Extended Range-&-Bearing Receivers

Table 1: The bearing error is modeled as white noise in the estimation of the bearing of a broadcasting peer and is sampled from a uniform probability distribution, of which we list here the extremes of the support. The loss probability is a function of the number of neighboring peers—see Fig. 1.

Range-&-Bearing Receivers R_{rb}^x	Bearing Error $(\pm \deg)$	$\begin{array}{c} \textbf{Loss Probability} \\ min-avg-max \end{array}$	Price $P_x \in$	$\begin{array}{c} \textbf{Current Rating} \\ I_x \ (\text{mA}) \end{array}$
Ø	_	_	0	0
R^1_{rb}	45	0.75 - 0.84 - 0.95	500	10
R_{rb}^2	30	0.75 - 0.85 - 0.90	600	15
R_{rb}^3	25	0.75 - 0.80 - 0.93	700	20
R_{rb}^4	20	0.70 - 0.78 - 0.85	800	25
R_{rb}^5	15	0.50 - 0.64 - 0.75	900	30
R_{rb}^6	5	0.40 - 0.57 - 0.70	1000	35

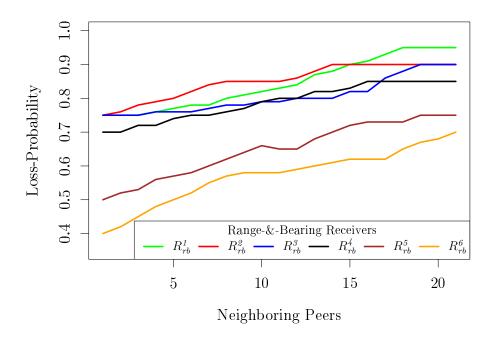


Figure 1: Loss-probability in extended range-&-bearing receivers.