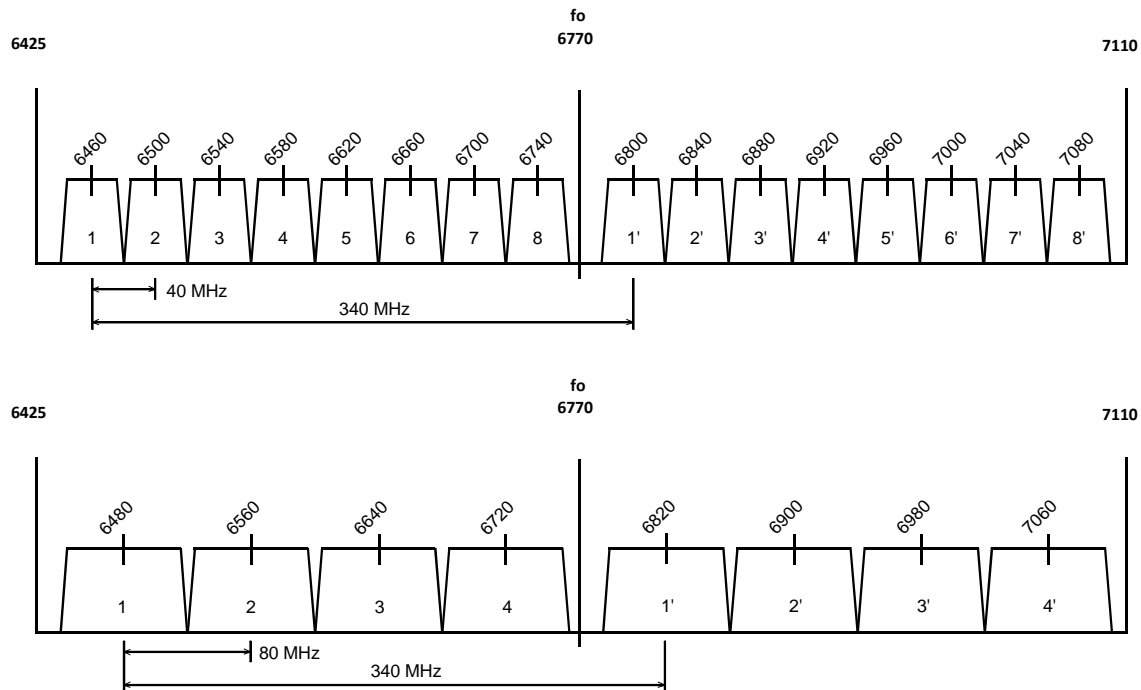


## THE 6.7 GHz BAND (6425 - 7110 MHz)

### RF CHANNEL ARRANGEMENTS



### ASSIGNMENT INSTRUCTIONS

This band is designated for use by digital high capacity fixed point-to-point links.

<b>Typical Use</b>	: 40 MHz channels - 140 Mbit/s data : 80 MHz channels - 298 Mbit/s data
<b>Assignment Priority</b>	: 80 MHz channels - from highest channel downwards
<b>Minimum Path Length</b>	: 20 km
<b>Antenna Requirements</b>	: refer to Appendix 11

#### Note:

1. Proposed links need to be coordinated with licensed earth stations operating in this band.
2. The channel raster known previously as the interleaved raster has been removed. No new assignments are to be made.
3. Potential for interference to and from adjacent 6 GHz band fixed services.

#### Reference

1. Rec. ITU-R F.384-5, "Radio-frequency channel arrangements for medium and high capacity analogue or high capacity digital radio-relay systems operating in the upper 6 GHz band".

## THE 6.7 GHz BAND (6425 - 7110 MHz)

### PROTECTION RATIOS

1. Protection ratios required between digital systems.

Frequency Offset (MHz)	PROTECTION RATIO (dB)			
	Interferer Tx → Victim Rx			
	40 MHz ↓ 40 MHz	40 MHz ↓ 80 MHz	80 MHz ↓ 40 MHz	80 MHz ↓ 80 MHz
0	60			69
20		68	56	
40	30			
60		50	35	
80	0			46
100		15	12	
140		8	4	
160				15

2. Protection ratios required between digital systems in the adjacent 6 GHz band.

Frequency Offset (MHz)	PROTECTION RATIO (dB)			
	Digital Interferer Tx → Digital Victim Rx			
	40 MHz ↓ 29.65 MHz	40 MHz ↓ 59.3 MHz	80 MHz ↓ 29.65 MHz	80 MHz ↓ 59.3 MHz
55.21	12			
70.035		20		
75.21			15	
84.86	1.5			
90.035				24
104.86			10	

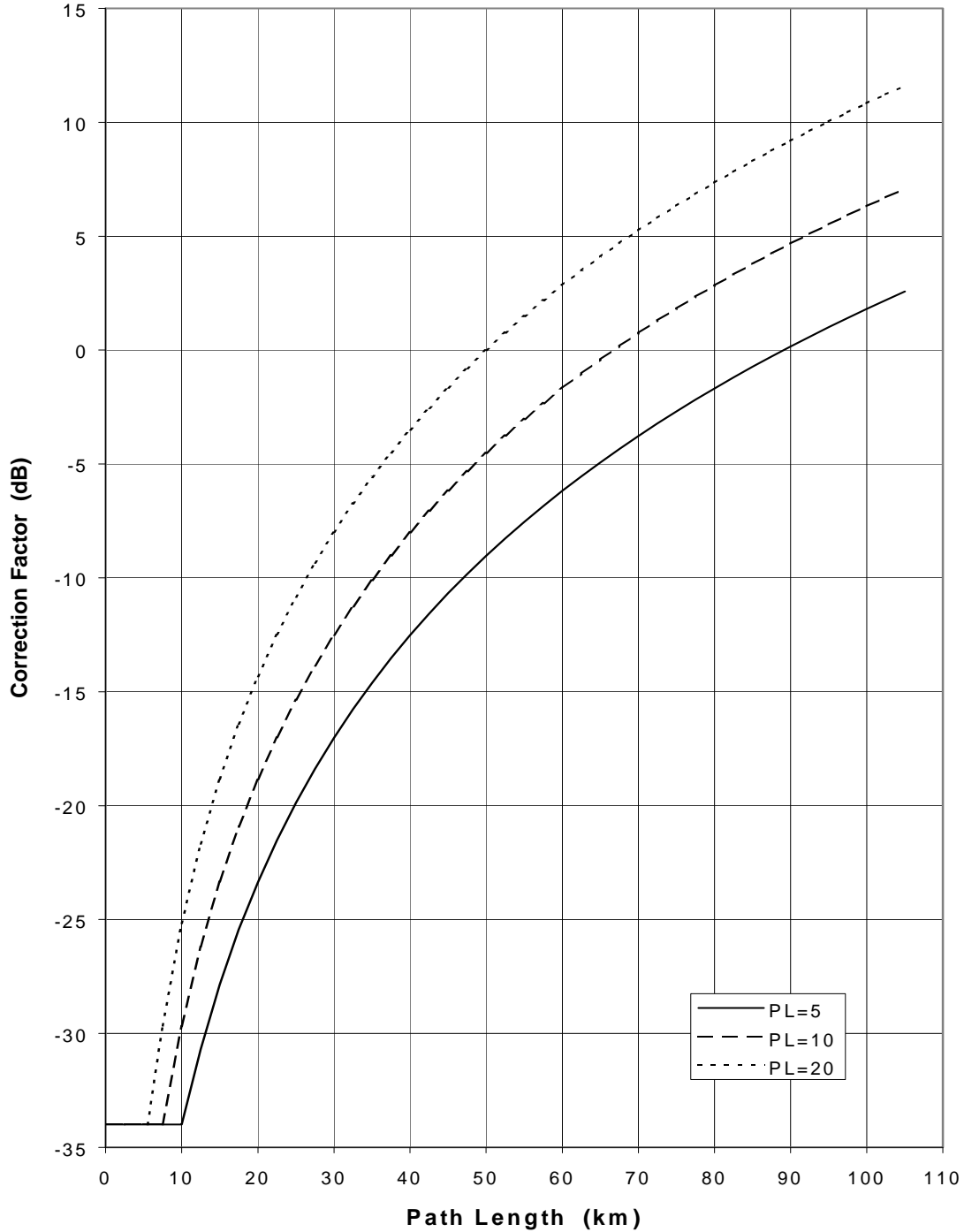
Note:

1. Protection ratios for digital systems are based on a 50 km path length and  $P_L$  (*Percentage of time that the average refractivity gradient in the lowest 100 m of the atmosphere is less than or equal to -100 N units/km*) of 20. For other path lengths and  $P_L$  values refer to the protection ratio correction factors graph on the following page.

# THE 6.7 GHz BAND (6425 - 7110 MHz)

## PROTECTION RATIO CORRECTION FACTORS

### MULTI PATH



PL: Percentage of time that the average refractivity gradient in the lowest 100 m of the atmosphere is less than or equal to -100 N units/km.

For further details refer to Annex A to Appendix 1.