Appendix E

SPECIFICATION OF FURTHER $\mathcal{L}$-PATH CHANNEL MODELS ACCORDING TO COST 207

In addition to the 4-path and 6-path channel models presented in Table 7.3, further $\mathcal{L}$-path channel models have been specified by COST 207 [COS89]. They are quoted in this appendix for completeness.

Table E.1:   Rural Area.

Path no. ℓ	Propagation delay τ'_ℓ	Path power		Category of the Doppler PSD	Delay spread $B^{(2)}_{\tau'\tau'}$
		(lin.)	(dB)		
Rural Area: 6-path channel model (alternative)					
0	0 μs	1	0	"Rice"	
1	0.1 μs	0.4	-4	"Jakes"	
2	0.2 μs	0.16	-8	"Jakes"	0.1 μs
3	0.3 μs	0.06	-12	"Jakes"	
4	0.4 μs	0.03	-16	"Jakes"	
5	0.5 μs	0.01	-20	"Jakes"	

Table E.2:   Typical Urban.

Path no. ℓ	Propagation delay τ'_ℓ	Path power (lin.)	(dB)	Category of the Doppler PSD	Delay spread $B^{(2)}_{\tau'\tau'}$
(i) Typical Urban: 12-path channel model					
0	0.0 μs	0.4	-4	"Jakes"	
1	0.2 μs	0.5	-3	"Jakes"	
2	0.4 μs	1	0	"Jakes"	
3	0.6 μs	0.63	-2	"Gauss I"	
4	0.8 μs	0.5	-3	"Gauss I"	
5	1.2 μs	0.32	-5	"Gauss I"	1.0 μs
6	1.4 μs	0.2	-7	"Gauss I"	
7	1.8 μs	0.32	-5	"Gauss I"	
8	2.4 μs	0.25	-6	"Gauss II"	
9	3.0 μs	0.13	-9	"Gauss II"	
10	3.2 μs	0.08	-11	"Gauss II"	
11	5.0 μs	0.1	-10	"Gauss II"	
(ii) Typical Urban: 12-path channel model (alternative)					
0	0.0 μs	0.4	-4	"Jakes"	
1	0.1 μs	0.5	-3	"Jakes"	
2	0.3 μs	1	0	"Jakes"	
3	0.5 μs	0.55	-2.6	"Jakes"	
4	0.8 μs	0.5	-3	"Gauss I"	
5	1.1 μs	0.32	-5	"Gauss I"	1.0 μs
6	1.3 μs	0.2	-7	"Gauss I"	
7	1.7 μs	0.32	-5	"Gauss I"	
8	2.3 μs	0.22	-6.5	"Gauss II"	
9	3.1 μs	0.14	-8.6	"Gauss II"	
10	3.2 μs	0.08	-11	"Gauss II"	
11	5.0 μs	0.1	-10	"Gauss II"	
(iii) Typical Urban: 6-path channel model (alternative)					
0	0.0 μs	0.5	-3	"Jakes"	
1	0.2 μs	1	0	"Jakes"	
2	0.5 μs	0.63	-2	"Jakes"	1.0 μs
3	1.6 μs	0.25	-6	"Gauss I"	
4	2.3 μs	0.16	-8	"Gauss II"	
5	5.0 μs	0.1	-10	"Gauss II"	

Table E.3:   Bad Urban.

Path no. ℓ	Propagation delay τ'_ℓ	Path power (lin.)	Path power (dB)	Category of the Doppler PSD	Delay spread $B^{(2)}_{\tau'\tau'}$
(i) Bad Urban: 12-path channel model					
0	0.0 μs	0.2	-7	"Jakes"	
1	0.2 μs	0.5	-3	"Jakes"	
2	0.4 μs	0.79	-1	"Jakes"	
3	0.8 μs	1	0	"Gauss I"	
4	1.6 μs	0.63	-2	"Gauss I"	
5	2.2 μs	0.25	-6	"Gauss II"	2.5 μs
6	3.2 μs	0.2	-7	"Gauss II"	
7	5.0 μs	0.79	-1	"Gauss II"	
8	6.0 μs	0.63	-2	"Gauss II"	
9	7.2 μs	0.2	-7	"Gauss II"	
10	8.2 μs	0.1	-10	"Gauss II"	
11	10.0 μs	0.03	-15	"Gauss II"	
(ii) Bad Urban: 12-path channel model (alternative)					
0	0.0 μs	0.17	-7.7	"Jakes"	
1	0.1 μs	0.46	-3.4	"Jakes"	
2	0.3 μs	0.74	-1.3	"Jakes"	
3	0.7 μs	1	0	"Gauss I"	
4	1.6 μs	0.59	-2.3	"Gauss I"	
5	2.2 μs	0.28	-5.6	"Gauss II"	2.5 μs
6	3.1 μs	0.18	-7.4	"Gauss II"	
7	5.0 μs	0.72	-1.4	"Gauss II"	
8	6.0 μs	0.69	-1.6	"Gauss II"	
9	7.2 μs	0.21	-6.7	"Gauss II"	
10	8.1 μs	0.1	-9.8	"Gauss II"	
11	10.0 μs	0.03	-15.1	"Gauss II"	
(iii) Bad Urban: 6-path channel model (alternative)					
0	0.0 μs	0.56	-2.5	"Jakes"	
1	0.3 μs	1	0	"Jakes"	
2	1.0 μs	0.5	-3	"Gauss I"	2.5 μs
3	1.6 μs	0.32	-5	"Gauss I"	
4	5.0 μs	0.63	-2	"Gauss II"	
5	6.6 μs	0.4	-4	"Gauss II"	

Table E.4:   Hilly Terrain.

Path no. ℓ	Propagation delay τ'_ℓ	Path power		Category of the Doppler PSD	Delay spread $B^{(2)}_{\tau'\tau'}$
		(lin.)	(dB)		
(i) Hilly Terrain: 12-path channel model					
0	0.0 μs	0.1	-10	"Jakes"	
1	0.2 μs	0.16	-8	"Jakes"	
2	0.4 μs	0.25	-6	"Jakes"	
3	0.6 μs	0.4	-4	"Gauss I"	
4	0.8 μs	1	0	"Gauss I"	
5	2.0 μs	1	0	"Gauss I"	5.0 μs
6	2.4 μs	0.4	-4	"Gauss II"	
7	15.0 μs	0.16	-8	"Gauss II"	
8	15.2 μs	0.13	-9	"Gauss II"	
9	15.8 μs	0.1	-10	"Gauss II"	
10	17.2 μs	0.06	-12	"Gauss II"	
11	20.0 μs	0.04	-14	"Gauss II"	
(ii) Hilly Terrain: 12-path channel model (alternative)					
0	0.0 μs	0.1	-10	"Jakes"	
1	0.1 μs	0.16	-8	"Jakes"	
2	0.3 μs	0.25	-6	"Jakes"	
3	0.5 μs	0.4	-4	"Jakes"	
4	0.7 μs	1	0	"Gauss I"	
5	1.0 μs	1	0	"Gauss I"	
6	1.3 μs	0.4	-4	"Gauss I"	5.0 μs
7	15.0 μs	0.16	-8	"Gauss II"	
8	15.2 μs	0.13	-9	"Gauss II"	
9	15.7 μs	0.1	-10	"Gauss II"	
10	17.2 μs	0.06	-12	"Gauss II"	
11	20.0 μs	0.04	-14	"Gauss II"	
(iii) Hilly Terrain: 6-path channel model (alternative)					
0	0.0 μs	1	0	"Jakes"	
1	0.1 μs	0.71	-1.5	"Jakes"	
2	0.3 μs	0.35	-4.5	"Jakes"	
3	0.5 μs	0.18	-7.5	"Jakes"	5.0 μs
4	15 μs	0.16	-8.0	"Gauss II"	
5	17.2 μs	0.02	-17.7	"Gauss II"	