

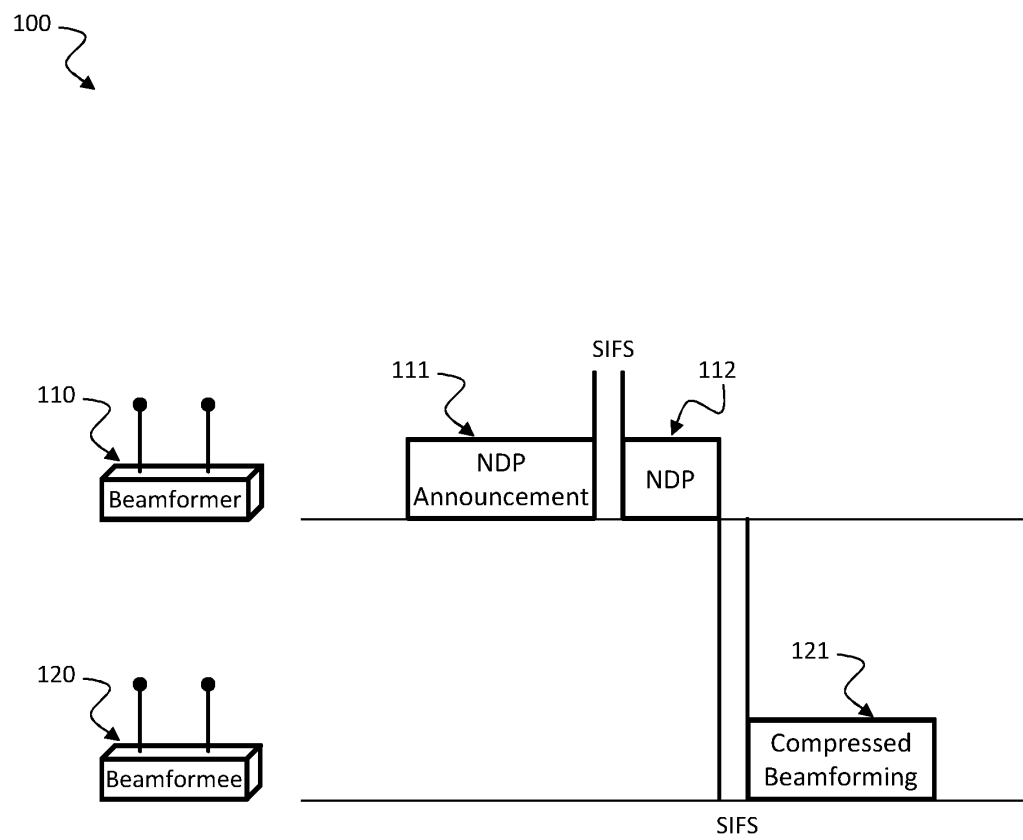


Fig. 1

300 

Fig. 3

RU Index	20 MHz		40 MHz		80 MHz		160 MHz		80+80 MHz	
	S	E	S	E	S	E	S	E	S	E
0	-122	-84	-244	-212	-500	-468	-1012	-980	-500(L)	-468(L)
1	-100	-68	-228	-180	-484	-436	-996	-948	-484(L)	-436(L)
2	-68	-36	-196	-164	-452	-420	-964	-932	-452(L)	-420(L)
3	-52	-4	-164	-132	-420	-388	-932	-900	-420(L)	-388(L)
4	-20	20	-148	-100	-404	-356	-916	-868	-404(L)	-356(L)
5	4	52	-116	-84	-372	-340	-884	-852	-372(L)	-340(L)
6	36	68	-84	-52	-340	-308	-852	-820	-340(L)	-308(L)
7	68	100	-68	-20	-324	-276	-836	-788	-324(L)	-276(L)
8	84	122	-36	-4	-292	-260	-804	-772	-292(L)	-260(L)

500


RU Index	80MHz	
	S	E
0	-500	-472
1	-476	-448
2	-448	-420
3	-420	-392
4	-392	-364
5	-368	-340
6	-340	-312
7	-312	-284
8	-288	-260
9	-260	-224
10	-228	-200
11	-200	-172
12	-176	-144
13	-148	-116
14	-120	-92
15	-92	-64
16	-64	-36
17	-40	-12
Center Portion	-16	16
18	12	40
19	36	64
20	64	92
21	92	120
22	116	148
23	144	176
24	172	200
25	200	228
26	224	260
27	260	288
28	284	312
29	312	340
30	340	368
31	364	392
32	392	420
33	420	448
34	448	476
35	472	500

Fig. 5

600


RU Index	80MHz	
	S	E
0	-500	-468
1	-484	-436
2	-452	-420
3	-420	-388
4	-404	-356
5	-372	-340
6	-340	-308
7	-324	-276
8	-292	-260
9	-260	-212
10	-228	-196
11	-212	-164
12	-180	-132
13	-148	-116
14	-132	-84
15	-100	-52
16	-68	-36
17	-52	-4
18	4	52
19	36	68
20	52	100
21	84	132
22	116	148
23	132	180
24	164	212
25	196	228
26	212	260
27	260	292
28	276	324
29	308	340
30	340	372
31	356	404
32	388	420
33	420	452
34	436	484
35	468	500

Fig. 6

Fig. 7

700 ↗

Channel Width	Ng	Superset of subcarrier indices (scidx)
80MHz	4	-500, -496,...,-2,2,...,496,500
	16	-500,-484,...,-4,4,...,484,500

800


RU Index	20MHz Segment Duplication	
	S	E
0	-500	-472
1	-476	-448
2	-448	-420
3	-420	-392
4	-392	-364
5	-368	-340
6	-340	-312
7	-312	-284
8	-288	-260
9	-253	-225
10	-229	-201
11	-201	-173
12	-173	-145
13	-145	-117
14	-121	-93
15	-93	-65
16	-65	-37
17	-41	-13
Center Portion	-17	17
18	13	41
19	37	65
20	65	93
21	93	121
22	117	145
23	145	173
24	173	201
25	201	229
26	225	253
27	260	288
28	284	312
29	312	340
30	340	368
31	364	392
32	392	420
33	420	448
34	448	476
35	472	500

Fig. 8

900


RU Index	20MHz Segment Duplication	
	S	E
0	-500	-468
1	-484	-436
2	-452	-420
3	-420	-388
4	-404	-356
5	-372	-340
6	-340	-308
7	-324	-276
8	-292	-260
9	-253	-221
10	-237	-189
11	-205	-173
12	-173	-141
13	-157	-109
14	-125	-93
15	-93	-61
16	-77	-29
17	-45	-13
Center Portion	-20	20
18	13	45
19	29	77
20	61	93
21	93	125
22	109	157
23	141	173
24	173	205
25	189	237
26	221	253
27	260	292
28	276	324
29	308	340
30	340	372
31	356	404
32	388	420
33	420	452
34	436	484
35	468	500

Fig. 9

Fig. 10

1000 ↺

Channel Width	Ng	Superset of subcarrier indices (scidx)
20MHz Segment Duplication	4	-500,-484,-260,-253,-249,-13,13,...,249,253,260,...,484,500
	16	-500,-484,-260,-253,-237,-13,-4,4,13,237,253,260,...,484,500

1100

RU Index 802.11be	RU Indices 802.11ax	RU Indices 802.11ax
	Ng = 4	Ng = 16
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9-10	9-10
10	10-11	10
11	11-12	11
12	12-13	12-13
13	13-14	13
14	14-15	14
15	15-16	15-16
16	16-17	16
17	17-18	17
18	18-19	19
19	19-20	20
20	20-21	20-21
21	21-22	22
22	22-23	23
23	23-24	23-24
24	24-25	25
25	25-26	26
26	26-27	26-27
27	28	28
28	29	29
29	30	30
30	31	31
31	32	32
32	33	33
33	34	34
34	35	35
35	36	36

Fig. 11

Fig. 12

1200 ↺

Channel Width	Ng	Subcarrier indices (scidx)
160/80+80MHz	4&16	80MHz(S1),80MHz(S2)
240		80MHz(S1),80MHz(S2),80MHz(S3)
320		80MHz(S1),80MHz(S2),80MHz(S3),80MHz(S4)

Fig. 13 1300 ↗

Table T9

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
9	1	9x1	16	$T_{9-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91})$
9	2	9x2	30	$T_{9-2} = T_{9-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92})$ $= (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92})$
9	3	9x3	42	$T_{9-3} = T_{9-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93})$
9	4	9x4	52	$T_{9-4} = T_{9-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94})$
9	5	9x5	60	$T_{9-5} = T_{9-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95})$
9	6	9x6	66	$T_{9-6} = T_{9-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{76}, \phi_{86}, \phi_{96})$
9	7	9x7	70	$T_{9-7} = T_{9-6} \cup (\phi_{77}, \phi_{87}, \phi_{87}, \phi_{97})$
9	8	9x8	72	$T_{9-8} = T_{9-7} \cup (\phi_{88}, \phi_{98})$
9	9	9x9	72	$T_{9-9} = T_{9-8}$

Fig. 14

Table T10

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
10	1	10x1	18	$T_{10-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1})$
10	2	10x2	34	$T_{10-2} = T_{10-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2})$
10	3	10x3	48	$T_{10-3} = T_{10-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3})$
10	4	10x4	60	$T_{10-4} = T_{10-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4})$
10	5	10x5	70	$T_{10-5} = T_{10-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5})$
10	6	10x6	78	$T_{10-6} = T_{10-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6})$
10	7	10x7	84	$T_{10-7} = T_{10-6} \cup (\phi_{77}, \phi_{87}, \phi_{97}, \phi_{87}, \phi_{97}, \phi_{10-7})$
10	8	10x8	88	$T_{10-8} = T_{10-7} \cup (\phi_{88}, \phi_{98}, \phi_{98}, \phi_{10-8})$
10	9	10x9	90	$T_{10-9} = T_{10-8} \cup (\phi_{99}, \phi_{10-9})$
10	10	10x10	90	$T_{10-10} = T_{10-9}$

1500

Fig. 15

Table T11a

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
11	1	11x1	20	$T_{11-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1})$
11	2	11x2	38	$T_{11-2} = T_{11-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2})$
11	3	11x3	54	$T_{11-3} = T_{11-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3})$
11	4	11x4	68	$T_{11-4} = T_{11-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4})$
11	5	11x5	80	$T_{11-5} = T_{11-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5})$
11	6	11x6	90	$T_{11-6} = T_{11-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6})$
11	7	11x7	98	$T_{11-7} = T_{11-6} \cup (\phi_{77}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7})$
11	8	11x8	104	$T_{11-8} = T_{11-7} \cup (\phi_{88}, \phi_{98}, \phi_{10-8}, \phi_{98}, \phi_{10-8}, \phi_{11-8})$
11	9	11x9	108	$T_{11-9} = T_{11-8} \cup (\phi_{99}, \phi_{10-9}, \phi_{10-9}, \phi_{11-9})$

Fig. 16

1600 ↗

Table T11b

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
11	10	11x10	110	$T_{11-10} = T_{11-9} \cup (\phi_{10-10}, \varphi_{11-10})$
11	11	11x11	110	$T_{11-11} = T_{11-10}$

Fig. 17

Table T12a

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
12	1	12x1	22	$T_{12-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1})$
12	2	12x2	42	$T_{12-2} = T_{12-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{12-2})$
12	3	12x3	60	$T_{12-3} = T_{12-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{12-3})$
12	4	12x4	76	$T_{12-4} = T_{12-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{12-4})$
12	5	12x5	90	$T_{12-5} = T_{12-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{12-5})$
12	6	12x6	102	$T_{12-6} = T_{12-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{12-6})$
12	7	12x7	112	$T_{12-7} = T_{12-6} \cup (\phi_{77}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{12-7})$
12	8	12x8	120	$T_{12-8} = T_{12-7} \cup (\phi_{88}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8})$

Fig. 18

1800 ↗

Table T12b

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
12	9	12x9	126	$T_{12-9} = T_{12-8} \cup (\phi_{99}, \phi_{10-9}, \phi_{11-9}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9})$
12	10	12x10	130	$T_{12-10} = T_{12-9} \cup (\phi_{10-10}, \phi_{11-10}, \phi_{11-10}, \phi_{12-10})$
12	11	12x11	132	$T_{12-11} = T_{12-10} \cup (\phi_{11-11}, \phi_{12-11})$
12	12	12x12	132	$T_{12-12} = T_{12-11}$

Fig. 19

1900



Table T13a

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
13	1	13x1	24	$T_{13-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1}, \phi_{13-1})$
13	2	13x2	46	$T_{13-2} = T_{13-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{12-2}, \phi_{13-2})$
13	3	13x3	66	$T_{13-3} = T_{13-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{12-3}, \phi_{13-3})$
13	4	13x4	84	$T_{13-4} = T_{13-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{12-4}, \phi_{13-4})$
13	5	13x5	100	$T_{13-5} = T_{13-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{12-5}, \phi_{13-5})$
13	6	13x6	114	$T_{13-6} = T_{13-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{12-6}, \phi_{13-6})$
13	7	13x7	126	$T_{13-7} = T_{13-6} \cup (\phi_{77}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{12-7}, \phi_{13-7})$

Fig. 20

2000

Table T13b

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
13	8	13x8	136	$T_{13-8} = T_{13-7} \cup (\phi_{88}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{13-8})$
13	9	13x9	144	$T_{13-9} = T_{13-8} \cup (\phi_{99}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{13-9})$
13	10	13x10	150	$T_{13-10} = T_{13-9} \cup (\phi_{10-10}, \phi_{11-10}, \phi_{12-10}, \phi_{11-10}, \phi_{12-10}, \phi_{13-10})$
13	11	13x11	154	$T_{13-11} = T_{13-10} \cup (\phi_{11-11}, \phi_{12-11}, \phi_{12-11}, \phi_{13-11})$
13	12	13x12	156	$T_{13-12} = T_{13-11} \cup (\phi_{12-12}, \phi_{13-12})$
13	13	13x13	156	$T_{13-13} = T_{13-12}$

2100

Fig. 21

Table T14a

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
14	1	14x1	26	$T_{14-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1}, \phi_{13-1}, \phi_{14-1})$
14	2	14x2	50	$T_{14-2} = T_{14-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{12-2}, \phi_{13-2}, \phi_{14-2})$
14	3	14x3	72	$T_{14-3} = T_{14-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{12-3}, \phi_{13-3}, \phi_{14-3})$
14	4	14x4	92	$T_{14-4} = T_{14-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{12-4}, \phi_{13-4}, \phi_{14-4})$
14	5	14x5	110	$T_{14-5} = T_{14-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{12-5}, \phi_{13-5}, \phi_{14-5})$
14	6	14x6	126	$T_{14-6} = T_{14-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{12-6}, \phi_{13-6}, \phi_{14-6})$
14	7	14x7	140	$T_{14-7} = T_{14-6} \cup (\phi_{77}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{12-7}, \phi_{13-7}, \phi_{14-7})$

Fig. 22

2200

Table T14b

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
14	8	14x8	152	$T_{14-8} = T_{14-7} \cup (\phi_{88}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{13-8}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{13-8}, \phi_{14-8})$
14	9	14x9	162	$T_{14-9} = T_{14-8} \cup (\phi_{99}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{13-9}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{13-9}, \phi_{14-9})$
14	10	14x10	170	$T_{14-10} = T_{14-9} \cup (\phi_{10-10}, \phi_{11-10}, \phi_{12-10}, \phi_{13-10}, \phi_{11-10}, \phi_{12-10}, \phi_{13-10}, \phi_{14-10})$
14	11	14x11	176	$T_{14-11} = T_{14-10} \cup (\phi_{11-11}, \phi_{12-11}, \phi_{13-11}, \phi_{12-11}, \phi_{13-11}, \phi_{14-11})$
14	12	14x12	180	$T_{14-12} = T_{14-11} \cup (\phi_{12-12}, \phi_{13-12}, \phi_{13-12}, \phi_{14-12})$
14	13	14x13	182	$T_{14-13} = T_{14-12} \cup (\phi_{13-13}, \phi_{14-13})$
14	14	14x14	182	$T_{14-14} = T_{14-13}$

Fig. 23

Table T15a

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
15	1	15x1	28	$T_{15-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1}, \phi_{13-1}, \phi_{14-1}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1}, \phi_{13-1}, \phi_{14-1}, \phi_{15-1})$
15	2	15x2	54	$T_{15-2} = T_{15-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{12-2}, \phi_{13-2}, \phi_{14-2}, \phi_{15-2}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{12-2}, \phi_{13-2}, \phi_{14-2}, \phi_{15-2})$
15	3	15x3	78	$T_{15-3} = T_{15-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{12-3}, \phi_{13-3}, \phi_{14-3}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{12-3}, \phi_{13-3}, \phi_{14-3}, \phi_{15-3})$
15	4	15x4	100	$T_{15-4} = T_{15-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{12-4}, \phi_{13-4}, \phi_{14-4}, \phi_{15-4}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{12-4}, \phi_{13-4}, \phi_{14-4}, \phi_{15-4})$
15	5	15x5	120	$T_{15-5} = T_{15-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{12-5}, \phi_{13-5}, \phi_{14-5}, \phi_{15-5}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{12-5}, \phi_{13-5}, \phi_{14-5}, \phi_{15-5})$
15	6	15x6	138	$T_{15-6} = T_{15-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{12-6}, \phi_{13-6}, \phi_{14-6}, \phi_{15-6}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{12-6}, \phi_{13-6}, \phi_{14-6}, \phi_{15-6})$

Fig. 24 ²⁴⁰⁰  Table T15b

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
15	7	15x7	154	$T_{15-7} = T_{15-6} \cup (\phi_{77}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{12-7}, \phi_{13-7}, \phi_{14-7}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{12-7}, \phi_{13-7}, \phi_{14-7}, \phi_{15-7})$
15	8	15x8	168	$T_{15-8} = T_{15-7} \cup (\phi_{88}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{13-8}, \phi_{14-8}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{13-8}, \phi_{14-8}, \phi_{15-8})$
15	9	15x9	180	$T_{15-9} = T_{15-8} \cup (\phi_{99}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{13-9}, \phi_{14-9}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{13-9}, \phi_{14-9}, \phi_{15-9})$
15	10	15x10	190	$T_{15-10} = T_{15-9} \cup (\phi_{10-10}, \phi_{11-10}, \phi_{12-10}, \phi_{13-10}, \phi_{14-10}, \phi_{11-10}, \phi_{12-10}, \phi_{13-10}, \phi_{14-10}, \phi_{15-10})$
15	11	15x11	198	$T_{15-11} = T_{15-10} \cup (\phi_{11-11}, \phi_{12-11}, \phi_{13-11}, \phi_{14-11}, \phi_{12-11}, \phi_{13-11}, \phi_{14-11}, \phi_{15-11})$
15	12	15x12	204	$T_{15-12} = T_{15-11} \cup (\phi_{12-12}, \phi_{13-12}, \phi_{14-12}, \phi_{13-12}, \phi_{14-12}, \phi_{15-12})$
15	13	15x13	208	$T_{15-13} = T_{15-12} \cup (\phi_{13-13}, \phi_{14-13}, \phi_{14-13}, \phi_{15-13})$
15	14	15x14	210	$T_{15-14} = T_{15-13} \cup (\phi_{14-14}, \phi_{15-14})$
15	15	15x15	210	$T_{15-15} = T_{15-14}$

Fig. 25

2500



Table T16a				
The order of angles in the Compressed Beamforming Feedback Matrix Subfield				
Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	
16	1	16x1	30	$T_{16-1} = (\phi_{11}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1}, \phi_{13-1}, \phi_{14-1}, \phi_{15-1}, \phi_{21}, \phi_{31}, \phi_{41}, \phi_{51}, \phi_{61}, \phi_{71}, \phi_{81}, \phi_{91}, \phi_{10-1}, \phi_{11-1}, \phi_{12-1}, \phi_{13-1}, \phi_{14-1}, \phi_{15-1}, \phi_{16-1})$
16	2	16x2	58	$T_{16-2} = T_{16-1} \cup (\phi_{22}, \phi_{32}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{12-2}, \phi_{13-2}, \phi_{14-2}, \phi_{15-2}, \phi_{42}, \phi_{52}, \phi_{62}, \phi_{72}, \phi_{82}, \phi_{92}, \phi_{10-2}, \phi_{11-2}, \phi_{12-2}, \phi_{13-2}, \phi_{14-2}, \phi_{15-2}, \phi_{16-2})$
16	3	16x3	84	$T_{16-3} = T_{16-2} \cup (\phi_{33}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{12-3}, \phi_{13-3}, \phi_{14-3}, \phi_{15-3}, \phi_{16-3}, \phi_{43}, \phi_{53}, \phi_{63}, \phi_{73}, \phi_{83}, \phi_{93}, \phi_{10-3}, \phi_{11-3}, \phi_{12-3}, \phi_{13-3}, \phi_{14-3}, \phi_{15-3}, \phi_{16-3})$
16	4	16x4	108	$T_{16-4} = T_{16-3} \cup (\phi_{44}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{12-4}, \phi_{13-4}, \phi_{14-4}, \phi_{15-4}, \phi_{54}, \phi_{64}, \phi_{74}, \phi_{84}, \phi_{94}, \phi_{10-4}, \phi_{11-4}, \phi_{12-4}, \phi_{13-4}, \phi_{14-4}, \phi_{15-4}, \phi_{16-4})$
16	5	16x5	130	$T_{16-5} = T_{16-4} \cup (\phi_{55}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{12-5}, \phi_{13-5}, \phi_{14-5}, \phi_{15-5}, \phi_{65}, \phi_{75}, \phi_{85}, \phi_{95}, \phi_{10-5}, \phi_{11-5}, \phi_{12-5}, \phi_{13-5}, \phi_{14-5}, \phi_{15-5}, \phi_{16-5})$

Fig. 26 

Table T16b

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
16	6	16x6	150	$T_{16-6} = T_{16-5} \cup (\phi_{66}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{12-6}, \phi_{13-6}, \phi_{14-6}, \phi_{15-6}, \phi_{76}, \phi_{86}, \phi_{96}, \phi_{10-6}, \phi_{11-6}, \phi_{12-6}, \phi_{13-6}, \phi_{14-6}, \phi_{15-6})$
16	7	16x7	168	$T_{16-7} = T_{16-6} \cup (\phi_{77}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{12-7}, \phi_{13-7}, \phi_{14-7}, \phi_{15-7}, \phi_{87}, \phi_{97}, \phi_{10-7}, \phi_{11-7}, \phi_{12-7}, \phi_{13-7}, \phi_{14-7}, \phi_{15-7})$
16	8	16x8	184	$T_{16-8} = T_{16-7} \cup (\phi_{88}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{13-8}, \phi_{14-8}, \phi_{15-8}, \phi_{98}, \phi_{10-8}, \phi_{11-8}, \phi_{12-8}, \phi_{13-8}, \phi_{14-8}, \phi_{15-8})$
16	9	16x9	198	$T_{16-9} = T_{16-8} \cup (\phi_{99}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{13-9}, \phi_{14-9}, \phi_{15-9}, \phi_{10-9}, \phi_{11-9}, \phi_{12-9}, \phi_{13-9}, \phi_{14-9}, \phi_{15-9})$
16	10	16x10	210	$T_{16-10} = T_{16-9} \cup (\phi_{10-10}, \phi_{11-10}, \phi_{12-10}, \phi_{13-10}, \phi_{14-10}, \phi_{15-10}, \phi_{11-10}, \phi_{12-10}, \phi_{13-10}, \phi_{14-10}, \phi_{15-10})$
16	11	16x11	220	$T_{16-11} = T_{16-10} \cup (\phi_{11-11}, \phi_{12-11}, \phi_{13-11}, \phi_{14-11}, \phi_{15-11}, \phi_{12-11}, \phi_{13-11}, \phi_{14-11}, \phi_{15-11})$

Fig. 27

2700 ↗

Table T16c

Nr	Nc	Size of V (Nr x Nc)	Number of angles (Na)	The order of angles in the Compressed Beamforming Feedback Matrix Subfield
16	12	16x12	228	$T_{16-12} = T_{16-11} \cup (\phi_{12-12}, \phi_{13-12}, \phi_{14-12}, \phi_{15-12}, \phi_{13-12}, \phi_{14-12}, \phi_{15-12}, \phi_{16-12})$
16	13	16x13	234	$T_{16-13} = T_{16-12} \cup (\phi_{13-13}, \phi_{14-13}, \phi_{15-13}, \phi_{14-13}, \phi_{15-13}, \phi_{16-13})$
16	14	16x14	238	$T_{16-14} = T_{16-13} \cup (\phi_{14-14}, \phi_{15-14}, \phi_{15-14}, \phi_{16-14})$
16	15	16x15	240	$T_{16-15} = T_{16-14} \cup (\phi_{15-15}, \phi_{16-15})$
16	16	16x16	240	$T_{16-16} = T_{16-15}$

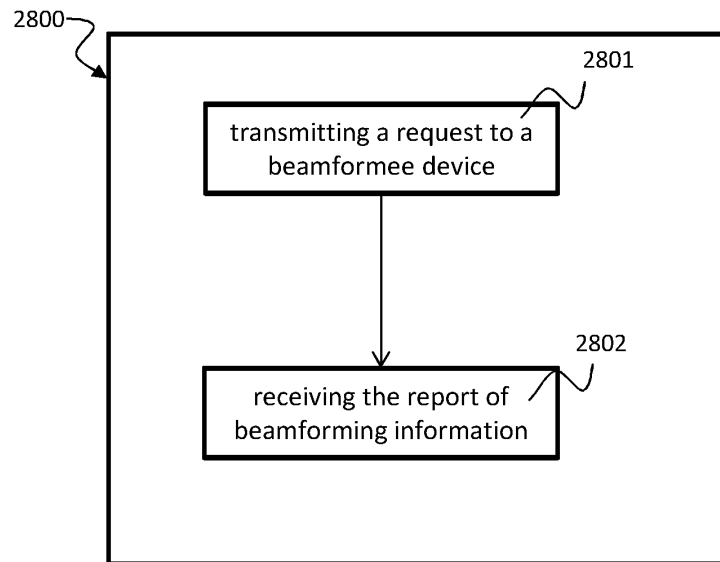


Fig. 28

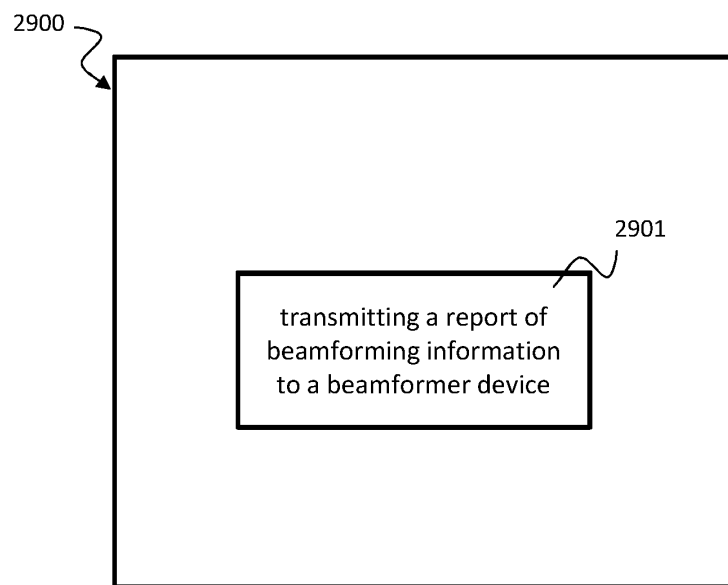


Fig. 29

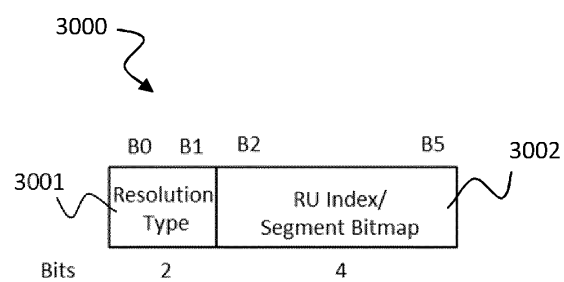


Fig. 30

Fig. 31

