

FBNetV2 Supplementary Materials

Model	Input	Flops	Top-1 (%)
FBNetV2-F1	128	56M	68.3
FBNetV2-F2	160	85M	71.1
FBNetV2-F3	192	126M	73.2
FBNetV2-F4	224	238M	76.0
FBNetV2-L1	224	325M	77.2
FBNetV2-L2	256	422M	78.1

Table 1: **ImageNet FLOP-efficient classification:** These are the FBNetV2 models yielded by DMaskingNAS optimizing for FLOP count and accuracy.

Model	Input	Params	Top-1 (%)
FBNetV2-P1	288	2.64M	73.9
FBNetV2-P2	288	2.99M	74.8
FBNetV2-P3	288	4.00M	75.9

Table 2: **ImageNet parameter-efficient classification:** These are the FBNetV2 models yielded by DMaskingNAS optimizing for parameter count and accuracy.

1. FBNetV2 on ImageNet

We include numeric results for all three categories of FBNetV2s, optimized for various resource constraints: FLOP-efficient FBNetV2-F and large FBNetV2-L in Table 1, parameter-efficient FBNetV2-P in Table 2. See the main manuscript for comparison with previously state-of-the-art results.

2. Macro-architecture Search Spaces

We list the DMaskingNAS macro-architecture search spaces for all three categories of FBNetV2s, optimized for various resource constraints: FLOP-efficient FBNetV2-F in Table 4, parameter-efficient FBNetV2-P in Table 5, and large FBNetV2-L in Table 3. Note that in all classes of models, the micro-architecture search space over blocks remains the same.

Table 3: Macro-architecture for our largest search space for **FBNetV2-L**, describing block type b , block expansion rate e , number of filters f , number of blocks n . “TBS” means layer type needs to be searched. Tuples of three values additionally represent steps between options (low, high, steps). The maximum input resolution for FBNetV2-L is 256.

Max. Input	b	e	f	n	s
$256^2 \times 3$	3x3	1	16	1	2
$128^2 \times 16$	TBS	1	(12, 16, 4)	1	1
$128^2 \times 16$	TBS	(0.75, 3.25, 0.5)	(16, 28, 4)	1	2
$64^2 \times 28$	TBS	(0.75, 3.25, 0.5)	(16, 28, 4)	2	1
$64^2 \times 28$	TBS	(0.75, 3.25, 0.5)	(16, 40, 8)	1	2
$32^2 \times 40$	TBS	(0.75, 3.25, 0.5)	(16, 40, 8)	2	1
$32^2 \times 40$	TBS	(0.75, 3.75, 0.5)	(48, 96, 8)	1	2
$16^2 \times 96$	TBS	(0.75, 3.75, 0.5)	(48, 96, 8)	2	1
$16^2 \times 96$	TBS	(0.75, 4.5, 0.75)	(72, 128, 8)	4	1
$16^2 \times 128$	TBS	(0.75, 4.5, 0.75)	(112, 216, 8)	1	2
$8^2 \times 216$	TBS	(0.75, 4.5, 0.75)	(112, 216, 8)	3	1
$8^2 \times 216$	1x1	-	1984	1	1
$8^2 \times 1984$	avgpl	-	-	1	1
1984	fc	-	1000	1	-

Table 4: Macro-architecture for our FLOP-efficient search space for **FBNetV2-F**. The maximum input resolution for FBNetV2-F is 224. See Table 3 for column names.

Max. Input	b	e	f	n	s
$224^2 \times 3$	3x3	1	16	1	2
$112^2 \times 16$	TBS	1	(12, 16, 4)	1	1
$112^2 \times 16$	TBS	(0.75, 4.5, 0.75)	(16, 24, 4)	1	2
$56^2 \times 24$	TBS	(0.75, 4.5, 0.75)	(16, 24, 4)	2	1
$56^2 \times 24$	TBS	(0.75, 4.5, 0.75)	(16, 40, 8)	1	2
$28^2 \times 40$	TBS	(0.75, 4.5, 0.75)	(16, 40, 8)	2	1
$28^2 \times 40$	TBS	(0.75, 4.5, 0.75)	(48, 80, 8)	1	2
$14^2 \times 80$	TBS	(0.75, 4.5, 0.75)	(48, 80, 8)	2	1
$14^2 \times 80$	TBS	(0.75, 4.5, 0.75)	(72, 112, 8)	3	1
$14^2 \times 112$	TBS	(0.75, 4.5, 0.75)	(112, 184, 8)	1	2
$7^2 \times 184$	TBS	(0.75, 4.5, 0.75)	(112, 184, 8)	3	1
$7^2 \times 184$	1x1	-	1984	1	1
$7^2 \times 1984$	avgpl	-	-	1	1
1984	fc	-	1000	1	-

Table 5: Macro-architecture for our parameter-efficient search space for **FBNetV2-P**. The maximum input resolution for FBNetV2-P is 288. See Table 3 for column names.

Max. Input	b	e	f	n	s
$288^2 \times 3$	3x3	1	32	1	2
$144^2 \times 16$	TBS	1	(16, 28, 4)	1	1
$144^2 \times 28$	TBS	(0.75, 4.5, 0.75)	(16, 40, 4)	1	2
$72^2 \times 40$	TBS	(0.75, 4.5, 0.75)	(16, 40, 4)	2	1
$72^2 \times 40$	TBS	(0.75, 4.5, 0.75)	(16, 48, 8)	1	2
$36^2 \times 48$	TBS	(0.75, 4.5, 0.75)	(16, 48, 8)	2	1
$36^2 \times 48$	TBS	(0.75, 4.5, 0.75)	(48, 96, 8)	1	2
$18^2 \times 96$	TBS	(0.75, 4.5, 0.75)	(48, 96, 8)	2	1
$18^2 \times 96$	TBS	(0.75, 4.5, 0.75)	(72, 128, 8)	4	1
$18^2 \times 128$	TBS	(0.75, 4.5, 0.75)	(112, 216, 8)	1	2
$9^2 \times 216$	TBS	(0.75, 4.5, 0.75)	(112, 216, 8)	3	1
$9^2 \times 216$	TBS	(0.75, 4.5, 0.75)	(112, 216, 8)	1	1
$9^2 \times 216$	1x1	-	1280	1	1
$9^2 \times 1280$	avgpl	-	-	1	1
1280	fc	-	1000	1	-