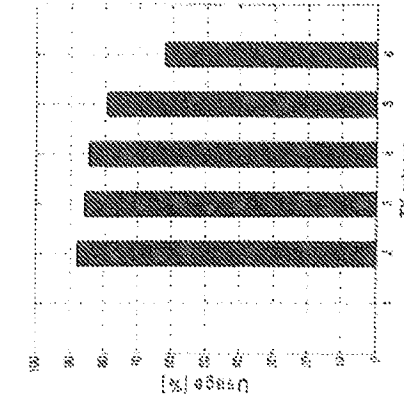


Fig. 53