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Title	Proposed modifications to the PN sequence used by the Base Stations and Relay Stations in a MR enabled network	
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Re:	IEEE802.16j-06/027: “Call for Technical Proposals regarding IEEEP802.16j”	
Abstract	This document proposes a method of allowing the mobile multi-hop relay station (MR-RS), to utilize a unique set of DL preamble PN sequences without overlapping with the DL preamble PN sequence used by the BS, within the same cluster of cells. By re-organizing the PN preamble sequences, a faster network entry and HO procedures are expected.	
Purpose	Text proposal for 802.16j Baseline Document	
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Proposed modifications to the PN sequence used by the Base Stations and Relay Stations in a MMR enabled network

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Introduction

This document proposes a method of allowing the multi-hop relay station (MMR-RS) to re-use the set of DL preamble PN sequences as defined by IEEE802.16e-2005, without overlapping with the DL preamble PN sequence used by another RS sharing the same propagation environment within the same cell.

Details

This proposal recommends a method of re-organizing the valid range of the DL preamble Index (as defined by IEEE802.16e) that is used by the BS and by the RS in an MMR enabled network, so the BS and RS can both share the existing DL preamble PN sequences without the need for creating new PN sequences.

With unique PN sequences differentiated for the BS and RS, a RS can quickly differentiate between DL preamble sequences transmitted by a BS or another RS. Since a BS entity operates based on a frame structure defined by [2] and a RS may be based on a different DL frame structure to be defined in 802.16j, a MS may take advantage of the differentiation to identify between these two different BS like entities. A fast differentiation process performed in time domain at the RS level, subject to a different PHY implementation, but 802.16e transparent, will minimize the network entry and/or the HO execution duration.

Currently defined in tables 309a, 309b, 309c of section 8.4.6.1.1 (802.16e-2005), the Pseudo-Noise sequences are pre-calculated for the preamble that are based on FFT Size, ID Cell, and Segment. Given a FFT size, the network management entity shall assigns statically the Index, ID Cell and segment in order to avoid having an MS reading the same ID set for a BS entity during the network entry or HO procedures.

For each FFT size, there is a unique table (309 to 309c) that presents pre-calculated PN sequences. These PN sequences are modulated to form a unique DL Preamble sequence that is based ID cell which is an integer ranging from 0 to 31, and a sector which is an integer ranging from 0 to 2. The total number of unique PN sequences presented for 512, 1024 and 2048 FFT is 114. The (2 tier) cluster arrangement presented in Fig. 1, provides an isolation of min 8R between two Base Stations bearing the same ID set (Index, Cell ID, Segment). The expected amplitude discrimination between two identical cell ID sets is 20LOG9=18.1dB, considering a conservative case of WIMAX network deployment (LOS propagation). This cell ID separation range is significantly larger than the required minimal BPSK CINR separation threshold for a proper detection.

In addition, the entries in tables 309, 309a, 309b, 309c of section 8.4.6.1.1, have duplicated ID Cell and segment entries for index entries 96 though 113 because the ID Cell and segment for these PN sequences also appear earlier in the table. For example, the ID Cell and segment of Index 0 and Index 96 both utilize the same ID Cell=0 and Segment=0. While this is a legacy, 802.16e-2005 standard issue, the actual proposal corrects this issue, by not re-assigning the Index sets 97 to 114 to Base Station domain.

Our current assumptions, related to the MR enabled network planning/cell reuse are:

- Triple segment BS allocations (re-using the actual 2G or 3G network structure)

- One segment RS allocations

- 2 tier honeycomb wireless system model (19 cells cluster)

- An average 3 RS per cell (BS), up to a total of 57 per cell cluster. It should be noted that more than 3 RS per cell could be implemented, thus exceeding the proposed threshold of 57 Relay Stations per tier 1 and 2 clusters of cells, under certain limitations (provided that the supplementary related CellID allocations have limited coverage and there no overlapping service area conditions with other Base Station entities reusing the same IDCell).

Based on the above assumptions, the following PN allocations are required:

- 19x3 codes allocating for a 19 cell BS cluster

- 57 PN codes allocated for 57 RS nested within the BS cluster (max 3 RS per cluster)

Therefore, in a 802.16j enabled network, we would re-organize the PN sequences in the following manner:

- Reserve the valid range of ID Cell from 0 to 18, 32 to 50, 64 to 82 for BS. The total number of BS domain codes amounts to a total number of 57 codes.

- Allocate the valid range of ID Cell from 19 to 31, 51 to 63, 83 to 113 for the RS domain. The total number of RS domain codes amounts to a total number of 57 codes.

This would allow unique preamble PN sequences for the BS and RS domains located in a given wireless system tier 1 and tier 2 cluster of cells.

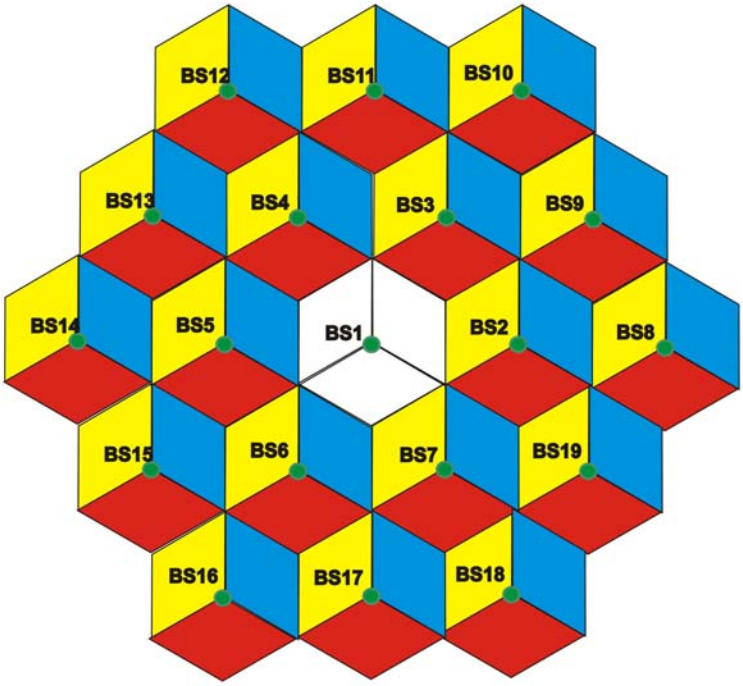

Figure 1: 2 tier network topology for 19 cell 3 sector cluster configuration..

Conclusion

By re-organizing the unique PN sequences to be used by the BS and the RS, as defined by [2], a RS will be able to differentiate between DL preamble sequences transmitted by a BS and the DL preamble sequences transmitted by another RS, operating within the same cell. The proposed change does not require any MS PHY specification change as defined by the 802.16e standard, considering that it doesn't require any supplementary set of PN codes. Therefore, the change presented herebu is transparent for the 802.16e aware network devices (either BS or MS)

Specific text changes

(Replace table 309 with the following):

BS/RS	Index	IDcell	Segment	Series to modulate (Wk)	PAPR (informative)
BS	0	0	0	0xC12B7F736CFFB14B6ABF4EB50A60B7A3B4163EA3360F697C45075997ACE17BB1512C7C0CEBB34B389D8784553C0FC60BDE4F166CF7B04856442D97539FB915D80820CEDD858483	4.33
BS	1	1	0	0xA9F7AC1BD0A4BD694D3EDC2991CC3B2D24BF26A22346F8DB370202CDA25D382D4119AAC676E320A938A95762C4078689B6024E477F0EDA8F563106F0D70EBE3E006F75B50B537D	4.21

BS	2	2	0	0x56531FBB87033E4F362273BAF0F8879B45B9F19143E5494F7B025D138DF057756DE625196292AF6D28FD0AA08453E5B9871EDAE3E680B848C67BFBD7ADE73CFBBBA4E81191267A	4.32
BS	3	3	0	0xB397F552DEB2717CC19DDF0D59674DD6F6D3866A3FD023A009F592B56460660F1D585E3078AFE272D97FDF4280790C3A9E5FCF9910895E9DAF2BF65728F7390C930428B4E6793C	4.36
BS	4	4	0	0x1BD4C84B42DF6B7DC53F6C7B8E223A3B16D8E214CFA5469A8D22246BCF297E5F92159406608B8A0BB55EF64A85B1241C5CDFA048CF0492AB3BCF46A8E8FE986F06E246F1E06C68	4.49
BS	5	5	0	0x4E00947B6722B09389EFB4F6951C488B368393E8254948359287441709C6F0E4463C067733C42A7FA89645D7D69AF2ACE5402AC473DBF2C75ECB8B630BAF4B27F282249BD52660	4.49
BS	6	6	0	0x494CAB6935E10DB5D6E985997849EA45F0D5E2EDF7670BFD9643531760D9F7CC01DD63BEEDFECB7E806F3F189291C074C8289D93A95324D131391E23EB9CEEAB0E789DA1F5B9CB	4.35
BS	7	7	0	0x4C5F10264D6C5085346E86BF8567294523C1B683D2A220D9BEDCEBBA110620BB53ECB0338BE7109240E22EC902FCA05F97338BB9DF2DDEAF7C795BCB160BD4F01A6DBF2A729373	4.48
BS	8	8	0	0x79797D9AB260C20D5A460CDC49B2D0285E095E835EAF2ECC74E010DD8A53797CE0EC2EEBA51E779AA6B749B8E69FFDD632AC79D64143467E73017113BCDF45E787D0A9EAC3D22E	4.48
BS	9	9	0	0xA1B9AC2C3D5B9BAAE5067C9E4A83C167076BE7D8699ACA710FF205DE774FD46DD5F7851A2149D61E57152B98B6AF4194B6FED90ADA008D1D5F8DD87E8060F943BC9124C1999236	4.55
BS	10	10	0	0x066E5FA91D00D63B26036009F8C69142B9D936396FF9E13786478BBFF5DE6F184A0F844663950F69AFEDEA93CA4A3BF94B13175A2CBBA3836A34E5CE6D763767B35515F332D836	4.54
BS	11	11	0	0xF443E9FBF763DA2A5137A57C7DA504D194EC1797AD33365BAC2F0C94541F4D47A664A7A17308C37E06BB0826FF999C15EE430A3CC54159E3B7EEBD5FF307BB24A939AB261E2B3C	4.53
BS	12	12	0	0xF38BE6D2108483C056088C5E7C8BF92E9C973E0B2ADA9342B46C06C4C2516CF7B9E6043E2947AD40F41734E02A9ADCE9C70E03C4D50E7EAC73DAD56BDBB796289DDCC357776DE2	4.55
BS	13	13	0	0x104AA84E70B163A42654A45995182B1C3DD63F4BCB09ECA79A0D6D2D2A784DD6015794598310BE087F75019227F899744B7C73A9008C83C0923D5DC154FB2DCBF8983E709BCDF3	4.54

BS	14	14	0	0x0B49A507AC4EAAC7551FC4B00658A28D951FC81723CC1C024AAC6A9DE9686383C28036C762C020012D797866DE589B36BB95DFDAC2B3D0AB9DDE0B9719918062FE824E063BA3EC	4.52
BS	15	15	0	0x64C14C7D3725A74923E6B2FB1C3BDC77FEE58CB0AF310EC37F22C93E2C809AE8410963E6CF5E7E192502960F0272244A31D2CDDC657BCFF422E29C50D5E82EDCB44579181BBA4D	4.41
BS	16	16	0	0x210D8A8E602BD53F981BE763E10F4730BDA53D2F89BD1D91C8F2DD5B96732935F789F643911937344E9F2ECF3222AB076BC2B5EE407DC581F0EF9FFBD56D14D137A0418ADA06D0	4.47
BS	17	17	0	0x88960A88E3F79C95D525DB49679C20A736D0E9E4D1FCB9DE7735AE1E947F4E93637E98143D6BB779394C58F2AC5A9BD7B2074E98F1B2026B67B507CAAD8076082B09FB345DA02D	4.54
BS	18	18	0	0x1D2D5C8CDEAFCA5EC180D9638CD0F277AF08AB5133E6D60C919AADAD00569E5F902D40500542631FB729FC3AF456C9A47E3EB967D51E09D712D8D49A028E738BEC90061B089C9F	4.55
RS	19	19	0	0xA063E03DE6C137F3FC56F970052BCF7333C8451BF5D18D1B9AA5342E79C25451C1D862ECB5CFF21B7CC203817D78C192EE1A68976652E1740C4B123552C85CEE524A2AA90D428B	4.66
RS	20	20	0	0xD2A7F126A9599093A9262E66A2471B6B6A2ACB0A4330A114011366CBC3B01CC85CF1915982BE64DDDF8EEA0985D8F47BC4B41381C58271C30578960EEFB054F299C721B81D5DFE	4.52
RS	21	21	0	0x7682842351C76BC8E4A7EA4EDDB0F92F6E876FCFDFDAA4987B38FC4FA47C52EF0070DCC8C77FA622B20BEBC2373011660B4960EF49FB5E519D79E12029C7D13C553EDC48564A52	4.58
RS	22	22	0	0xAD6143F875C4C965A7018B8230D8D50297DA2C54A6DD52EA6207620F4A66EAFEBC4DD56233FF5DF78FB20CD74ECC6D01232FCFB9CBD36B3381F0224EF5DE7BE0AFEF0A1AEF3D82	4.63
RS	23	23	0	0x9A14B722E05D8455A80B4A1B1D12A30C1E25D9488BAD486C639CC7BDF651E957E041A7C092A916BF3E3642121350579B3F8F8F4A30570237E722A6DC532A26F4FD4A0767D91A8B	4.72
RS	24	24	0	0xE6944DEEE85D75E3C5D9B90912177D8A85909D87AC21FA4A51660E11D30DBEED391E5972D000EF4E9BF30B63B18C0285FE4151A4231C289A824D405142B7C775C3C68D8AA1D8A7	4.64
RS	25	25	0	0x9927326FDFEC99025AA1B79364F06C63AFE4A96C2A20FF8B151EF97AFD08E161EA6B10A1FA74794521DE02645C2561D3BEA5D382AE3707112619403E23C724B36B791DFAFEAA3A	4.52

RS	26	26	0	0x03C19F38117AE5BDADF256FB4A223A660E2D626598F56580E30FA2E40A521FE5D68709B7F62E4C08CB9A26AE12002AD2FA9DE6C2B298538556EFBA71626A02745C3DB5EBADD3F3	4.43
RS	27	27	0	0xCBA035B40EB7C8A3A048C490E38935CBF956C58AFC891A6C112C0321CF5262498915794DCA703BD31A96FF4C0636F2D5E9F17C23F1486B90715597D565017CB8E424DE9A8E464E	4.76
RS	28	28	0	0x9321B7BE085143649644BCDF8342FCAD3462DA1C572227B039BBC6F58B52EEED2ACFB38F9CAA2BA2F513A87B10DD19DEFB6A9972EE12D81C83DBFB3CFCC93D35ED252D0E1A3D1E	4.67
RS	29	29	0	0x215F6EA7C7F95C74828485AABF6A5F54FD32D1A8F4F6F1C20E6CDB57FA81ED70DFE44ACCD4B37D4F01AD3BF31AFBB38A4DDBC613C8809E46C1247222E5041D8CDC08F37F679878	4.51
RS	30	30	0	0xB5ABE9FC329600031F97DEA8CF5B17EC432BB9F19082A3CFA2682AAF121EE855873119A78869AF988BD90C64A7F31224727D22F74D7499AF6CD3B649C54AED6DC84DD8AB876B84	4.74
RS	31	31	0	0x956D097E914338D226020B8A3BA5B3BB8733A9723CF19485DD9D22670B1328B825A6BA154586EDE60EB328AF8DF114182EDAEE401620A1E870BFFFF430922893C1F54A87A90BD3	4.78
BS	32	0	1	0x251D994101EDA04D8BD0B8EA6FA20AE590C2CC199AB083C6AE61F091F2DD41D989EC164B1481D611BE9CEA0094AFE9DB56A4763F55B26E54EAB73ACD7D4BBA64C1421BC3EB9D67	4.61
BS	33	1	1	0x113A5FB9C529AADC9CAB1FB88290560177865 9CDB69AFCBADDF8B42314A7985B5F87C20692309D350454FF9326481683FADAE4711DD0CC5DACEDF7CD5DF1177D60EBA4DBE657F1	4.68
BS	34	2	1	0x9F08189EFC6B5DE6C2CFDCD13195DE077586B8EE01E00B6468B10A53FAAC1DD846E2A01681980D444B6AD0D34C34EC9CFD9341507878EC9FBAE498F5A20614BDF3E4B22DD285E6	4.63
BS	35	3	1	0x3ECD476669A04A260414FD16F3F525AA060F20ADD9334A29A9D9F90618916EF51840C8F53AB596297F0782BEF426E8B8539C9FDE970455B58F533FDAC1711DE6310E7596ED285E	4.58
BS	36	4	1	0x3D6BD09A3DBD9ECCC1C584E71C87221CD266087C7A692D3EFF2D5F84DF2011EA3675853A61CD75D23600F8C115E03406AF914938170256B86DA5646CE0211FFDCD76A9A5E8D840	4.68
BS	37	5	1	0x27F0DA91D4AD1F39F0EAD459E2705CB2CA029A8E57592F1697877199FF707D0411D6068A0664594D89568460F268A225BB2AC0ED043659D779EA84656DEC0322F8C0CB111AD2C8	4.6

BS	38	6	1	0x616FBCE479AAAC98B483FCF6EC06BBA84580 EA98FA517B3065A418CAF2C965B7AF2E7866B25 7390517016F2521490088193372879FAA8954651E7 B3C80BA1725CB781726F32328	4.71
BS	39	7	1	0x357714863C5F477BE963806EA9D6EF6350BAFC 1C183FCC6BB47FFFEAA9FFD86358918F6A21826 6D624CA07092EC24466C7F7120C1887A3F59A48E BAB67F24A6E8930B862F509A3	4.6
BS	40	8	1	0xABE49D0F8B9C8406BD70B3FD83758768CDBA 98164B929A1EA18D59BD44B80F9BBEF9D1CE51 E4EE1CF21F6CCF18A7D4A92C26C121A22FC9566 3F0B55B892CF7D3D65812A503DA48	4.63
BS	41	9	1	0x6898A2FC8C36DF0B84380FBCDE70812390B644 E3B5BEA87D76C9123477638B331BEBC075664EA 58C15680263664C48BF3411C3C13789C504A01FB 4C7B9AC86AA524075E52C6A90	4.65
BS	42	10	1	0xE7709988D2D2D6ABC6CEFB025FFCAFCA4C0 E75C883529EA439B75229ECE88FB5BD5D3BCA1 7C25BEB6575D932D01B5A63E044102E208C071C 734EBA55712E122822ED2F2B379A11	4.84
BS	43	11	1	0xE49DCC8627542BA30FA500DCC23EEBF5A54B 490EE7632C6BE57C724C3E74CD199930AB1D929 D425185E2E1220CD2300F487392F4DC29416D332 F13F8E760571D99617B263F387D	4.66
BS	44	12	1	0xEE4CBD9B0EC65DE6DA78A2A205E5908B7412 7BDE612A9BD2D8F0C6A2B9E675401A9DDAA30 FF9A55E87DAFFA3A33E53AAA1D96A60B326D7 F6FA147098DD825BD0FB13ADDFE01569	4.65
BS	45	13	1	0xAD7DAD0BCA42DEDAFCCF7E57DC58D00E69 1E81C04B98B2EDB66C66570B204B8352A08744D 8A603C2A7769C7A9EE938189A45737B86871E5C4 025EE594D827C603E3A49FD45519F	4.58
BS	46	14	1	0xF8F29BA0D2FA2D529EAF2CE9383E614F5AE8 CA06658DD039AB2C9912DFC7CD1BA9744339E5 37850B7E4EA564819772D3320B1C7BA73EC24D9 0B8DCE17EA5DAD53771F68B050F43	4.68
BS	47	15	1	0x9CC0ECC9E7E8940DFED1332AF492CFD39A21 F2820394EF0523019EE5290A2B4281FF032C238A6 BE41116C274E918F34F3A27B5F147E10D41658CD C7EFEDC3135255C2B83B0AE6A	4.81
BS	48	16	1	0xFCE9C41A74CBB566344447836109869E557C5A0 FAA1D4566E36A51258CE6D096FBD3E0B7193418 D9DFCBD27693F8A5072425D4E3F33DB5AB45B1 EF3E11A6730BED42961DF0354CD	4.72
BS	49	17	1	0x7941B66A275FB8F0BAA8EF7FFCC36AAA6601 13B66BE476D629AE512E489341F6C9F84EC1BE1 C05CA3C850D20B1A12AA9C94E1A6541C29A9B4 BCD41B94460DEF2E9643ADCE86728	4.62

BS	50	18	1	0x0A91F390213C9B2ED372BA19FC42EE85AAB2598B58D2F7184EA920546D6A81ED316551B74B341E238A7FB83A4EF7D9EB0939B7771A6F4D0AF1F72752FE3234793D3CDC19BDFE08	4.85
RS	51	19	1	0x96949ACCD785385AE8DE99CE42BBB73B996A886115A78D0606AEC14D2E46E849BF88F9A2E17C2494704F1020CEF85FFDE16B7483DBC6A130488E3AC586E528A00B90134776E08C	4.59
RS	52	20	1	0x53FFBA26676A4FD1A6C30B8E4EA02DF535C922978CD24F6099C25003567F207CC5851656C5FD0D3F071942A16F1DB48DFBC26BACC15A1E618FF35F3DC3E141E3666BCA507ED72E	4.7
RS	53	21	1	0x7F3219ABE1389DBED8FC2F1C9C0FCE1974E71C224E1922F4CAD42E40AF15A5ECDB14221480F964E67BBD345C44DCA0853548B399E3DF4D054D176C0804D1B1154152BE973A8896	4.66
RS	54	22	1	0x8D5552CCA9EA46C991FF81A35873F43C963E02ED24C4102A79F5EB5EC25814511BA5DD2FE9FB9699E7ED76F965B24748AE1A4A3A590F4F13E4722CCE399006F79AD8CE673178F7	4.88
RS	55	23	1	0xDB74EFA478268CDDE2596ADF9410FD83FCEDBB07C6DEC7A3422A6CC66EF901C1534EC2A83E1A89BA207C721ECF3D42918FF40B3863379FDF3CED7A9CC86E348CAB032F8FAAD9CD	4.59
RS	56	24	1	0x5811ADD9240A7B3AF35CACA6EFCCF4090A54EBF33DE54C077192354DDEB81CC968D18354090B09D7472C83E1696E19545F08136EF20CD74656BCD31296066E03CC89E22E47CF47	4.8
RS	57	25	1	0x871ECE60EDD2E19360D13862A15242250635774424B22465B3EF625E72072B7C45D81076DB4A5BFD5BE146F15CAA80DA031763DAC23BBBC54249E9878EC465F3EABE0B7AA497B8	4.78
RS	58	26	1	0xD8259BAF89D3E13242CC1CDBA9C0281A09919D24ECF5BA83CDCD81E698EAA37DFE3E5802B3395B80A3DE91CF6C4BE2D34BBE985EE4041C4290D0A9185F115C963AD536E4133426	4.7
RS	59	27	1	0x1203A1FD3F7B8E9D97A3812D4375D42BC9E8F0E393BD669A8099407EC0356DC45FEF848C98F3EF32A9A850CC67CE432339CBAF38BBA7DD0C94BC03B4704866509255E28450E459	4.91
RS	60	28	1	0x6A78A3F0DC5E4FA504580C37F5416BCC4A2BD51FC1A71471BD1433EC3DD924E7130A7B2B331AB0B4AF6CF94C045A9C246965F46478D939795887EE3320BBC2D5DD5FFB06F894E8	4.73
RS	61	29	1	0x3042F24E050BAB38880A07BDE5D28AEE4AD59E0D71AB59824122E80F8FF67BEA1ECC865F50B25CF5095C642B800E6A4D132B49E5968DEBDDA029A227AF332CF034BB937B471603	4.74

RS	62	30	1	0xC82853465FBB213A85A52888464E5D38D997F6C31966A94B452A2DE853CE38010BF9EA930BBD318189D5D2D0BDB4465248A2E8B481021531BE01F5E0FF1BAB75370C57B36BE6E9	4.8
RS	63	31	1	0x2B17EC947632DABA3A2E11022033F20F873032F51F064711111D0C215E9E84C11A9E70950977527960700B37C6FECCA57C35A91873C935D7EDC22CB44DCC251396173CAC82B912	4.63
BS	64	0	2	0x83FC05D6DED982EB95B06E16C91EF94B441BBD4868C09E9B3A251AD72427F2124607E151796070C2819E395EB68A2C597391636333A7E492B70D8EA7397FFA1B28C20E0820CC45	4.89
BS	65	1	2	0x45818FBAE49B983DB9B8FBEA1E816823430CE47BD1593173605CA255CCCCAE73C7283336BCBC94133DCA64D675BBA848A3E1C2EEE35D6085F06E72EAA696FBED6EA545F27D3692	4.89
BS	66	2	2	0xA005745E452ACE6BDDFC4A9F6253BF4B467C93ACFF0F663A3F5949F15A1D266DEB0D26EC16D2A083F830E878A0300D74CFA3266CBBF3F0244ED56344D6AD5D887B3179CE56890D	4.74
BS	67	3	2	0xE52F56367EA45E4683E020856D05D08391D3D84766CA22531B3EC6BE682E76B6ED7BCAABC3AB6BDE32C4F700D4CDFF26F79AE16499D2B70EC389AC3ED5E02FDF5C43B296CF965D	4.75
BS	68	4	2	0xC5C62E3A911A0F28BF6A67E1DA2486FED7110B08F0A934C930AA035290D098857ECF3A069203A2560DADD5016802D9C1596526C7F1DA7C7B53360B0A673AA8634FB94D5838DC3E	4.77
BS	69	5	2	0xF9E176A9837BF970D5FD51732ECB8D90FBD12F62B62F938BE07915BABB0C6596080C832CE7FF914C849B9DA66F2380F3058F66340A34CA43583EC8EDC1E5CB5A2A25436E72292D	4.64
BS	70	6	2	0x5C26DB2489BE5197B20CD6B38B181B7789DCB90881AAC4B4317B2F40B44884144A1B15BCB53C8E30FEC419861C54B56158D9719E448B8A8F455F5B116275D796329059CDF682D3	4.64
BS	71	7	2	0xEF35242D5C426C1EBD9563A761CFBF11A531ACB938922EBBA5227D8292585B777783972DA79C853A2A178601E6CFEA35380045B50EE628F13AE3EC5B72FED52F92F731BB594DE8	4.63
BS	72	8	2	0x17FBB33193C68A1CAA8CEF5CB9A7FDFA1E89994F1779D2D0DE69DE75A6B338A07635C80A58722BB01398252F6C46AB7AEA79A6FC05F383F89ED65C49A2B9FB0D82A6EC03DD61F5	4.82
BS	73	9	2	0x076C1A1DCA870DF36638307F891A52F737BA2B54EC0AD1FC5424D4F32DDE168ACE9B08653DEF8A23BF37CA3D306138D698A133834BFB65BDE57048B9EEC630B13E91EDB1B52E8F	4.86

BS	74	10	2	0xA6800969ED0CE80A76F0F9BF7597ABE76DF60F243EE529C63AF72BAD6AB8B3F0B09DFC132C2B006827E55E352E3940A3BB8EE3526522ADF65AB76492BA41A393740A4B85CD5113	4.78
BS	75	11	2	0x64817485E539E02AAB074982A56DC6E867C606313194BD66B4CF8B9E92C4F9FD138B0E6EF36F699A3E6DCC46741B8CB16389EBA2C745398A30EA3102B6BA4FE9A8DA9605F929FF	4.73
BS	76	12	2	0xA3E438CB9EC48C4F4DD92C24950D0F1EAE7EEE920501C2C82531EDF8AEE3531F8D6B82D28C1FE0731088489FD215D19202DAEE0A57E3E1634C7A1BD5395CA64C64C14E5C02D436	4.68
BS	77	13	2	0x8F9339B406037D35ADB9858576A62AF6139FD2B02D381C7DF147A274E145F76DE5687AEC5BD3A715E0E893EEB6F24573D4017B24B30D4357E339B104601FC2DD184DC9A8F0D76A	4.67
BS	78	14	2	0xDA85062511E22DEDB53797BDBEC8B0281818E890D438CB5A48B2E4011FD5EFB2192C0FEDEE598372C7C06BEF25F9B9702A8A9F0F52B197E9C910BB63F467E53BF46A45F75C22F6	4.69
BS	79	15	2	0x914DE1436839A8E2FDD4EACCD645C3D29E522E19E0055A2510679A977772830824C7363461CBF5D662456DB798BA72AEB67FEB2FC28DAAD3FAE0048727CF6E9B237A82489790D6	4.84
BS	80	16	2	0xA21E09CF0A98EB012E8914A31BE5BE53F47AF5650B6BCE2812F65C994A100EA41F732830EB3F6C6F7028BC9FB3C5D108F63315DEDE8EE82CF5DE892032688E1C367D8567A20ACA	4.75
BS	81	17	2	0x6E11F29AE45A99D74D911777D1DE60495C2DAF1705C7844FB7FC0A01247F3265F45D90A198ADCD0DB98A3CE22ACF24A77C737E5BF99DCD7EFA6B6096B70C572996B62E7814236B	4.72
BS	82	18	2	0xE9F8FC17F5361DBCDD8F18F28CA90B618DF6B56D3481C9E3B7FDBEA6D55FAB32A4310A52AD7AAA26D082B38D4D8A2FCB70A3C6A4167515CA710E8F9B237F64B4D9A8C3CE8DF085	4.7
RS	83	19	2	0x11FDC3B4712101D717D0EDD7556EAE0940AA1683D4CA4C22A7959436ECCA5E08A4BF2BF9EEF4BCE5E3E48DD77EB418F6B84BF8937CE0CF9DAD247A64E9E850373FEE3D673F47C2	4.74
RS	84	20	2	0xE8784553C091233730B7DA704B8A02BEBE45E5DEF4361394E3B0E417FE3B571E641ADF2603402B8084A2D1318AF30CD95AD014D553408393AD345C05D62F435C708948233EF55B	4.86
RS	85	21	2	0xCDD6E932F9D2FAD131E7AE666B758CC4BB60C60230FE14494D0F77E89A9BE726FAF8F9465AD0262D75C0A5374165A4FD2B4C602C0FF123F416360C112F6F95BD6790F81ACD858A	4.84

RS	86	22	2	0xA2702DE422E1CBADAA8285C1C3B1F41D44561BCBF105466DF8070E604C733DE579755BCB8237C8DDB55A865B213D1929EDC553CE9B55994985F9EBEDF2A9F524301E3DA0498817	4.76
RS	87	23	2	0x54487F7BDCDF87B1AA252798D7E5AD97E6F5263B7986B1E3E637852EDC83FA360676C04E35A1F5045B0A0B7DE9269F8A0E17F100D9AC78D873AE59BA0BA3E8AB3DDF928AD58F9E	4.99
RS	88	24	2	0x3461AA27EDE0A9F7955B469C41AE1485EFBFE4EB233B0BBEB5F31BB36AC1E72CA6BF06B1E58F8612096CFA7289DEA8927B6368DC845DC8476074B83F3C1545A17F73EFE214A3C9	4.91
RS	89	25	2	0x2DDBBF4F82EB33001E46F08D17DB89DCE3C7CC127F6B7D17839FE17A86F69178A1903E91857147348B491631336CB5D710382B59FF71416FEC2BAF0A0584F2155EEB71C54F84C4	4.89
RS	90	26	2	0x762E2454401F66455358322AC0CFDF76EB18EFA9684A10F0F527537A54E75FAD77BD89E0D47980793C7B79B922C17792CC84BBEA81F6637192B74407A5B859EA1C873ED29D48FD	4.76
RS	91	27	2	0xF74BBB6C4B97071EBC19F3FE7840A67A3959BD9936335A4F8BD10C9CFD925D8388C31B947BFD318FFC8B0967C132A602BC31B29835AE070006A50554CF3C5F85D56832ABA9CA5B	4.89
RS	92	28	2	0x06493F32F3CA54692CAE2579388B97D99B5D540DE71F8B2405944C3A4FF18D7D45D4026DB9A867B85870BE6E23C9A8F84332D29B84B0303BB5179DFD89B56A14A37ABE053A0277	4.94
RS	93	29	2	0xC88A3A3C0211A21661FD2B30937F0A187B6601E366A8FC5BCD4210E2D5D3365B22D4D63273F822D89EC1745304FBA4D0A9295AA51212C11C9D0A31FABB066289D8227B5BFDE8A0	4.82
RS	94	30	2	0xA81E35C6A92953C584FE5FB3B6F1B0A532E91A49DB703D6E20D796F4532630C1D64DCEA580188BDDAB37722AD5DDCC9DFE7CFEDE1518D8E2ACA842F3570C7F381EAB9C5E4D485C	4.8
RS	95	31	2	0x08C0CC1C53E52AA366AFA63A48EBE2F7389C8A33CEB20173432B4828D68A547D4673E27F942FCA95942029CFE9F413FDABE1D0BCF95022C5B99C1B229D151E9D3CA0A122F1BEEF	4.97
RS	96	0	0	0x9774EF2FA326AB19DE599803EB48740C90995A4508064B6B19E58304229C5EDC578EF2C7030D4D2A01C9FB7618E7CB8564816354DD61EE144D7C94AFE8AB966875131B9F7C18BB	4.85
RS	97	1	1	0xB9FBD947B7F9F3C8F6D3799E095BE558E6A2D0550C0DD0DDC92CC7BB53C1FE80D536B1FAE89C9224E3504629DBF0C5457944A72769B7162FBB0BBE18189749D3E7E264CFBA7A0E	4.75

RS	98	2	2	0xFD0E15EC140B2E87817AECC16F134B66221C759CCF0E5000CDC0A3BADBB354D6845D745C22B1FB78C4205ABCF689495DE555CFFB4E4164A9ED06E484A192308A8CA89048A92C32	4.81
RS	99	3	0	0x28237E963DE488B97083F5A76BF5A861773DB61108461A8CB8FAE918887897033207CEBFB83380BCC45748732F9752C86DEA5F5EE4BA741C6DAB59375DDCBDC6EFEDBCD10DF3C2	4.84
RS	100	4	1	0x023B7D4F9CA92D1E796C749B7664CCC4E8558C5CF20BF702E39BC3AE525A9FAA6581F4A22EF6829A44156DAE4CABEA9C6A41D5A4325C02980C8FA4621A7FD08D874C687B68C706	4.94
RS	101	5	2	0xB7FF5E696A6923C504E2A64A097EB201EC52D7963D9D5DA46051A4EBA8B2C2DB9FC4249ABF2D8CCC881F8AAD20230F1B66D5D48CF2BCC5CADE7217E25FB9F6CB93CCE4111A33C6	4.86
RS	102	6	0	0x6870AA97FE0FF504C4247EBFA8EF1A21B6EEE100E407F293086E1F48C7292BEC491DDAF0E2CF02455825089FCD985F77CDC4B561A6B8CD60CE31CBE6D467CFB4D153746FB7BE0D	4.92
RS	103	7	1	0x9146631 0F3C4F355233B54C0AB8CB818780691443781B71AB6FB8F6CD516661E39075B4207E55400E081FD79C524628C8FE1277BE1A6165ACB5F154158D26593FED2C48EF66268	4.89
RS	104	8	2	0x45F8EB9235B6DC375771B69789AFEEEBB806965E6931A844F370CA14AA982635C54EA0BA973373D9FE010993B41EB8BF2C219B09AD13B4FE7FDC7295C55858834490674637ED95	4.93
RS	105	9	0	0x3AA7974B18884644F5C782A5E71AF70D91220EB0C468D079AFB7DF8033D3AB54BC728657D60B349C575C8B3DEC403A6D406E3FC4D016655D406B0B78389CEFCFF8A37D867A44DF	4.89
RS	106	10	1	0x1140B404D18CA769BDC1E1188BBB5BFA3B87668D158B0875F4D4EE90ED42974B5A02A6AAFC6977EACD194CB9E8423E2931F2CD9AEF6C90F44EC626C56518360D20AE97219FDE89	4.9
RS	107	11	2	0x76BE5786CE3C33A20A3776587F83E6C5280BD4DF20FE6C52D6BB582957E0CAEB988B32C3DB58027815D8618FB6FDB1BCF9E871D6C552AED5679BE98189D95708FE92750C5ADE33	4.84
RS	108	12	0	0x33597C2D850E76B116A82F95C766D2002B9822D52E09B1968BEF3DFD48D9F53D5296F1559BEB0BC7791C1F6B666EE68C605A2098A4A0BD57CE4F7A843068A8BA3BF0065ACA53C6	4.95
RS	109	13	1	0x894B11E2BB6884D9FFD78C6A8103F3BD44E6DFE48CD0DC89C63A4F8BA95858545D37EC1652AB2C073B99BC667D1F396C87F9902FCB08686E563D0D30EBF3D65756A63F0037C240	4.83

RS	110	14	2	0xDD08538B0939E852443E8801AB36C0FF50A6A0 B63BBBE969F6A5A60BD6EEF19D070C3A14366E C789D39D07CD8891491FDB3C7EF57A0A310C8A 4DC0A03D5DB84DA0D6911C4CBA9B	5.03
RS	111	15	0	0x7FFA4EF380C6504225EA6C8339E130DB7E6957 7E9C46CA494F66E2D5B25A256444606103A82161 5C2CDEA721D153669E5025CDC37904CFC16A84E 3B745079E5F1F3E08B0684BBB	4.83
RS	112	16	1	0x8A608CAD1CD85FD846FB2A39FB61EBF9A219 B9B7499179C2C066F3F78F3B3EDEF15B7227C650 BEFB63C950E1B52632D78D1A0F34552BA138C87 7F09FCCFD30511E340F794D154A	4.9
RS	113	17	2	0x775CA156A4C0BDB8FE5FF3CFB91FC7BC9DE AF1B8B3362D06C9738D332868BBA3B18A0A907E E7918D95510298E42F44B7BFC39D9E002EE24D18 06EE0436B92DEC06DA3FDA2230F6	5.14

Replace table 309a with the following:

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	0	0	0	0xA6F294537B285E1844677D133E4D53CCB1F182DE00 489E53E6B6E77065C7EE7D0ADBEAF
BS	1	1	0	0x668321CBBE7F462E6C2A07E8BBDA2C7F7946D5F69 E35AC8ACF7D64AB4A33C467001F3B2
BS	2	2	0	0x1C75D30B2DF72CEC9117A0BD8EAF8E0502461FC07 456AC906ADE03E9B5AB5E1D3F98C6E
BS	3	3	0	0x5F9A2E5CA7CC69A5227104FB1CC2262809F3B10D0 542B9BDFDA4A73A7046096DF0E8D3D
BS	4	4	0	0x82F8A0AB918138D84BB86224F6C342D81BC8BFE79 1CA9EB54096159D672E91C6E13032F
BS	5	5	0	0xEE27E59B84CCF15BB1565EF90D478CD2C49EE8A70 DE368EED7C9420B0C6FFAF9AF035FC
BS	6	6	0	0xC1DF5AE28D1CA6A8917BCDAF4E73BD93F931C44F 93C3F12F0132FB643EFD5885C8B2BCB
BS	7	7	0	0xFCA36CCCF7F3E0602696DF745A68DB948C57DFA95 75BEA1F05725C42155898F0A63A248
BS	8	8	0	0x024B0718DE6474473A08C8B151AED124798F15D1FF CCD0DE574C5D2C52A42EEF858DBA5
BS	9	9	0	0xD4EBFCC3F5A0332BEA5B309ACB04685B8D1BB4C B49F9251461B4ABA255897148F0FF238
BS	10	10	0	0xEEA213F429EB926D1BDEC03ABB67D1DE47B4738F 3E929854F83D18B216095E6F546DADE
BS	11	11	0	0xC03036FA9F253045DF6C0889A8B83BAEFCF90EB99 3C2D79BD911CA84075061AA43DA471

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	12	12	0	0x1E68EC22E5E2947FB0A29E4CC70597254B36C60331 EACF779FE752D3F55DC41ABFC7DC9
BS	13	13	0	0x63A57E75A0434F035AAC4504B265081D497F10C779 28B71797C5D6C6824DC0F23BE34EE
BS	14	14	0	0xC57C4612816DE981C58FD6F8DE9DD41F2422ADBC 522B0CE31F9A6D5F2A126DC08F69FB1
BS	15	15	0	0x978256AF184E7ED17789B33D324C711B36BFBCCE5 446EB03687E9A0A839C7CE156104D2
BS	16	16	0	0x011EC823157DD73150640CEB7DDB0A1F8F91E09599 A851D5C7CAF687CFB752D297D82FC
BS	17	17	0	0xC6DE82BEB7F57B9120E8A376D85C8F70FDC65BC66 0402DAC4AE6002EA2740C4F9E5973C
BS	18	18	0	0x4C74929D6F9FAB9E5BB761026038E076F6824295E0 AF397806ECEBC6DC713F03ACDC27C
RS	19	19	0	0x13E1E85C2234D0F3418001A35F135E10C6C918C36B C659FDA9D655D288A0BDAA8BF489D
RS	20	20	0	0xFD4AF2D8F4F08F1A7DF59291C9AEE788F641B8231 CFB813376E0BEB68DFCFCBBE552445
RS	21	21	0	0xEBBC77A493AA0C62C62F25EE5E8D0701F50386F49 026FA31487C9FD5C5206CE4EB00576
RS	22	22	0	0x134F936F9E875842587ADCA92187F2FC6D62FFC3A8 33D8CDE465F9972ABAA83763AAEB7
RS	23	23	0	0x3CD1DA70670BC73363D1B4A66D280FF6AA7636D0 7ECF32BA26101E5EBA1594FB8A0420A
RS	24	24	0	0x918296B2937C2B6F73CF98F85A81B723D1C69DBDF 3E019749C582DA22E789562729D475
RS	25	25	0	0xC323981B8B2240865F48D61AE1B3B61D88522B7358 952F949D4308CA15D1EE8FDFA683F
RS	26	26	0	0x7514A6FA5FBB250C5C8CE96F791D676036C344A44 B24284477B44CB3E758F8BCD58F05B
RS	27	27	0	0x84C7FEC6E977FA1EC0C7CC9E0D067C73D8F846F82 ABB3456D2104E1448D5A58D5975152
RS	28	28	0	0x4841AFC277B86A0E067AF319422F501C87ACBFBDD 66BFEA3644F879AE98BA8C5D605123
RS	29	29	0	0xF35EA87318E459138A2CE69169AD5FD9F30B62DA0 4ED21320A9F59893F0D176752152FD
RS	30	30	0	0xA0C5F35C5971CD3DC55D7D2B9FD27AA17A198583 F580EB0800744EE5B6B3648DEA95840
RS	31	31	0	0xA6D3D33AD9B56862DBF076E3ACE6A3150510CCC8 BE77DE4E6E10EB5FE163765647D07DF
BS	32	0	1	0x52849D8F020EA6583032917F36E8B62DFD18AD4D77 A7D2D8EC2D4F20CC0C75B7D4DF708
BS	33	1	1	0xCC53A152209DEC7E61A06195E3FA633076F7AE1BA FFE83CE565087C0507BA596E0BD990
BS	34	2	1	0x17D98A7E32CCA9B142FE32DB37B2BF726E25AA7A 557FFB5C400B47A38B16CF18E1EDE63
BS	35	3	1	0xA5BA8C7E2C795C9F84EBBD425992766BDE5549A7 A9F7EF7E44AFD941C6084568638FE84

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	36	4	1	0x33E57E78A5696255CA61AE36027036DA619E493A0A 8F95D9915C6E61F3006CB9706BEBA
BS	37	5	1	0x09961E7309A9B7F3929C370C51910EBAB1B4F409FA 976AE8679F354C84C4051F371F902
BS	38	6	1	0x508A9EBAEF3C7E09CFCFC0B6F444A09B45A130EF C8C5B22BCE87213854E7C9D329C9ADC
BS	39	7	1	0xAACEEF9BCDC82E4AD525185B07CBABCB74861D1 6F7C25CFBA917B05463AD65391AF840D
BS	40	8	1	0x23060ACC5A125DAB207EEEE47B4EEE1E8466BD17 DDA2EB3CD90D2AB7A758C213E6D7FE5
BS	41	9	1	0xCA55521667BDA8B6F1B205201A51B3A0C05DE9EA 06BC73268730A81A992777021F46055
BS	42	10	1	0x05ADFCA2F8207DC6FF8D1A85A1DD4694D4C48A83 8C4F833C532710021AC448A7B62B8DD
BS	43	11	1	0x218C951223D7B712DC98F8B5217388A830003C5F2A 00F232DD3475D2FC78C25B8D88FF9
BS	44	12	1	0x79B94D24D721121EF678B7156F8D2666DE712BBF38 37C85A9518781903146A7B4D42A28
BS	45	13	1	0x58AABEF6A6BDE4011CAC583C5104B2C6FC5A2980 F856373E5931A3C690245327581FA13
BS	46	14	1	0x427D1AD18E338E16FCE6E23B4AD6D82A2144D5304 8F2665AA94577AFABD26889FCB1F9F
BS	47	15	1	0x337FE0E4C15A22471AE0F6B6F91161A7DE2E1403D7 3587D5C8355105D2F70642B2CE425
BS	48	16	1	0xA3FCAA311B536AC9DB39FED9F4E996506B3181C58 D6B7E04157A3FD463F60468765BCFD
BS	49	17	1	0xF484FD1F57F53A4A749B86148E0B1D0653667CE139 3198875DDB0AE9179BBBDAAD53A11
BS	50	18	1	0xA3E9ECF1E6048562BC89DB6168E708855F0D4AD29 F859EF36C9160DF407D85426233632
RS	51	19	1	0x890519376D1FFAA2894EABCD6663B0A3C2411982C 17B01270E0FB0B289D4BC8C3B83DA9
RS	52	20	1	0x09847B6187BB5F6F6728B4ED610088FAD9DADFC00 748E9DCD8A0CE320D6C991654ABE05
RS	53	21	1	0x3285AE0A3D196313659C37BE1C94D61D20F11FD49 D9FDF9D1026FF5763F02CB78AE135C
RS	54	22	1	0x0069D3F34D0D455AFB45FEFDF716333B785C6BDA9 0DA23F1CC68BC6A1DBC916C595DA3E
RS	55	23	1	0xAA977A8BCA39381E7C35A1ACC7C4F60421C0862B FD6106C7C025B0676EA0EF68972DD8F
RS	56	24	1	0xF310745C497094ABE56E0490C0800319DBE290553E6 96B6859635AF03B121F79D925D19
RS	57	25	1	0x964DFD350B9C7DFDC7F6F7C43283A76F0D613E48A 5520D1DAF761C6F47E389B43A023F5
RS	58	26	1	0x6D767B88D28A455CC3B56C942BAFD8E465A50FD2 C22FE6162E03A9AAC3C1CC899800610
RS	59	27	1	0xC5491C6CA3D998906EC1482F815B74B7C2E3816B68 2ACC6009AB7EFF34BF0E9CE59C754

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
RS	60	28	1	0x6D8EE32D30E19D93A0E5AD8226BAE9CF6FCBA17 CF6E67FDC5A15A81ECB8908BEDD77C80
RS	61	29	1	0x98F8BFDF774C7A249418E6FF4723D6E6AB2F091CD E4DE1CE11D3BD463B509FB716940FD
RS	62	30	1	0x65300BAD8FFA21BC7DC2C1F79FA97A9F469CCC9E 270A61759F34D6276F57CBEB009CD21
RS	63	31	1	0x6F36BB6D5A7DC4FB720439E91FF0DE86DD6C4B93 CFC4271F2BCC6169616E3AEAA19E360
BS	64	0	2	0xD27B00C70A8AA2C036ADD4E99D047A376B363FED C287B8FD1A7794818C5873ECD0D3D56
BS	65	1	2	0xE7FDDCEED8D31B2C0752D976DE92BEA241A713C F818C274AA1C2E3862C7EB7023AF35D4
BS	66	2	2	0x87BF4954022D30549DF7348477EACB97AC3565B838 460CC62F242883313B15C31370335
BS	67	3	2	0x82DD830BEDE4F13C76E4CF9AEF5E42609F0BDDCB 000A742B6372DD5225B0C3114494746
BS	68	4	2	0x4E06E4CF46E1F5691938D7F40179D8F79A852167753 84BD97966DB4BBF49FB6FAB8F945
BS	69	5	2	0x64164534569A5E670FDB390D09C04802DD6A16B022 CADC77EDD7464AFED43C773A8DC76
BS	70	6	2	0xFB8769A81AA9DB607F14A6A95948401F83057CDC9 C9C3996BA5821403A49F00A4E35191
BS	71	7	2	0x77710D6F40B4F79CC63F678551C3EC18FA9DF2C82E 6C8F415DADFD63264B7513180070E
BS	72	8	2	0x503F196BBF93C238BFD5E735E5AE52E0DAE64F5E2 F4C3B92E553F51303C4A64C4403BF3
BS	73	9	2	0x5FD4A6894566678C95B9D5A59DDE5366799045FEB0 3A2BAA74094140E9068C61C2E972C
BS	74	10	2	0x95B584DC40C8B5DEAD63D48FCE65B1E61BAB4C59 7D921DB12677141E2FFE7C0AA3DA0D5
BS	75	11	2	0x985763AB6CC8934DB8A0BE738A7AF1D1FA3958C1 F9E2D6A51A163E47A0A6E5FEB759FDD
BS	76	12	2	0xFD8D45F00D943AD986BD353D61C6746DBF8A309B 6AE1C173B880D957B76DC031A957E8D
BS	77	13	2	0xAE4323534F6EFB1A20169328417885EF304FA220389 FA9C2607E5A406F4CE4A7498A39F
BS	78	14	2	0xE5205579893BE184CB9948C28E2F9AAF699D47B6E5 E0B219CBEAFE4BEC8D561BD809E34
BS	79	15	2	0xAB11D6941478D36D5695CE813070DC1E32122A3908 3E53FE373660AEB125D83383FBDCA
BS	80	16	2	0x188A09C46F1F11206FF9F15CFB5F6CD2F26C4BF485 EE37D3650A595064F76CE34E40EAD
BS	81	17	2	0x4B1CDE25539A56CEDC45FE7F54C38CF155F4FB1A E868F6C3952D07014BF828E810BDE2D
BS	82	18	2	0x16CA8F8C6A879E865E3611EAC389D56AFA3E4E84C DBB73567BA4A160249C4B680A7D9BC
RS	83	19	2	0x39D2B08AA0E2E8781476027B41AD72F8D9838B7001 AADFD33A92D81E56ECBB2C9378D58

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
RS	84	20	2	0x8C258BC80D4AD125F335A5151EDF9E9A463E06C5C 8D046F82E5DC3D73EF4D2231C5D14F
RS	85	21	2	0x41A029C6356C825585179C5348EDF07A3AC2022539 AC28DC4CD3C1DFADC8EE9644CD939
RS	86	22	2	0x0D70A77CBE9804913BFBEC4FBF917C5CD3580F606 2BBAD3F99ECEBB4A9EBB87523AB722
RS	87	23	2	0x6A00A30901F9FDE44B4F1ECED44E0BCB943B29519 F313BE4496D34F39B154FC2384CB75
RS	88	24	2	0x95351107A8BE6ABFC24C1292FE1A0FE677CBFD04F 2E81178CAA9D294730EF9C946F676E
RS	89	25	2	0x01F21470FD9B1E0B3C6B2F7C0412A15764C277D61B A2EE3B3769DE7ADACB2BB29918FB7
RS	90	26	2	0xA578ABFE155369440FA3D4DF757CCA596469B80A0 E56BFE6010DD63E67CEDB86BB1EF39
RS	91	27	2	0x1E1CFFAB031836777DE5D168A9246C559574C74CC C06405EB406B8DDB7C9A6EF54A66A5
RS	92	28	2	0x354149C2CA19A735F9CD04AF4922E8ECE6509B978 B951F946FD4AD36C7F9C83624205E7
RS	93	29	2	0x5A27E60DEA547D0D41897A03199F28A967AC51728 E3B38325B4FBECF1B85A7EE9B04182
RS	94	30	2	0x784DA3B16B810FE3B851060AD7BD27D9D9457F6C8 899A13D311E531B855C15ECE6D3A2F
RS	95	31	2	0xD7DFBC65797633A8C13D3EEC781D48952338136063 B579D69437B28B744B5A4BE18AFA9
RS	96	0	0	0x61AF26BD39A9FFF52826625E04ADA299385A373FA 946D837D754E6CFEBB26F5C03B87CF
RS	97	1	1	0xD77D97CDB93DBEAA65CAFA146F40D72B5E80944F 750E07325DC164ED60F32434BC7187D
RS	98	2	2	0x4529D9CA65AF49C1C39BDC18CFAB87E03FE4DAF C0A48FF1457D46B0DF66B414A23ACDDB
RS	99	3	0	0x33AC0261DAA57C1D611EBA1C730D50AFEE5BE3E8 49030A4E891BC8C5F4C78DCDDFEA263
RS	100	4	1	0xBED48C704F02A84F03BCD299D919DA56F7B71EDF 8A0F8A25E8F8496F95A44CE2B9F74C9
RS	101	5	2	0x0ECCBE0902EBF4B4C29506014A3706622784B7B2D5 153E10AD3112DC5E45277A32E79DE
RS	102	6	0	0x7CB4937889C7DFD9AA2D37235E06F993D3D4F5D51 5B39CA652F62397C08457D66BC5A36
RS	103	7	1	0x43F23F6CAC6C43896B3EDBF00E1CBD42E2CC75E2 A996448F0FCF17F6779DD6E356FED11
RS	104	8	2	0x72C8A209FBC4A568BEF03BCFE1B0D959F977B0963 780B4E54E2B9A1016344ACB7EE3E3A
RS	105	9	0	0x77AEB9E50DC3727849A94FBFFCDB5B9589AF50AB D8A58808B9663058E17A2EBC496DF43
RS	106	10	1	0x667123C89077FE4AAAEF15C635E976C6811682D478 FFC7B721A76B5A38697DF4FB7D2CE
RS	107	11	2	0xCBD6C5C9BE55B0BE76AD03392E8A8AB9A86063D B31B79280B447980BB841FD7E9DC6B9B

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
RS	108	12	0	0xC7D7DEF8B3C9C8667D8D65063B4DAD1FF69445C8 7CA71DA955D0CA23970E988A6EA4C83
RS	109	13	1	0xFB246ABD92F9E560CB2BEC2317204C9CE22AD3BD 19EA02E90F5F3B7F4F65538D8ED098E
RS	110	14	2	0x29E74579472FDD8FFC2700B2BF33C649989DD81530 93A7CA08B50F7A5E4BAED108A0F0D
RS	111	15	0	0xA27F29D8D6CCD7EB4BBE303C3E9E95802DB98BFD 5B8ED03B88304359D92E3EC108CA3C8
RS	112	16	1	0x3FE70E26FA00327FE3B2BE6BC5D5014F588F09C17D 222C146DD68B4824692A651888C76
RS	113	17	2	0x41E91307EC58801CFF2C7E9CFEFBEB71681FAE2BE AEC72D4E4556E99345D3BA4B369B59

Replace table 309b with the following:

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	0	0	0	0x66C9CB4D1C8F31D60F5795886EE02FFF6BE4
BS	1	1	0	0xD8C30DA58B5ED71056C5D79032B80E05522C
BS	2	2	0	0x8EB62664E3B2C5222DE18E9000561F25AAFC
BS	3	3	0	0x3B32299087C257CD31C67E4AA5DD697B0E08
BS	4	4	0	0xC07E0B0C5DB44071EE6CEC40CA3135CB5DB8
BS	5	5	0	0x89B08CD299A8AC757DB59107AF4E1EF1EE1C
BS	6	6	0	0x1B72E8C0ECFAABF050091382B411B45A718C
BS	7	7	0	0x5B33ED5A6303397EC3CCC35C8203A5A05178
BS	8	8	0	0xAD1173C461254BF9181238319F93F86AF964
BS	9	9	0	0x51E2005BBA69C858BCC741D84990B657271C
BS	10	10	0	0x21A03B607DD96F270CBC759B2A9BD6A84A34
BS	11	11	0	0x4518EC4C7AD645D24AD949B42A7881403C7C
BS	12	12	0	0xF8B70C595A37315D301D378A4D2848C821D4
BS	13	13	0	0xFF42582005F8382C5CC6298D757155B36B24
BS	14	14	0	0x599EF40107CBB3B30AF945365494A0D60570
BS	15	15	0	0xC6D6BE87F0D88458ABD22DE822B64E450738
BS	16	16	0	0xE043896829F236B10A35014D9E4F26ECB95C
BS	17	17	0	0x2347472A610FC084C71460393AEF36CBE928
BS	18	18	0	0x5F4D880DC516DC0B3860DA948225D2BC6770
RS	19	19	0	0x9EFEEA99631FAF0D9589E9640BCD56C5FF08
RS	20	20	0	0xFE792EF83B235B3D4A6447BED27035454BC0
RS	21	21	0	0xB3B1B868C121C4555A64161B654A4FE81D70
RS	22	22	0	0xB7C2D44078510ADD2447D93E8A1231AE3910
RS	23	23	0	0x16A9D8F71CC1CD0EFA0008AA343A7A4ADA4C
RS	24	24	0	0x7389FDE96166E7E40F7A6778AA02944937A4
RS	25	25	0	0xA0598A0907798B3465DD8CBD08565F0FB5B8
RS	26	26	0	0x0E75B3C128085C954A25E5808FC5833A8FB0
RS	27	27	0	0xBBCDA362265B4D4D2BEE80F635E638316280
RS	28	28	0	0x660047B06A1B5FAE6A9F0679DBCA9B1A2DF4

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
RS	29	29	0	0x2594AE119CB87E802D67EF7EE0EAE99474CC
RS	30	30	0	0x8FB3FA462D2CFAF842BB5319D9786A997C10
RS	31	31	0	0x599E199B609C0C654DB053E8C94F343AAFF8
BS	32	0	1	0xE0187D89220D11B5F60DAC078A5E2EED6EF0
BS	33	1	1	0x69F57E074F14A10FEC6144C26E98C4688330
BS	34	2	1	0xD2C4067132528AA41BBE61A9C171A382F768
BS	35	3	1	0xB027CB82594D3900700B541A99CCD5FD5870
BS	36	4	1	0xE9B565C61F73EC6633A1F2D96EC409495B80
BS	37	5	1	0xEBD7E29110582C5951233AB22B03DE709698
BS	38	6	1	0x0CCA91DA1B42B0B55C924F32B08B1FAE0E18
BS	39	7	1	0xA4213FFB85B56E27C74FC6ECBA359875438C
BS	40	8	1	0x1A37F92589686CFE5E4D4BFD8E2BC63AA8CC
BS	41	9	1	0x31531C7B2F7518BF59ACFB216FC74D09F2F4
BS	42	10	1	0xCE026112DF00BB74E1B1F43B595112B16344
BS	43	11	1	0x503494DE054AE395883AEDD8CC7801B8F124
BS	44	12	1	0x8447E25CA9A0EE1CFB9FADB6C42B8F565B3C
BS	45	13	1	0x757C45DA8F140FB6E71024294B2439CDACFC
BS	46	14	1	0xF2A59A32B51CE505E45E9B5C7C7DBE880DF4
BS	47	15	1	0x8DFBF09479BC91E466A539E077D2B26A8B2C
BS	48	16	1	0x1C6FB87D76DB82FFA1E492166684CACEE560
BS	49	17	1	0xA32CF584137FDF1D4CCE6A1CF40FEC1F4AE0
BS	50	18	1	0xEC4D3AC52136FA468F28777078C8A82C0808
RS	51	19	1	0x30CABB208C9D6C774814A163765E4ACBC540
RS	52	20	1	0xCA3448C6716F6F8D15D7372A3A4F6E825A14
RS	53	21	1	0xABD1526F4A510F820B689F30C1E7B88C8848
RS	54	22	1	0x94E4E2AE2C4E47FD7D0A154C25BF40F759E0
RS	55	23	1	0x43BFFD566D85BE162650670BE1A3CA523284
RS	56	24	1	0xD7644475A2E5EDAD1AD184242E3C841A03E0
RS	57	25	1	0xA61DDBA416D1D14358647C4ACEF2503001E4
RS	58	26	1	0x1F9047A8651D4D4A7C582469DC8C41B68E08
RS	59	27	1	0xE0EAC02D975263F36D4BEF70669CBDEE658C
RS	60	28	1	0xDFAE7334BD2B8FF1D2C7CB5922823B03F744
RS	61	29	1	0xD44B2AD5842F1EEA1A39DBC64EC064FCCFBC
RS	62	30	1	0x08AD296C8D17ABD021E02E20DACC247673EC
RS	63	31	1	0x2FE66830D806B3F8DD38D5FE1CF12DEB9774
BS	64	0	2	0xC6325F42597BD48A8914944C7DB973D83E64
BS	65	1	2	0xE04B98E9254434D3F765A621752C0F1FEC54
BS	66	2	2	0xA74B60D84CCB156B1B8AE015B8CE980868EC
BS	67	3	2	0x78E7405DCFDA1DFCDA6E54B3794B49A0F8B0
BS	68	4	2	F32F4CA1A154E746FE1C2D1E4A1251779804
BS	69	5	2	0x5A2905A1CF5D06444C880ADC07EB3889E71C
BS	70	6	2	0x74290661C664DEB829569B7C4E6C32B2BE00
BS	71	7	2	0xEBB53241F5D9CD87A612C0774ED2FED4679C
BS	72	8	2	0xE33B89ABA4ED020D558B833AF74072922164
BS	73	9	2	0x3B7D2DEEF829E230718AA7996CD814A4DD88
BS	74	10	2	0x373861E8993FC22E176F6DA6A46A10158EF4
BS	75	11	2	0x2BEA329B65DE1CD26ECDD382915AC40B1D0C

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	76	12	2	0x7A8B131BD5D1270C30003DA472DD81D9A434
BS	77	13	2	0x9D6A237940057479D30BE19AD719F8F9B47C
BS	78	14	2	0xC1FB9C3811B349E9F793A14C8AE8425A6218
BS	79	15	2	0xDFFDE03D8C717A346B4B1D3C02693330A9B4
BS	80	16	2	0x76254DEF89683CD7210898069E2CDA0EE144
BS	81	17	2	0x09B9B69C132C4E2DC16A1438828147D65F94
BS	82	18	2	0xB1CCE0D47DF246E9059CBC970168518206AC
RS	83	19	2	0x1017669D7990F3AB4378924C69E442F2BAD0
RS	84	20	2	0x772407B19C5FA41D542C8A2DC9ADD2C2943C
RS	85	21	2	0x7A38C2889EB10D93F23EC75B212D327D18A8
RS	86	22	2	0xD25A195D899BF6F531F5ECC228BE0678A438
RS	87	23	2	0xA83FD1C33F4C6CAA5A0E8B062937AC310034
RS	88	24	2	0xAA6DDD1A05ADF49F615BE9F9EBCA6630E440
RS	89	25	2	0xB14990574937763EEBD71A12FEB0C673F878
RS	90	26	2	0xDDF013D74BDDE5FBB621A32B54DE24AA1D60
RS	91	27	2	0xD814295D387D2EE33F90C07CA493062B3054
RS	92	28	2	0x89B93046231A786C3D74ABAEC6AFF42D037C
RS	93	29	2	0x5680E918BA19199E841B4D6A7D1DD1420E78
RS	94	30	2	0x639CC821373B332F975817C0A1AC16A48150
RS	95	31	2	0x06711D78BD8978D82DA58B7E494DDF77E994
RS	96	0	0	0xC882DD8DBD23C796A1389DA4EAA9A4138640
RS	97	1	1	0x038086D70895496BCABC404B1EC999F67AC0
RS	98	2	2	0x8203073A335DB9E57B0CA2F07D5958176B50
RS	99	3	0	0x3FF1CD3638EE6469A4A482AF834EF56A2340
RS	100	4	1	0x69EA7871159D5099F900C6133C07DABF56F0
RS	101	5	2	0x4D88ABB17FF855393EDBC070CF0439D5E94C
RS	102	6	0	0x01EFD43C87362B00E376A728BC597BEED978
RS	103	7	1	0x7AE20D16F3CC6F947413518FDF6E1FCCCDE8
RS	104	8	2	0xBB852F9A90B0DE260BB67F45491B31DE3A74
RS	105	9	0	0x088627544BDF971C1AC4F86F05A212EE9634
RS	106	10	1	0x0C8A08A37C2B9D3C1812E9C116B4E6A6285C
RS	107	11	2	0xE74775CADDDDF0D2D808FE7FC1C177489284
RS	108	12	0	0xE81ECC6AC393294E9B549A8B2BADE7FFF904
RS	109	13	1	0x1C5FAE8CACE7A2CD13CAF4A34A440E909BF8
RS	110	14	2	0x6EE7E42A292BDACC5C79B81CA6598274C940
RS	111	15	0	0x407547BC0C961D9E9ADDE010F4990724E8DC
RS	112	16	1	0x46CE626ACD894F9650E6B7C3F9E3BFAE5B08
RS	113	17	2	0xC59B894FBF170F44F4816750280AB8CB4E48

Replace table 309c with the following:

BS/RS	Index	IDcell	Segment	Series to modulate (hexadecimal)
BS	0	0	0	0x01E52A9B3
BS	1	1	0	0xC96FF8AB1
BS	2	2	0	0xA1F5CE648

BS/RS	Index	IDcell	Segment	Series to modulate (hexadecimal)
BS	3	3	0	0x1E2BF6919
BS	4	4	0	0x051798B72
BS	5	5	0	0x932D7FA8E
BS	6	6	0	0x2CBD50F73
BS	7	7	0	0xF86F6A451
BS	8	8	0	0x2BA44F7E7
BS	9	9	0	0xEEFA172C3
BS	10	10	0	0xFF46C729A
BS	11	11	0	0x0362D5C61
BS	12	12	0	0x27DDC7CA5
BS	13	13	0	0x17EAEDAC6
BS	14	14	0	0x94ACD9E03
BS	15	15	0	0x1A1AC22DD
BS	16	16	0	0xFD5E18DA6
BS	17	17	0	0x35DEB6E0E
BS	18	18	0	0xA0185E326
RS	19	19	0	0x93B3F9C75
RS	20	20	0	0x632481EA8
RS	21	21	0	0x8BB8104A5
RS	22	22	0	0x87C89EF75
RS	23	23	0	0x207AA794C
RS	24	24	0	0x6A4D1C403
RS	25	25	0	0x7761B4BD7
RS	26	26	0	0x31ABBF06D
RS	27	27	0	0x69C6E455F
RS	28	28	0	0xAB3B3CFF0
RS	29	29	0	0x731412685
RS	30	30	0	0xA3135C034
RS	31	31	0	0xFECCB2B85
BS	32	0	1	0xAA37BDA7C
BS	33	1	1	0x90955CE1F
BS	34	2	1	0xADBC1B844
BS	35	3	1	0xA04A3B197
BS	36	4	1	0x015E56CB3
BS	37	5	1	0x64D6F4038
BS	38	6	1	0xD2DD02238
BS	39	7	1	0xFEA763CB2
BS	40	8	1	0x8CE0D5FB6
BS	41	9	1	0xCC25D7A7E
BS	42	10	1	0x7019D3A92
BS	43	11	1	0x784CF7EAB
BS	44	12	1	0x07085DAC8
BS	45	13	1	0x4CEEB5E1F
BS	46	14	1	0x9E5CD5B80
BS	47	15	1	0x63A76FD05
BS	48	16	1	0xAA276F96F

BS/RS	Index	IDcell	Segment	Series to modulate (hexadecimal)
BS	49	17	1	0x3370F5082
BS	50	18	1	0x35A644170
RS	51	19	1	0x16FD73B8B
RS	52	20	1	0xEEE990E94
RS	53	21	1	0x28A3120FC
RS	54	22	1	0xC2FBC2993
RS	55	23	1	0x880BCACD3
RS	56	24	1	0xAFA4DB918
RS	57	25	1	0xAE1E49884
RS	58	26	1	0xF7945E264
RS	59	27	1	0x38374CA42
RS	60	28	1	0x5AAE39B00
RS	61	29	1	0x138069E54
RS	62	30	1	0x966707005
RS	63	31	1	0xA5037759E
BS	64	0	2	0x3FE158D96
BS	65	1	2	0xAED3B839F
BS	66	2	2	0xF5AE23268
BS	67	3	2	0x1895E68BE
BS	68	4	2	0x1443C94EC
BS	69	5	2	0x929547307
BS	70	6	2	0xA17D3230C
BS	71	7	2	0xD54FC0C33
BS	72	8	2	0xAB77F079C
BS	73	9	2	0xC3CA00A66
BS	74	10	2	0x025519879
BS	75	11	2	0x6CF39F815
BS	76	12	2	0xF69E451B1
BS	77	13	2	0x91BC72EBF
BS	78	14	2	0xF964A5447
BS	79	15	2	0xF8CD36F4A
BS	80	16	2	0x726A3C802
BS	81	17	2	0x118D1B682
BS	82	18	2	0xDED9E703A
RS	83	19	2	0x3E8929773
RS	84	20	2	0x2C64AA7F9
RS	85	21	2	0x2249CEA0F
RS	86	22	2	0x01363A94E
RS	87	23	2	0x69D77721F
RS	88	24	2	0xAE103C9B9
RS	89	25	2	0x89E2A6940
RS	90	26	2	0xA7BC42645
RS	91	27	2	0xBBB6B9C0F
RS	92	28	2	0x5BF7598F8
RS	93	29	2	0x4AE4C79FE
RS	94	30	2	0x1FDC748C9

BS/RS	Index	IDcell	Segment	Series to modulate (hexadecimal)
RS	95	31	2	0x877D5E6E4
RS	96	0	0	0x0FE322452
RS	97	1	1	0x4DC778B5F
RS	98	2	2	0xADD9E3F88
RS	99	3	0	0x2C1C857DC
RS	100	4	1	0xCFB4B5503
RS	101	5	2	0xCD8505E21
RS	102	6	0	0x82892F4CE
RS	103	7	1	0x3979FD176
RS	104	8	2	0x5FA49C311
RS	105	9	0	0xBA7857B19
RS	106	10	1	0xBC030C4CA
RS	107	11	2	0x517F3CBD6
RS	108	12	0	0x7E545BE73
RS	109	13	1	0xDDCA69C3F
RS	110	14	2	0xA01A2C8C7
RS	111	15	0	0x1C0B64435
RS	112	16	1	0x330282DF2
RS	113	17	2	0x147FCCF4B

References

1. IEEE 802.16-2004
2. IEEE 802.16e-2005