type	filter size/stride	output size
convolution	11× 11 / 4	96 × 54 × 54
convolution	1× 1 / 1	96 × 54 × 54
max pool	3× 3 / 2	96 × 27 × 27
convolution	5× 5 / 2	256 × 27 × 27
convolution	1× 1 / 1	256 × 27 × 27
max pool	3× 3 / 2	256 × 13 × 13
convolution	3× 3 / 1	384 × 13 × 13
convolution	1× 1 / 1	384 × 13 × 13
max pool	3× 3 / 2	384 × 6 × 6
convolution	3× 3 / 1	1024 × 6 × 6
convolution	1 × 1 / 1	(50 × # bits) × 6 × 6
ave pool	6× 6 / 1	(50 × # bits) × 1 × 1