COMPILATION OF AGREED BAND PLANS, COORDINATION PARAMETERS AND COORDINATION PROCEDURE

JOINT TECHNICAL COMMITTEE ON COORDINATION AND ASSIGNMENT OF FREQUENCIES ALONG THAILAND - MYANMAR COMMON BORDER (JTC)

Month 2021

COMPILATION OF AGREED BAND PLANS,

COORDINATION PARAMETERS

AND

COORDINATION PROCEDURE

JOINT TECHNICAL COMMITTEE (JTC) ON COORDINATION AND ASSIGNMENT
OF FREQUENCIES ALONG THAILAND – MYANMAR COMMON BORDER

Month 2021

Document Change History

Version	Date	Key Changes
1.1	Month 2021	Include: 1. Introduction 1.1 List of JTC Meetings 2. Agreed band plans 2.1 Broadcasting service 2.2 Land mobile service 2.3 Common frequencies for use during emergency situation in HF, VHF and UHF bands 2.4 Telecommunication service 3. Coordination parameters 4. Registration of frequency assignments

Abbreviations

CDMA	Code Division Multiple Access
ERP	Effective Radiated Power
FDD	Frequency Division Duplex
GSM	Global System for Mobile communication
HF band	High Frequency band
JTC	Joint Technical Committee on Coordination and Assignment of Frequencies along Thailand – Myanmar Common Border Meeting
LTE	Long Term Evolution
MYA	Myanmar
PPDR	Public Protection and Disaster Relief
NR	New Radio (5G)
TDD	Time Division Duplex
THA	Thailand
UHF band	Ultra High Frequency band
UMTS	Universal Mobile Telecommunications System
VHF band	Very High Frequency band
WCDMA	Wideband Code Division Multiple Access

1 Contents

2 INTRODUCTION

The Joint Technical Committee on Coordination and Assignment of Frequencies along Thailand-Myanmar Common Border Meeting or in short, JTC Meeting; was formed with an objective to manage coordination of radio spectrum usage at the common border areas of Thailand and Myanmar. The first JTC Meeting was held on 8-9 November 2018 in Yangon, Myanmar and the hosting of subsequent meetings was held on alternate basis between the two countries.

Activities of the committee includes frequencies registration for stations along the designated areas, resolving reported interference cases, frequency planning for future services and harmonization of existing band plans. This is to ensure harmonized use of spectrum at border areas by efficient coordination of frequency spectrum among neighboring countries. All processes carried by this committee conform to the Constitution and Convention of the International Telecommunication Union (ITU) and its Radio Regulations.

JTC is also involved in reaching agreements on sharing of certain blocks of frequency spectrum that have been designated to be allocated to certain services so that these services do not interfere into each other at the border areas and the spectrum is shared as much as possible among 2 border countries on equitable basis, in line with the Constitution and Convention of the ITU.

At JTC-4 Meeting, it was agreed to have a common document consisting of agreed band plans, coordination zones and technical coordination parameters for all services, as a future reference, responsible persons were assigned for developing the compilation document.

This compilation document is intended to provide information of the JTC agreements between Thailand and Myanmar with respect to frequency coordination and assignment along common border area. It covers agreed band plans, coordination parameters and registration and notification of frequency assignments for both telecommunication and broadcasting services. Portions of this document will be revised from time to time as a result of agreement from JTC Meetings.

2.1 LIST OF JTC MEETINGS

JTC	Date of Meeting	Venue
1	8-9 November 2018	Yangon, Myanmar
2	14-16 May 2019	Chiang Mai, Thailand
3	14-16 January 2020	Bagan, Myanmar

3 AGREED BAND PLANS

3.1 BROADCASTING SERVICE

3.1.1 SOUND BROADCASTING SERVICE

3.1.2 TELEVISION BROADCASTING SERVICE

3.2 LAND MOBILE SERVICE

3.3 COMMON FREQUENCIES FOR USE DURING EMERGENCY SITUATION IN HF, VHF AND UHF BANDS

AGREED AT JTC-4:

PPDR Spectrum under United Nations Framework

Frequency (MHz)	Bandwidth (kHz)	Usage
158.025	12.5/25	Calling channel Communication channel
163.175		
458.100		
458.175		

PPDR Spectrum under ASEAN Framework (ATRC-16)

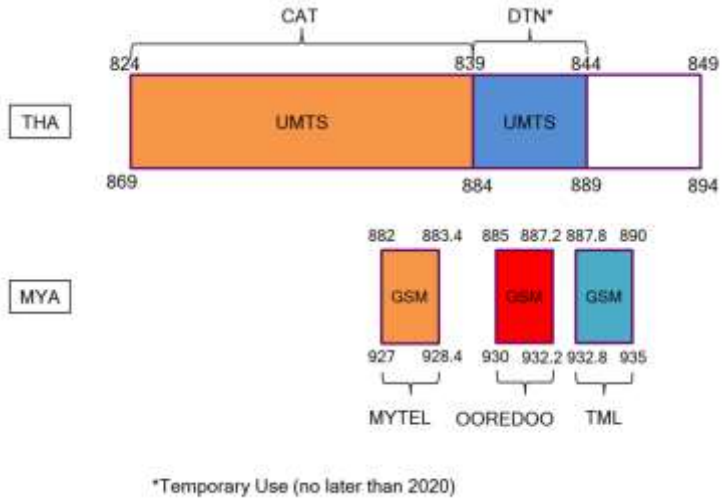
Frequency (MHz)	Bandwidth (kHz)	Usage
3.122, 3.351, 3.815, 3.925, 3.950	2.7	Calling channel Communication channel
6.314, 6.3147, 6.4501, 6.771		
11.202, 11.217, 11.230		
14.270, 14.275, 14.293, 14.303, 14.325		

3.4 TELECOMMUNICATION SERVICES

Technology	Signal Strength Threshold Values for Hpayarthonesu – Three Pagodas agreed in JTC - 3	Signal Strength Threshold Values for all other border areas as agreed in JTC-2
GSM	-80 dBm @ (0) km -102 dBm @ (N) km (N = 4)	-82 dBm @ (0) km -102 dBm @ (N) km
UMTS	-80 dBm @ (0) km -102 dBm @ (N) km (N = 4)	-82 dBm @ (0) km -102 dBm @ (N) km
LTE	-87 dBm @ (0) km -114 dBm @ (N) km (N = 4)	-94 dBm @ (0) km -114 dBm @ (N) km

3.4.1 BAND 850 MHz (824 – 849 / 869-894 MHz)

Band plan as agreed at JTC-1:



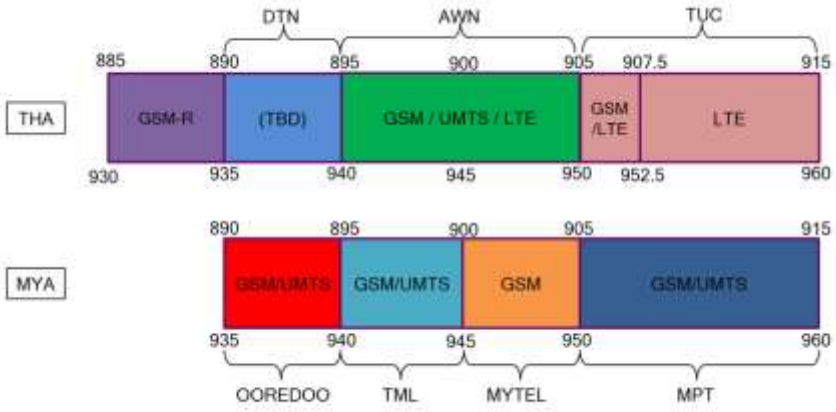
*Temporary Use (no later than 2020)

Band plan : Full band sharing

Technology : GSM/UMTS/LTE

3.4.2 BAND 900 MHz (890-915 / 935-960 MHz)

Band plan as agreed at JTC-1:

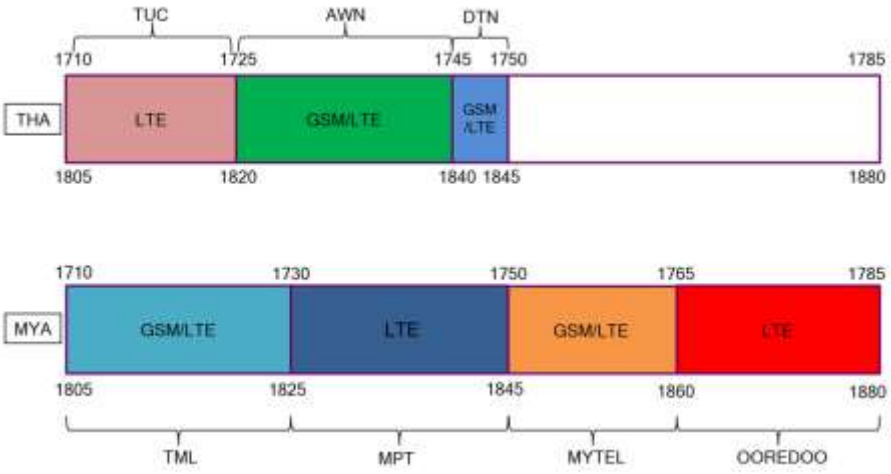


Band plan : Band partitioning

Technology : GSM/UMTS/LTE

3.4.3 BAND 1800 MHz (1710-1785 / 1805-1880 MHz)

Band plan as agreed at JTC-1:

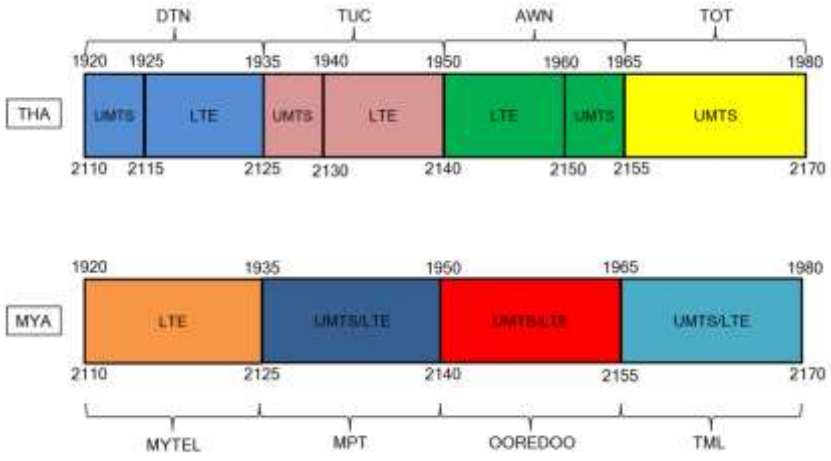


Band plan : Full band sharing

Technology : GSM/LTE

3.4.4 BAND 2100 MHz (1920-1980 / 2110-2170 MHz)

Band plan as agreed at JTC-1:

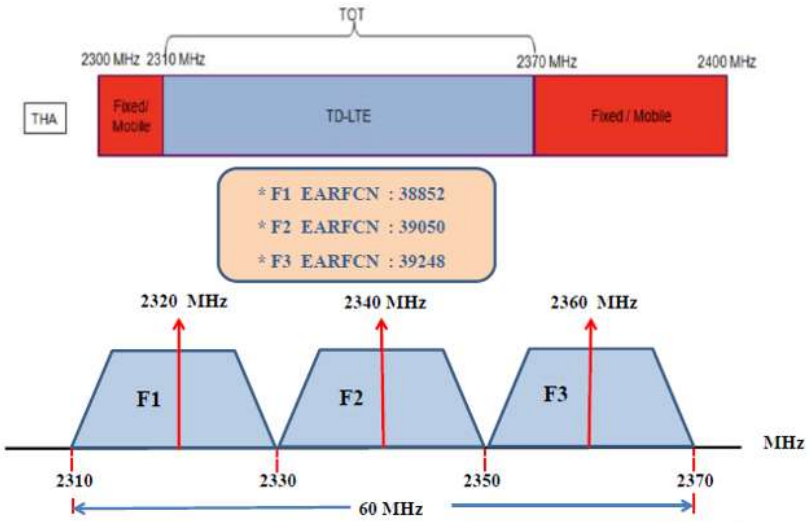


Band plan : Full band sharing

Technology : UMTS/LTE

3.4.5 BAND 2300 MHz (2300-2400 MHz)

Spectrum arrangement for 2300 MHz as agreed at JTC-1:



PTD informed the Meeting that 2300 MHz band is not used in Myanmar. However, there was a plan to allocate this band in 2020 after a consultation period had concluded. PTD asked NBTC whether there was any mandatory synchronization requirement fot the 2300 MHz band in Thailand.

Band plan : TBD

Technology : Mobile/TDD LTE

Coordination parameters : ECC REC.(14)04

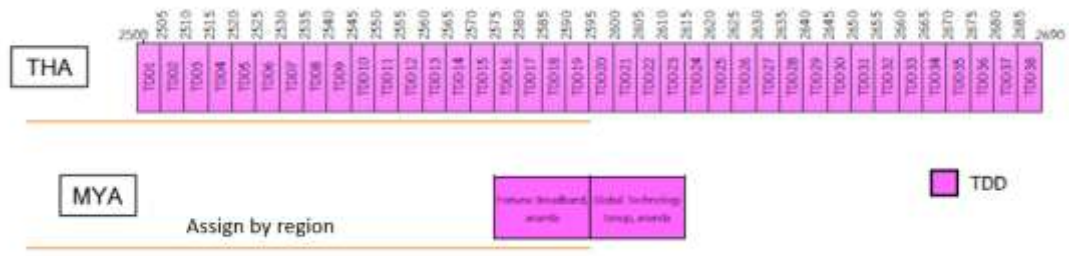
System	TDD Systems with Synchronization	TDD Systems without synchronization
Recommended Field Strength at 3 m above ground	**65 dBµV/m/5MHz @ 0 km from border**	**30dBµV/m/5MHz @ 0 km from border**
	49 dBµV/m/5MHz @ 6 km from border	
Converted Received power	**-80.6 dBm/5 MHz @ 0 km from border**	**-114.4 dBm/5 MHz @ 0 km from border**
	-96.6 dBm/ 5 MHz @ 6 km from border	

Coordination type : TBD

Coordination distance : TBD

3.4.6 BAND 2600 MHz (2500-2690 MHz)

Spectrum arrangement for 2600 MHz as agreed at JTC-4:



Band plan : Full band sharing

Coordination parameters : ECC REC. (11)05

For TDD-TDD case:

Frequency Band (MHz)	Technology	Coordination Parameters	
		Signal Level	Defined distance from the border
2600 (2500-2690 MHz)	LTE/NR (synchronized)	-80.6 dBm/5 MHz measured at 3 m above ground level	0 km
		-96.6 dBm/5 MHz measured at 3 m above ground level	6 km
	LTE/NR (without synchronized)	-114.4 dBm/5 MHz measured at 3 m above ground level	0 km

- NBTC and PTD now used band plan 41, only the coordination parameters for TDD-TDD case are necessary
- The coordination parameters and network synchronization methods can be discussed and agreed on, as necessary, when both sides assign further frequency in this band

4 REGISTRATION AND NOTIFICATION OF FREQUENCY ASSIGNMENTS

4.1 FREQUENCY REGISTRATION GUIDELINE