

# Channel with 33 dB at 7GHz for KP4

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# Synthesized 33 dB channel composed out of legacy material

- [http://iee802.org/3/bj/public/jan12/kochuparambil\\_01a\\_0112.pdf](http://iee802.org/3/bj/public/jan12/kochuparambil_01a_0112.pdf)

Legacy KR  
Material



## Put a Stake in the Ground

- How should parameters be used?
  - Single parameter – quick calculation
  - Advanced simulation - ballpark check
- Suggest using the Algebraic Model for channel exploration
  - Compared to measurement by multiple companies
  - Ver. 2.02 includes surface roughness and A+B+C architecture

Attenuation* (dB/in) at:	1 GHz	6.5 GHz	7 GHz	12.89 GHz	14 GHz
Meg6_LowSR – Wide	0.0951	0.4159	0.4433	0.7562	0.8127
Meg6_LowSR – Narrow	0.1466	0.5849	0.6205	1.0152	1.0847
Meg6_HighSR – Wide	0.1175	0.5960	0.6367	1.0891	1.1688
Meg6_HighSR – Narrow	0.1856	0.8971	0.9557	1.5924	1.7020
ImpFR4_LowSR – Wide	0.1202	0.6096	0.6541	1.1772	1.2734
ImpFR4_LowSR – Narrow	0.1717	0.7794	0.8323	1.4410	1.5512
ImpFR4_HighSR – Wide	0.1427	0.7904	0.8484	1.5158	1.6367
ImpFR4_HighSR – Narrow	0.2106	1.0930	1.1692	2.0283	2.1813

PROPOSED PARAMETERS;  
GRAPHS ON PREVIOUS SLIDE

\*using Algebraic Model v2.02a – see backup slides for values entered in Model

# Insertion Loss: 33.2 dB at 7 GHz

