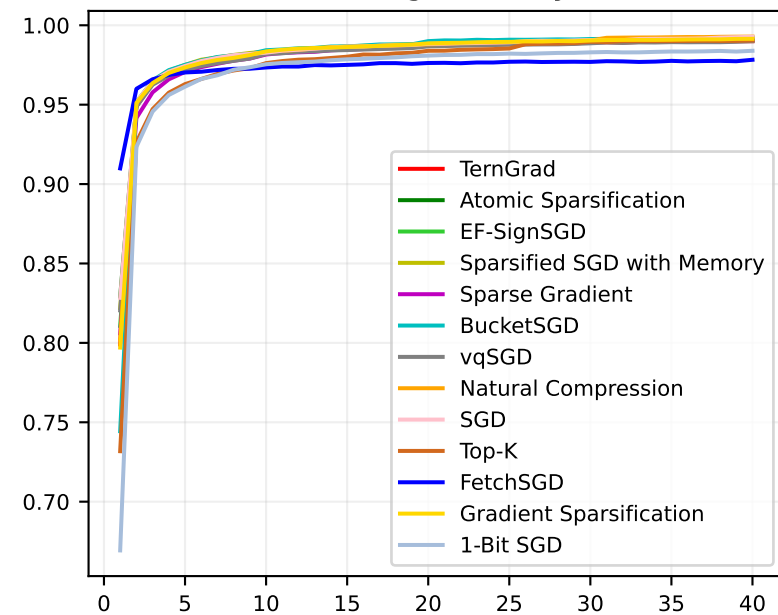
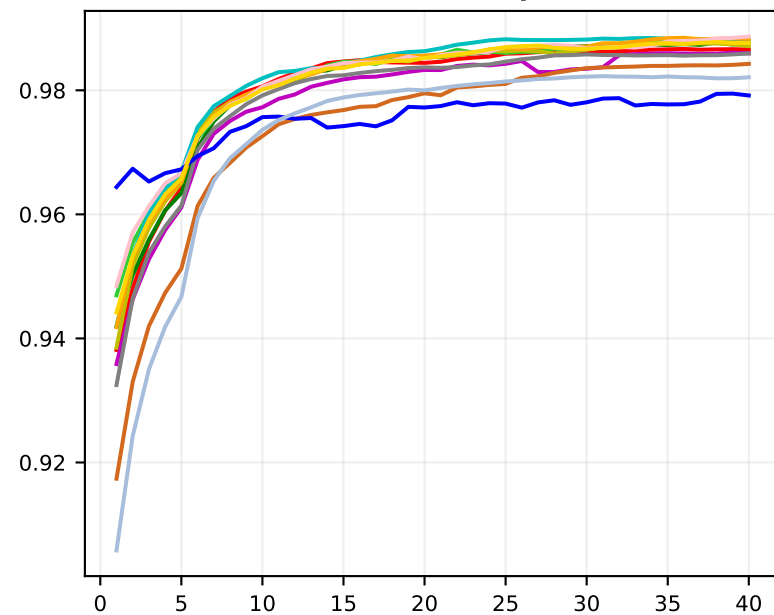


BASELINE_LENET

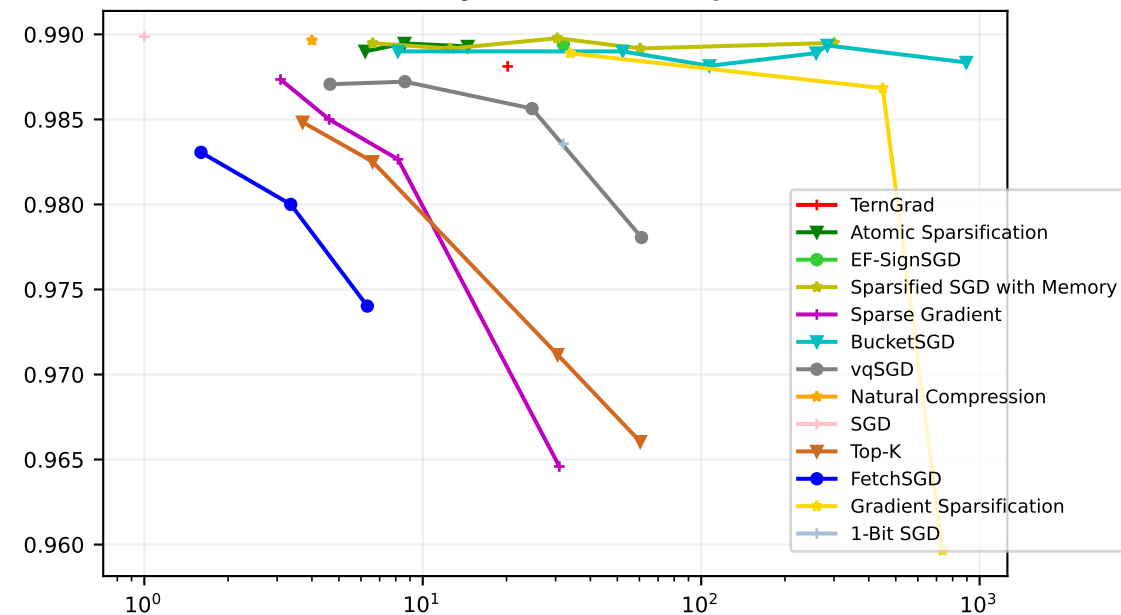
Training Accuracy



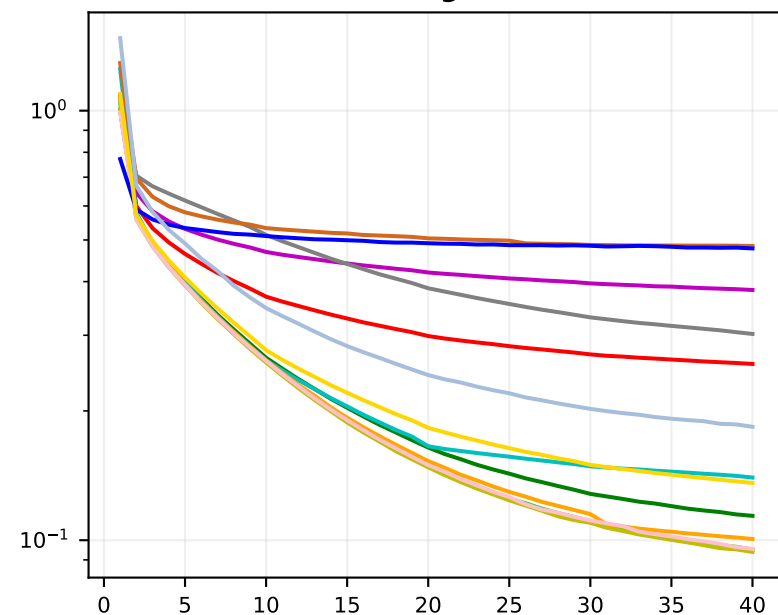
Test Accuracy



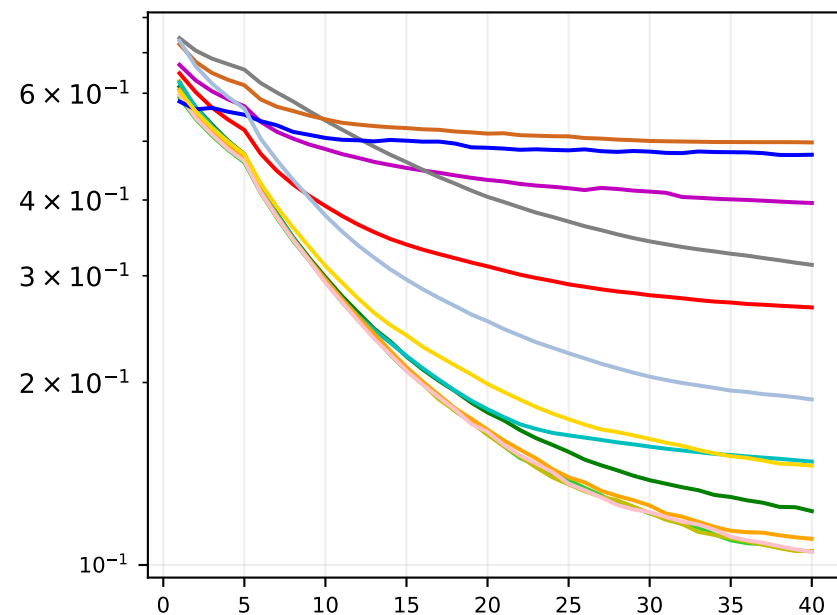
Test Accuracy vs Overall Compression



Training Loss



Test Loss



| Method | Test Acc | Compression Ratio |
|----------------------------|----------|-------------------|
| SGD | 98.99 | 1.0 |
| Sparsified SGD with Memory | 98.98 | 30.4 |
| Natural Compression | 98.96 | 4.0 |
| Atomic Sparsification | 98.95 | 8.6 |
| EF-SignSGD | 98.94 | 32.0 |
| BucketSGD | 98.93 | 283.9 |
| Gradient Sparsification | 98.89 | 33.9 |
| TernGrad | 98.81 | 20.2 |
| Sparse Gradient | 98.74 | 3.1 |
| vqSGD | 98.72 | 8.6 |
| Top-K | 98.48 | 3.7 |
| 1-Bit SGD | 98.36 | 32.0 |
| FetchSGD | 98.31 | 1.6 |