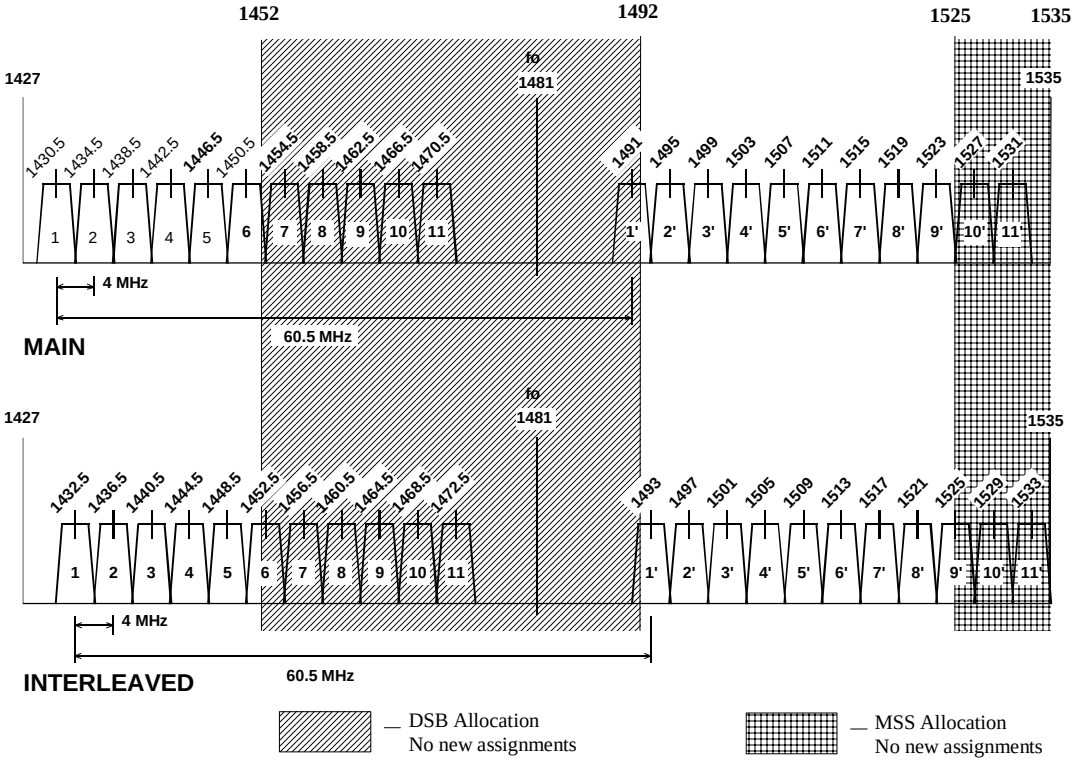
THE 1.5 GHz BAND (1427-1535 MHz)

RF CHANNEL ARRANGEMENTS



ASSIGNMENT INSTRUCTIONS

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

Typical Use : 2 Mbit/s data

Assignment Priority : not specified, See Note 1.

Minimum Path Length : 20 km

Antenna Requirements : refer to Appendix 11

Notes:

1. The use of this band is subject to the provisions of Reference 1, constraining the availability of some channels for new fixed services.

2. The spectrum 1427 to 1535 MHz is also used by 1.5 GHz DRCS services in rural and remote areas.

3. All assignments that have emissions in the 1452 – 1492 or 1518-1535 MHz ranges shall be endorsed with Advisory Note BL that states “This frequency band is currently under review to accommodate changes in technology. This review may lead to a requirement to change frequency or cease transmissions”.

Reference

1. The "*1.5 GHz Band Plan*", December 1996.

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PROTECTION RATIOS

1. Protection ratios required between digital systems operating on 2 and 4 MHz channels.

Frequency Offset (MHz)	PROTECTION RATIO (dB) Digital Interferer Tx → Digital Victim Rx			
	2 MHz→ 2 MHz	2 MHz → 4 MHz	4 MHz → 2 MHz	4 MHz → 4 MHz
0	60	60	60	60
2	30	55	47	55
4		27	20	30
6				8

2. Protection ratios required by digital systems operating on 2 and 4 MHz channels against interference from analogue systems operating on 2 and 4 MHz channels.

Frequency Offset (MHz)	PROTECTION RATIO (dB) Analogue Interferer Tx → Digital Victim Rx			
	2 MHz→ 2 MHz	2 MHz → 4 MHz	4 MHz → 2 MHz	4 MHz → 4 MHz
0	60	60	60	60
2		30	30	60
4				20

3. Protection ratios required by analogue systems operating on 2 and 4 MHz channels against interference from digital systems operating on 2 and 4 MHz channels.

Frequency Offset (MHz)	PROTECTION RATIO (dB) Digital Interferer Tx → Analogue Victim Rx			
	2 MHz→ 2 MHz	2 MHz → 4 MHz	4 MHz → 2 MHz	4 MHz → 4 MHz
0	60	60	60	60
2	10	10	10	30

Notes:

1. Protection ratio for digital systems are based on a 60 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 appropriate protection ratio correction factors graph on the following page.

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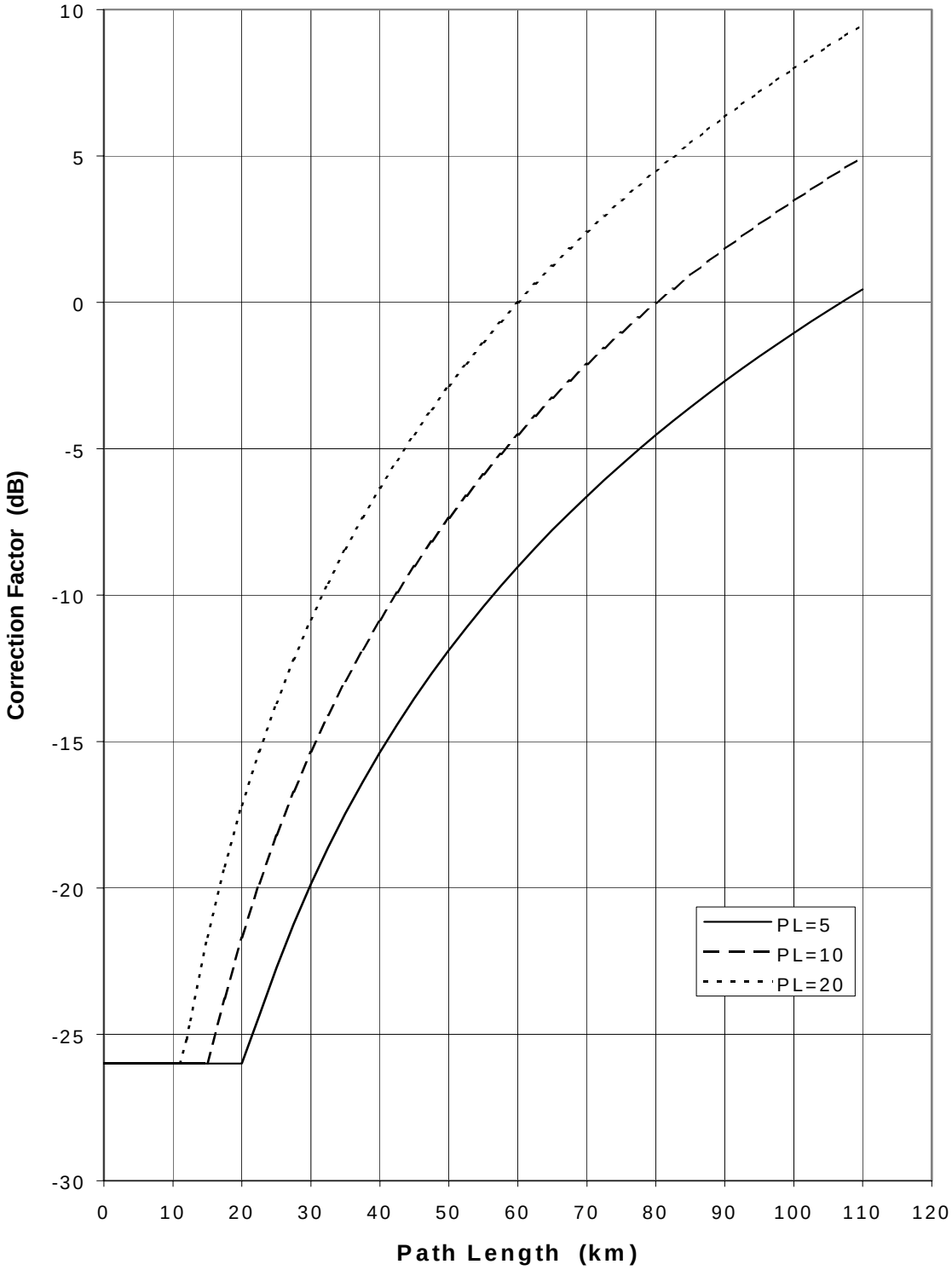
PROTECTION RATIO CORRECTION FACTORS

MULTI PATH



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.
For further details refer to Annex A to Appendix 1.