**Aneks 1.**

**TEHNIČKI USLOVI ZA KORIŠTENJE MULTIPLEKSA 1 za digitalni radio (DAB+)**

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# Geografska područja

Ukupno pokrivanje Bosne i Hercegovine postiže se s devet SFN mreža (SFN ‒ *Single* *Frequency Network*, mreže u kojima svi predajnici rade na istoj frekvenciji), po jedna za svaku od digitalnih regija. Granice digitalnih regija definirane su testnim tačkama. Testne tačke predstavljaju lokacije na kojima je planiran potrebni nivo električnog polja za kvalitetan prijem signala. Prikaz digitalnih regija dat je na narednoj slici.

A map of the country

Description automatically generated

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju PLJEŠEVICA

A map with lines on it

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | PLJEŠEVICA | |
| 0 | 016°21'08" E | 44°59'39" N |
| 1 | 016°20'18" E | 44°43'08" N |
| 2 | 016°31'29" E | 44°36'05" N |
| 3 | 016°35'43" E | 44°29'08" N |
| 4 | 016°55'27" E | 44°24'50" N |
| 5 | 016°58'24" E | 44°22'36" N |
| 6 | 016°50'06" E | 44°15'01" N |
| 7 | 016°45'13" E | 44°17'54" N |
| 8 | 016°35'45" E | 44°09'27" N |
| 9 | 016°31'21" E | 44°04'42" N |
| 10 | 016°30'23" E | 44°01'31" N |
| 11 | 016°27'22" E | 44°01'53" N |
| 12 | 016°24'49" E | 44°02'59" N |
| 13 | 016°22'20" E | 44°04'13" N |
| 14 | 016°20'13" E | 44°05'44" N |
| 15 | 016°18'40" E | 44°07'35" N |
| 16 | 016°17'29" E | 44°09'34" N |
| 17 | 016°15'21" E | 44°11'06" N |
| 18 | 016°13'24" E | 44°12'44" N |
| 19 | 016°12'42" E | 44°14'51" N |
| 20 | 016°11'29" E | 44°16'52" N |
| 21 | 016°11'45" E | 44°19'03" N |
| 22 | 016°12'43" E | 44°21'04" N |
| 23 | 016°10'16" E | 44°22'18" N |
| 24 | 016°07'38" E | 44°23'25" N |
| 25 | 016°08'30" E | 44°25'29" N |
| 26 | 016°08'02" E | 44°27'39" N |
| 27 | 016°08'35" E | 44°29'48" N |
| 28 | 016°06'43" E | 44°31'31" N |
| 29 | 016°04'13" E | 44°32'38" N |
| 30 | 016°01'30" E | 44°33'38" N |
| 31 | 016°01'10" E | 44°35'46" N |
| 32 | 016°02'24" E | 44°37'47" N |
| 33 | 016°00'19" E | 44°39'26" N |
| 34 | 015°58'22" E | 44°41'00" N |
| 35 | 015°56'42" E | 44°42'50" N |
| 36 | 015°54'32" E | 44°44'20" N |
| 37 | 015°52'10" E | 44°43'03" N |
| 38 | 015°49'12" E | 44°43'22" N |
| 39 | 015°47'02" E | 44°44'56" N |
| 40 | 015°45'37" E | 44°46'47" N |
| 41 | 015°43'49" E | 44°48'58" N |
| 42 | 015°47'15" E | 44°50'42" N |
| 43 | 015°46'04" E | 44°52'22" N |
| 44 | 015°45'38" E | 44°54'30" N |
| 45 | 015°44'49" E | 44°56'09" N |
| 46 | 015°45'05" E | 44°57'49" N |
| 47 | 015°47'04" E | 44°58'08" N |
| 48 | 015°47'18" E | 44°59'51" N |
| 49 | 015°44'27" E | 45°03'42" N |
| 50 | 015°46'20" E | 45°05'14" N |
| 51 | 015°47'02" E | 45°06'30" N |
| 52 | 015°46'41" E | 45°08'42" N |
| 53 | 015°46'44" E | 45°10'48" N |
| 54 | 015°48'36" E | 45°12'31" N |
| 55 | 015°51'25" E | 45°13'03" N |
| 56 | 015°53'39" E | 45°13'34" N |
| 57 | 015°55'38" E | 45°12'52" N |
| 58 | 015°58'27" E | 45°13'40" N |
| 59 | 016°01'03" E | 45°13'15" N |
| 60 | 016°01'00" E | 45°10'57" N |
| 61 | 016°03'16" E | 45°10'13" N |
| 62 | 016°04'56" E | 45°08'23" N |
| 63 | 016°05'27" E | 45°06'20" N |
| 64 | 016°08'29" E | 45°05'28" N |
| 65 | 016°10'30" E | 45°03'48" N |
| 66 | 016°11'59" E | 45°02'02" N |
| 67 | 016°14'45" E | 45°00'54" N |
| 68 | 016°17'29" E | 44°59'59" N |
| 69 | 016°20'30" E | 45°00'03" N |
| 70 | 016°21'08" E | 44°59'39" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju KOZARA

A map with lines and a red border

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | KOZARA |  |
| 0 | 017°40'38" E | 45°05'00" N |
| 1 | 017°22'03" E | 44°46'50" N |
| 2 | 017°14'36" E | 44°42'46" N |
| 3 | 017°09'47" E | 44°39'18" N |
| 4 | 017°13'51" E | 44°31'04" N |
| 5 | 017°02'40" E | 44°24'18" N |
| 6 | 016°58'24" E | 44°22'36" N |
| 7 | 016°55'27" E | 44°24'50" N |
| 8 | 016°35'43" E | 44°29'08" N |
| 9 | 016°31'29" E | 44°36'05" N |
| 10 | 016°20'18" E | 44°43'08" N |
| 11 | 016°21'08" E | 44°59'39" N |
| 12 | 016°20'30" E | 45°00'03" N |
| 13 | 016°21'39" E | 45°01'47" N |
| 14 | 016°23'12" E | 45°03'52" N |
| 15 | 016°23'35" E | 45°06'15" N |
| 16 | 016°25'59" E | 45°07'29" N |
| 17 | 016°28'07" E | 45°09'01" N |
| 18 | 016°28'50" E | 45°11'16" N |
| 19 | 016°30'23" E | 45°13'05" N |
| 20 | 016°33'21" E | 45°13'19" N |
| 21 | 016°36'24" E | 45°13'45" N |
| 22 | 016°38'48" E | 45°12'29" N |
| 23 | 016°41'47" E | 45°11'47" N |
| 24 | 016°44'49" E | 45°12'12" N |
| 25 | 016°47'37" E | 45°11'18" N |
| 26 | 016°50'38" E | 45°11'48" N |
| 27 | 016°50'34" E | 45°14'00" N |
| 28 | 016°53'25" E | 45°14'48" N |
| 29 | 016°55'20" E | 45°16'28" N |
| 30 | 016°56'06" E | 45°14'23" N |
| 31 | 016°59'07" E | 45°14'33" N |
| 32 | 017°00'53" E | 45°12'48" N |
| 33 | 017°03'43" E | 45°11'55" N |
| 34 | 017°06'14" E | 45°10'38" N |
| 35 | 017°08'57" E | 45°09'38" N |
| 36 | 017°11'48" E | 45°08'51" N |
| 37 | 017°14'54" E | 45°08'50" N |
| 38 | 017°16'02" E | 45°10'52" N |
| 39 | 017°18'42" E | 45°10'10" N |
| 40 | 017°20'44" E | 45°08'32" N |
| 41 | 017°23'46" E | 45°08'08" N |
| 42 | 017°26'14" E | 45°09'22" N |
| 43 | 017°27'52" E | 45°07'32" N |
| 44 | 017°30'38" E | 45°06'37" N |
| 45 | 017°33'16" E | 45°07'41" N |
| 46 | 017°35'48" E | 45°06'21" N |
| 47 | 017°38'26" E | 45°07'36" N |
| 48 | 017°41'29" E | 45°07'04" N |
| 49 | 017°40'38" E | 45°05'00" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju VLAŠIĆ

A map of a city

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | VLAŠIĆ |  |
| 0 | 017°41'29" E | 45°07'04" N |
| 1 | 017°44'07" E | 45°05'56" N |
| 2 | 017°46'53" E | 45°05'04" N |
| 3 | 017°48'58" E | 45°03'28" N |
| 4 | 017°51'44" E | 45°02'40" N |
| 5 | 017°54'21" E | 45°03'49" N |
| 6 | 017°55'58" E | 45°05'40" N |
| 7 | 017°58'15" E | 45°07'06" N |
| 8 | 017°59'50" E | 45°08'59" N |
| 9 | 018°02'02" E | 45°07'31" N |
| 10 | 018°04'23" E | 45°08'26" N |
| 11 | 018°04'36" E | 45°06'17" N |
| 12 | 018°06'54" E | 45°04'53" N |
| 13 | 018°09'58" E | 45°04'43" N |
| 14 | 018°12'55" E | 45°05'19" N |
| 15 | 018°12'20" E | 45°00'34" N |
| 16 | 018°13'52" E | 44°51'24" N |
| 17 | 018°16'44" E | 44°45'48" N |
| 18 | 018°13'57" E | 44°37'47" N |
| 19 | 018°17'21" E | 44°28'20" N |
| 20 | 018°20'14" E | 44°24'41" N |
| 21 | 018°19'03" E | 44°18'34" N |
| 22 | 018°04'29" E | 44°17'28" N |
| 23 | 018°00'03" E | 44°13'09" N |
| 24 | 017°47'06" E | 44°01'32" N |
| 25 | 017°42'24" E | 43°58'22" N |
| 26 | 017°37'41" E | 43°51'30" N |
| 27 | 017°26'53" E | 43°52'07" N |
| 28 | 017°23'31" E | 43°55'58" N |
| 29 | 017°19'15" E | 43°59'31" N |
| 30 | 017°16'09" E | 44°02'40" N |
| 31 | 017°02'28" E | 44°07'18" N |
| 32 | 016°50'06" E | 44°15'01" N |
| 33 | 016°58'24" E | 44°22'36" N |
| 34 | 017°02'40" E | 44°24'18" N |
| 35 | 017°13'51" E | 44°31'04" N |
| 36 | 017°09'47" E | 44°39'18" N |
| 37 | 017°14'36" E | 44°42'46" N |
| 38 | 017°22'03" E | 44°46'50" N |
| 39 | 017°40'38" E | 45°05'00" N |
| 40 | 017°41'29" E | 45°07'04" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju MAJEVICA

A map of a country

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | MAJEVICA |  |
| 0 | 018°46'30" E | 44°05'24" N |
| 1 | 018°44'06" E | 44°06'40" N |
| 2 | 018°44'20" E | 44°10'13" N |
| 3 | 018°34'58" E | 44°11'43" N |
| 4 | 018°32'43" E | 44°18'13" N |
| 5 | 018°19'03" E | 44°18'34" N |
| 6 | 018°20'14" E | 44°24'41" N |
| 7 | 018°17'21" E | 44°28'20" N |
| 8 | 018°13'57" E | 44°37'47" N |
| 9 | 018°16'44" E | 44°45'48" N |
| 10 | 018°13'52" E | 44°51'24" N |
| 11 | 018°12'20" E | 45°00'34" N |
| 12 | 018°12'55" E | 45°05'19" N |
| 13 | 018°12'42" E | 45°07'29" N |
| 14 | 018°15'30" E | 45°08'23" N |
| 15 | 018°17'43" E | 45°06'48" N |
| 16 | 018°20'41" E | 45°06'14" N |
| 17 | 018°23'42" E | 45°06'30" N |
| 18 | 018°26'27" E | 45°05'30" N |
| 19 | 018°28'26" E | 45°03'49" N |
| 20 | 018°31'30" E | 45°03'40" N |
| 21 | 018°32'28" E | 45°05'40" N |
| 22 | 018°35'28" E | 45°05'12" N |
| 23 | 018°37'36" E | 45°03'41" N |
| 24 | 018°39'37" E | 45°05'20" N |
| 25 | 018°40'31" E | 45°03'17" N |
| 26 | 018°43'05" E | 45°02'04" N |
| 27 | 018°43'44" E | 44°59'56" N |
| 28 | 018°46'43" E | 44°59'53" N |
| 29 | 018°47'10" E | 44°57'44" N |
| 30 | 018°45'07" E | 44°56'08" N |
| 31 | 018°46'11" E | 44°54'08" N |
| 32 | 018°48'41" E | 44°52'52" N |
| 33 | 018°50'54" E | 44°51'21" N |
| 34 | 018°53'55" E | 44°51'10" N |
| 35 | 018°56'58" E | 44°51'00" N |
| 36 | 019°00'01" E | 44°51'18" N |
| 37 | 019°03'03" E | 44°51'35" N |
| 38 | 019°05'30" E | 44°52'53" N |
| 39 | 019°08'04" E | 44°54'03" N |
| 40 | 019°10'34" E | 44°55'17" N |
| 41 | 019°12'46" E | 44°53'48" N |
| 42 | 019°15'32" E | 44°54'46" N |
| 43 | 019°18'34" E | 44°54'28" N |
| 44 | 019°21'17" E | 44°53'28" N |
| 45 | 019°22'09" E | 44°51'23" N |
| 46 | 019°21'02" E | 44°49'21" N |
| 47 | 019°20'40" E | 44°47'13" N |
| 48 | 019°20'07" E | 44°45'06" N |
| 49 | 019°19'12" E | 44°43'02" N |
| 50 | 019°17'30" E | 44°41'12" N |
| 51 | 019°15'29" E | 44°39'37" N |
| 52 | 019°14'28" E | 44°37'34" N |
| 53 | 019°13'16" E | 44°35'34" N |
| 54 | 019°10'56" E | 44°34'10" N |
| 55 | 019°10'28" E | 44°32'01" N |
| 56 | 019°07'44" E | 44°31'08" N |
| 57 | 019°07'58" E | 44°28'57" N |
| 58 | 019°08'54" E | 44°26'56" N |
| 59 | 019°08'48" E | 44°24'48" N |
| 60 | 019°06'25" E | 44°23'29" N |
| 61 | 019°06'34" E | 44°21'18" N |
| 62 | 019°07'52" E | 44°19'20" N |
| 63 | 019°09'37" E | 44°17'32" N |
| 64 | 019°12'35" E | 44°17'28" N |
| 65 | 019°14'22" E | 44°15'42" N |
| 66 | 019°17'14" E | 44°16'24" N |
| 67 | 019°19'43" E | 44°15'11" N |
| 68 | 019°20'36" E | 44°13'08" N |
| 69 | 019°21'35" E | 44°11'03" N |
| 70 | 019°24'22" E | 44°10'14" N |
| 71 | 019°25'48" E | 44°08'18" N |
| 72 | 019°28'43" E | 44°08'54" N |
| 73 | 019°29'17" E | 44°06'46" N |
| 74 | 019°30'22" E | 44°04'45" N |
| 75 | 019°33'06" E | 44°03'52" N |
| 76 | 019°35'47" E | 44°02'59" N |
| 77 | 019°36'03" E | 44°00'46" N |
| 78 | 019°33'27" E | 43°59'36" N |
| 79 | 019°31'49" E | 43°57'50" N |
| 80 | 019°26'03" E | 43°57'27" N |
| 81 | 019°23'00" E | 43°57'30" N |
| 82 | 019°20'41" E | 43°58'55" N |
| 83 | 019°17'27" E | 43°59'49" N |
| 84 | 019°14'49" E | 44°00'53" N |
| 85 | 018°46'30" E | 44°05'24" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju TUŠNICA

A map with a grid pattern

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | TUŠNICA |  |
| 0 | 016°31'21" E | 44°04'42" N |
| 1 | 016°35'45" E | 44°09'27" N |
| 2 | 016°45'13" E | 44°17'54" N |
| 3 | 016°50'06" E | 44°15'01" N |
| 4 | 017°02'28" E | 44°07'18" N |
| 5 | 017°16'09" E | 44°02'40" N |
| 6 | 017°19'15" E | 43°59'31" N |
| 7 | 017°23'31" E | 43°55'58" N |
| 8 | 017°26'53" E | 43°52'07" N |
| 9 | 017°23'14" E | 43°45'07" N |
| 10 | 017°25'08" E | 43°42'03" N |
| 11 | 017°30'16" E | 43°40'10" N |
| 12 | 017°33'38" E | 43°36'09" N |
| 13 | 017°31'18" E | 43°31'00" N |
| 14 | 017°26'29" E | 43°25'56" N |
| 15 | 017°18'33" E | 43°25'59" N |
| 16 | 017°17'32" E | 43°27'23" N |
| 17 | 017°15'29" E | 43°28'51" N |
| 18 | 017°12'49" E | 43°29'46" N |
| 19 | 017°09'51" E | 43°29'36" N |
| 20 | 017°07'34" E | 43°31'02" N |
| 21 | 017°05'10" E | 43°32'14" N |
| 22 | 017°02'39" E | 43°33'24" N |
| 23 | 017°00'15" E | 43°34'39" N |
| 24 | 016°58'28" E | 43°36'25" N |
| 25 | 016°56'20" E | 43°37'57" N |
| 26 | 016°54'50" E | 43°39'53" N |
| 27 | 016°53'10" E | 43°41'40" N |
| 28 | 016°50'53" E | 43°43'04" N |
| 29 | 016°48'52" E | 43°44'38" N |
| 30 | 016°46'32" E | 43°46'00" N |
| 31 | 016°44'06" E | 43°47'20" N |
| 32 | 016°43'03" E | 43°49'22" N |
| 33 | 016°41'59" E | 43°51'25" N |
| 34 | 016°39'41" E | 43°52'47" N |
| 35 | 016°37'34" E | 43°54'22" N |
| 36 | 016°35'29" E | 43°55'54" N |
| 37 | 016°33'09" E | 43°57'16" N |
| 38 | 016°31'53" E | 43°59'25" N |
| 39 | 016°30'23" E | 44°01'31" N |
| 40 | 016°31'21" E | 44°04'42" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju BJELAŠNICA

A map of a country

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | BJELAŠNICA | |
| 0 | 018°11'22" E | 43°34'52" N |
| 1 | 017°54'15" E | 43°33'00" N |
| 2 | 017°33'38" E | 43°36'09" N |
| 3 | 017°30'16" E | 43°40'10" N |
| 4 | 017°25'08" E | 43°42'03" N |
| 5 | 017°23'14" E | 43°45'07" N |
| 6 | 017°26'53" E | 43°52'07" N |
| 7 | 017°37'41" E | 43°51'30" N |
| 8 | 017°42'24" E | 43°58'22" N |
| 9 | 017°47'06" E | 44°01'32" N |
| 10 | 018°00'03" E | 44°13'09" N |
| 11 | 018°04'29" E | 44°17'28" N |
| 12 | 018°19'03" E | 44°18'34" N |
| 13 | 018°32'43" E | 44°18'13" N |
| 14 | 018°34'58" E | 44°11'43" N |
| 15 | 018°44'20" E | 44°10'13" N |
| 16 | 018°44'06" E | 44°06'40" N |
| 17 | 018°46'30" E | 44°05'24" N |
| 18 | 018°39'24" E | 43°51'06" N |
| 19 | 018°36'49" E | 43°41'40" N |
| 20 | 018°21'13" E | 43°35'47" N |
| 21 | 018°11'22" E | 43°34'52" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju TROVRH

A map with lines on it

Description automatically generated

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Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | TROVRH |  |
| 0 | 018°34'26" E | 43°21'42" N |
| 1 | 018°29'15" E | 43°25'26" N |
| 2 | 018°21'13" E | 43°35'47" N |
| 3 | 018°36'49" E | 43°41'40" N |
| 4 | 018°39'24" E | 43°51'06" N |
| 5 | 018°46'30" E | 44°05'24" N |
| 6 | 019°14'49" E | 44°00'53" N |
| 7 | 019°14'31" E | 43°58'46" N |
| 8 | 019°15'55" E | 43°56'49" N |
| 9 | 019°17'42" E | 43°55'04" N |
| 10 | 019°18'45" E | 43°53'01" N |
| 11 | 019°20'40" E | 43°51'22" N |
| 12 | 019°22'20" E | 43°49'34" N |
| 13 | 019°24'11" E | 43°47'49" N |
| 14 | 019°26'34" E | 43°46'33" N |
| 15 | 019°27'48" E | 43°44'34" N |
| 16 | 019°30'04" E | 43°43'08" N |
| 17 | 019°30'22" E | 43°40'58" N |
| 18 | 019°30'34" E | 43°38'47" N |
| 19 | 019°29'14" E | 43°36'54" N |
| 20 | 019°29'32" E | 43°34'29" N |
| 21 | 019°26'38" E | 43°34'54" N |
| 22 | 019°25'25" E | 43°32'53" N |
| 23 | 019°22'49" E | 43°32'59" N |
| 24 | 019°23'27" E | 43°35'07" N |
| 25 | 019°21'31" E | 43°36'34" N |
| 26 | 019°19'02" E | 43°35'20" N |
| 27 | 019°16'06" E | 43°35'40" N |
| 28 | 019°15'03" E | 43°33'41" N |
| 29 | 019°14'39" E | 43°31'33" N |
| 30 | 019°11'43" E | 43°32'06" N |
| 31 | 019°08'46" E | 43°31'57" N |
| 32 | 019°05'54" E | 43°31'28" N |
| 33 | 019°03'27" E | 43°30'13" N |
| 34 | 019°02'07" E | 43°32'11" N |
| 35 | 018°59'35" E | 43°33'24" N |
| 36 | 018°58'04" E | 43°31'32" N |
| 37 | 018°55'22" E | 43°30'43" N |
| 38 | 018°55'33" E | 43°28'48" N |
| 39 | 018°57'21" E | 43°27'07" N |
| 40 | 018°59'56" E | 43°26'03" N |
| 41 | 019°00'45" E | 43°23'58" N |
| 42 | 019°01'28" E | 43°21'52" N |
| 43 | 019°03'40" E | 43°20'23" N |
| 44 | 019°04'47" E | 43°18'22" N |
| 45 | 019°01'52" E | 43°17'54" N |
| 46 | 019°00'25" E | 43°16'02" N |
| 47 | 018°57'55" E | 43°17'12" N |
| 48 | 018°57'36" E | 43°19'21" N |
| 49 | 018°55'36" E | 43°20'59" N |
| 50 | 018°52'57" E | 43°21'22" N |
| 51 | 018°50'18" E | 43°20'48" N |
| 52 | 018°49'06" E | 43°18'48" N |
| 53 | 018°46'26" E | 43°17'52" N |
| 54 | 018°43'52" E | 43°16'49" N |
| 55 | 018°41'17" E | 43°15'17" N |
| 56 | 018°34'26" E | 43°21'42" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju VELEŽ

A map with lines and a red border

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | VELEŽ |  |
| 0 | 017°18'33" E | 43°25'59" N |
| 1 | 017°26'29" E | 43°25'56" N |
| 2 | 017°31'18" E | 43°31'00" N |
| 3 | 017°33'38" E | 43°36'09" N |
| 4 | 017°54'15" E | 43°33'00" N |
| 5 | 018°11'22" E | 43°34'52" N |
| 6 | 018°21'13" E | 43°35'47" N |
| 7 | 018°29'15" E | 43°25'26" N |
| 8 | 018°34'26" E | 43°21'42" N |
| 9 | 018°32'49" E | 43°15'33" N |
| 10 | 018°24'42" E | 43°09'09" N |
| 11 | 018°24'54" E | 43°06'17" N |
| 12 | 018°13'06" E | 42°58'54" N |
| 13 | 018°00'52" E | 42°55'33" N |
| 14 | 017°48'58" E | 42°54'56" N |
| 15 | 017°47'41" E | 42°53'28" N |
| 16 | 017°45'13" E | 42°54'41" N |
| 17 | 017°41'52" E | 42°55'15" N |
| 18 | 017°39'21" E | 42°52'51" N |
| 19 | 017°35'45" E | 42°54'20" N |
| 20 | 017°32'34" E | 42°55'57" N |
| 21 | 017°32'55" E | 42°56'24" N |
| 22 | 017°35'10" E | 42°56'03" N |
| 23 | 017°37'45" E | 42°56'21" N |
| 24 | 017°40'16" E | 42°57'12" N |
| 25 | 017°42'53" E | 42°58'22" N |
| 26 | 017°41'41" E | 43°00'23" N |
| 27 | 017°40'28" E | 43°02'34" N |
| 28 | 017°39'11" E | 43°04'48" N |
| 29 | 017°36'50" E | 43°06'03" N |
| 30 | 017°34'24" E | 43°07'16" N |
| 31 | 017°31'43" E | 43°08'15" N |
| 32 | 017°28'53" E | 43°09'29" N |
| 33 | 017°25'59" E | 43°10'38" N |
| 34 | 017°26'09" E | 43°13'23" N |
| 35 | 017°23'28" E | 43°14'36" N |
| 36 | 017°20'33" E | 43°15'36" N |
| 37 | 017°19'17" E | 43°17'36" N |
| 38 | 017°17'46" E | 43°19'26" N |
| 39 | 017°16'59" E | 43°21'33" N |
| 40 | 017°16'26" E | 43°23'42" N |
| 41 | 017°16'37" E | 43°25'36" N |
| 42 | 017°17'32" E | 43°27'23" N |
| 43 | 017°18'33" E | 43°25'59" N |

## Grafički prikaz i tabela testnih tačaka za digitalnu regiju LEOTAR

A map with lines and a red border

Description automatically generated

A map of the united states

Description automatically generated

|  |  |  |
| --- | --- | --- |
|  | LEOTAR |  |
| 0 | 018°00'52" E | 42°55'33" N |
| 1 | 018°13'06" E | 42°58'54" N |
| 2 | 018°24'54" E | 43°06'17" N |
| 3 | 018°24'42" E | 43°09'09" N |
| 4 | 018°32'49" E | 43°15'33" N |
| 5 | 018°34'26" E | 43°21'42" N |
| 6 | 018°41'17" E | 43°15'17" N |
| 7 | 018°42'25" E | 43°13'28" N |
| 8 | 018°40'07" E | 43°12'14" N |
| 9 | 018°39'33" E | 43°10'13" N |
| 10 | 018°39'04" E | 43°08'07" N |
| 11 | 018°39'25" E | 43°06'00" N |
| 12 | 018°39'46" E | 43°02'14" N |
| 13 | 018°39'10" E | 43°02'17" N |
| 14 | 018°36'55" E | 43°01'47" N |
| 15 | 018°33'56" E | 43°01'51" N |
| 16 | 018°31'04" E | 43°01'09" N |
| 17 | 018°29'50" E | 42°59'12" N |
| 18 | 018°29'12" E | 42°57'04" N |
| 19 | 018°30'35" E | 42°53'10" N |
| 20 | 018°29'25" E | 42°52'45" N |
| 21 | 018°28'38" E | 42°51'34" N |
| 22 | 018°28'04" E | 42°49'30" N |
| 23 | 018°28'03" E | 42°47'21" N |
| 24 | 018°28'43" E | 42°45'14" N |
| 25 | 018°31'04" E | 42°43'55" N |
| 26 | 018°33'53" E | 42°43'22" N |
| 27 | 018°32'50" E | 42°41'22" N |
| 28 | 018°34'04" E | 42°39'23" N |
| 29 | 018°31'57" E | 42°37'50" N |
| 30 | 018°32'51" E | 42°35'45" N |
| 31 | 018°30'01" E | 42°35'16" N |
| 32 | 018°28'04" E | 42°33'51" N |
| 33 | 018°26'18" E | 42°33'23" N |
| 34 | 018°24'24" E | 42°35'05" N |
| 35 | 018°22'06" E | 42°36'20" N |
| 36 | 018°16'28" E | 42°36'34" N |
| 37 | 018°13'36" E | 42°37'10" N |
| 38 | 018°11'44" E | 42°39'11" N |
| 39 | 018°08'58" E | 42°40'04" N |
| 40 | 018°06'27" E | 42°41'18" N |
| 41 | 018°04'55" E | 42°43'08" N |
| 42 | 018°00'11" E | 42°45'35" N |
| 43 | 017°58'07" E | 42°47'06" N |
| 44 | 017°55'35" E | 42°48'18" N |
| 45 | 017°53'47" E | 42°49'56" N |
| 46 | 017°51'49" E | 42°51'35" N |
| 47 | 017°51'20" E | 42°53'42" N |
| 48 | 017°48'58" E | 42°54'56" N |
| 49 | 018°00'52" E | 42°55'33" N |

# DAB+ radijski kanali

Međunarodnim sporazumom i planom raspodjele frekvencija Ženeva 2006 određeni su frekvencijski resursi za zemaljski digitalni radio T-DAB.

|  |  |  |
| --- | --- | --- |
| Digitalna regija | Ukupna populacija | T-DAB kanal |
| PLJEŠEVICA | 230,434 | 11B |
| KOZARA | 497,337 |
| VLAŠIĆ | 718,256 | 10A |
| MAJEVICA | 885,513 | 11C |
| BJELAŠNICA | 682,416 | 11B |
| TROVRH | 93,759 | 11D |
| TUŠNICA | 94,638 | 11C\* |
| VELEŽ | 262,502 |
| LEOTAR | 51,345 |

\* privremena dodjela do stupanja na snagu plana *Adriatic-Ionian* grupe

Agencija zadržava pravo promjene kanala iz tabele gore (\*), do stupanja na snagu Sporazuma *Adriatic-Ionian* grupe. U slučaju promjene kanala, Agencija će korisniku dozvole dodijeliti zamjenske kanale. Sve troškove vezane za zamjenu kanala snosi odabrani ponuđač – nosilac dozvole.

# Minimalni nivo elektromagnetnog polja za kvalitetan prijem

Minimalna potrebna jačina električnog polja u tački prijema određuje se u skladu s ITU-R preporukama i odgovarajućim EBU tehničkim izvještajima, što odgovara elektromagnetnom polju od 58 dBμV/m na visini 10 m od tla.

Agencija će izračunavati predikciju pokrivanja prema statističkom modelu ITU-R P. 1546 i popisu stanovništva iz 2013. godine, kao postotak populacije koja može neometano primati signal. Stepen pokrivenosti procjenjuje se na osnovu konkretnih emisionih parametara za koje je Agencija izdala Dozvolu.

# Standard za prijem audiosignala

Primijenjeni standardi trebaju biti u skladu s DAB+ normom (ETSI TS 102 563 V2.1.1 (2017-01), EBU *Tech* 3391).

# Brzine prijenosa

Za kodiranje audiosignala koristi se AAC+ (*High-Efficiency Advanced Audio Coding*) kodek s korištenjem nivoa zaštite EEP 3-A. Koristan kapacitet multipleksa u ovom slučaju je maksimalno 1.5 Mbps, a prosječno 1152 kbps. Zauzetost multipleksa računa se preko jedinica za kapacitet (CU – *Capacity Units*), kojih ukupno ima 864.

Za različite vrste programa određene su brzine prijenosa koje odgovaraju vrsti programa i izražene su u kbps i CU.

|  |  |
| --- | --- |
| Opis vrsta programa | Brzina prijenosa |
| Stereo audio (muzika Hi-Fi kvaliteta) | 96 kbps/72 CU |
| Stereo audio (muzički servis) | 64 kbps/48 CU |
| Stereo audio (govor/muzika) | 48 kbps/36 CU |
| Mono audio (muzički servis) | 48 kbps/36 CU |
| Mono audio (govor/muzika) | 32 kbps/24 CU |
| Servisni kanal (za obavještenja o stanju na cestama, vremenskoj prognozi i sl.) | 24 kbps/18 CU |

Multipleks operater dužan je obezbijediti uslugu Programskog vodiča (EPG *Electronic Program Guide*) i za to obezbijediti protok od 16 kbps/12 CU za *Packet data*.

# Tehnički propisi i standardi

Tehnički propisi i standardi definirani su članom 10. Pravila 90/2018 o pružanju usluga upravljanja elektronskim komunikacijskim mrežama u digitalnoj zemaljskoj radiodifuziji („Službeni glasnik BiH“, broj 92/18).

# Emisione lokacije s predajnicima velike snage

U tabelama su navedene emisione lokacije predajnika veće snage za svaku digitalnu regiju s tehničkim parametrima koji su međunarodno koordinirani i za koje je potrebno dobiti dozvolu za korištenje radiofrekvencija. Matični predajnici mogu se instalirati i na drugim lokacijama u okviru neke digitalne regije, pod uslovom da tehnički parametri ostaju u skladu s okvirom koji pruža sporazum GE06.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Digitalna regija | Emisiona lokacija | Longituda | Latituda | Kanal | ERP  (dBW) |
| PLJEŠEVICA | Plješevica | 015°45'21" E | 44°47'14" N | 11B | 37 |
| KOZARA | Lisina | 016°58'37" E | 44°58'21" N | 11B | 37 |
| VLAŠIĆ | Paljenik | 017°38'10" E | 44°17'38" N | 10A | 40 |
| MAJEVICA | Busija | 018°50'41" E | 44°33'56" N | 11C | 37 |
| TUŠNICA | Vitrenik | 017°05'44" E | 43°43'21" N | 11C | 37 |
| BJELAŠNICA | Bjelašnica | 018°15'25" E | 43°42'14" N | 11B | 37 |
| TROVRH | Hadžića brdo | 018°51'44" E | 43°42'44" N | 11D | 37 |
| VELEŽ | Hrgud | 018°01'40" E | 43°05'56" N | 11C | 37 |
| LEOTAR | Leotar | 018°20'30" E | 42°44'51" N | 11C | 37 |

Napomena: Frekvencijski resursi koji se trenutno koriste za analognu zemaljsku radiodifuziju u istom opsegu u određenom području, a mogu biti izvor neželjenih smetnji, bit će oslobođeni kada multipleks operater obavijesti Agenciju o datumu početka rada u tom području. Agencije će poduzeti potrebne radnje u cilju neometanog rada multipleks operatera.

Tabelarni prikaz horizontalnih dijagrama zračenja (slabljenje zračenja energije u azimutu po 10°)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Plješevica 11B | | | | | | | |
| Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) |
| 0 | 0 | 90 | 0 | 180 | 10 | 270 | 10 |
| 10 | 0 | 100 | 0 | 190 | 10 | 280 | 10 |
| 20 | 0 | 110 | 0 | 200 | 10 | 290 | 10 |
| 30 | 0 | 120 | 0 | 210 | 10 | 300 | 10 |
| 40 | 0 | 130 | 0 | 220 | 10 | 310 | 10 |
| 50 | 0 | 140 | 10 | 230 | 10 | 320 | 10 |
| 60 | 0 | 150 | 10 | 240 | 10 | 330 | 0 |
| 70 | 0 | 160 | 10 | 250 | 10 | 340 | 0 |
| 80 | 0 | 170 | 10 | 260 | 10 | 350 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Lisina 11B | | | | | | | |
| Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) |
| 0 | 3 | 90 | 0 | 180 | 0 | 270 | 0 |
| 10 | 3 | 100 | 0 | 190 | 0 | 280 | 0 |
| 20 | 3 | 110 | 0 | 200 | 0 | 290 | 0 |
| 30 | 3 | 120 | 0 | 210 | 0 | 300 | 0 |
| 40 | 0 | 130 | 0 | 220 | 0 | 310 | 0 |
| 50 | 0 | 140 | 0 | 230 | 0 | 320 | 0 |
| 60 | 0 | 150 | 0 | 240 | 0 | 330 | 0 |
| 70 | 0 | 160 | 0 | 250 | 0 | 340 | 3 |
| 80 | 0 | 170 | 0 | 260 | 0 | 350 | 3 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Paljenik 10A | | | | | | | |
| Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) |
| 0 | 0 | 90 | 0 | 180 | 3 | 270 | 0 |
| 10 | 0 | 100 | 0 | 190 | 3 | 280 | 0 |
| 20 | 0 | 110 | 0 | 200 | 3 | 290 | 0 |
| 30 | 0 | 120 | 0 | 210 | 3 | 300 | 0 |
| 40 | 3 | 130 | 0 | 220 | 3 | 310 | 0 |
| 50 | 3 | 140 | 0 | 230 | 3 | 320 | 0 |
| 60 | 3 | 150 | 0 | 240 | 0 | 330 | 0 |
| 70 | 0 | 160 | 0 | 250 | 0 | 340 | 0 |
| 80 | 0 | 170 | 0 | 260 | 0 | 350 | 0 |

|  |
| --- |
| Busija 11C |
| ND |

|  |
| --- |
| Vitrenik 11C |
| ND |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bjelašnica 11B | | | | | | | |
| Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) | Azimut  (°) | Atenuacija  (dB) |
| 0 | 0 | 90 | 3 | 180 | 0 | 270 | 0 |
| 10 | 0 | 100 | 3 | 190 | 0 | 280 | 0 |
| 20 | 0 | 110 | 3 | 200 | 0 | 290 | 0 |
| 30 | 0 | 120 | 3 | 210 | 0 | 300 | 0 |
| 40 | 0 | 130 | 3 | 220 | 0 | 310 | 0 |
| 50 | 0 | 140 | 0 | 230 | 0 | 320 | 0 |
| 60 | 3 | 150 | 0 | 240 | 0 | 330 | 0 |
| 70 | 3 | 160 | 0 | 250 | 0 | 340 | 0 |
| 80 | 3 | 170 | 0 | 260 | 0 | 350 | 0 |

|  |
| --- |
| Hadžića brdo 11D |
| ND |

|  |
| --- |
| Hrgud 11C |
| ND |

|  |
| --- |
| Leotar 11C |
| ND |