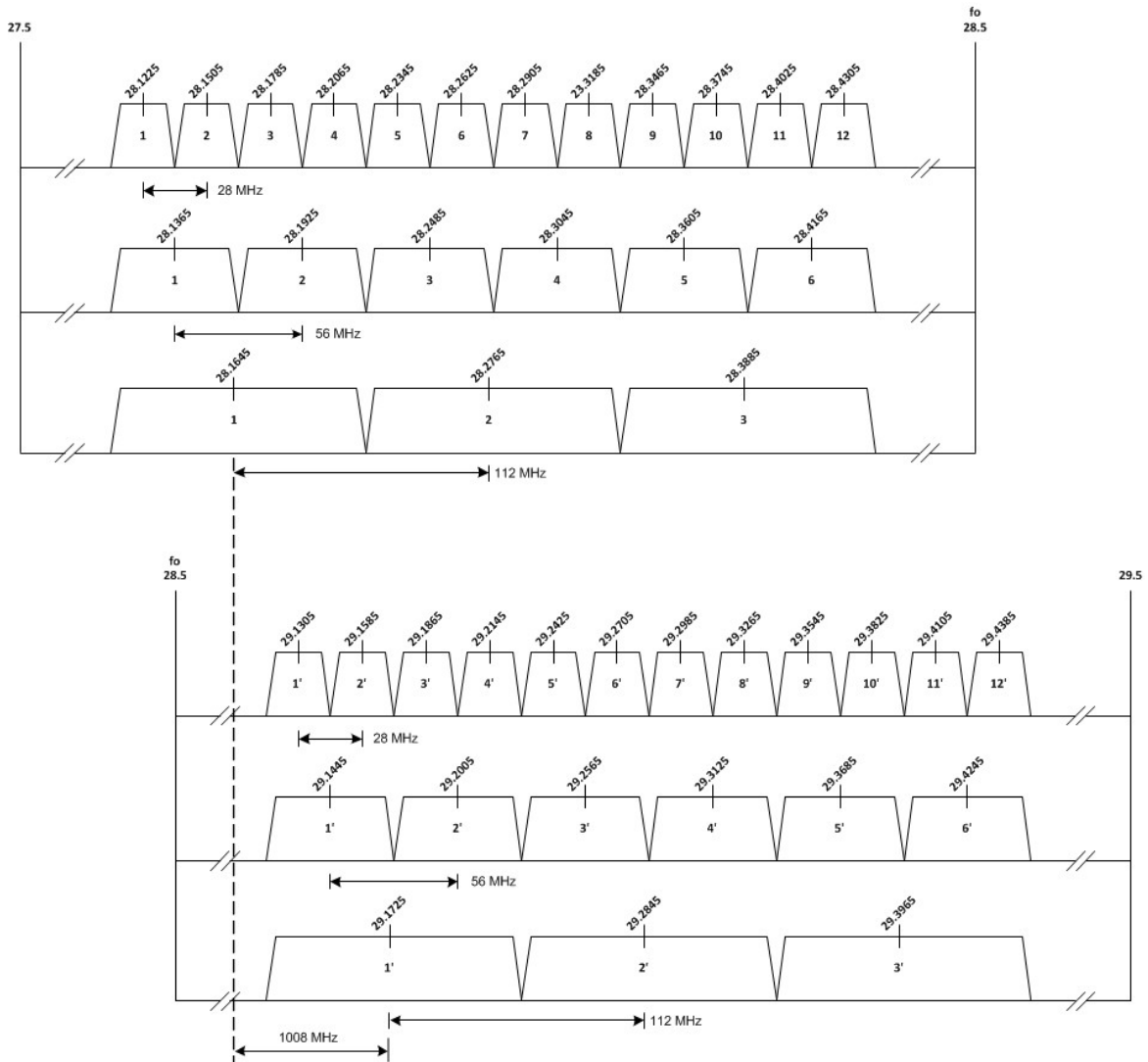


# THE 28 GHz BAND (27.5 – 29.5 GHz)

## RF CHANNEL ARRANGEMENTS



CHANNEL CENTRE FREQUENCIES (GHz)											
28 MHz Channels				56 MHz Channels				112 MHz Channels			
1	1'	28.1225	29.1305	1	1'	28.1365	29.1445	1	1'	28.1645	29.1725
2	2'	28.1505	29.1585								
3	3'	28.1785	29.1865	2	2'	28.1925	29.2005				
4	4'	28.2065	29.2145								
5	5'	28.2345	29.2425	3	3'	28.2485	29.2565	2	2'	28.2765	29.2845
6	6'	28.2625	29.2705								
7	7'	28.2905	29.2985	4	4'	28.3045	29.3125				
8	8'	28.3185	29.3265								
9	9'	28.3465	29.3545	5	5'	28.3605	29.3685	3	3'	28.3885	29.3965
10	10'	28.3745	29.3825								
11	11'	28.4025	29.4105	6	6'	28.4165	29.4245				
12	12'	28.4305	29.4385								

**THE 28 GHz BAND (27.5 – 29.5 GHz)**

**ASSIGNMENT INSTRUCTIONS**

**Effective 23 September 2019, no new assignments may be made in this band**

## THE 28 GHz BAND (27.5 – 29.5 GHz)

### PROTECTION RATIOS

Protection ratios required between digital systems operating in various channel bandwidths (with offset between centre frequencies  $\Delta f$ ) are provided in the tables below

1. Protection ratios required for 28 MHz channels.

Frequency Offset (MHz)	28 MHz → 28 MHz	56 MHz → 28 MHz	112 MHz → 28 MHz
0	64		
14		61	58
28	35		
42		34	57
56	14		
70		17	34
98		10	17
126		9	14
154			12
184			7
210			6

2. Protection ratios required for 56 MHz channels.

Frequency Offset (MHz)	28 MHz → 56 MHz	56 MHz → 56 MHz	112 MHz → 56 MHz
0		64	
14	64		
28			61
42	38		
56		35	
70	14		
84			34
98	9		
112		14	
126	9		
140			17

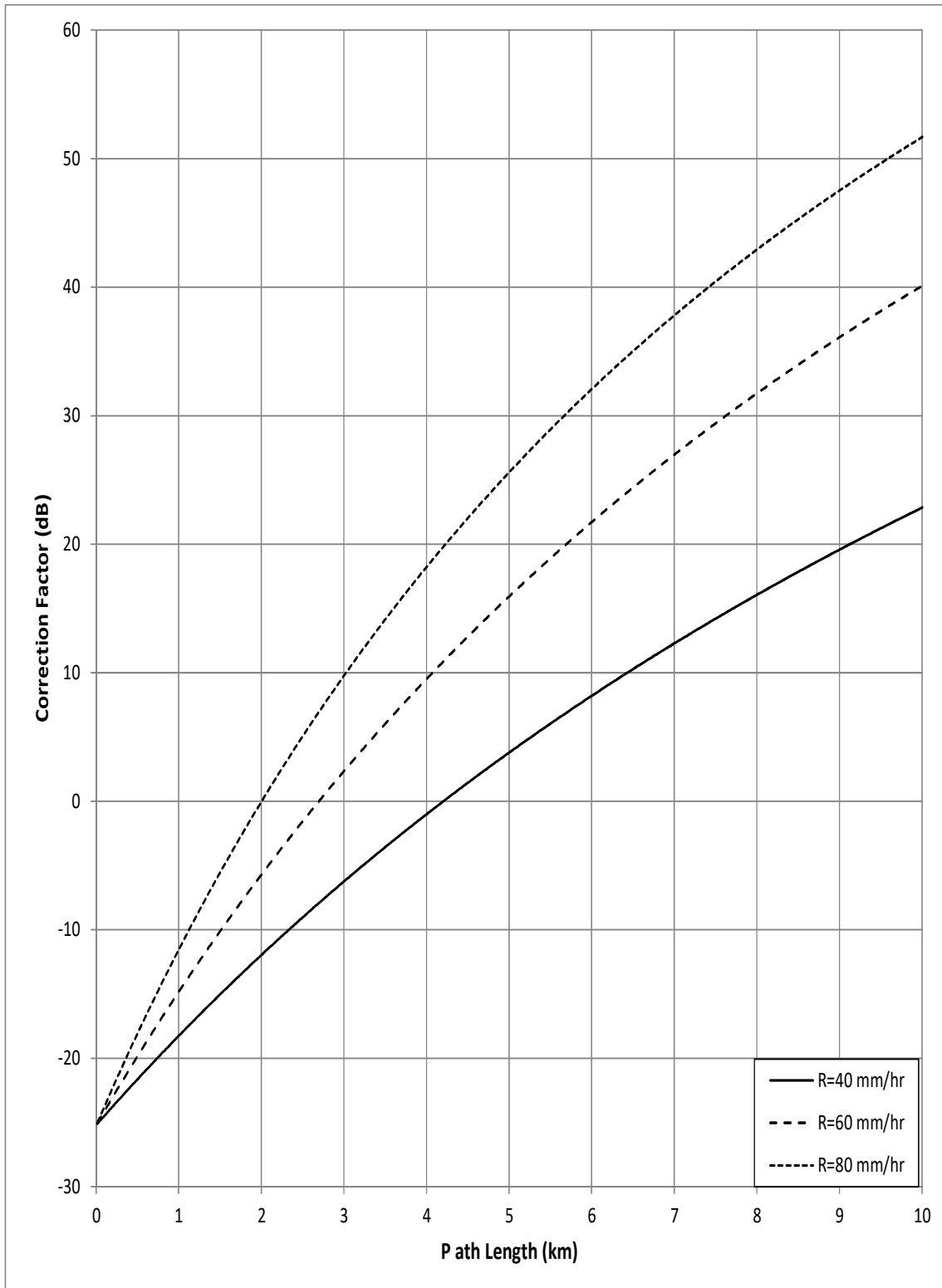
3. Protection ratios required for 112 MHz channels.

Frequency Offset (MHz)	28 MHz → 112 MHz	56 MHz → 112 MHz	112 MHz → 112 MHz
0			64
14	65		
28		64	
42	63		
70	43		
84		38	
98	13		
112			35
126	9		
140		14	
154	9		
196		9	
224			14

Notes:

1. Protection ratio for digital systems are based on a 2 km path length and R (Rainfall rate in mm/hr for 0.01% of the worst month) of 80 mm/hr using Recommendation ITU-R P.530-15, Section 2.4 as outlined in spectrum planning report SPP 2014/07. For other path lengths and rainfall rates refer to the appropriate path length correction factors graph on the following page, these are calculated in accordance with RALI FX 3 Appendix 4, section 4.1.3.

**THE 28 GHz BAND (27.5 – 29.5 GHz)**  
**PROTECTION RATIO CORRECTION FACTORS**  
**RAIN FADE**



R: Rainfall rate in mm/hr for 0.01% of the worst month.

For further details refer to Annex A to Appendix 1.