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Re:	Contribution supporting TGe WG ballot #14b	
Abstract	Preamble of OFDMA for FFT size 1024,512,128 with MIMO preamble usage.	
Purpose	Propose Preamble of OFDMA for FFT size 1024,512,128	
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Preamble of scalable OFDMA supporting MIMO system

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1. Background

In 802.16RevD5 and 802.16eD3 document, the PAPR of the OFDMA preamble scaled down from 2048-FFT to 1024-FFT, 512-FFT, 128-FFT is not clearly identified. Also the MIMO preambles are not well defined, so that we propose a set of preambles to reduce the PAPR (peak to average power ratio) effectively, supporting MIMO preamble and also give the best cross-correlation between sequences.

2. Problem Definition and Proposed Solutions

In IEEE 802.16e/D3, section 8.4.6.1.1 describes the preamble for scalable FFT as “For FFT size other than 2048-FFT, only the first k elements of table 307 shall be used to modulate the DL preamble subcarriers, where k is the number of carriers.” However, the truncated preamble sequence from that of 2048-FFT may result in high PAPR. We propose new preambles for 128-FFT, 512-FFT, and 1024-FFT in this contribution, which have low PAPRs.

3. Proposed changes

In ‘8.4.6.1.1 Preamble’

[*CHANGE the sentence*]

“For FFT size other than 2048-FFT, ~~only the first k elements of table 307 shall be used to modulate the DL preamble sub-carriers, where k is the number of carriers~~ use the following preamble sequences corresponding to the FFT size”

[Add 8.4.6.1.1 Preamble on Page 480 line 57 as following text]

The first and second symbol of the downlink transmission are the preamble; there are 2 types of preamble carrier-sets, those are defined by allocation of even subcarriers; those subcarriers are modulated using a boosted BPSK modulation with a specific code.

For 1024, 512, 128 FFT, the preamble carrier-sets are defined using the following

formula:

$$P_{ID_{cell,s}}[k] = \begin{cases} \sqrt{2}(-2q_{ID_{cell,s}}[m]) & k = 2m - \frac{N_{used}}{2}, m = 0, 1, L, \frac{N_{used}}{4} \\ \sqrt{2}(-2q_{ID_{cell,s}}[m-1]) & k = 2m - \frac{N_{used}}{2}, m = \frac{N_{used}}{4} + 1, \frac{N_{used}}{4} + 2, L, \frac{N_{used}}{2} \\ 0, & otherwise \end{cases}$$

If is IFFT-processed, it results in a pattern repeating itself once in the time-domain. In the previous equation, $\sqrt{2}$ is multiplied so that the DL preamble has the same average power level as that of the data OFDMA symbols. For 1024-FFT, $q_{ID_{cell,s}}[m]$ is defined as follows.

Where,

All the sequences regarding to $T(m)$ should use the codes shown in **Error! Reference source not found.** where, $H_{128}(i, j)$ is the (i, j) th element of the length 128 Walsh Hadamard matrix, $i, j = 0, 1, L, 127$, and s denotes the sector ID. The elements of first row of H_{128} are all 1, so we should use the matrix except first row. means th permutation, represents largest integer not larger than . Those entire permutation indexes required for these preambles should use the indexes shown in Table 1.

Table 1 – Permutation

$\Pi_0(I)$	1, 65, 97, 113, 121, 125, 127, 126, 63, 94, 47, 86, 43, 84, 42, 21, 75, 100, 50, 25, 77, 103, 114, 57, 93, 111, 118, 59, 92, 46, 23, 74, 37, 83, 104, 52, 26, 13, 71, 98, 49, 89, 109, 119, 122, 61, 95, 110, 55, 90, 45, 87, 106, 53, 91, 108, 54, 27, 76, 38, 19, 72, 36, 18, 9, 69, 99, 112, 56, 28, 14, 7, 66, 33, 81, 105, 117, 123, 124, 62, 31, 78, 39, 82, 41, 85, 107, 116, 58, 29, 79, 102, 51, 88, 44, 22, 11, 68, 34, 17, 73, 101, 115, 120, 60, 30, 15, 70, 35, 80, 40, 20, 10, 5, 67, 96, 48, 24, 12, 6, 3, 64, 32, 16, 8, 4, 2, 0
$\Pi_1(I)$	25, 77, 103, 114, 57, 93, 111, 118, 59, 92, 46, 23, 74, 37, 83, 104, 52, 26, 13, 71, 98, 49, 89, 109, 119, 122, 61, 95, 110, 55, 90, 45, 87, 106, 53, 91, 108, 54, 27, 76, 38, 19, 72, 36, 18, 9, 69, 99, 112, 56, 28, 14, 7, 66, 33, 81, 105, 117, 123, 124, 62, 31, 78, 39, 82, 41, 85, 107, 116, 58, 29, 79, 102, 51, 88, 44, 22, 11, 68, 34, 17, 73, 101, 115, 120, 60, 30, 15, 70, 35, 80, 40, 20, 10, 5, 67, 96, 48, 24, 12, 6, 3, 64, 32, 16, 8, 4, 2, 1, 65, 97, 113, 121, 125, 127, 126, 63, 94, 47, 86, 43, 84, 42, 21, 75, 100, 50, 0
$\Pi_2(I)$	71, 98, 49, 89, 109, 119, 122, 61, 95, 110, 55, 90, 45, 87, 106, 53, 91, 108, 54, 27, 76, 38, 19, 72, 36, 18, 9, 69, 99, 112, 56, 28, 14, 7, 66, 33, 81, 105, 117, 123, 124, 62, 31, 78, 39, 82, 41, 85, 107, 116, 58, 29, 79, 102, 51, 88, 44, 22, 11, 68, 34, 17, 73, 101, 115, 120, 60, 30, 15, 70, 35, 80, 40, 20, 10, 5, 67, 96, 48, 24, 12, 6, 3, 64, 32, 16, 8, 4, 2, 1, 65, 97, 113, 121, 125, 127, 126, 63, 94, 47, 86, 43, 84, 42, 21, 75, 100, 50, 25, 77, 103, 114, 57, 93, 111, 118, 59, 92, 46, 23, 74, 37, 83, 104, 52, 26, 13, 0

Table 2.

ID cell	s	sequence	papr	ID cell	s	sequence	papr
0	0	D088CE121099	5.66227	64	0	D80AF4BD51E9	5.8231
-	1	BB0FB6629156	5.70745	-	1	I9CE68F2CFB5	5.6658
-	2	1A9E43CB277D	5.40849	-	2	0537D925772F	5.15889
-	3	598B21AA5749	5.15736	-	3	1C7A703DBE7B	5.83107
-	4	55E6425296B9	5.26919	-	4	AFFF58864964	5.90393
-	5	F0FDCD814E9C	5.3337	-	5	7E6998AE1405	5.55941
-	6	616501101DDC	5.29553	-	6	99432A465573	5.77748
-	7	A4A0055CE1C0	5.32531	-	7	D8EC637386A9	5.2463
1	0	BE19AE1AF7F5	6.10532	65	0	2C443104EF7D	5.57905
-	1	C42B9832CDB9	5.62257	-	1	E50257C02150	5.33786
-	2	9C2770A03E39	5.79533	-	2	9EFD2E2B92B2	5.2395
-	3	CF7BE7D71A5D	5.33121	-	3	66800A7C77C6	5.42828
-	4	CE62C31D0A62	5.55509	-	4	BFAFD260271A	5.55765
-	5	D995C9EE696B	5.27733	-	5	2ABF1E042FA3	5.57181
-	6	FD4A62F6BF86	5.45897	-	6	932E424B3150	5.89214
-	7	C63CFCDAC2F7	5.08909	-	7	658295C56627	5.16826
2	0	D1024F61607F	5.47031	66	0	9FF5A30A6E98	5.54787
-	1	D4E5723A4707	6.09491	-	1	BEB7B87E3EBF	5.52034

_	2	58F548DD12AD	5.10417	_	2	01DB1B7D6F88	5.62735
_	3	500399CDBABA	5.32371	_	3	500C4E308009	5.30348
_	4	9D2F90710E2C	5.14353	_	4	99372AFC6650	6.33308
_	5	4EF0BE5C597A	5.45375	_	5	79F2D5C0450A	5.84163
_	6	E344AE1BE0A0	5.32171	_	6	BFDA21F22227	5.79409
_	7	13FD078DFCDB	5.93181	_	7	B4DB04DF227E	5.84554
3	0	FFD16073A1D6	5.78104	67	0	7BDF08AB5376	5.32577
_	1	6384A20C709B	5.69795	_	1	262BF97EF8B3	5.51306
_	2	250DA6B77C48	5.07135	_	2	B8F676F039DA	5.80337
_	3	4879F9628976	5.62232	_	3	5192BB13C583	5.61725
_	4	AC1A8708ABB3	5.41997	_	4	6C465487C7DB	5.24083
_	5	0959506FCCF2	5.01052	_	5	21BFE29C3E0D	5.62331
_	6	49D5F6B6E1E3	5.69835	_	6	41B45B4D5649	6.31925
_	7	57C22BD676A7	5.37886	_	7	CE36DF320518	5.95059
4	0	ECC4979DC7A8	5.43829	68	0	DAADCDB1C6CE	5.39698
_	1	70B1B2E5F7EF	5.46168	_	1	596A5B670146	5.67678
_	2	1F14DC878362	5.45045	_	2	41E2DEFA21CA	5.26526
_	3	6E0AC93A5F4C	5.47401	_	3	BC2EAC61ACF0	5.10163
_	4	6E9457936DE4	5.79718	_	4	C3D25F79B5F7	5.70592
_	5	37F40C3A6500	5.73225	_	5	425178F2E844	5.72388
_	6	038B76CAB849	5.03968	_	6	256E95160273	5.70191
_	7	0761CD465413	5.40678	_	7	DC295C7C873C	5.56076
5	0	0AE617602D61	5.49265	69	0	2FE6F8FC1BF7	5.54497
_	1	228C5A978EE3	5.51033	_	1	9294A86E68BD	5.90536
_	2	49E2014E4890	5.28067	_	2	4CE05FE90494	5.13452
_	3	566765205FC7	5.54078	_	3	342D6C24DA30	5.72666
_	4	07EF1FFD1914	5.59233	_	4	293DAC9601BA	5.47619
_	5	48D0C0AFABA7	5.31327	_	5	246A6100D3A7	5.45995
_	6	B3B7ADCAE477	5.95788	_	6	EBAE9372C324	5.58773
_	7	40403ECA96B1	5.85279	_	7	3246248FE7C3	5.45114
6	0	B300CCE9D099	5.53586	70	0	8F37A0139952	5.71968
_	1	7631AD8B22E4	6.43591	_	1	4A58DB555FDF	5.44301
_	2	B4AFF8650CCE	5.47739	_	2	6DE3E46D14EF	5.8651
_	3	597DE8B4578F	5.42959	_	3	842607E27908	5.56667
_	4	ECC8992FEA4B	5.52623	_	4	31E3B4D8B5C4	5.99126
_	5	090ADD57498E	5.44813	_	5	60364BCFF894	5.78716

_	6	23DC1C671F29	5.09877	_	6	5C056B139582	5.61295
_	7	30ABCA5B41F9	5.98801	_	7	08FAAD4B99C6	5.42542
7	0	633F54E20298	5.46205	71	0	B1E91A4C9677	5.79034
_	1	38F28A83D0EA	5.6163	_	1	1D2A2D78A09B	5.76376
_	2	45380803AB66	5.24158	_	2	1ACBB8F0CC30	5.64368
_	3	9632A528E816	5.1687	_	3	5835D3FAEA6B	6.00463
_	4	C240E30312C6	5.37153	_	4	EF7E41E69747	5.58973
_	5	4D8EC1631A1A	5.17321	_	5	B1CE3FD3862C	5.80871
_	6	ABBD53FCD97C	5.80558	_	6	B209032D668F	5.81599
_	7	DB90F65E8EB7	5.39675	_	7	E51C7078649E	5.67015
8	0	D06044066576	5.44115	72	0	DBE346281613	5.55909
_	1	D181EA7056F4	5.67817	_	1	0E1E38C96BF2	5.76408
_	2	59A888250FBB	5.56102	_	2	A7E3F75A0E01	5.48996
_	3	6493BC110BE6	5.79203	_	3	76138745AADB	6.00914
_	4	277EA219D388	5.11439	_	4	B8B183EC64FC	5.42392
_	5	3291E2080EA2	5.23452	_	5	B57BAF42E988	5.25637
_	6	154DEB20715D	6.00725	_	6	03B15428442B	5.53382
_	7	0212C858F468	5.80379	_	7	FAE690232166	6.05126
9	0	A3DB1DD19254	5.73676	73	0	393E5EFACE8A	5.85929
_	1	792E6FBE5C87	5.59874	_	1	333AA8713996	5.73138
_	2	F4E73BC64108	5.11814	_	2	F2E77239B75A	5.91389
_	3	C723FB33E2F3	5.35878	_	3	DB2437E60708	6.08899
_	4	868BCA28D25F	5.74794	_	4	ICCCA7FADFDA	5.28835
_	5	6B3689259127	6.04283	_	5	598F2740E68A	5.4779
_	6	9E001308DD23	5.44761	_	6	8B97158EAA11	5.55042
_	7	6DEF80F0A3EB	5.81628	_	7	CAE83BEE99A5	5.30693
10	0	D0C83A93D8A0	5.7145	74	0	110A8C0297DE	6.0833
_	1	CF06F63A1851	5.78021	_	1	E6E50EDD46BE	5.52114
_	2	2AA901D123D1	5.32233	_	2	14CAA4AFB9D1	5.4054
_	3	02F00128D598	5.34119	_	3	637879D8FC85	5.50122
_	4	B02DF0E68595	5.6172	_	4	B2C30EC1B58E	5.2717
_	5	CE22551BC0F7	5.42501	_	5	1E12EC312BA7	5.20797
_	6	A95CD75FCC0E	5.05427	_	6	8E9EA488B534	5.5807
_	7	ECCCCD8FF1D4	5.35262	_	7	01C3420174AD	5.87077
11	0	E36B79645D19	5.40748	75	0	9DF0FF05A596	5.85995
_	1	8F87BBDE553B	5.38702	_	1	78EBBB91DAE0	5.76752

_	2	D66BA5E6C658	5.56969	_	2	6952760A68A2	5.63662
_	3	F324A5B828AD	5.67081	_	3	16B917CDC4BC	5.74162
_	4	2423056C7448	5.02695	_	4	91A6E482D2E7	5.82266
_	5	B43CEBD91AD5	5.28885	_	5	79AB7A450762	5.87258
_	6	8D1314A2F746	5.56452	_	6	1194B9CC6AA5	5.24346
_	7	EEEEF24796E02	5.55677	_	7	DD4F2BFB536E	6.07877
12	0	42C8C4AA175A	5.64993	76	0	9343D83DEEE2	5.36045
_	1	5C93B23172D5	5.73807	_	1	C87A0D649849	6.45535
_	2	AB722D4A2541	4.97464	_	2	58F70BAB0647	5.09019
_	3	853CFA41F831	5.08541	_	3	080A2A1F0F78	5.12718
_	4	3B7477C4EFB1	5.17833	_	4	7967972E5566	5.24447
_	5	8F69A0E9CDB4	5.44252	_	5	02B3655A6A3E	5.48932
_	6	6A1E9EC85441	5.3158	_	6	BD68A7598C07	5.57493
_	7	4EA3C59BD87F	5.58027	_	7	F122E904237B	5.52076
13	0	4C1FA3317692	5.78842	77	0	33FEA057AC69	5.77107
_	1	79D21AF07BC2	5.46939	_	1	746BC0CE55D7	5.61041
_	2	9FB09F7C1D4A	5.6087	_	2	468F36159727	5.35648
_	3	C0FBFE1489BF	5.81079	_	3	71EAB6E9C086	6.0822
_	4	20E264D484E0	5.66395	_	4	5A796C75DF05	5.64331
_	5	223D2AAFD9B1	5.41695	_	5	47F416AA3A34	5.13276
_	6	077646A9333C	5.99419	_	6	2CA4D83F6F02	5.75657
_	7	234945B6622D	5.68873	_	7	AAE13465FDA7	5.80619
14	0	6EB49E73C5D1	5.39798	78	0	37C789653FBB	5.71486
_	1	B98DE5B35D77	5.79618	_	1	2F4D0A1FDEB5	5.32489
_	2	AF4524CB3F27	5.16981	_	2	7F51FEB61D0C	5.21268
_	3	A798F29C9E03	5.45632	_	3	8EA22AC3039A	5.28302
_	4	3185A0E0BBB6	5.68124	_	4	5025B8DC1072	5.8147
_	5	FD03E2BAC2AD	5.71208	_	5	BD22AA3A08FF	5.54517
_	6	4E23427FB93F	6.15659	_	6	87E51F75A773	5.38021
_	7	7107E19A99C8	5.69043	_	7	DCDBE85EF40A	5.65035
15	0	43E6A8F25CAC	5.62828	79	0	F5401FFF4C88	5.75793
_	1	25E15030E536	5.58581	_	1	E25544146C45	5.67949
_	2	C38494D167B7	5.10237	_	2	0437230619FC	5.66544
_	3	9ED1D7CC4F8C	5.05382	_	3	0541E6A18BFD	5.63489
_	4	C80DC402DAEE	5.12906	_	4	47E755C1FAED	5.40036
_	5	55366C5E7A0C	5.37247	_	5	57B24891BD9E	5.73267

_	6	93612E329880	5.59404	_	6	C99998D653E7	6.04244
_	7	B0B9F43FBDD8	5.22303	_	7	C0F41A3CEA5B	6.33253
16	0	CDCB70CC4186	5.55543	80	0	F9014BF47102	5.71708
_	1	55E6F5985F5D	5.56685	_	1	6000D0801550	6.0847
_	2	50D1D6078A1B	6.00847	_	2	I571657CFA1F	5.44444
_	3	A80121A4723D	5.44112	_	3	06B408CA4E2C	5.65798
_	4	ADA580BCA560	5.93448	_	4	8CA5F6D452F1	5.90837
_	5	C19924BBFC2C	5.61612	_	5	90FC37A04DED	5.58783
_	6	30B338E0F9AD	6.25398	_	6	2525E17CCC9C	5.97693
_	7	B59ABB602FA4	5.99946	_	7	BC800619369D	5.73057
17	0	D533DD50CE97	5.41124	81	0	ED42133BD829	6.00376
_	1	F2D7EFBD2D79	5.43992	_	1	B7084EC0EE2E	5.57607
_	2	0FBE30483D4B	5.60097	_	2	7AF047330747	4.96107
_	3	5B024EA56919	5.47693	_	3	440056863032	5.32513
_	4	8BA213B8780D	5.84543	_	4	FCFEE42F7FDD	5.78234
_	5	7AD38AC2791C	5.91958	_	5	EF8854C9DE64	5.43075
_	6	ADAF427FAC71	5.95431	_	6	53BA67B94249	5.60098
_	7	6B6A28174871	6.0074	_	7	1E47158DDC7C	5.40607
18	0	913A521BB291	5.4584	82	0	A0235CC28437	5.98352
_	1	7AF951C5D603	5.56105	_	1	B55AAA0A7D28	6.11508
_	2	3278672F74B9	5.26762	_	2	F888401C99C3	5.45133
_	3	B70911EE686C	5.31641	_	3	0BDC7CA9DDC7	5.52703
_	4	E96899851A40	5.23496	_	4	EAA040D081A4	5.75459
_	5	9B1924286F03	5.62023	_	5	AE77260EFF97	5.83992
_	6	155750E13E08	5.46795	_	6	CE26233FF06C	5.52005
_	7	24B961717AD1	5.34549	_	7	BAE3DF40607E	5.77351
19	0	CCAE39CC415D	5.53714	83	0	5E803F527C27	5.76979
_	1	3AE4069796EC	5.63025	_	1	01B4EB2547DD	5.44266
_	2	9133DDA30679	5.40207	_	2	5E3748BCEF7F	5.4515
_	3	8D340D66AB35	5.01684	_	3	836BF87F06FE	5.27018
_	4	8B829AFCF626	5.49291	_	4	387700329442	5.76057
_	5	00B03DB3DB19	6.15248	_	5	0C50185AAF36	5.50366
_	6	6F3D1B5860CA	6.42099	_	6	F6B259FFF7A3	5.70085
_	7	CC866E523693	5.62151	_	7	BBFC5BB66F75	5.68166
20	0	E16D04EFA894	5.5247	84	0	2C7F2BFB3673	5.82109
_	1	74990EF04CE0	5.42905	_	1	I3A9726E59B8	5.47508

_	2	DAF36F3AAF62	5.49398	_	2	198822AE79A4	5.49652
_	3	CC641C4A5054	5.2273	_	3	499196669AC1	5.77412
_	4	11F8118BE715	5.38088	_	4	4D856FC5E6C8	5.48122
_	5	8C86DCA25B36	5.27308	_	5	58E3C3AF0EDD	5.60814
_	6	8C99CCF89190	6.3006	_	6	3366FC384E4E	6.78105
_	7	8CC4A2BB05D7	5.28889	_	7	633212A63875	5.97122
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_	1	CB76F36CBBE1	5.58275	_	1	6CA6BC9ABE87	5.43518
_	2	00589F8DBAED	5.52333	_	2	5B9A261795E3	5.67181
_	3	54D55924839E	5.47386	_	3	8E663E88C4A0	5.77291
_	4	20DA1F807BD5	6.17795	_	4	61895765E360	5.73245
_	5	D6D1002082C4	5.52037	_	5	5C32CB4FEFA0	5.44931
_	6	15D2E12FBD8D	5.63197	_	6	77FC49176220	5.72319
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_	5	9D9E7FE7D33E	5.21962	_	5	A465F1DA27BC	5.09941
_	6	E7095F2A663F	5.97209	_	6	E579564C2F24	5.46529
_	7	330668C4B067	5.83849	_	7	3312C5CC9DB0	5.9639
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_	2	6BD0E9FC971B	5.68987	_	2	DFC6C374C473	5.49352
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_	2	D4525E55DA1B	5.18497	_	2	B6D30BBBF61C	5.09554
_	3	BB08BDFEBC7E	5.33269	_	3	AD3605F698C9	5.20864
_	4	77B4BD53FEBE	5.92752	_	4	B6839FB827C9	5.46282
_	5	2CDD801AB2AD	5.38955	_	5	7A6E4B1E91B7	5.24083
_	6	0EED3ACC7F1D	5.62476	_	6	8361F2430BCC	5.34804
_	7	7AAC97AF21DA	5.39427	_	7	6530FE510F63	5.79381
49	0	70721EA2E124	5.67249	113	0	4B2CF75577CE	5.70451
_	1	E7EB7BA80439	5.35163	_	1	C80B450663C3	5.76646
_	2	D967316D1BF3	5.51067	_	2	77EF3E8FD29A	5.48922
_	3	7CC64DDFB463	5.38757	_	3	E6AD3246D78D	5.85459
_	4	47F4445CF760	5.62077	_	4	12A70F52237C	5.34322
_	5	1B03D5096C25	5.41384	_	5	C344E0AB351B	5.38476
_	6	6ACA07806397	5.75291	_	6	1904A928A0B0	5.38847
_	7	B77F9370FE46	5.50069	_	7	16DC0555D631	5.62789
50	0	E647ADC74419	6.15904	114	0	3B64E84B7E53	5.38714
_	1	E7BC4619A8FA	5.7863	_	1	7D3FCE34E645	5.96027
_	2	4CDD34E1F03C	5.34878	_	2	DFA46E4DB501	5.23523
_	3	881984BB2E32	5.58825	_	3	CEDFC7CD286E	5.02382
_	4	EE49FE58C564	5.37129	_	4	CCC462D2822B	5.44333
_	5	60E98289F63B	5.44595	_	5	7896EE6EF1E4	5.48541
_	6	B4D7BC07643B	5.89159	_	6	3FE2E829A85E	5.36121
_	7	130A27E0AA99	5.2675	_	7	7C573227C33B	5.65062
51	0	42EFBAF8ABB6	5.35146	115	0	D6E9FD5D692C	5.46964
_	1	79F29FE9B083	6.29065	_	1	319FA1CDD4F4	5.6656
_	2	63A5D260418D	5.01949	_	2	C2A83330E5C0	5.12032
_	3	07DD9755579F	5.10805	_	3	969A45AE7FC3	5.11752
_	4	EC40955D230A	5.91001	_	4	EACA93ED25EF	5.72992
_	5	6574631B7625	5.68166	_	5	1DB28DF37552	5.38947

_	6	23A72D8B9FA6	5.74888	_	6	7962715FEA46	5.76647
_	7	3FF0F9E68E95	5.8353	_	7	0D0730DBC705	5.46201
52	0	65E0E4C9FE42	5.43829	116	0	404DB2F46758	5.61802
_	1	88858066439F	5.39448	_	1	1A4F3B507E6D	5.60095
_	2	4EF7F4698731	5.26947	_	2	539D48698465	5.78404
_	3	81D5A33B62CB	5.41456	_	3	8A6EB63B9122	5.83078
_	4	18085208A759	5.39061	_	4	999AD329CCDB	6.73943
_	5	004420C4FB2E	5.26347	_	5	64EC66981F04	5.78234
_	6	CBCC0ACACA3D	5.52123	_	6	87AFBEF03D5B	5.62334
_	7	0EBA49722760	5.24103	_	7	ACCF2CB7A1C2	5.54562
53	0	BF83A2C8E9DE	5.55059	117	0	364A4C8F58A3	5.18512
_	1	EF56B231DBA2	5.54466	_	1	6424199A4073	5.53737
_	2	019965BC0A50	5.69988	_	2	A9B04CE9B278	5.04084
_	3	C41D632289D7	5.45104	_	3	4E65761D64AB	5.18877
_	4	BD8BFCB7838C	5.69982	_	4	352856386D81	5.63776
_	5	60D195CCC936	6.7162	_	5	2DEABA66F5BA	5.51185
_	6	0ABA4C8D72F8	5.80693	_	6	2DC2E2AD86C5	5.59396
_	7	99E6AC18890C	5.26268	_	7	39AE99303E9A	5.63623
54	0	453D94DDF47B	5.54705	118	0	9018CD85D7F0	6.14053
_	1	5ADFBA072CDD	5.43477	_	1	755EA1BD131D	5.85618
_	2	BE33C83B90AC	5.16702	_	2	64CD76F1B3F2	5.78596
_	3	35CFAA3B4D57	5.33099	_	3	F9D4D49E6467	5.30879
_	4	B1A273545290	5.2351	_	4	D22F6435B9E8	5.49243
_	5	A448A130CE91	5.2929	_	5	69BFB52664E9	4.9792
_	6	F580D60130C0	5.54781	_	6	D05928B3C179	5.48403
_	7	8451F158750D	5.29075	_	7	D50AABBD56CE	5.7467
55	0	D44FAB6000FB	5.52573	119	0	F55C5D185F7D	5.85524
_	1	90A315DEB786	5.50591	_	1	15B1CFDFAEF8	5.34138
_	2	7DAE42FEAEC7	5.75608	_	2	55CB28D4ADC6	5.13632
_	3	6B6EE6711A26	5.30226	_	3	B6C6EA460822	5.16527
_	4	ICE7845851CB	5.48827	_	4	61B0C0CFCD86	5.46585
_	5	3968413FFB0D	5.30453	_	5	4DDDEF6ABC9B	5.60961
_	6	83A2E526F02F	5.36122	_	6	F55292406FCD	5.64467
_	7	C2F18B2079FE	5.16663	_	7	ED1F54677A29	5.61005
56	0	7F12469717F7	5.61263	120	0	0304CA315DBA	5.47114
_	1	834C3FCAE5F6	5.43351	_	1	67138E501564	5.5487

_	2	E460AD30405D	4.86809	_	2	69E1512E40AE	5.64772
_	3	82A7623D02C4	5.11574	_	3	7EEC9130FC95	5.32382
_	4	6C5E1EBBD5A6	5.76646	_	4	175863D49C20	5.58673
_	5	D1C7CD965B01	5.25435	_	5	90AEA9E89AD2	5.56281
_	6	EE002612A781	5.41808	_	6	6D4CA88BB362	5.82866
_	7	FAD8F5FFA95A	5.98825	_	7	82104D257756	5.72098
57	0	FBBE0D8C1C9C	5.3305	121	0	600662704FB6	5.55982
_	1	EC5DC83BB399	5.69466	_	1	665973F16AEB	5.95908
_	2	29E0AA4CA458	5.0918	_	2	20AB09721E0C	5.80467
_	3	DCA25C75DDE0	5.42337	_	3	6499CF51B20E	5.78746
_	4	4BA4AE141971	5.06598	_	4	512D417D6635	5.43705
_	5	DCAA74F85D24	5.5508	_	5	A86A3DB9C8CA	5.62371
_	6	A1AA12C46115	5.40866	_	6	120E2BB3D7CF	5.21467
_	7	EAD100293D5F	5.56697	_	7	6D4E3CEC650B	5.44137
58	0	EA11560AE175	6.57779	122	0	3E8CED7650C6	5.28322
_	1	BC4E0D29D1AD	5.61389	_	1	D6DF5DEC9918	5.52593
_	2	DAEC625BB837	5.28365	_	2	0BA1369C3590	5.16118
_	3	C6F9675897B6	6.09103	_	3	90B8764919FF	5.24138
_	4	813BADC659D4	5.48484	_	4	28D9F6F52FFC	5.29281
_	5	574DDD1F6669	5.6898	_	5	CD7BF31835F3	5.81859
_	6	FF2D19BB4510	5.953	_	6	9A9011A31229	5.39217
_	7	5AD489291F30	5.56927	_	7	0755A0F36C17	5.4718
59	0	702ADC8FD746	6.04418	123	0	4984F931006E	5.55493
_	1	437F820AE248	5.47447	_	1	70C5F780564E	5.96005
_	2	1BEBCFF83A3B	5.30897	_	2	66F6EE92F669	5.48706
_	3	5D99D89D1E94	5.29003	_	3	45D5156E95CD	5.67064
_	4	E2FFD62BF8F5	5.4988	_	4	D168EEB28805	5.44018
_	5	BC88404A6C0C	5.53612	_	5	7619A36C6F98	5.04313
_	6	B92FCCDB911E	5.43975	_	6	DC80DA1CAEE4	5.55619
_	7	E952930C6F03	5.43809	_	7	9CA06229A370	5.78161
60	0	6520F8E24E27	5.33901	124	0	6D0061E6D953	5.67486
_	1	1840DC96F9D3	5.52326	_	1	2CCB6D0A00BB	6.02822
_	2	25F6A91F18C3	5.00993	_	2	D8EE691BE891	5.68113
_	3	5020A6080E8E	5.18769	_	3	4B3A62AC11CF	5.36005
_	4	03736EA8BD1E	5.89776	_	4	805ECEAA8341	5.34754
_	5	1B8BFD198ACA	5.51772	_	5	456ADB01DFA7	5.23916

_	6	75E9C056B147	5.87218	_	6	4EE777A8F8B2	5.66904
_	7	680D8478E09C	5.71789	_	7	48307BE6CDC5	5.51148
61	0	3FD9FDA2EE4C	5.85105	125	0	52C8B63941C3	5.62586
_	1	6597DE3FCE20	5.92832	_	1	4B649EE1AD20	6.17023
_	2	08AEC8DFB237	5.43215	_	2	825F0D782C5C	5.49749
_	3	C7760D946764	5.61915	_	3	51004FCE4044	5.70179
_	4	6E956E04262C	6.22631	_	4	38DEDB49775F	5.09412
_	5	4F1189955B41	5.73784	_	5	21E3C10D753A	5.6387
_	6	255EC8F762A1	5.38848	_	6	1A74BB9E4D0B	5.4194
_	7	305FF61B273A	5.56935	_	7	05F8F5506064	5.3626
62	0	6045B912C727	5.34754	126	0	1B5F8355D2C3	5.43152
_	1	BD877CD3038E	5.82203	_	1	912AE11E8797	5.56319
_	2	AD0C594CEAE1	5.6515	_	2	2E032CC9F5AE	5.81927
_	3	EE769C2DE103	5.74017	_	3	3F1CF92EA08B	5.57609
_	4	8308F4A36A37	5.76262	_	4	17990BB33FE9	5.68232
_	5	47FD0D0D1702	5.40933	_	5	49D8923AE898	5.51824
_	6	57CCE4AEF820	5.21761	_	6	E82D4D46FB92	5.62734
_	7	5ACCD2D27CC3	5.73945	_	7	B4B640353F9D	5.41102
63	0	8E2B27B0C8C5	5.84279				
_	1	ABD61F9414D4	5.76571				
_	2	6343882FD74B	5.49161				
_	3	0A3B78DBAF4D	5.54162				
_	4	3B4C5F015361	5.54491				
_	5	0A38159D8125	5.56647				
_	6	4EFD38B9936F	5.66842				
_	7	511CF1E0D432	5.62114				

For 512 FFT, the defined of $q_{ID_{cell,s}}[m]$ and other parameters should be used as the following formula:

$$q_{ID_{cell,s}}[m] = \dots$$

All the sequences regarding to $T(m)$ should use the codes shown in Table 3. Those entire permutation indexes required for these preambles should use the indexes shown in Table 1.

Table 3

ID cell	s	sequence	papr	ID cell	s	sequence	papr
0	0	6C1F5A	4.97361	64	0	E07D9A	5.21984
-	1	8823A9	5.06131	-	1	9932D3	5.60877
-	2	F3CEE2	4.82339	-	2	18BC8D	5.16223
-	3	C15D99	4.81322	-	3	B6A3DC	5.09716
-	4	67DDAB	5.08975	-	4	CF71AC	5.00036
-	5	92AD91	5.25537	-	5	9B12C4	5.62882
-	6	E261DB	6.02546	-	6	AC0E96	4.90703
-	7	42F01C	5.53673	-	7	8C11C6	5.40242
1	0	B316B7	4.97029	65	0	FE1944	5.19197
-	1	DF94A1	4.6197	-	1	5C0328	5.08708
-	2	C25263	5.0929	-	2	8D7DD6	5.50832
-	3	68FBBB	4.65452	-	3	EE4B15	5.39984
-	4	F06EAA	5.12587	-	4	25DFEA	5.18719
-	5	7D0819	5.34573	-	5	DED8B7	5.51317
-	6	C400FE	5.51085	-	6	5716D0	5.7648
-	7	73CBD0	5.06328	-	7	490B13	5.36594
2	0	443206	4.67974	66	0	75B3A2	5.28233
-	1	146424	5.1627	-	1	3A804B	5.03024
-	2	16C272	4.42708	-	2	3C9EAB	5.39438
-	3	B21082	5.03435	-	3	714464	4.80969
-	4	DCA65D	4.85383	-	4	5C5AA3	4.64333
-	5	2673C9	5.25772	-	5	6244DE	4.99529
-	6	CC7768	4.83686	-	6	E622EE	5.45039
-	7	1ECECC	5.87477	-	7	6C40E0	5.07619
3	0	AF8F12	5.14038	67	0	76C888	5.97299
-	1	9199DE	5.07378	-	1	BAC17B	5.48256

-	2	5D94C0	4.59726	-	2	6DE228	6.04061
-	3	62F1BD	5.07724	-	3	8AD316	4.71726
-	4	BCB4DD	4.79399	-	4	11C702	6.24128
-	5	46CDF9	6.28101	-	5	388B0D	5.20387
-	6	F8CCDA	6.17111	-	6	30B9F7	6.9531
-	7	AD83B1	4.76935	-	7	B9AB07	5.84633
4	0	FA10CB	5.63668	68	0	89561D	5.09544
-	1	F3BC44	5.74761	-	1	4FEF62	4.83624
-	2	87A502	5.26357	-	2	2B43A6	4.9495
-	3	26789D	5.71387	-	3	3DF25D	5.11967
-	4	BDB3B3	5.90423	-	4	DBA967	5.26687
-	5	2CE773	5.64182	-	5	FA7115	5.12549
-	6	CD043C	5.07081	-	6	1F0F0D	5.30534
-	7	388CB3	6.44353	-	7	055A48	5.90293
5	0	D337F6	5.44914	69	0	49CFE0	5.50178
-	1	4E5E82	5.13095	-	1	6E79F0	6.02909
-	2	C4FFC2	5.21022	-	2	F03FFC	5.58198
-	3	B58973	5.08379	-	3	770F78	5.03614
-	4	A4D9EB	5.17107	-	4	1E87B2	4.7838
-	5	562276	5.61372	-	5	B813F8	4.82849
-	6	72A385	5.49263	-	6	88681D	5.13949
-	7	1C2074	5.85838	-	7	4E7D0F	4.89491
6	0	9E855B	5.59862	70	0	B7C7AF	5.11309
-	1	CCFE34	5.36969	-	1	80B6CD	5.66516
-	2	C7FF50	5.78977	-	2	FF8888	5.23845
-	3	C58257	4.85054	-	3	196261	5.34368
-	4	D17740	6.25896	-	4	C09308	4.99951
-	5	8E01F4	5.02721	-	5	539256	6.10225
-	6	FC17F6	5.95836	-	6	1C3700	5.45796
-	7	587FB9	5.42004	-	7	94B229	5.58734
7	0	E4EFF3	5.39151	71	0	1F442F	5.55792
-	1	CCD98A	5.33896	-	1	5176BB	5.50021
-	2	C3D79A	4.81309	-	2	2CDBAB	6.02041
-	3	7B3DAD	4.73103	-	3	4C80B7	4.61529
-	4	E693B1	5.176	-	4	319C5A	5.54114
-	5	DEE484	5.48156	-	5	444D6E	5.26752

-	6	D00F8B	5.41495	-	6	9DCB49	6.42798
-	7	7E8A77	5.1814	-	7	466CC1	5.5595
8	0	6C49D9	5.6987	72	0	4D3B24	6.19266
-	1	EF9E92	5.56151	-	1	1D6FA0	5.34459
-	2	752EA4	5.15716	-	2	39999D	4.92669
-	3	CE68BA	5.57047	-	3	471966	5.82196
-	4	211F66	5.59869	-	4	68C95B	6.34621
-	5	7FE410	5.59546	-	5	5A2E2B	5.87107
-	6	35EE7D	5.43526	-	6	6FAE57	5.6567
-	7	CD0986	5.6462	-	7	4B483B	6.58629
9	0	2FCB3A	5.3229	73	0	EAC05C	5.36774
-	1	E87548	5.1726	-	1	425D08	5.35347
-	2	41A1BA	4.6203	-	2	EA9791	5.01176
-	3	F3F17A	5.11292	-	3	933054	5.56571
-	4	0A2183	5.1511	-	4	7AD69B	5.97057
-	5	58BB90	4.86063	-	5	49364C	4.97494
-	6	7CD610	4.94275	-	6	B6620F	5.64519
-	7	8C2D86	5.83726	-	7	22E523	5.2264
10	0	052458	5.3982	74	0	A517F6	6.04943
-	1	DB1340	5.3948	-	1	6CABA9	5.58283
-	2	6BC886	5.31174	-	2	294FBB	5.85674
-	3	56A4DD	5.0084	-	3	545B59	6.09799
-	4	EC87CB	5.192	-	4	885A31	5.55165
-	5	AFB40D	5.49156	-	5	554D5C	6.75846
-	6	0E6CD2	5.65863	-	6	865A6D	6.08389
-	7	410B42	5.55923	-	7	40EBB8	5.67244
11	0	62957D	5.11007	75	0	1A9545	5.99966
-	1	5EEECF	5.169	-	1	28EE2D	4.91057
-	2	7553CB	5.11879	-	2	E17565	4.95425
-	3	78B465	5.12536	-	3	FCF47C	4.95493
-	4	95BB65	5.10804	-	4	781CB5	4.95299
-	5	D09D2C	5.49719	-	5	4AB7F1	5.30058
-	6	35E357	5.51708	-	6	F7F342	5.91397
-	7	F5A443	4.8486	-	7	3ED0F5	5.40228
12	0	FDC1DC	5.30685	76	0	363200	5.08851
-	1	71C155	4.95592	-	1	12665A	5.17819

-	2	AF4FOC	5.16341	-	2	E042EF	5.12231
-	3	687A76	4.76167	-	3	293EC7	5.00112
-	4	6ED5C2	5.42893	-	4	B4E291	5.29991
-	5	5863E8	5.10009	-	5	2738BE	5.27909
-	6	85E02A	4.82316	-	6	E638B4	4.98923
-	7	C3B2E6	5.15066	-	7	04CBD1	4.91222
13	0	67189F	5.29941	77	0	539CB5	5.39483
-	1	337747	5.14405	-	1	06F86E	4.8186
-	2	1ECFA3	5.61396	-	2	1C094E	5.39779
-	3	710838	5.25423	-	3	D90956	5.62309
-	4	5EBD26	6.05816	-	4	896FF1	5.67043
-	5	3D4401	5.0977	-	5	07AA54	5.03379
-	6	250683	6.47227	-	6	0E9FC2	5.06769
-	7	B599AC	4.95957	-	7	1C8AEC	5.72892
14	0	5DCA1F	5.44929	78	0	2C899A	5.65198
-	1	63F1B0	5.62108	-	1	6AE650	4.9287
-	2	FAB8D9	4.7606	-	2	ECB8B2	5.0111
-	3	DEA092	5.91413	-	3	9F37AD	5.0922
-	4	D22EF0	5.16776	-	4	AA3ED6	5.23718
-	5	8CA8BB	6.79919	-	5	9B7EEB	5.38483
-	6	0404C9	5.37072	-	6	A850DB	5.14464
-	7	D1D770	5.88992	-	7	202D16	5.61666
15	0	7024DD	5.06986	79	0	5FA2CC	5.28374
-	1	D6C918	5.32139	-	1	E8D16D	5.1243
-	2	1B4B73	4.67828	-	2	609A5C	4.53652
-	3	353987	5.00965	-	3	5A1DA6	4.67014
-	4	2B9C62	5.38207	-	4	752B4E	5.25754
-	5	59BBD9	5.8567	-	5	F80D22	5.06974
-	6	36B104	5.50352	-	6	DF0B18	5.2222
-	7	1449F6	4.8765	-	7	F65C47	5.10837
16	0	76D133	5.1591	80	0	667491	5.8449
-	1	5DAAB6	5.41957	-	1	0D236E	5.59514
-	2	797AFB	4.59676	-	2	022751	5.03099
-	3	6A5DBA	6.8113	-	3	767840	5.71148
-	4	99E439	5.79021	-	4	4CE22C	5.10089
-	5	69687B	5.93973	-	5	DA21C1	5.69432

_	6	647474	4.9831	_	6	F776A3	5.68185
_	7	A4A49D	6.48698	_	7	C90B78	5.40575
17	0	F3CF19	5.83553	81	0	14CE83	5.37736
_	1	D65301	5.38631	_	1	23BA74	5.47045
_	2	B07599	5.5011	_	2	C23E37	4.90359
_	3	FFA9EF	4.95493	_	3	890E68	5.64431
_	4	DA42A3	6.55431	_	4	167818	5.92915
_	5	BAB99C	4.88051	_	5	D41BE7	5.22817
_	6	551A34	5.48232	_	6	0598C4	6.0351
_	7	F02285	5.16728	_	7	F55498	6.19789
18	0	6A7E1E	5.29067	82	0	B49CE7	5.49231
_	1	B25732	5.06788	_	1	C5ADB8	5.2746
_	2	D8D926	5.5193	_	2	D160EA	5.42223
_	3	97F0A6	5.07384	_	3	8B99C8	5.2386
_	4	488737	5.10368	_	4	1E6BCE	5.56037
_	5	BA708E	5.37476	_	5	58CF81	5.50947
_	6	B6E0CC	5.21909	_	6	D18F2B	5.29128
_	7	4AA512	6.19789	_	7	711C3D	5.67337
19	0	2B9075	5.31146	83	0	A2E172	5.29567
_	1	22E014	5.24963	_	1	83D8F3	4.9135
_	2	56DCC9	4.97695	_	2	6D07AB	5.51863
_	3	3E4916	5.07133	_	3	CC6285	4.94254
_	4	B9D468	5.11514	_	4	5B0E8A	5.05383
_	5	7EB5C5	5.28365	_	5	805B1C	5.15495
_	6	25D5E4	5.37686	_	6	63FBDA	5.67053
_	7	3EE069	5.05678	_	7	8176F6	5.04542
20	0	02C761	4.83125	84	0	B1C788	5.70411
_	1	BA3909	4.71593	_	1	111B69	5.15743
_	2	FAD3D5	4.95493	_	2	069E0C	5.06425
_	3	951BBA	4.67079	_	3	24D104	5.11527
_	4	5EEBD4	5.06836	_	4	F71BDD	5.76677
_	5	B13E99	5.48544	_	5	2C4F21	5.86928
_	6	735E44	5.08169	_	6	D1DFA9	5.69965
_	7	8A542E	5.14853	_	7	313BD8	5.66845
21	0	8FD591	5.65578	85	0	8715B1	5.47128
_	1	3F006A	5.0605	_	1	C30DCD	4.90395

-	2	4AA2E8	6.08817	-	2	05A72C	4.89822
-	3	FE7976	6.19789	-	3	B5F8BF	4.98373
-	4	48E6B6	5.27178	-	4	A68D32	5.52031
-	5	163733	5.06212	-	5	AD1317	5.13623
-	6	B5A60A	5.77745	-	6	335D4D	5.00496
-	7	F89E12	5.75986	-	7	A00D14	5.45296
22	0	BB719D	5.57877	86	0	EB8402	5.16585
-	1	AAA6CC	5.12328	-	1	3EE00D	4.58453
-	2	A0DB0E	5.38838	-	2	D3AE78	4.84665
-	3	DB4238	5.06757	-	3	488963	5.12308
-	4	BD4B0C	6.15599	-	4	DB4E51	5.12912
-	5	3803FF	4.9071	-	5	C877AB	5.27972
-	6	59B954	5.89644	-	6	2B0DA5	5.15402
-	7	886378	4.86475	-	7	BF7F45	5.33095
23	0	4EB974	4.91816	87	0	AC531F	5.45399
-	1	506238	5.57136	-	1	F47346	5.03136
-	2	9F4274	4.63788	-	2	F524C6	5.1058
-	3	6438F8	4.73408	-	3	6D12A0	5.09835
-	4	00CDC3	4.79769	-	4	B24C91	5.19266
-	5	F0EF52	5.30592	-	5	47F022	5.08893
-	6	582E29	4.87898	-	6	C7005F	5.78438
-	7	68F61A	5.79652	-	7	CA08C6	5.03878
24	0	E1B884	5.40552	88	0	88058C	4.95101
-	1	5B83DD	5.20714	-	1	14A153	5.30384
-	2	79685B	5.30519	-	2	127D32	5.05099
-	3	88D1E1	4.64996	-	3	EEA013	4.62256
-	4	AB3945	5.24897	-	4	03F1BA	5.17698
-	5	D692E5	5.35948	-	5	476D37	4.79202
-	6	A9F2D3	5.3484	-	6	2244C9	5.56415
-	7	A56942	5.38871	-	7	AC4957	5.01038
25	0	3756DE	4.97016	89	0	D54BED	6.27967
-	1	354A6A	5.45555	-	1	EF623F	5.21709
-	2	1D0D63	5.0662	-	2	691ABC	5.54197
-	3	CDE0AD	5.06944	-	3	C5104A	4.98956
-	4	459182	5.5747	-	4	47A13C	5.79882
-	5	C13964	5.12181	-	5	6E22C2	5.31047

-	6	E715A4	5.4201	-	6	855AD7	5.94648
-	7	E183A6	5.52517	-	7	4F2CF7	4.76378
26	0	42851A	5.32551	90	0	F8D63C	4.92832
-	1	D25A60	5.322	-	1	7766D2	5.48425
-	2	BCDF56	5.3625	-	2	5BB66E	5.4079
-	3	98F845	5.2007	-	3	F38B8C	4.73552
-	4	23160C	5.34356	-	4	E7BECD	5.13373
-	5	AE590D	5.21321	-	5	5BBFDC	5.60848
-	6	02A51A	5.90605	-	6	42C2AE	5.63131
-	7	889CE9	5.05255	-	7	E3AA46	5.49064
27	0	D022CD	5.38031	91	0	D30F5E	4.80216
-	1	7B9760	5.33393	-	1	9D087A	5.60549
-	2	4C15D8	4.85347	-	2	B05B70	4.72687
-	3	CE67C7	5.47213	-	3	07F144	5.02371
-	4	99F492	5.25533	-	4	B37B24	4.65591
-	5	C8EDF7	5.40517	-	5	E138E4	5.5624
-	6	8C815F	5.47632	-	6	D78F54	4.95268
-	7	DB92B2	5.70096	-	7	F72C7E	4.89367
28	0	5ADDCE	5.05668	92	0	13F9B8	5.37395
-	1	518D9C	5.50821	-	1	F0E78C	5.45033
-	2	91953F	4.75653	-	2	F4DEDE	4.8837
-	3	3C15CC	5.19407	-	3	561B9E	5.0437
-	4	CABC8D	5.7628	-	4	352ED3	5.2076
-	5	6E79C7	5.23816	-	5	3D2451	5.49992
-	6	84D6D3	6.39299	-	6	9EF326	5.43244
-	7	A2ABA5	6.59686	-	7	18EB85	5.61346
29	0	0F944B	5.46526	93	0	DA18D8	5.83116
-	1	B7A3A6	5.3833	-	1	6F869B	5.07469
-	2	533AA4	4.98467	-	2	0A50C4	5.0129
-	3	A6C5F2	4.41297	-	3	5A7187	5.06922
-	4	473056	5.2073	-	4	D65801	5.03516
-	5	F51E2E	5.27431	-	5	9898A4	4.92905
-	6	7D1E46	6.55115	-	6	4EAB16	5.47402
-	7	8AF0A2	5.52449	-	7	1425E2	5.17346
30	0	E03D44	5.81444	94	0	072DF2	5.18797
-	1	AF2A09	5.35238	-	1	DD3222	5.05312

-	2	C5EF07	5.79521	-	2	CEFD74	5.3452
-	3	A637DA	4.57511	-	3	46236F	4.91208
-	4	D02FE5	5.40384	-	4	046993	5.2968
-	5	B80F4B	5.57719	-	5	3968C0	6.03502
-	6	F0AD51	5.98709	-	6	8B0C7D	5.46607
-	7	7895EC	5.22395	-	7	9913F7	5.07513
31	0	B9E0E4	4.98952	95	0	1752E6	5.02768
-	1	D09D5D	4.86389	-	1	CE71AD	5.51672
-	2	7DB85D	4.96939	-	2	DA2EB2	4.95493
-	3	CE6373	4.87083	-	3	72B982	5.07845
-	4	4160A3	4.73696	-	4	496C84	5.12411
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-	6	A8F0BE	5.02003	-	6	FD83F9	6.18616
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32	0	D3782C	5.07308	96	0	BA8E30	5.08611
-	1	282811	5.13223	-	1	AE3FDC	4.91013
-	2	E24801	4.90237	-	2	0D4E96	5.74701
-	3	B6491B	5.17258	-	3	744BCA	4.56534
-	4	B22F85	5.41194	-	4	E3EF44	5.44633
-	5	AF473D	5.08618	-	5	16468C	5.18469
-	6	F4113D	5.24214	-	6	D38696	5.44304
-	7	BC9787	5.14023	-	7	E4BEB8	5.61865
33	0	75BC4D	5.9198	97	0	414BFA	5.3167
-	1	601A23	5.39062	-	1	FB3C8A	4.79618
-	2	7E982F	5.48196	-	2	7A6F71	5.55616
-	3	74A8E0	5.31998	-	3	BDC641	4.89694
-	4	E99AB7	5.20646	-	4	D030DD	4.98121
-	5	5AFBCD	5.63279	-	5	5B0423	5.75122
-	6	7E792E	5.615	-	6	E245FC	5.19463
-	7	C85DF1	5.78003	-	7	DFB898	5.46726
34	0	60A970	5.81432	98	0	CDE9CE	5.63462
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-	2	62C205	5.93105	-	2	0335F1	5.30506
-	3	BDB766	5.08372	-	3	FCF851	5.57074
-	4	9B4B64	6.16296	-	4	DE0F47	5.66798
-	5	9FF2D9	5.6156	-	5	9ADA5A	5.10881

-	6	D58362	5.844	-	6	825E6B	5.33322
-	7	999F7E	5.19661	-	7	DB8FAE	5.762
35	0	30A0C2	5.29301	99	0	925F98	5.07194
-	1	3441C1	5.32966	-	1	EF31AE	5.07574
-	2	014EDA	4.95395	-	2	47B326	5.35982
-	3	93278D	5.25401	-	3	10B119	4.86801
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-	5	95A0DD	7.39637	-	5	74870B	5.19366
-	6	A5A6C4	5.78555	-	6	9EEE19	5.87691
-	7	90692B	6.34594	-	7	4ED4BC	5.179
36	0	F88F27	5.50843	100	0	BFEA1E	5.70311
-	1	B8EBA1	4.57459	-	1	B0DFCB	5.1726
-	2	63AA39	5.50692	-	2	CC08FF	5.75303
-	3	2FCB3A	4.8629	-	3	A72805	5.84366
-	4	34B3B3	5.60141	-	4	8D9D2A	5.81451
-	5	B81B10	5.16305	-	5	AC6B03	5.15033
-	6	7A5A33	5.09099	-	6	EECE89	5.92216
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37	0	5915BB	5.17475	101	0	1076DC	4.8761
-	1	9B5A72	5.21643	-	1	96FAB8	4.93032
-	2	C9A4E8	5.03107	-	2	174942	4.95491
-	3	D5B31F	5.29517	-	3	771D36	4.60158
-	4	A43463	5.20514	-	4	C12C77	4.99867
-	5	A1FC5C	5.08355	-	5	0CB108	5.16594
-	6	B3DD80	5.98315	-	6	08D73E	5.4363
-	7	533EFA	5.13088	-	7	F7C817	4.96355
38	0	A6EE88	5.2782	102	0	F02961	5.24128
-	1	AB5960	5.54752	-	1	C25AA1	5.11931
-	2	E91916	5.23181	-	2	E458B9	5.15055
-	3	35455F	5.06561	-	3	401A81	5.15439
-	4	0B3112	6.24717	-	4	0D1933	4.93254
-	5	8C696C	5.26175	-	5	0CDB9C	5.2789
-	6	9E254E	5.52374	-	6	28A40F	5.2023
-	7	C11F41	5.47018	-	7	99BFD6	4.93945
39	0	6EB975	5.36275	103	0	2224C9	5.16792
-	1	03D4D0	5.40486	-	1	6435E3	5.1376

_	2	2D595B	5.43983	_	2	6B4AFF	5.21812
_	3	A74DFD	4.76098	_	3	BF7A6A	4.48221
_	4	ACF925	5.48382	_	4	7358A2	5.89809
_	5	D100D0	5.30054	_	5	5C8E3F	5.62693
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_	4	D59C07	5.29589	_	4	5F0FDB	6.09897
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_	4	33FCDB	6.13886	_	4	14FD26	5.40565
_	5	804548	4.79086	_	5	DB19D5	5.2042
_	6	BE54C7	5.53385	_	6	734CC7	5.41179
_	7	0D16B3	4.96747	_	7	E8AA80	6.29008
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_	4	60E966	4.96225	_	4	5CA55D	5.50302
_	5	6344DE	4.97309	_	5	2A4431	5.19006
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43	0	1FC2E0	5.29307	107	0	2F6C88	4.70346
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-	6	B3E28C	5.47993	-	6	067CAC	4.98849
-	7	88DA59	5.63601	-	7	9F7CDE	5.15683
44	0	8E6FB9	5.4982	108	0	BDE369	5.64959
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-	3	F6F39D	5.40597	-	3	A4B6E3	5.0063
-	4	401705	5.35362	-	4	4C5CC5	5.19912
-	5	F6F08E	5.34584	-	5	DADF9E	5.05797
-	6	BBC6D3	5.33777	-	6	6A2E76	5.27134
-	7	2B9812	5.25136	-	7	561F7D	5.27753
45	0	194106	4.82756	109	0	F5ABC2	5.64354
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-	2	36E440	5.31971	-	2	C2E8EB	5.25157
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46	0	0FD1D3	5.2403	110	0	267447	5.03984
-	1	BE958A	5.0053	-	1	8C184B	5.3367
-	2	D41BF7	5.28101	-	2	3319CC	4.81673
-	3	EA5BB1	4.83675	-	3	CC2B68	4.94782
-	4	3BA926	5.13507	-	4	03532C	4.94635
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-	7	A43120	5.45808	-	7	43B414	5.294
47	0	FEBAFD	5.00465	111	0	EF672C	5.12635
-	1	8C8301	5.68293	-	1	491222	5.03281
-	2	888B19	5.61176	-	2	5CF7F6	4.97783
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-	7	146355	5.87336	-	7	38D010	5.96054
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49	0	9D6EC7	4.43605	113	0	A16516	5.78524
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_	4	40A23E	5.6677	_	4	CDDDA6	4.80695
_	5	648128	5.31774	_	5	2CCC10	5.04647
_	6	FED871	5.81906	_	6	18FCE0	5.54156
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51	0	06ECCD	5.84277	115	0	301C98	5.58171
_	1	787948	4.94035	_	1	6981C3	5.32702
_	2	C37D62	5.0176	_	2	6BACF2	6.32836
_	3	8F9047	5.55642	_	3	3DB53C	4.9449
_	4	B21A67	5.7674	_	4	90A24A	5.22527
_	5	B367DA	5.45388	_	5	037535	5.48076
_	6	F7CF49	5.65109	_	6	5C5254	5.46759
_	7	0063CA	5.38591	_	7	53B66B	6.45264
52	0	4CB57D	5.24288	116	0	8C5A9E	5.23938
_	1	749724	5.3706	_	1	18FE54	5.05787
_	2	5F5016	5.07229	_	2	003CC0	6.5198
_	3	4DA6D1	6.31359	_	3	37335C	4.82146
_	4	D61DC1	5.5012	_	4	C6FC78	7.13898
_	5	8D26D4	5.57741	_	5	FC33A8	5.7245

_	6	9E9443	4.92185	_	6	9A13EC	5.90592
_	7	7E95DC	5.49062	_	7	041A1C	5.93927
53	0	887890	5.51219	117	0	273AC8	5.34106
_	1	A9CB06	5.26818	_	1	B5B628	4.93006
_	2	21C150	5.09314	_	2	C4309D	4.77322
_	3	90367A	5.67701	_	3	6E0BB9	4.75653
_	4	04178C	4.62722	_	4	B36963	5.24246
_	5	F45E46	5.51206	_	5	7A85DC	4.73108
_	6	21F314	4.93026	_	6	C4A318	4.87442
_	7	818F3E	5.06644	_	7	A23E62	4.95493
54	0	0261AE	4.62132	118	0	F81BD4	6.00612
_	1	614D14	4.84393	_	1	01A426	5.02454
_	2	C88403	4.91818	_	2	9428D5	5.52481
_	3	AFFA6B	4.80772	_	3	0DA0BC	5.30803
_	4	DA0DE1	5.01217	_	4	650889	5.56431
_	5	2BFA82	4.94575	_	5	538AFF	6.51853
_	6	72418B	5.09987	_	6	5AAB36	5.98677
_	7	E74974	4.90558	_	7	AB2FD3	5.43498
55	0	B0DAF9	5.90663	119	0	7678B6	5.61274
_	1	EFBC03	5.1717	_	1	A6F892	5.33817
_	2	B87740	5.17473	_	2	339509	5.45889
_	3	210CC9	4.88989	_	3	23EDF5	4.9087
_	4	A5D385	6.54747	_	4	E0064F	5.47474
_	5	ADF00B	5.29406	_	5	D1671E	4.90566
_	6	E1A27E	5.51533	_	6	FF32C8	5.63403
_	7	EACD7D	5.3041	_	7	FE6AC7	5.33822
56	0	9BEB6E	5.13806	120	0	B0208F	5.23219
_	1	44EC82	4.98425	_	1	92251B	5.28036
_	2	260DC2	5.38609	_	2	802BDC	5.02452
_	3	10FD20	4.63682	_	3	97DE75	5.61271
_	4	6B93D9	5.03629	_	4	13BB38	5.38026
_	5	087EC2	6.18135	_	5	038555	5.22708
_	6	1774D3	5.07319	_	6	69CBE1	5.36617
_	7	2E0AB9	5.179	_	7	57C7B6	5.21454
57	0	CE00A7	5.47452	121	0	8AA9DA	4.83732
_	1	3BBDE9	5.01188	_	1	F288A0	4.68487

-	2	B9B33D	4.80342	-	2	0DFB64	4.58335
-	3	AE1603	5.18502	-	3	B44C59	5.48719
-	4	CB647C	5.35024	-	4	B90AE2	4.7228
-	5	A49C04	5.05484	-	5	BCECBB	4.91226
-	6	D9C307	5.77115	-	6	9A5AC1	5.55065
-	7	95CE5A	5.26387	-	7	2D153E	4.99552
58	0	FC1F8F	5.69578	122	0	F12C04	5.75277
-	1	C3D894	5.10484	-	1	8F3D77	5.35761
-	2	A134D5	5.32321	-	2	A5FFD7	5.16266
-	3	6617D3	4.70331	-	3	E86DA3	4.77218
-	4	922713	5.20312	-	4	AC1562	5.49034
-	5	91D486	6.1882	-	5	C7CD62	5.09661
-	6	BD0842	5.23757	-	6	C1650D	5.60266
-	7	D68C3E	5.26054	-	7	BE3CA9	5.85948
59	0	8287E5	4.88742	123	0	24249B	5.81025
-	1	3D56AD	4.96018	-	1	B45A74	4.78722
-	2	A05547	4.77319	-	2	1A4675	5.98801
-	3	600795	5.04572	-	3	F10756	5.09969
-	4	16D48B	5.74752	-	4	DADFC0	5.56939
-	5	95E7D2	5.02832	-	5	2BF2D5	5.47551
-	6	2B65CF	5.8139	-	6	2D298E	5.49565
-	7	FF16BB	5.20619	-	7	BDD438	5.43159
60	0	98DAE2	6.00215	124	0	DBE7B7	5.48953
-	1	AD879D	4.80476	-	1	92401C	5.37643
-	2	28A618	5.87745	-	2	780154	6.35415
-	3	9F035E	4.87999	-	3	9ACD6A	5.19529
-	4	8BA591	6.10734	-	4	3DADB0	6.75846
-	5	57785D	5.47035	-	5	E5C380	5.6556
-	6	D1D6DE	5.45744	-	6	C3F7C5	7.11691
-	7	A5A215	5.94108	-	7	9A300C	6.51521
61	0	97CF0A	5.24536	125	0	B5AAB1	5.55768
-	1	930E0D	5.24693	-	1	1BF373	5.81893
-	2	ADDFAC	4.94325	-	2	121811	4.83942
-	3	7C6C54	4.80882	-	3	7D11FC	5.69441
-	4	56A408	5.82241	-	4	A43896	5.59862
-	5	C82646	6.33177	-	5	3CAB7F	4.94528

-	6	BAFED3	5.26987	-	6	192C11	5.82719
-	7	456B4F	5.91572	-	7	0FA1CD	5.9521
62	0	FF593F	5.21786	126	0	1D52D2	6.17998
-	1	9ADB23	5.08174	-	1	81D2D8	4.99123
-	2	95B7E6	4.73963	-	2	97E35D	4.9702
-	3	3C392E	5.06688	-	3	6D57EF	5.1939
-	4	693644	5.29122	-	4	6AA745	6.04123
-	5	37B7AE	5.07864	-	5	40F30C	5.5261
-	6	DB036B	4.80005	-	6	D0F0DC	6.07067
-	7	8081F5	5.45782	-	7	83A9A3	5.35014
63	0	DFD12C	4.54028				
-	1	33D737	5.1926				
-	2	919732	5.4076				
-	3	EB84BE	4.70116				
-	4	F9746F	4.99896				
-	5	4C77B4	5.00353				
-	6	DEF339	5.66789				
-	7	264E72	6.08393				

For 128 FFT, the defined of $q_{ID_{cell,s}}[m]$ and other parameters should be used as the following formula:

Where the _____ can be converted into binary as _____, define _____ as MSB, _____ as LSB, _____ is a row vector to represent _____. The _____ is _____th column vector of the following generation matrix _____

\mathbf{v}_0 is a inner product of \mathbf{v}_1 column vector and \mathbf{v}_2 vector. \mathbf{v}_3 is shown in table 4 as following

Table 4 Permutation

\mathbf{v}_3	27.1.30.29.11.2.42.9.45.13.8.4.20.24.34.12.36.16.46.3.47.15.5.40.37. 31.25.32.33.14.43.6.44.21.19.18.41.39.28.38.17.10.35.7.26.0.23.22
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The Sequence \mathbf{v}_4 is determined as minimizing the PAPR of the Preamble sequence as shown in the table 5.

Table 5

ID cell	s	sequence	papr	ID cell	s	sequence	papr
0	0	1 1 0 0 1 0	5.61978	64	0	0 0 0 0 0 0	7.26999
-	1	0 1 0 1 0 1	4.99418	-	1	0 1 1 0 0 0	7.32958
-	2	0 1 1 0 1 1	4.54736	-	2	0 0 0 0 0 0	5.18024
-	3	1 1 1 1 1 0	4.98007	-	3	0 0 0 0 0 0	5.1586
-	4	1 0 0 0 1 1	6.30234	-	4	1 0 0 1 0 0	5.90889
-	5	1 0 1 0 0 1	5.39782	-	5	0 0 0 0 0 0	8.36572
-	6	1 1 0 1 1 0	4.74195	-	6	0 0 0 0 0 0	5.36156
-	7	0 1 0 0 1 1	5.25707	-	7	1 1 0 1 1 1	5.11628
1	0	1 0 0 1 0 0	4.46729	65	0	0 0 0 0 0 0	7.26999
-	1	1 1 0 0 0 0	4.94188	-	1	1 1 0 1 0 0	6.72835
-	2	0 1 1 1 0 1	5.99483	-	2	0 0 1 0 0 0	6.42464
-	3	1 1 0 0 1 1	5.60087	-	3	0 0 0 0 0 0	5.56795
-	4	1 1 0 1 0 1	5.33822	-	4	0 0 0 0 0 0	6.31381
-	5	0 0 0 0 1 1	5.69019	-	5	1 0 1 0 1 0	4.53333

_	6	110111	7.00666	_	6	000001	5.66135
_	7	111100	4.74447	_	7	010101	4.8792
2	0	001100	5.87867	66	0	000100	5.33179
_	1	000011	6.37128	_	1	001100	5.55099
_	2	100111	6.12602	_	2	011110	4.48756
_	3	000011	5.74172	_	3	000001	5.37691
_	4	100000	5.77395	_	4	000001	5.37691
_	5	001111	6.31567	_	5	001101	4.75717
_	6	111000	5.04931	_	6	100000	5.2935
_	7	011010	4.06398	_	7	000000	6.00882
3	0	110001	7.14767	67	0	110011	7.47265
_	1	010101	6.04325	_	1	010000	5.55984
_	2	011100	5.4519	_	2	101010	5.10559
_	3	001010	5.79239	_	3	101011	7.33593
_	4	011101	5.21983	_	4	111000	6.09705
_	5	001010	5.41483	_	5	000011	5.34034
_	6	110100	5.21144	_	6	110101	5.64907
_	7	111001	5.13241	_	7	111001	6.76923
4	0	000000	7.77207	68	0	000011	6.27605
_	1	000000	5.21173	_	1	111010	5.25387
_	2	000100	5.08394	_	2	111000	6.51193
_	3	000000	4.98479	_	3	101011	6.30201
_	4	110111	6.39002	_	4	111000	6.15938
_	5	011000	4.72368	_	5	111100	6.33974
_	6	000100	7.70175	_	6	011100	5.57107
_	7	100010	5.93286	_	7	111000	5.35808
5	0	000000	5.97748	69	0	110101	6.10525
_	1	100001	6.53178	_	1	000100	5.99835
_	2	011010	4.70174	_	2	000010	5.75104
_	3	001001	6.77906	_	3	110101	4.92305
_	4	001000	6.18896	_	4	100001	6.16667
_	5	110000	5.93286	_	5	101101	4.69852
_	6	100010	6.77124	_	6	110100	5.2487
_	7	100000	6.58346	_	7	100000	5.08357
6	0	101000	5.09254	70	0	110100	6.54714
_	1	001011	4.58451	_	1	110101	5.0302

_	2	100100	5.79261	_	2	001000	6.95932
_	3	110110	4.50616	_	3	110000	5.35338
_	4	110100	4.78056	_	4	100001	7.77674
_	5	000001	5.37691	_	5	000000	5.08843
_	6	000000	6.14025	_	6	111001	5.68478
_	7	000101	4.63899	_	7	001011	5.72092
7	0	010101	6.89779	71	0	010100	4.69669
_	1	000001	5.44871	_	1	010010	5.93286
_	2	100011	5.45314	_	2	011101	5.41504
_	3	011101	4.53352	_	3	101010	6.0603
_	4	110011	6.27777	_	4	101000	5.43967
_	5	101000	5.76327	_	5	101001	6.68251
_	6	011010	4.76793	_	6	101001	5.84324
_	7	100001	6.07021	_	7	010110	6.08336
8	0	000000	7.42595	72	0	111100	6.9967
_	1	000110	8.13872	_	1	001110	6.79066
_	2	011010	5.31514	_	2	001101	5.32385
_	3	001000	5.66993	_	3	111100	6.10062
_	4	000000	5.08404	_	4	100011	6.66975
_	5	110111	6.27755	_	5	011111	6.19807
_	6	000000	4.90839	_	6	010001	6.00004
_	7	101110	6.09476	_	7	110011	7.06744
9	0	011100	5.39989	73	0	110111	6.11751
_	1	110010	8.49937	_	1	110010	4.46148
_	2	000000	9.20819	_	2	000001	6.24562
_	3	010010	6.37451	_	3	000110	4.93583
_	4	100100	6.66649	_	4	000000	7.26999
_	5	010010	8.77065	_	5	011010	4.61786
_	6	010011	5.26101	_	6	110100	4.66412
_	7	001011	6.05298	_	7	000010	6.72986
10	0	111110	5.79059	74	0	010000	5.18429
_	1	000101	5.81656	_	1	100100	6.15198
_	2	000011	8.43595	_	2	110110	5.12269
_	3	101001	5.20317	_	3	100001	5.45979
_	4	000010	5.37691	_	4	100100	5.16263
_	5	100000	5.96965	_	5	001000	6.18963

_	6	111110	5.39779	_	6	000000	6.91252
_	7	011001	4.53252	_	7	100000	7.65143
11	0	010110	5.33488	75	0	001100	6.12587
_	1	011010	6.59851	_	1	100111	5.95377
_	2	011110	5.88979	_	2	110101	4.64811
_	3	110101	7.91411	_	3	010100	6.7094
_	4	010001	6.10885	_	4	100111	5.45673
_	5	110101	7.84454	_	5	110011	5.82316
_	6	110101	5.43091	_	6	011110	4.43946
_	7	101101	8.86057	_	7	110110	5.07258
12	0	010110	4.94888	76	0	010001	6.45978
_	1	101000	5.23396	_	1	011011	6.88636
_	2	000010	4.91851	_	2	001111	5.82691
_	3	000011	5.33035	_	3	011001	6.67015
_	4	010000	5.7118	_	4	101101	7.59699
_	5	100011	5.6036	_	5	001011	7.76446
_	6	011100	5.92498	_	6	100001	7.22825
_	7	110000	6.2952	_	7	101111	7.36622
13	0	010000	7.17173	77	0	011110	5.44645
_	1	101110	5.48855	_	1	100100	5.56662
_	2	111011	5.15342	_	2	111101	5.62341
_	3	000010	6.40724	_	3	111111	4.95662
_	4	101101	7.02994	_	4	001011	4.70085
_	5	001110	5.60341	_	5	101001	4.58565
_	6	000000	7.26999	_	6	011101	5.90489
_	7	000100	5.90019	_	7	010010	4.69351
14	0	111000	5.77736	78	0	000100	4.69556
_	1	000110	5.85056	_	1	100000	6.74452
_	2	101110	5.33742	_	2	000111	5.27885
_	3	101010	4.27659	_	3	000100	4.13895
_	4	110101	4.7296	_	4	100000	4.62348
_	5	010001	5.25764	_	5	001001	6.19111
_	6	011000	4.72382	_	6	000000	5.60421
_	7	101000	4.87682	_	7	000100	4.74737
15	0	111111	4.82913	79	0	001001	5.93286
_	1	010101	5.52141	_	1	010100	5.25268

_	2	110100	4.20234	_	2	101110	5.05204
_	3	110111	5.40596	_	3	111001	4.9065
_	4	101110	4.61264	_	4	000000	6.76459
_	5	111001	5.23778	_	5	011000	7.04312
_	6	011101	5.49703	_	6	100000	6.67238
_	7	010000	4.26968	_	7	000100	6.56927
16	0	000100	5.58637	80	0	001000	5.37691
_	1	110001	5.62973	_	1	111100	4.76893
_	2	111011	5.71745	_	2	000110	4.97728
_	3	010100	5.52179	_	3	011101	4.42359
_	4	101000	4.96422	_	4	010110	6.44612
_	5	010100	5.44653	_	5	001100	6.39132
_	6	111001	6.30596	_	6	101001	6.27304
_	7	001100	5.93286	_	7	010101	6.91756
17	0	000001	6.25413	81	0	111111	5.61915
_	1	001011	5.74759	_	1	100110	4.515
_	2	011011	5.65239	_	2	100110	5.76237
_	3	110001	5.30342	_	3	011110	4.42359
_	4	011101	6.14287	_	4	111010	5.28027
_	5	101001	5.59272	_	5	001100	5.92664
_	6	001101	7.15676	_	6	101101	7.99871
_	7	001011	5.20317	_	7	010011	4.6256
18	0	000000	8.0676	82	0	100011	4.78347
_	1	000100	5.78847	_	1	101101	4.89351
_	2	010010	6.26435	_	2	011000	4.31552
_	3	000000	9.20819	_	3	111010	5.0303
_	4	011001	8.36348	_	4	110010	4.63594
_	5	011001	6.40135	_	5	011110	5.56944
_	6	000010	6.61986	_	6	010010	6.00944
_	7	101101	6.92237	_	7	101011	5.13969
19	0	111010	4.68281	83	0	000011	5.67952
_	1	111101	4.69349	_	1	111011	5.89739
_	2	011110	5.7439	_	2	010110	4.45083
_	3	011101	4.69656	_	3	000010	5.42318
_	4	001010	6.1788	_	4	000001	5.26621
_	5	100010	5.52186	_	5	101001	5.25623

_	6	101011	6.83541	_	6	011010	4.46305
_	7	101111	5.88327	_	7	110011	5.70762
20	0	100010	7.01868	84	0	010100	5.87352
_	1	000010	6.25437	_	1	010001	6.45222
_	2	101001	6.29093	_	2	000110	6.0626
_	3	001001	4.71292	_	3	011100	6.85189
_	4	100001	6.05055	_	4	000100	6.18468
_	5	110000	5.59575	_	5	101110	4.98619
_	6	010010	6.26928	_	6	011100	5.48354
_	7	011110	5.96495	_	7	010101	5.75492
21	0	101101	5.17521	85	0	000010	4.23555
_	1	010101	6.16439	_	1	110001	5.39863
_	2	111000	6.10116	_	2	111000	5.71851
_	3	101100	7.10159	_	3	111100	5.92019
_	4	100110	5.52432	_	4	101110	5.68996
_	5	001101	6.67256	_	5	111000	7.44821
_	6	001110	4.94193	_	6	011010	6.36026
_	7	100110	7.4696	_	7	001110	5.60976
22	0	110100	4.21762	86	0	101101	6.92237
_	1	001100	4.41399	_	1	101101	5.60177
_	2	011100	6.4566	_	2	010111	6.07878
_	3	011010	4.8522	_	3	010011	5.37537
_	4	011100	6.07731	_	4	000100	6.09791
_	5	101110	5.89184	_	5	001011	4.63843
_	6	000111	5.8512	_	6	111111	5.59862
_	7	010101	5.3967	_	7	101011	5.11997
23	0	101010	5.27526	87	0	000101	5.9822
_	1	000111	5.68675	_	1	101010	4.8085
_	2	000110	5.65614	_	2	011110	4.47479
_	3	100011	5.04221	_	3	100001	5.28171
_	4	010100	5.40345	_	4	101000	5.0515
_	5	010011	6.72584	_	5	001001	5.57128
_	6	001000	4.67185	_	6	100000	6.28762
_	7	000000	5.37114	_	7	110100	6.44612
24	0	110110	6.0206	88	0	011001	6.45055
_	1	110011	7.24282	_	1	001101	5.6874

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_	5	011001	6.61616	_	5	101110	4.63318
_	6	111110	7.04546	_	6	010101	5.28615
_	7	111101	6.13219	_	7	010010	5.93286
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_	5	011100	6.26307	_	5	110101	6.94423
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26	0	011011	5.56191	90	0	001100	4.34569
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_	7	100000	6.08703	_	7	000001	5.42928
27	0	111011	4.79465	91	0	010111	5.86882
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_	2	010000	5.37691	_	2	001110	5.05398
_	3	010101	5.48213	_	3	101110	7.26354
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_	3	110011	5.37502				
_	4	010100	6.36234				
_	5	111101	6.77947				
_	6	100101	6.87703				
_	7	111001	6.11161				