



# ECTEL 15<sup>th</sup> Anniversary

Topic: "700 MHz Band Spectrum  
Achieving Broadband Goals "

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# OVERVIEW

- Broadband service is the centrepiece of the digital age
- Broadband services aim to deliver –
  - Data connections at high throughput speeds
  - Ubiquitous Connectivity
  - Integrated Telecommunications Applications and Services
- Availability of adequate Spectrum is critical to the expansion of Mobile Broadband Access



# BACKGROUND

- Internationally 700 MHz spectrum band was previously allocated and used for analog Ultra High Frequency (UHF) television broadcasting .
- 700MHz Spectrum band has a bandwidth of 108 MHz and starts on channel 52 (698 MHz) and ends on channel 69 (806) MHz with 6MHz channels.
- In ECTEL Member States the 700 MHz spectrum was not being utilized by television broadcasters, therefore there were no issues in reallocating the band to Broadband Wireless Access Services.
- ECTEL consulted with stakeholders and adopted a 700MHz band plan based on the FCC's band plan. The ECTEL 700MHz band plan was adopted in 2009.



# POLICY GOALS

- By designating the band for broadband wireless access, the 700 MHz Band provides the opportunity for achieving universal service in broadband access and internet connectivity in ECTEL Member States.
- The 700 MHz technology provides the opportunity to the provider for a reduction in cost of provision and an increase in the speed of deployment. It is expected that efficiency gains will be passed on to the consumer through a reduction in the price of services.
- Reduction in prices for telecommunications services.
- Increase broadband and Internet penetration rates.
- Increase in the deployment and investment in advanced networks and services.
- Provide harmonized blocks within the 700MHz spectrum for deployment of Public Safety Services within in the ECTEL/OECS Member States.
- Revenue generation to ensure effective regulation of the band.
- Conversion of telecommunications services to digital platforms, however remaining technology agnostic.

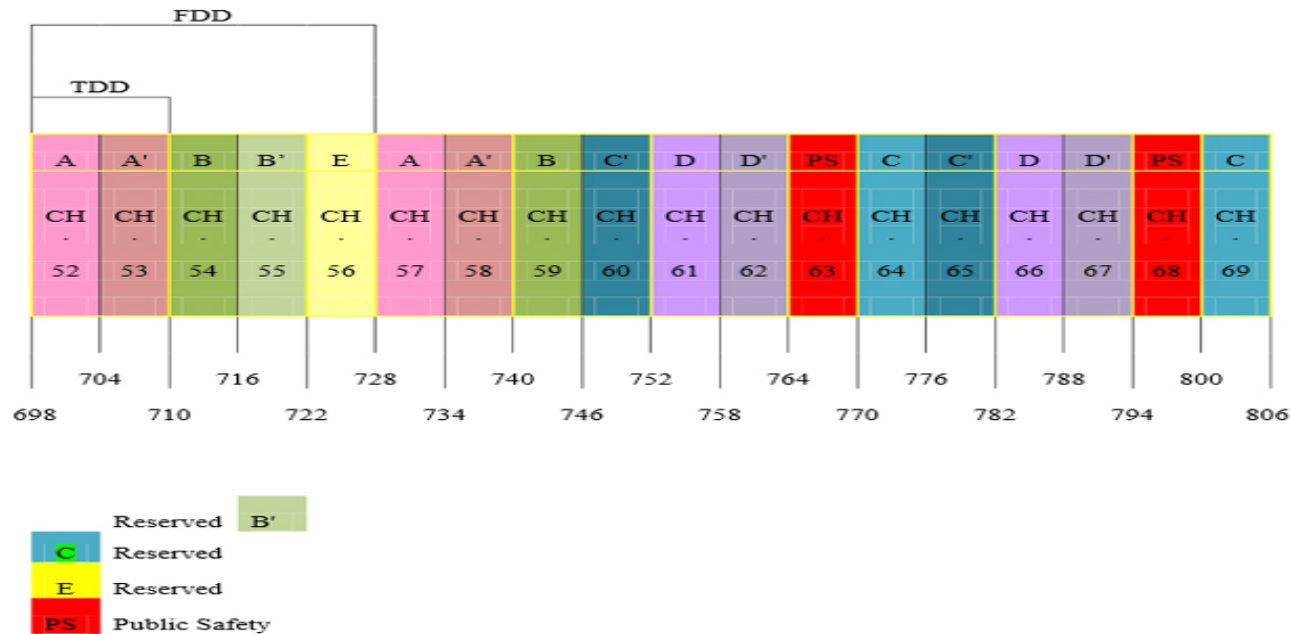


# CHARACTERISTICS OF 700 MHz SPECTRUM

- Greater radio propagational characteristics than higher frequency bands, meaning a cell site/base station can provide coverage to a larger area.
- 700MHz band signals have better penetration, meaning they pass through objects such as walls, vegetation with less attenuation. This effect results in better in-building penetration.
- Facilitates a new “Greenfield” mobile network i.e. less cell sites, towers, equipment to provide coverage.
- Fewer cell sites equates to a lower-cost deployment
- Assist in meeting last mile challenges in rural and underserved areas



# 700 MHz BAND PLAN



- Due to anticipated high demand for spectrum in 700 MHz band, and the limited availability of 700MHz spectrum, ECTEL developed a mechanism specifically to assign 700 MHz spectrum in 2012.
- ECTEL published a policy on the assignment of 700 MHz Band Spectrum in April 2013.
- As part of the Policy on 700MHz Spectrum it was recognized that the Telecommunications (Fees) Regulations needed to be amended to include a category for broadband wireless access.
- In 2013 ECTEL revised its 700 MHz band plan to align closer to the FCC's 700MHz band plan.
- It is hoped that assignment of 700MHz spectrum will begin and that advanced mobile broadband services such as LTE will be deployed in early 2015.



# 700 MHz BAND PLAN

- In 2009 ECTEL adopted a modified version of the FCC 700 MHz band plan .
- The Spectrum in 700 MHz band was allocated to Wireless Broadband Services.



# IMT and Bands Recognized in ECTEL

- ITU has defined frequency bands for International Mobile Telecommunications (IMT) for provision of public mobile telecommunications and wireless broadband services
- ECTEL has adopted certain IMT bands as indicated below

<b>Frequency Band (MHz)</b>
698-806
824-960
1710-2025
2110-2200
2300-2450
2520-2690
3400-3700





# FUTURE PLANNING

- ECTEL will be looking to revise its Spectrum Plan some time after WRC-15
- ECTEL will also need to re-farm some of the frequency bands in the 850MHz, 900 MHz, 1800 MHz and 1900 MHz to accommodate more bandwidth to increase broadband wireless services .
- Consult with providers, stakeholders, public, etc on adoption of band plans for mobile broadband services.



THANK YOU FOR YOUR  
KIND ATTENTION

\*\*\*END\*\*\*

