Total Noise Background Contributions

July 4, 2001

This assumes Offset Gregorian Optics.

1 Reflector Noise

Source	Fraction	× 300K
Geometric Spillover	1%	3K
Diffraction Spillover	1%	3K
Surface Losses	0.3%	1K
Total		7K

2 Noise Totals

Source	fraction	× 300K
Antenna	2.3%	7.0
Feed	4.0%	12.0
Transition Line	5.0cm	2.5
Cold Line	25cm (80K)	2.2
T_{BB} + atm		6.0
T_{LNA}		15.0
Total T_{sys}		44.7K

$$G/T_{sys} = 144M^2/K \tag{1}$$