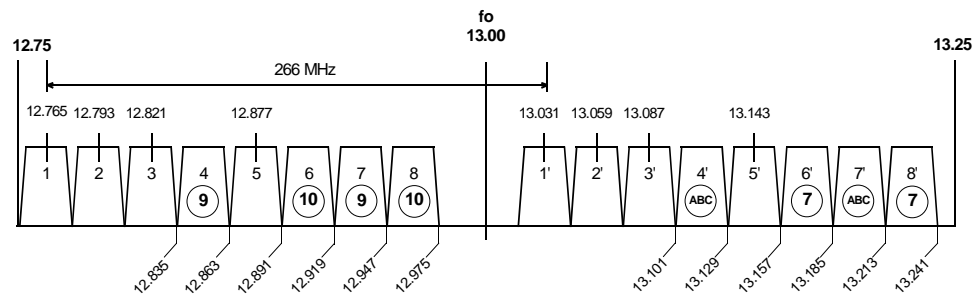
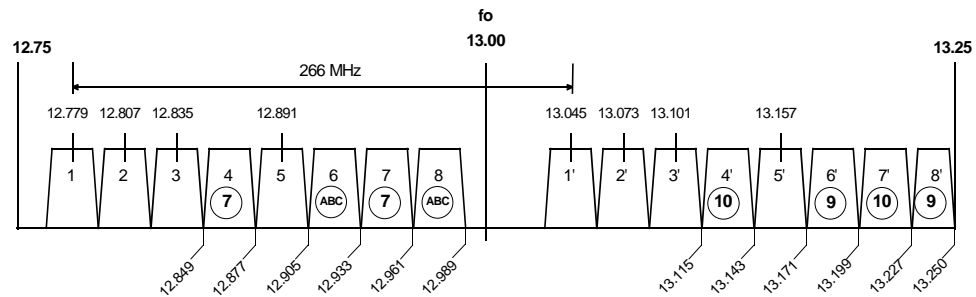


THE 13 GHz BAND (12.75 - 13.25 GHz)

RF CHANNEL ARRANGEMENTS



MAIN



INTERLEAVED

TOB Network Licences : (7) = Seven Network; (9) = Nine Network; (10) = Ten Network; ABC = ABC Network

ASSIGNMENT INSTRUCTIONS

This band is designated for use by medium capacity fixed point-to-point links and Television Outside Broadcast (TOB) services (See Notes 1 to 6).

Typical Use	: FIXED	- 34 Mbit/s data
	TOB	- temporary links for live coverage of events teleconferencing, outside broadcast, etc.
Assignment Priority	: not specified	
Minimum Path Length	: not specified	
Antenna Requirements	: FIXED - refer to Appendix 11	
	TOB - 0.6 m standard parabolic dish	

Notes:

1. With the exception of interleaved channel 8', all channels are 28 MHz wide.
2. Fixed assignments may be made only on main channels 1-1', 2-2', 3-3' and 5-5'. However, assignments for fixed services on channels 5-5' are not permitted within 100 km of a capital city.
3. TOB channel designations for the major television networks are shown above.
4. Non-network TOB operators share channels 5-5'.
5. TOB assignments shall be endorsed with Special Condition 27.
6. TOB sharing arrangements are described in Reference 1.

References

1. Spectrum Planning Document No. SP 1/90, "*Spectrum and Licensing Arrangements for Outside Broadcast Television Services*" March 1990.
2. Rec. ITU-R F.497-4, "*Radio-frequency channel arrangements for radio-relay systems operating in the 13 GHz frequency band*".

THE 13 GHz BAND (12.75 - 13.25 GHz)

PROTECTION RATIOS

1. Protection ratios required between digital systems.

Frequency Offset (MHz)	PROTECTION RATIO (dB)			
	Digital Interferer Tx → Digital Victim Rx			
	14 MHz	14 MHz	28 MHz	28 MHz
	↓	↓	↓	↓
	14 MHz	28 MHz	14 MHz	28 MHz
0	50	50	50	50
14	20	35	45	47

2. Protection ratios required between digital and analogue systems.

Frequency Offset (MHz)	PROTECTION RATIO (dB)			
	Analogue Interferer Tx		Digital Interferer Tx	
	↓	↓	↓	↓
	Digital Victim Rx		Analogue Victim Rx	
	28 MHz	28 MHz	14 MHz	28 MHz
	↓	↓	↓	↓
	14 MHz	28 MHz	28 MHz	28 MHz
0	50	50	60	60
14	35	45	40	55

3. Protection ratios between analogue systems.

Frequency Offset (MHz)	PROTECTION RATIO (dB)
	Analogue Interferer Tx → Analogue Victim Rx
	28 MHz → 28 MHz
0	60
14	50

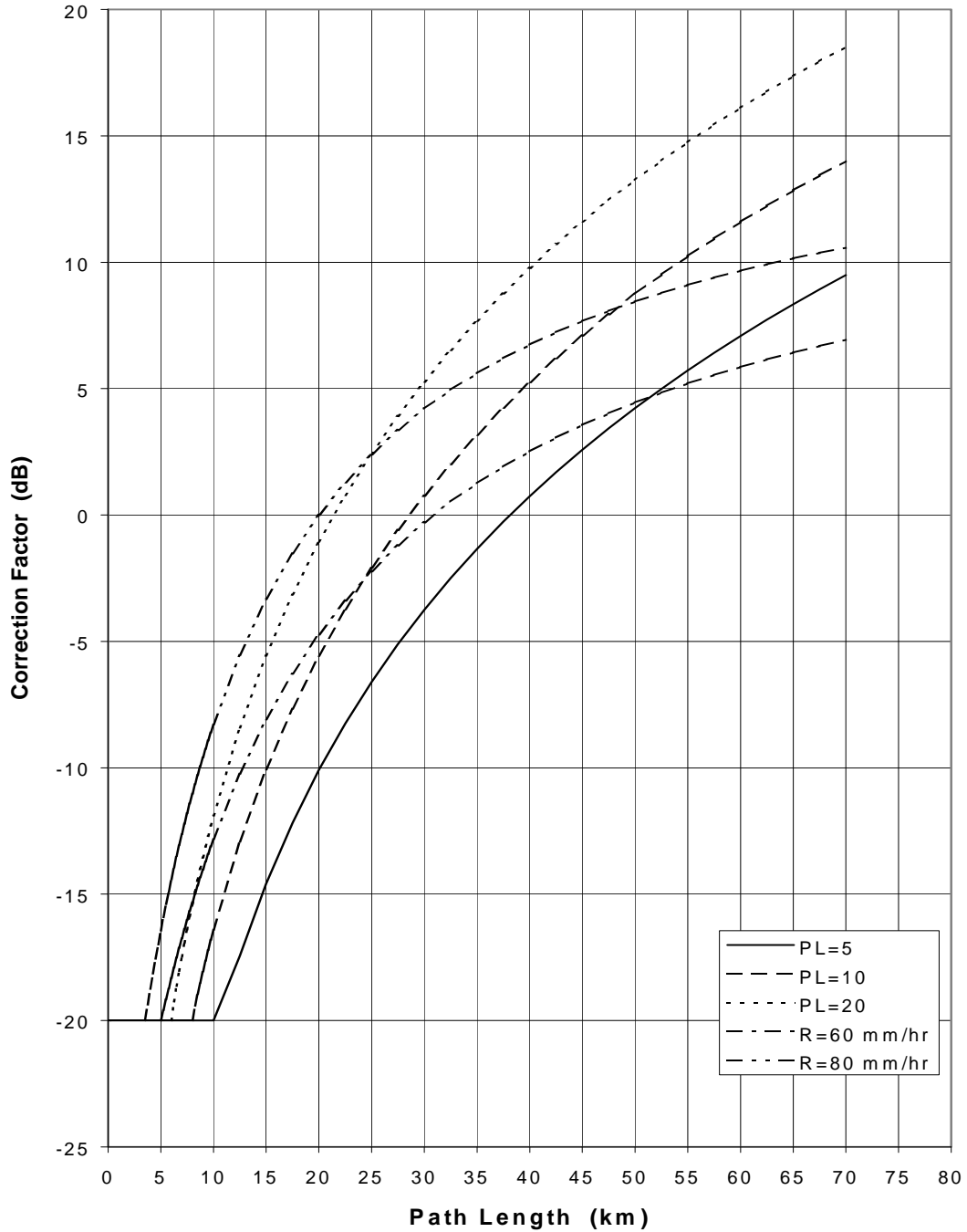
Notes:

1. Protection ratios for digital systems are based on a 20 km path length and R (*Rainfall rate in mm/hr for 0.01% of the worst month*) of 80 mm/hr. For other path lengths, rainfall rates and 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*) values refer to the appropriate protection ratio correction factors graph on the following page.

THE 13 GHz BAND (12.75 - 13.25 GHz)

PROTECTION RATIO CORRECTION FACTORS

RAIN AND 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.

R: Rainfall rate in mm/hr for 0.01% of the worst month. For further details refer to Annex A to Appendix 1.