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Title	Re-organizing the PN sequences for RS access.	
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Re:	IEEE802.16j-06/027: "Call for Technical Proposals regarding IEEE802.16j"	
Abstract	This document proposes a re-allocation of the preamble related PN sequences, as specified in 802.16e-2005, re-organizing them into 2 equal sub-groups, one allocated for MR-BSs use and the second one assigned for the RSs use. Proceeding in this way the network entry and HO procedures related to the RSs could be optimized in terms of speed.	
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  $20\text{LOG}_9=18.1\text{dB}$ , 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.

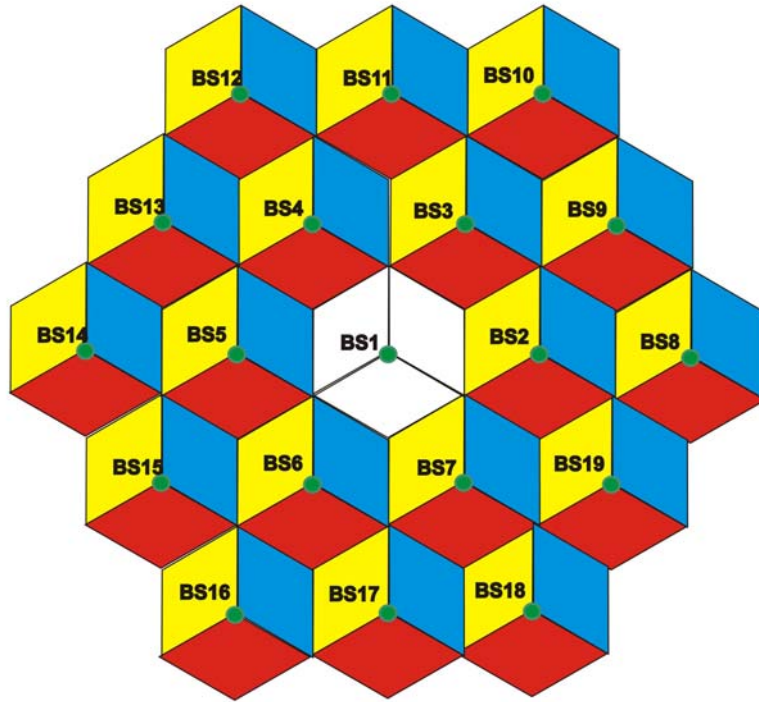


Figure 1: 2 tier network topology for 19 cell 3 sector cluster configuration.

### 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 request 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 hereby 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	0xC12B7F736CFFB14B6ABF4EB50A60B7A3B4163 EA3360F697C45075997ACE17BB1512C7C0CEBB3 4B389D8784553C0FC60BDE4F166CF7B04856442D 97539FB915D80820CEDD858483	4.33
BS	1	1	0	0xA9F7AC1BD0A4BD694D3EDC2991CC3B2D24B F26A22346F8DB370202CDA25D382D4119AAC676 E320A938A95762C4078689B6024E477F0EDA8F56 3106F0D70EBE3E006F75B50B537D	4.21

BS	2	2	0	0x56531FBB87033E4F362273BAF0F8879B45B9F19 143E5494F7B025D138DF057756DE625196292AF6 D28FD0AA08453E5B9871EDAE3E680B848C67BF BD7ADE73CFBBBA4E81191267A	4.32
BS	3	3	0	0xB397F552DEB2717CC19DDF0D59674DD6F6D38 66A3FD023A009F592B56460660F1D585E3078AFE 272D97FDF4280790C3A9E5FCF9910895E9DAF2B F65728F7390C930428B4E6793C	4.36
BS	4	4	0	0x1BD4C84B42DF6B7DC53F6C7B8E223A3B16D8 E214CFA5469A8D22246BCF297E5F92159406608B 8A0BB55EF64A85B1241C5CDFA048CF0492AB3B CF46A8E8FE986F06E246F1E06C68	4.49
BS	5	5	0	0x4E00947B6722B09389EFB4F6951C488B368393E 8254948359287441709C6F0E4463C067733C42A7F A89645D7D69AF2ACE5402AC473DBF2C75ECB8 B630BAF4B27F282249BD52660	4.49
BS	6	6	0	0x494CAB6935E10DB5D6E985997849EA45F0D5E 2EDF7670BFD9643531760D9F7CC01DD63BEEDF ECB7E806F3F189291C074C8289D93A95324D1313 91E23EB9CEEAB0E789DA1F5B9CB	4.35
BS	7	7	0	0x4C5F10264D6C5085346E86BF8567294523C1B68 3D2A220D9BEDCEBBA110620BB53ECB0338BE7 109240E22EC902FCA05F97338BB9DF2DDEAF7C7 95BCB160BD4F01A6DBF2A729373	4.48
BS	8	8	0	0x79797D9AB260C20D5A460CDC49B2D0285E095 E835EAF2ECC74E010DD8A53797CE0EC2EEBA51 E779AA6B749B8E69FFDD632AC79D64143467E73 017113BCDF45E787D0A9EAC3D22E	4.48
BS	9	9	0	0xA1B9AC2C3D5B9BAAE5067C9E4A83C167076B E7D8699ACA710FF205DE774FD46DD5F7851A214 9D61E57152B98B6AF4194B6FED90ADA008D1D5 F8DD87E8060F943BC9124C1999236	4.55
BS	10	10	0	0x066E5FA91D00D63B26036009F8C69142B9D936 396FF9E13786478BBFF5DE6F184A0F844663950F6 9AFEDA93CA4A3BF94B13175A2CBB3A3836A34 E5CE6D763767B35515F332D836	4.54
BS	11	11	0	0xF443E9FBF763DA2A5137A57C7DA504D194EC1 797AD33365BAC2F0C94541F4D47A664A7A17308 C37E06BB0826FF999C15EE430A3CC54159E3B7E EBD5FF307BB24A939AB261E2B3C	4.53
BS	12	12	0	0xF38BE6D2108483C056088C5E7C8BF92E9C973E 0B2ADA9342B46C06C4C2516CF7B9E6043E2947A D40F41734E02A9ADCE9C70E03C4D50E7EAC73D AD56BDBB796289DDCC357776DE2	4.55
BS	13	13	0	0x104AA84E70B163A42654A45995182B1C3DD63 F4BCB09ECA79A0D6D2D2A784DD601579459831 0BE087F75019227F899744B7C73A9008C83C0923 D5DC154FB2DCBF8983E709BCDF3	4.54

BS	14	14	0	0x0B49A507AC4EAAC7551FC4B00658A28D951F C81723CC1C024AAC6A9DE9686383C28036C762C 020012D797866DE589B36BB95DFDAC2B3D0AB9 DDE0B9719918062FE824E063BA3EC	4.52
BS	15	15	0	0x64C14C7D3725A74923E6B2FB1C3BDC77FEE58 CB0AF310EC37F22C93E2C809AE8410963E6CF5E 7E192502960F0272244A31D2CDDC657BCFF422E2 9C50D5E82EDCB44579181BBA4D	4.41
BS	16	16	0	0x210D8A8E602BD53F981BE763E10F4730BDA53 D2F89BD1D91C8F2DD5B96732935F789F64391193 7344E9F2ECF3222AB076BC2B5EE407DC581F0EF 9FFBD56D14D137A0418ADA06D0	4.47
BS	17	17	0	0x88960A88E3F79C95D525DB49679C20A736D0E9 E4D1FCB9DE7735AE1E947F4E93637E98143D6BB 779394C58F2AC5A9BD7B2074E98F1B2026B67B5 07CAAD8076082B09FB345DA02D	4.54
BS	18	18	0	0x1D2D5C8CDEAFCA5EC180D9638CD0F277AF08 AB5133E6D60C919AADAD00569E5F902D4050054 2631FB729FC3AF456C9A47E3EB967D51E09D712 D8D49A028E738BEC90061B089C9F	4.55
RS	19	19	0	0xA063E03DE6C137F3FC56F970052BCF7333C845 1BF5D18D1B9AA5342E79C25451C1D862ECB5CF F21B7CC203817D78C192EE1A68976652E1740C4B 123552C85CEE524A2AA90D428B	4.66
RS	20	20	0	0xD2A7F126A9599093A9262E66A2471B6B6A2AC B0A4330A114011366CBC3B01CC85CF1915982BE 64DDDF8EEA0985D8F47BC4B41381C58271C3057 8960EEFB054F299C721B81D5DFE	4.52
RS	21	21	0	0x7682842351C76BC8E4A7EA4EDDB0F92F6E876 FCFDFDAA4987B38FC4FA47C52EF0070DCC8C77 FA622B20BEBC2373011660B4960EF49FB5E519D7 9E12029C7D13C553EDC48564A52	4.58
RS	22	22	0	0xAD6143F875C4C965A7018B8230D8D50297DA2 C54A6DD52EA6207620F4A66EAFEBBC4DD56233F F5DF78FB20CD74ECC6D01232FCFB9CBD36B338 1F0224EF5DE7BE0AFEF0A1AEF3D82	4.63
RS	23	23	0	0x9A14B722E05D8455A80B4A1B1D12A30C1E25D 9488BAD486C639CC7BDF651E957E041A7C092A9 16BF3E3642121350579B3F8F8F4A30570237E722A 6DC532A26F4FD4A0767D91A8B	4.72
RS	24	24	0	0xE6944DEEE85D75E3C5D9B90912177D8A85909 D87AC21FA4A51660E11D30DBEED391E5972D00 0EF4E9BF30B63B18C0285FE4151A4231C289A824 D405142B7C775C3C68D8AA1D8A7	4.64
RS	25	25	0	0x9927326FDFEC99025AA1B79364F06C63AFE4A 96C2A20FF8B151EF97AFD08E161EA6B10A1FA74 794521DE02645C2561D3BEA5D382AE3707112619 403E23C724B36B791DFAFEAA3A	4.52



RS	26	26	0	0x03C19F38117AE5BDADF256FB4A223A660E2D6 26598F56580E30FA2E40A521FE5D68709B7F62E4 C08CB9A26AE12002AD2FA9DE6C2B298538556E FBA71626A02745C3DB5EBADD3F3	4.43
RS	27	27	0	0xCBA035B40EB7C8A3A048C490E38935CBF956C 58AFC891A6C112C0321CF5262498915794DCA703 BD31A96FF4C0636F2D5E9F17C23F1486B9071559 7D565017CB8E424DE9A8E464E	4.76
RS	28	28	0	0x9321B7BE085143649644BCDF8342FCAD3462D A1C572227B039BBC6F58B52EEED2ACFB38F9CA A2BA2F513A87B10DD19DEFB6A9972EE12D81C8 3DBFB3CFCC93D35ED252D0E1A3D1E	4.67
RS	29	29	0	0x215F6EA7C7F95C74828485AABF6A5F54FD32D 1A8F4F6F1C20E6CDB57FA81ED70DFE44ACCD4 B37D4F01AD3BF31AFBB38A4DDBC613C8809E46 C1247222E5041D8CDC08F37F679878	4.51
RS	30	30	0	0xB5ABE9FC329600031F97DEA8CF5B17EC432BB 9F19082A3CFA2682AAF121EE855873119A78869A F988BD90C64A7F31224727D22F74D7499AF6CD3 B649C54AED6DC84DD8AB876B84	4.74
RS	31	31	0	0x956D097E914338D226020B8A3BA5B3BB8733A 9723CF19485DD9D22670B1328B825A6BA154586E DE60EB328AF8DF114182EDAEE401620A1E870BF FFF430922893C1F54A87A90BD3	4.78
BS	32	0	1	0x251D994101EDA04D8BD0B8EA6FA20AE590C2 CC199AB083C6AE61F091F2DD41D989EC164B148 1D611BE9CEA0094AFE9DB56A4763F55B26E54E AB73ACD7D4BBA64C1421BC3EB9D67	4.61
BS	33	1	1	0x113A5FB9C529AADC9CAB1FB88290560177865 9CDB69AFCBADD8B42314A7985B5F87C206923 09D350454FF9326481683FADAE4711DD0CC5DA CEDF7CD5DF1177D60EBA4DBE657F1	4.68
BS	34	2	1	0x9F08189EFC6B5DE6C2CFDCD13195DE077586B 8EE01E00B6468B10A53FAAC1DD846E2A0168198 0D444B6AD0D34C34EC9CFD9341507878EC9FBA E498F5A20614BDF3E4B22DD285E6	4.63
BS	35	3	1	0x3ECD476669A04A260414FD16F3F525AA060F20 ADD9334A29A9D9F90618916EF51840C8F53AB59 6297F0782BEF426E8B8539C9FDE970455B58F533 FDAC1711DE6310E7596ED285E	4.58
BS	36	4	1	0x3D6BD09A3DBD9ECCC1C584E71C87221CD266 087C7A692D3EFF2D5F84DF2011EA3675853A61C D75D23600F8C115E03406AF914938170256B86DA 5646CE0211FFDCD76A9A5E8D840	4.68
BS	37	5	1	0x27F0DA91D4AD1F39F0EAD459E2705CB2CA02 9A8E57592F1697877199FF707D0411D6068A06645 94D89568460F268A225BB2AC0ED043659D779EA 84656DEC0322F8C0CB111AD2C8	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	0xE7709988D2D2D6ABC6CEFB025FFCAFC4C0 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	0xFC9C41A74CBB56634447836109869E557C5A0 FAA1D4566E36A51258CE6D096FBD3E0B7193418 D9DFCDBD27693F8A5072425D4E3F33DB5AB45B1 EF3E11A6730BED42961DF0354CD	4.72
BS	49	17	1	0x7941B66A275FB8F0BAA8EF7FFCC36AAA6601 13B66BE476D629AE512E489341F6C9F84EC1BE1 C05CA3C850D20B1A12AA9C94E1A6541C29A9B4 BCD41B94460DEF2E9643ADCE86728	4.62



BS	50	18	1	0x0A91F390213C9B2ED372BA19FC42EE85AAB25 98B58D2F7184EA920546D6A81ED316551B74B341 E238A7FB83A4EF7D9EB0939B7771A6F4D0AF1F7 2752FE3234793D3CDC19BD FE08	4.85
RS	51	19	1	0x96949ACCD785385AE8DE99CE42BBB73B996A 886115A78D0606AEC14D2E46E849BF88F9A2E17 C2494704F1020CEF85FFDE16B7483DBC6A130488 E3AC586E528A00B90134776E08C	4.59
RS	52	20	1	0x53FFBA26676A4FD1A6C30B8E4EA02DF535C92 2978CD24F6099C25003567F207CC5851656C5FD0 D3F071942A16F1DB48DFBC26BACC15A1E618FF 35F3DC3E141E3666BCA507ED72E	4.7
RS	53	21	1	0x7F3219ABE1389DBED8FC2F1C9C0FCE1974E71 C224E1922F4CAD42E40AF15A5ECDB14221480F9 64E67BBD345C44DCA0853548B399E3DF4D054D1 76C0804D1B1154152BE973A8896	4.66
RS	54	22	1	0x8D5552CCA9EA46C991FF81A35873F43C963E02 ED24C4102A79F5EB5EC25814511BA5DD2FE9FB 9699E7ED76F965B24748AE1A4A3A590F4F13E472 2CCE399006F79AD8CE673178F7	4.88
RS	55	23	1	0xDB74EFA478268CDDE2596ADF9410FD83FCED BB07C6DEC7A3422A6CC66EF901C1534EC2A83E 1A89BA207C721ECF3D42918FF40B3863379FDF3 CED7A9CC86E348CAB032F8FAAD9CD	4.59
RS	56	24	1	0x5811ADD9240A7B3AF35CACA6EFCFF4090A54 EBF33DE54C077192354DDEB81CC968D18354090 B09D7472C83E1696E19545F08136EF20CD74656B CD31296066E03CC89E22E47CF47	4.8
RS	57	25	1	0x871ECE60EDD2E19360D13862A1524225063577 4424B22465B3EF625E72072B7C45D81076DB4A5B FD5BE146F15CAA80DA031763DAC23BBBC54249 E9878EC465F3EABE0B7AA497B8	4.78
RS	58	26	1	0xD8259BAF89D3E13242CC1CDBA9C0281A09919 D24ECF5BA83CDCD81E698EAA37DFE3E5802B3 395B80A3DE91CF6C4BE2D34BBE985EE4041C429 0D0A9185F115C963AD536E4133426	4.7
RS	59	27	1	0x1203A1FD3F7B8E9D97A3812D4375D42BC9E8F 0E393BD669A8099407EC0356DC45FEF848C98F3E F32A9A850CC67CE432339CBAF38BBA7DD0C94 BC03B4704866509255E28450E459	4.91
RS	60	28	1	0x6A78A3F0DC5E4FA504580C37F5416BCC4A2B D51FC1A71471BD1433EC3DD924E7130A7B2B331 AB0B4AF6CF94C045A9C246965F46478D93979588 7EE3320BBC2D5DD5FFB06F894E8	4.73
RS	61	29	1	0x3042F24E050BAB38880A07BDE5D28AEE4AD5 9E0D71AB59824122E80F8FF67BEA1ECC865F50B 25CF5095C642B800E6A4D132B49E5968DEBDDA 029A227AF332CF034BB937B471603	4.74

RS	62	30	1	0xC82853465FBB213A85A52888464E5D38D997F6 C31966A94B452A2DE853CE38010BF9EA930BBD3 18189D5D2D0BDB4465248A2E8B481021531BE01 F5E0FF1BAB75370C57B36BE6E9	4.8
RS	63	31	1	0x2B17EC947632DABA3A2E11022033F20F873032 F51F064711111D0C215E9E84C11A9E70950977527 960700B37C6FECCA57C35A91873C935D7EDC22C B44DCC251396173CAC82B912	4.63
BS	64	0	2	0x83FC05D6DED982EB95B06E16C91EF94B441BB D4868C09E9B3A251AD72427F2124607E15179607 0C2819E395EB68A2C597391636333A7E492B70D8 EA7397FFA1B28C20E0820CC45	4.89
BS	65	1	2	0x45818FBAE49B983DB9B8FBEA1E816823430CE 47BD1593173605CA255CCCCAE73C7283336BCB C94133DCA64D675BBA848A3E1C2EEE35D6085F 06E72EAA696FBED6EA545F27D3692	4.89
BS	66	2	2	0xA005745E452ACE6BDDFC4A9F6253BF4B467C9 3ACFF0F663A3F5949F15A1D266DEB0D26EC16D 2A083F830E878A0300D74CFA3266CBBF3F0244E D56344D6AD5D887B3179CE56890D	4.74
BS	67	3	2	0xE52F56367EA45E4683E020856D05D08391D3D8 4766CA22531B3EC6BE682E76B6ED7BCAABC3A B6BDE32C4F700D4CDDFF26F79AE16499D2B70EC 389AC3ED5E02FDF5C43B296CF965D	4.75
BS	68	4	2	0xC5C62E3A911A0F28BF6A67E1DA2486FED7110 B08F0A934C930AA035290D098857ECF3A069203 A2560DADD5016802D9C1596526C7F1DA7C7B533 60B0A673AA8634FB94D5838DC3E	4.77
BS	69	5	2	0xF9E176A9837BF970D5FD51732ECB8D90FBD12 F62B62F938BE07915BAB0C6596080C832CE7FF 914C849B9DA66F2380F3058F66340A34CA43583E C8EDC1E5CB5A2A25436E72292D	4.64
BS	70	6	2	0x5C26DB2489BE5197B20CD6B38B181B7789DCB 90881AAC4B4317B2F40B44884144A1B15BCB53C 8E30FEC419861C54B56158D9719E448B8A8F455F 5B116275D796329059CDF682D3	4.64
BS	71	7	2	0xEF35242D5C426C1EBD9563A761CFBF11A531A CB938922EBBA5227D8292585B777783972DA79C 853A2A178601E6CFEA35380045B50EE628F13AE3 EC5B72FED52F92F731BB594DE8	4.63
BS	72	8	2	0x17FBB33193C68A1CAA8CEF5CB9A7FDFA1E89 994F1779D2D0DE69DE75A6B338A07635C80A587 22BB01398252F6C46AB7AEA79A6FC05F383F89E D65C49A2B9FB0D82A6EC03DD61F5	4.82
BS	73	9	2	0x076C1A1DCA870DF36638307F891A52F737BA2 B54EC0AD1FC5424D4F32DDE168ACE9B08653DE F8A23BF37CA3D306138D698A133834BFB65BDE5 7048B9EEC630B13E91EDB1B52E8F	4.86

BS	74	10	2	0xA6800969ED0CE80A76F0F9BF7597ABE76DF60 F243EE529C63AF72BAD6AB8B3F0B09DFC132C2 B006827E55E352E3940A3BB8EE3526522ADF65A B76492BA41A393740A4B85CD5113	4.78
BS	75	11	2	0x64817485E539E02AAB074982A56DC6E867C606 313194BD66B4CF8B9E92C4F9FD138B0E6EF36F6 99A3E6DCC46741B8CB16389EBA2C745398A30E A3102B6BA4FE9A8DA9605F929FF	4.73
BS	76	12	2	0xA3E438CB9EC48C4F4DD92C24950D0F1EAE7E EE920501C2C82531EDF8AEE3531F8D6B82D28C1 FE0731088489FD215D19202DAEE0A57E3E1634C7 A1BD5395CA64C64C14E5C02D436	4.68
BS	77	13	2	0x8F9339B406037D35ADB9858576A62AF6139FD2 B02D381C7DF147A274E145F76DE5687AEC5BD3 A715E0E893EEB6F24573D4017B24B30D4357E339 B104601FC2DD184DC9A8F0D76A	4.67
BS	78	14	2	0xDA85062511E22DEDB53797BDBEC8B0281818E 890D438CB5A48B2E4011FD5EFB2192C0FEDEE59 8372C7C06BEF25F9B9702A8A9F0F52B197E9C910 BB63F467E53BF46A45F75C22F6	4.69
BS	79	15	2	0x914DE1436839A8E2FDD4EACCD645C3D29E52 2E19E0055A2510679A977772830824C7363461CBF 5D662456DB798BA72AEB67FEB2FC28DAAD3FA E0048727CF6E9B237A82489790D6	4.84
BS	80	16	2	0xA21E09CF0A98EB012E8914A31BE5BE53F47AF 5650B6BCE2812F65C994A100EA41F732830EB3F6 C6F7028BC9FB3C5D108F63315DEDE8EE82CF5D E892032688E1C367D8567A20ACA	4.75
BS	81	17	2	0x6E11F29AE45A99D74D911777D1DE60495C2DA F1705C7844FB7FC0A01247F3265F45D90A198AD CD0DB98A3CE22ACF24A77C737E5BF99DCD7EF A6B6096B70C572996B62E7814236B	4.72
BS	82	18	2	0xE9F8FC17F5361DBCDD8F18F28CA90B618DF6 B56D3481C9E3B7FDBEA6D55FAB32A4310A52A D7AAA26D082B38D4D8A2FCB70A3C6A4167515 CA710E8F9B237F64B4D9A8C3CE8DF085	4.7
RS	83	19	2	0x11FDC3B4712101D717D0EDD7556EAE0940AA1 683D4CA4C22A7959436ECCA5E08A4BF2BF9EEF 4BCE5E3E48DD77EB418F6B84BF8937CE0CF9DA D247A64E9E850373FEE3D673F47C2	4.74
RS	84	20	2	0xE8784553C091233730B7DA704B8A02BEBE45E5 DEF4361394E3B0E417FE3B571E641ADF2603402B 8084A2D1318AF30CD95AD014D553408393AD345 C05D62F435C708948233EF55B	4.86
RS	85	21	2	0xCDD6E932F9D2FAD131E7AE666B758CC4BB60 C60230FE14494D0F77E89A9BE726FAF8F9465AD 0262D75C0A5374165A4FD2B4C602C0FF123F4163 60C112F6F95BD6790F81ACD858A	4.84

RS	86	22	2	0xA2702DE422E1CBADAA8285C1C3B1F41D4456 1BCBF105466DF8070E604C733DE579755BCB8237 C8DDB55A865B213D1929EDC553CE9B55994985F 9EBEDF2A9F524301E3DA0498817	4.76
RS	87	23	2	0x54487F7BDCDF87B1AA252798D7E5AD97E6F52 63B7986B1E3E637852EDC83FA360676C04E35A1F 5045B0A0B7DE9269F8A0E17F100D9AC78D873AE 59BA0BA3E8AB3DDF928AD58F9E	4.99
RS	88	24	2	0x3461AA27EDE0A9F7955B469C41AE1485EFBFE 4EB233B0BBEB5F31BB36AC1E72CA6BF06B1E58 F8612096CFA7289DEA8927B6368DC845DC84760 74B83F3C1545A17F73EFE214A3C9	4.91
RS	89	25	2	0x2DDBBF4F82EB33001E46F08D17DB89DCE3C7 CC127F6B7D17839FE17A86F69178A1903E918571 47348B491631336CB5D710382B59FF71416FEC2B AF0A0584F2155EEB71C54F84C4	4.89
RS	90	26	2	0x762E2454401F66455358322AC0CFDF76EB18EF A9684A10F0F527537A54E75FAD77BD89E0D4798 0793C7B79B922C17792CC84BBEA81F6637192B74 407A5B859EA1C873ED29D48FD	4.76
RS	91	27	2	0xF74BBB6C4B97071EBC19F3FE7840A67A3959B D9936335A4F8BD10C9CFD925D8388C31B947BFD 318FFC8B0967C132A602BC31B29835AE070006A5 0554CF3C5F85D56832ABA9CA5B	4.89
RS	92	28	2	0x06493F32F3CA54692CAE2579388B97D99B5D54 0DE71F8B2405944C3A4FF18D7D45D4026DB9A86 7B85870BE6E23C9A8F84332D29B84B0303BB5179 DFD89B56A14A37ABE053A0277	4.94
RS	93	29	2	0xC88A3A3C0211A21661FD2B30937F0A187B6601 E366A8FC5BCD4210E2D5D3365B22D4D63273F82 2D89EC1745304FBA4D0A9295AA51212C11C9D0 A31FABB066289D8227B5BFDE8A0	4.82
RS	94	30	2	0xA81E35C6A92953C584FE5FB3B6F1B0A532E91 A49DB703D6E20D796F4532630C1D64DCEA58018 8BDDAB37722AD5DDCC9DFE7CFEDE1518D8E2 ACA842F3570C7F381EAB9C5E4D485C	4.8
RS	95	31	2	0x08C0CC1C53E52AA366AFA63A48EBE2F7389C 8A33CEB20173432B4828D68A547D4673E27F942F CA95942029CFE9F413FDABE1D0BCF95022C5B99 C1B229D151E9D3CA0A122F1BEEF	4.97
RS	96	0	0	0x9774EF2FA326AB19DE599803EB48740C90995A 4508064B6B19E58304229C5EDC578EF2C7030D4D 2A01C9FB7618E7CB8564816354DD61EE144D7C9 4AFE8AB966875131B9F7C18BB	4.85
RS	97	1	1	0xB9FBD947B7F9F3C8F6D3799E095BE558E6A2D 0550C0DD0DDC92CC7BB53C1FE80D536B1FAE89 C9224E3504629DBF0C5457944A72769B7162FBB0 BBE18189749D3E7E264CFBA7A0E	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	0x91466310F3C4F355233B54C0AB8CB818780691443781B71AB6FB8F6CD516661E39075B4207E55400E081FD79C524628C8FE1277BE1A6165ACB5F154158D26593FED2C48EF66268	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/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	11	11	0	0xC03036FA9F253045DF6C0889A8B83BAEFCF90EB99 3C2D79BD911CA84075061AA43DA471
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 CFB813376E0BEB68DFCFB8BE552445
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/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	34	2	1	0x17D98A7E32CCA9B142FE32DB37B2BF726E25AA7A 557FFB5C400B47A38B16CF18E1EDE63
BS	35	3	1	0xA5BA8C7E2C795C9F84EBBD425992766BDE5549A7 A9F7EF7E44AFD941C6084568638FE84
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

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
RS	57	25	1	0x964DFD350B9C7DFDC7F6F7C43283A76F0D613E48A 5520D1DAF761C6F47E389B43A023F5
RS	58	26	1	0x6D767B88D28A455CC3B56C942BAFD8E465A50FD2 C22FE6162E03A9AAC3C1CC899800610
RS	59	27	1	0xC5491C6CA3D998906EC1482F815B74B7C2E3816B68 2ACC6009AB7EFF34BF0E9CE59C754
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/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
BS	80	16	2	0x188A09C46F1F11206FF9F15CFB5F6CD2F26C4BF485 EE37D3650A595064F76CE34E40EAD
BS	81	17	2	0x4B1CDE25539A56CEDC45FE7F54C38CF155F4FB1A E868F6C3952D07014BF828E810BDE2D
BS	82	18	2	0x16CA8F8C6A879E865E3611EAC389D56AFA3E4E84C DBB73567BA4A160249C4B680A7D9BC
RS	83	19	2	0x39D2B08AA0E2E8781476027B41AD72F8D9838B7001 AADFD33A92D81E56ECBB2C9378D58
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

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
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
RS	108	12	0	0xC7D7DEF8B3C9C8667D8D65063B4DAD1FF69445C8 7CA71DA955D0CA23970E988A6EA4C83
RS	109	13	1	0xFB246ABD92F9E560CB2BEC2317204C9CE22AD3BD 19EA02E90F5F3B7F4F65538D8ED098E
RS	110	14	2	0x29E74579472FDD8FFFC2700B2BF33C649989DD81530 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	0x1B72E8C0ECCFAABF050091382B411B45A718C
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/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
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
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



BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
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	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

BS/RS	Index	IDcell	Segment	Series to modulate (in hexadecimal format)
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	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/RS	Index	IDcell	Segment	Series to modulate (hexadecimal)
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	0xFE763CB2
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	49	17	1	0x3370F5082
BS	50	18	1	0x35A644170
RS	51	19	1	0x16FD73B8B
RS	52	20	1	0xEE990E94
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/RS	Index	IDcell	Segment	Series to modulate (hexadecimal)
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	0xDEDE9E703A
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
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