Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: [Revised Channelization for Dual-Mode Broadband and Wireless Network (DMBWN)]
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Abstract: [Description of the concept of Dual-Mode Broadband and Wireless Network]
Purpose: [Contribution to TG3c at July 2007 meeting.]

Revised Channelization for Dual-Mode Broadband and Wireless Network (DMBWN)

Ching-Kuang Tzung, Tian-Wei Huang, Ta-Sung Lee*, Jenn-Hwan Tarng*, Yu-De Lin*, Fu-Chiang Chen*, Chi-Hsueh Wang, Huei Wang, Shih-Yuan Chen, Powen Hsu, Tah-Hsiung Chu, Ruey-Beei Wu, and Chun-Hsiung Chen

National Taiwan University

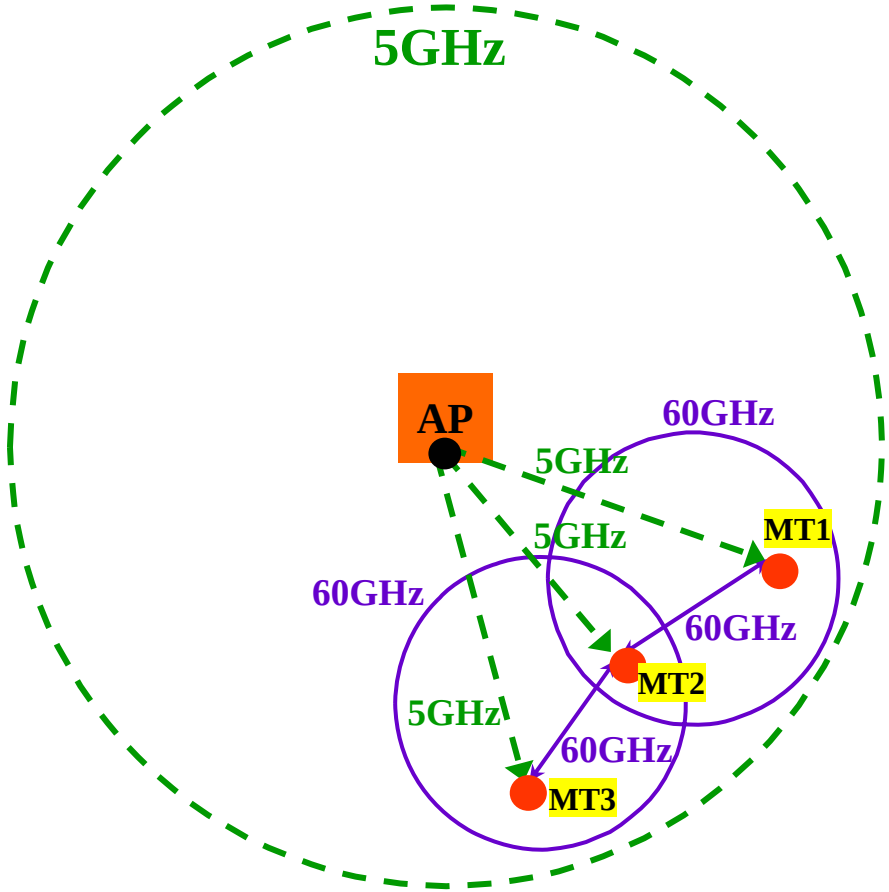
***National Chiao Tung University**

July 09, 2007

Next Step Towards Down Selection

- **A Formal Joint Submission would be made in July Meeting in San Francisco**
- **National Taiwan University/ TEEMA (Taiwan Electrical & Electronic Manufacturers' Association) has agreed to create a joint submission with COMPA**

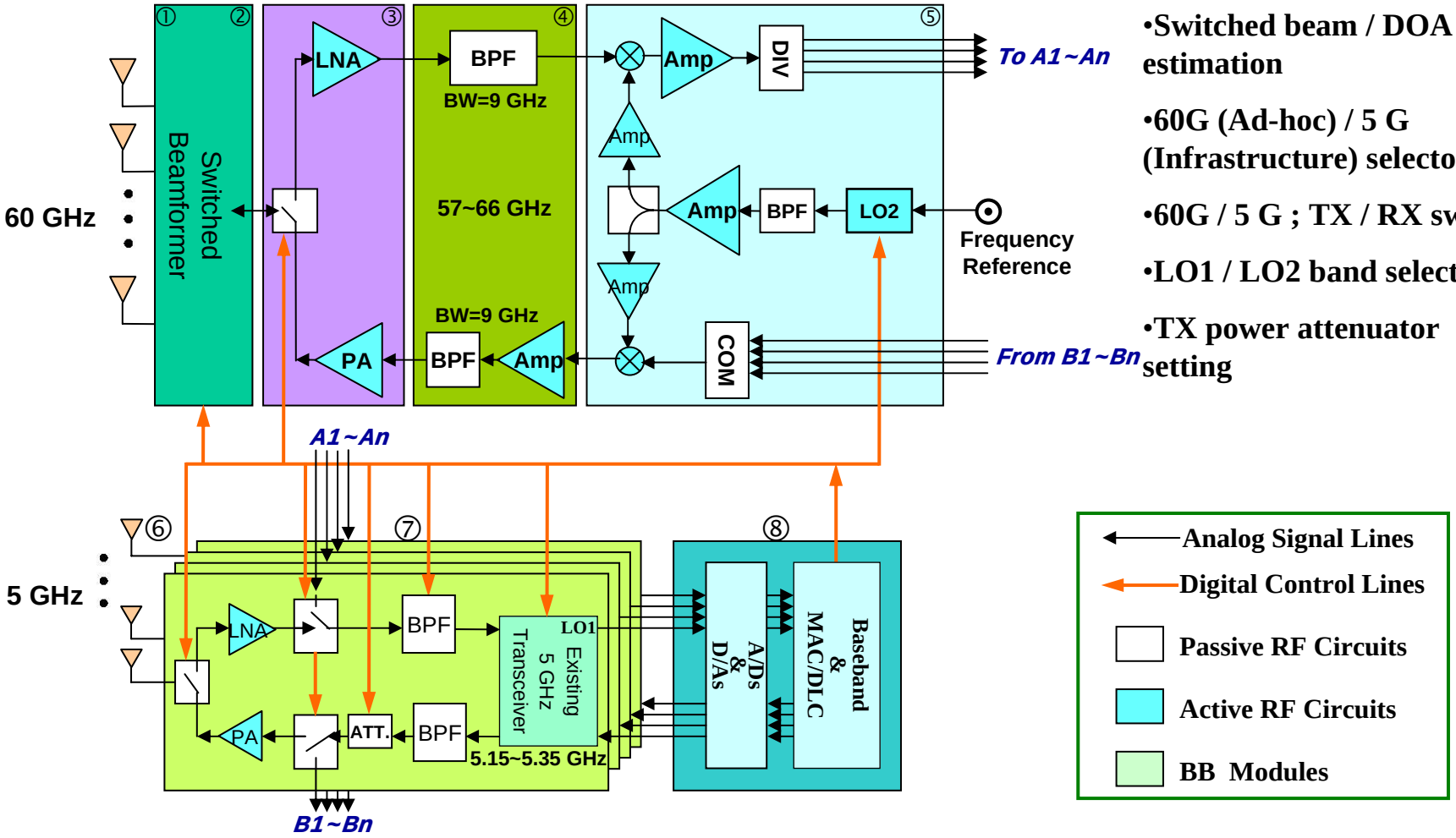
Dual-Mode Broadband and Wireless Network (DMBWN): a backward compatible system concept



RF front-end architecture for 5GHz / 60GHz RF signal transmission/reception

Smart antenna array based on switched beamforming

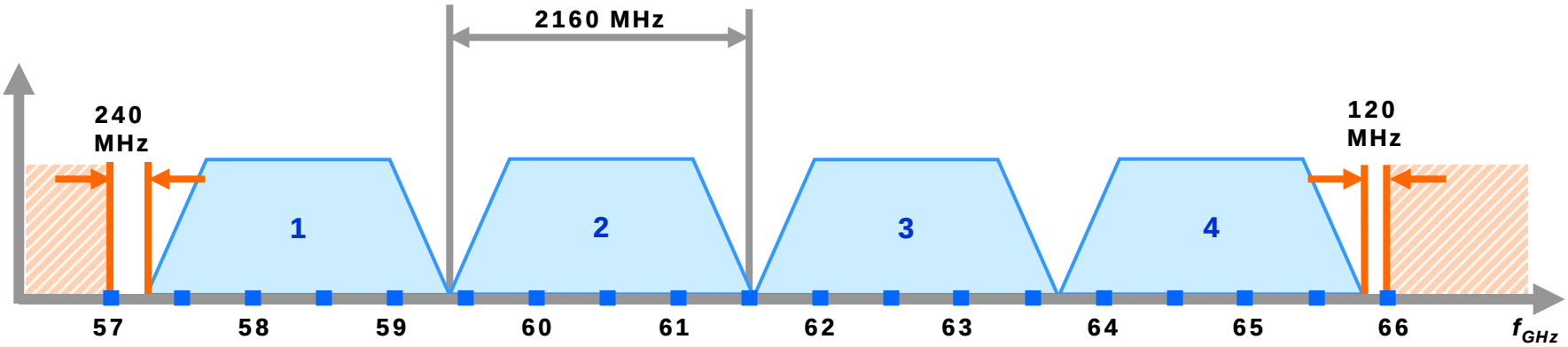
60/5 GHz Dual-Mode Wireless Network Station



- Switched beam / DOA estimation
- 60G (Ad-hoc) / 5 G (Infrastructure) selector
- 60G / 5 G ; TX / RX switch
- LO1 / LO2 band selectors
- TX power attenuator setting

Channelization

Channel	Low Freq. (GHz)	Center Freq. (GHz)	High Freq. (GHz)
1	57.240	58.320	59.400
2	59.400	60.480	61.560
3	61.560	62.640	63.720
4	63.720	64.800	65.880



- Support CoMPA Full-rate Channel Plan (IEEE 802.15-07-0761-00-003c)
- Support CoMPA Half-rate Channel Plan with 5GHz MIMO (IF) systems
- Support Cell phone XTAL
- Supports Multiple PLL Architectures even with the Cell phone XTAL

Thank you!