# **Digital Dividend**

### Elkeda Domi

Head of Spectrum Monitoring Sector Albanian Audio Visual Media Authority

Bucharest, Romania, 22 March 2016

#### Legal Framework Definitions for Digital Dividend

- Law no. 97/2013 on audio-visual media in the Republic of Albania provides articles which emphase that the licenses of the digital network are given by AMA based on digital plan of the frequencies, except the frequencies of the digital dividend 1.
- Strategy for transition from analogue to digital broadcasting, adopted by CoM Decision Nr. 292, date 2.5.2012 define the main objectives:
- the transition to digital broadcasting and
- the release of digital dividend 1
- National Frequencies Plan approved by CoM decision No. 466, date 27.02.2013 has defined AMA for the administration of 790-862 MHz band until the finalization of digitalization process (for broadcasting services) and than this band will be administrate from Postal and Electronic Communication Authority (for mobile services).

## Digital Dividend 1

The frequency band 790-862 MHz currently under the administration of AMA, is occupied by both analog and digital broadcasters in Albania.

The release of this band depended from the digitalization process:

- Construction of public operator networks
- Licensing of national private operators.

A part of channels which are in used by local/regional operators is expected to be released after they support in public or private national networks.

While the channels which are in used by digital broadcasters will be released after their licensing and migration to frequencies specified in the Digital Plan (GE06).

#### Operators transmitting in Dividentit Digjital (DD1) in analog

			CH (UHF) Tipi		
Nr.	Emëri isubjektit	Pika transmetuese	transmetimit		Statusi
	1 TV Shijak	Shijak	61	Analog	Vendore
	2 2ATV	Kavaje Qytet	61	Analog	Vendore
	3 TV Fokus	Zvernec	61	Analog	Vendore
	4 TV Scan	Ballsh	61	Analog	vendor
	5 TV Klan	Mali i Robit	62	Analog	Kombetar
	<mark>6</mark> TV Armonia	Bularat	62	Analog	Vendor
	7 TV Vizion+	Durres	63	Analog	vendore
	8 TVSH	Zvernec	63	Analog	Publik
	9 TV Margit	Ardenice	65 (lic)# ne 41	Analog	Vendore
	10 TV Klan	Rubik	63	Analog	Kombetar
	11 TV Margit	Blerim (Lu)	65	Analog	Vendor
	12 TV Agon	Zvernec	65	Analog	Vendor
	13 TV Klan	Skrevan	65	Analog	Kombetar
	14 TV MAD	Durres	65	Analog	Vendore
	15 TV Preza	Preze Kala		Analog	vendor
	16 TV K8	Mile	65	Analog	Vendore
	17 TVAlbania Screen	Tarabosh	66	Analog	Vendor
	18 TV 4+	Germenj	66	Analog	vendor
	<mark>19</mark> TV Neës 24	Himare	66	Analog	Vendor
,	20 TV Berati	Berat Kala	67	Analog	Vendore
,	21 Top Channel	Bratomire	67	Analog	Kombetar
,	22 TV A1	V. Zogut (Dr)	68	Analog	Vendore
,	23 Top Channe	Gllave	68	Analog	Kombetar
,	24 TV Channel One	Fushe Dajt	68	Analog	Vendor

Numeric platform transmitting in Digital Dividend (DD1).

	DigitAlb	Ardenice	62
	DigitAlb	Ardenice	64
3	DigitAlb	Ardenice	67
4	DigitAlb	Ardenice	69
5	DigitAlb	Fushe Dajt	62
6	DigitAlb	Fushe Dajt	64
7	DigitAlb	Fushe Dajt	67
8	DigitAlb	Fushe Dajt	69
9	DigitAlb	Durres Vila Zogut	62
10	DigitAlb	Durres Vila Zogut	64
11	DigitAlb	Durres Vila Zogut	67
12	DigitAlb	Durres Vila Zogut	69
13	DigitAlb	Petresh	62
14	DigitAlb	Petresh	64
15	DigitAlb	Petresh	67
16	DigitAlb	Petresh	69
17	DigitAlb	Tarabosh	62
18	DigitAlb	Tarabosh	64
19	DigitAlb	Tarabosh	67
20	DigitAlb	Tarabosh	69
21	DigitAlb	Zvernec	62
22	DigitAlb	Zvernec	64
23	DigitAlb	Zvernec	67
24	DigitAlb	Zvernec	69
25	DigitAlb	Çardhak	62
26	DigitAlb	Çardhak	64
	DigitAlb	Çardhak	67
28	DigitAlb	Çardhak	69

# Interference caused neighboring countries

Failure of the digitalization deadline (17 June 2015) has led to difficulties in the management of complaints submitted to the AMA for the interference caused by the use of the DD1 band by broadcast operators.

Until now we had a complain from Italia and a request for information from Montenegro.

Italy complains about interference was caused by our TV operators in their mobile network (LTE). While Montenegro requested information about the deadline of digitalization process because is going to implement LTE in June of this year.

### Digital Divident 2

Second Dividend (DD2) labeled differently 700 MHz band, is part of the spectrum 470-864 MHz which is determined by GE-06 Agreement for the use of digital terrestrial broadcasting (DTT).

Based on GE06, AMA planed the channels of this band for 5 national private networks (5 MUX). Each private national network contain 2 until 5 channels of DD2 band.

DD2 is already in use by analog broadcast operators, which must released this band during the digitalization process for the usage by national operators.

A technical working group on planning the use of the Digital Dividend II was created by the Minister in cooperation with AMA and AKEP.

### Channels of DD1-DD2 band planed for public and private national networks and local/regonal networks based on GE06

Rrjetet	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.
RTSH	Shkoder	Kukes	Diber	Lezhe	Tirane	Elbasan	Fier	Berat	Korce	Gjirokas ter	Vlore
MUX 1	28	26	38	43	34	23	27	25	43	26	23
MUX 2	41	32	24	23	21	33	31	30	45	37	39

Digital Networks for national priva	te operatores
-------------------------------------	---------------

Numri	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot. Gjirokas	Allot.
Rrjeteve	Shkoder	Kukes	Diber	Lezhe	Tirane	Elbasan	Fier	Berat	Korçe	ter	Vlore
MUX 3	34	50	55	33	41	42	35	32	51	44	46
MUX 4	59	40	30	46	53	48	28	36	55	29	57
MUX 5	45	42	25	29	59	49	22	54	57	50	43
MUX 6	22	36	54		57	46	29	24	21	48	
MUX 7	51	52	60		39	40	45	47	27	35	

#### Local and rajonal networks

Numri	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.	Allot.
										Gjirokas	
Rrjeteve	Shkoder	Kukes	Diber	Lezhe	Tirane	Elbasan	Fier	Berat	Korçe	ter	Vlore
								54(DD2			
9		56(DD2)				56(DD2)	51(DD2)	)	57(DD2)	50(DD2)	
10						58(DD2)			59(DD2)	53(DD2)	
11										56(DD2)	
12										58(DD2)	
13										60(DD2)	
14											
15											
16											

### Summary

- The release of DD1 a major challenge for Albania because is related strongly with digitalization process.
- Avoidance of harmful interference caused by the use of DD1 band is an important concern for the AMA.
- > It has not determined a date for the analogue broadcasting switch off.
- The Albanian Numeric Frequency Plan approved by GE06 Agreement includes a considerable number channels by DD2 band.
- Planning future use of DD2 band (mobile, broadcast or coexistence) requires a thorough analysis which should take into account the current situation of Albania.

#### Thank you for your attention!

elkeda.domi@ama.gov.al