

Table 1: Design Parameters

No.	Polarization	N	Loss (dB)	Cavity Width (um)	Cavity Length (um)	Grating Period (um)	Corrugation Width (um)
1	TE	125	1.50	0.5	300	0.317	0.08
2	TE	145	2.25	0.5	300	0.317	0.08
3	TE	165	3.0	0.5	300	0.317	0.08
4	TE	185	3.75	0.5	300	0.317	0.08
5	TE	205	4.5	0.5	300	0.317	0.08
6	TE	225	5.25	0.5	300	0.317	0.08
7	TE	245	6.0	0.5	300	0.317	0.08
8	TM	125	6.0	0.5	150	0.317	0.08

Table 2: Design Results

No.	Quality Factor	FSR (m)	Bandwidth (m)	Comments
1	0.0929e6	1.54e-9	18e-12	Low propagation loss 1.5dB/cm; best case scenario
2	0.1e6	0.92e-9	15.2e-12	
3	0.106e6	0.92e-9	14.4e-12	
4	0.109e6	0.92e-9	14.4e-12	
5	0.108e6	0.92e-9	14.1e-12	
6	0.108e6	0.92e-9	14.1e-12	
7	0.11e6	0.92e-9	14.3e-12	Grating number increased/increase reflectivity to account for possible higher propagation loss.
8	0.066e6	1.76e-9	24.28e-12	Experiment with TM with Design 1 values