	I							ı	1				
face_detect (mobilenet			SNPE1.19-	SNPE1.19-	SNPE1.19-								
V2SSD)	face_kpoint	All ops	CPU	GPU	DSP	tensorflow-lite	hexagon Nnlib	android NNAPI (red ops added for androidP)	hvx hal1.0	arm nn hal1.0	Mi-MACE	tencent-NCNN	baidu-MDL
		ArgMax	✓	X	X								
(tensorflow-													
lite和NNAPI													
不支持BN													
、需要修改													
模型重新训													
练,将BN													
合并进CON													
V、FC,htt		Batch normalization (+ Scaling)	✓	✓	√ (?)								
ps://omid.a													
I/posts/201													
7-02-20- Tutorial-													
Build-Your-													
First-													
Tensorflow-													
Android-													
App.html)													
		Channel Shuffle	√	√	✓								
اــــــــا		Color space conversion	✓.	✓.	✓.		L		_				
<i>v</i>	.,	Concatenation	V	V	V		√ ✓	v v	<u>۷</u>	v			
_	<i>v</i>	Convolution	V.	V.	√.		<i>v</i>	V	<i>V</i>	<i>V</i>			
\vdash		CrossMap Response Normalization	√ √	√ √	√ √		1						1
		Deconvolution	<i>y</i>	<i>y</i>	<i>y</i>		J				l		
V		Depthwise Convolution	V	V	V		ž	v	v	V			
✓ (SSDA [®])													
特殊layer,													
tflite/androi	1		1	1									1
d NNX ++++	1		1	1									1
NN不支持	1		1	1									1
-> 10.27号相	1		1	1									1
10.27 5 fti 关提交: ht	1		1	1									1
tps://github													
.com/tensor	1		1	1									1
flow/tensor	1	Detection Output	✓	×	x								1
flow/comm	1		1	1									1
it/325bac3d	1		1	1									1
629d1a9155													
38093eb11f a526b52fa1													
de#diff-													
de#dift- c748d758eb	1		1	1									1
53ac58d70a	1		1	1			1						1
13e07e02c6	1		1	1									1
db)	<u></u>		<u></u>	<u> </u>			<u> </u>		<u> </u>	<u></u>	<u></u>		<u></u>
		Dropout	n/a	n/a	n/a								
								ANEURALNETWORKS_ADD					
				_				ANEURALNETWORKS_MUL					
		Elementwise	✓	✓	<i>y</i>			ANEURALNETWORKS_DIV ANEURALNETWORKS_SUB					
							mul	ANEURALNETWORKS_SUB ANEURALNETWORKS_FLOOR	✓ (add, mul)	(add mul)			
		Elu	V	V	x		mu	ANEONAENETWORKS_TEOOR	(auu, mui)	(auu', IIIui)			
		Flatten	<i>y</i>	<i>y</i>	<i>y</i>		V						
		Fully connected	V	V	V		V	v	V	V			
		Input	V	√	✓		V						
		InstanceNorm	V	√	√		✓						
		Local Response Normalization (LRN)	√	√	✓		✓	√		V			
		LSTM	V	V	X			·		v			
		Mean Subtraction	V	V	√								
\vdash		Normalize Output	n/a	√ n/a	n/a		~						
✓ (tflite/a				/	-7.00		-						
ndroid	1				١,								1
NN不支持	1	Permute	✓	✓	✓		1						1
)													
	✓ (both max&avg)		✓	√	✓		√(both max&avg)	√ (both maxSavg)	√ (both max&avg)	√(both mas&avg)			
		Power	√.	√.	√ (?)								
\vdash		Prelu Prior Box	√ n/a	√ n/a	√ n/a		V						-
			ry d	rigid.	n/a √		1						-
1		Proposal									 		-
~		Proposal Relu	V	· √	J		✓.relu.relux	✓(relu.relu1.relu6)	✓(relu.relu1 relu6	(relu.relu1 relu6)			
v v	v	Relu Reshape		<i>y</i>	<i>y</i>		✓,relu,relux	✓ (relu,relu1,relu6)	✓(relu,relu1,relu6	✓ (relu,relu1,relu6)			
V V	V	Relu Reshape ROI Pooling	√ √	У У Х			✓,relu,relux	✓(relu,relu1,relu6) ✓	V	✓ (relu,relu1,relu6) ✓			
<i>V</i>	V	Relu Reshape	> > > >	У х У	√ √ √		√ <i>∨</i>	✓ ✓ (logistie)	✓ (relu,relu1,relu6 ✓	✓ (relu,relu1,relu6) ✓ (logistic)			
<i>V</i>	<i>V</i>	Relu Reshape ROI Pooling Sigmold	\frac{1}{\sqrt{2}}	√ × √	<i>y y y</i>		√ ✓	J (logistic)	V	✓ (logistic)			
v v	<i>V</i>	Relu Reshape ROI Pooling Sigmold Tanh Scale (Image)	> > > >	У х У	\rightarrow \forall \cdot \for		√ ✓	✓ ✓ (logistie)	V	<i>y</i>			
v v	v •	Rehi Reshape ROI Fooling Sigmoid Tanh Scale (Image) Scale	√ √ √ √ √ ×	У × У У	> > > > >		√ ✓	J (logistic)	V	✓ (logistic)			
v v	<i>'</i>	Retu Reshape RXI Pooling Symold Tash Scale (Image) Scale (State)	\frac{\sqrt{\sq}\sqrt{\sq}}}}}}}}\sqrt{\sq}}}}}}}}}\signt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	X V V V X n/a	√ √ √ √ √ √		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	J (logistic)	V	✓ (logistic)			
v v	v	Rehi Reshape ROI Fooling Sigmoid Tanh Scale (Image) Scale	V V V V V V X n/a	√ × √ √ √ × n/a	√ √ √ √ √ √		√ ✓	J (logistic)	V	✓ (logistic)			
v v	v	Rebr Reshape 80 Feoling Sigmoid Tanh Soale (Image) Soale Sience Sience	\frac{\sqrt{\sq}\sqrt{\sq}}}}}}}}\sqrt{\sq}}}}}}}}}\signt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	X V V V X n/a	√ √ √ √ √ √		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ (logistic) ✓ (resize_bilinear)	V	✓ (legistic) ✓ (resize_bilinear)			
v v	v	Relair Reshape RCD Peoling Sprood Tash State (Impop) State Stere Store Store Store	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ (logistic) ✓ (resize_bilinear)	V	✓ (legistic) ✓ (resize_bilinear)			
v v	V	Rebu Rehape ROD Paoling Symoid Izoh Sozia (Imago) Sozia (Sozia Sozia (Sozia Sozia Soz	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	√ (tegistic) ✓ (tegistic) ✓ (resize bilinear) ✓ √	V	V (legistic) V (resize_bilinear) V			
v v	V	Returner Recharge Robring Symmoti Train Spale (Image) Spale (Image) Spale (Image) Spale Softmax The Train Country (Image) Spale Spal	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	√ (logistic) ✓ (resize_bilinear) ✓ √ ✓ √ ✓ √ ✓ √	V	✓ (legistie) ✓ (resize_bilinear)			
v v	V	Rebu Rehape ROD Paoling Symoid Izoh Sozia (Imago) Sozia (Sozia Sozia (Sozia Sozia Soz	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	√ (logistic) √ (resize bilinear) ✓ (resize bilinear)	V	V (legistic) V (resize_bilinear) V			
v v	<i>V</i>	Returner Recharge Robring Symout Train State (Impay) Scale (Impay) Scale Stories Stori	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	√ (regists) √ (resize bilinear) ✓ (resize bilinear) ✓ (resize bilinear)	V	V (legistic) V (resize_bilinear) V			
v v	v	Rebu Rehaipe Roth Paoling Symoid Tesh Seria (Imago) Soite Soite (Soite Soite S	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		V V V (resize bilinear) V V V	√ (logista) √ (resize_bilinear) ✓ (resize_bilinear) ✓ / ✓ / ✓ / ✓ ANEURAINETWORKS_HASHTABLE_LOOKUP ANEURAINETWORKS_EMBEDDING_LOOKUP	V	V (legistic) V (resize_bilinear) V			
V V	v	Returner Recharge Robring Symout Train State (Impay) Scale (Impay) Scale Stories Stori	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		V V V (resize bilinear) V V V transpose	V (Inginish) V (resize bilinear) V (resize bilinear) V V A A A A A A A A A A A	V	V (legistic) V (resize_bilinear) V			
v v	v	Rebu Rehaipe Roth Paoling Symoid Tesh Seria (Imago) Soite Soite (Soite Soite S	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		V V (resize_bilinear) V V transpose strided_slice	✓ (Ingital-10) ✓ (Ingital-10) ✓ (resize_bilinear) ✓ (resize_bilinear) ✓ / ✓ / ✓ / ✓ ANEURALNETWORKS_HASHTABLE_LOOKUP ANEURALNETWORKS_SEMBEDDING_LOOKUP ANEURALNETWORKS_SEMBEDDING_LOOKUP ANEURALNETWORKS_STAMSPOSE	V	V (legistic) V (resize_bilinear) V			
V V	v	Rebu Rehaipe Roth Paoling Symoid Tesh Seria (Imago) Soite Soite (Soite Soite S	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		V V V (resize_bilinear) V V V transpose strided_slice pad	✓ (Ingital-10) ✓ (Ingital-10) ✓ (resize_bilinear) ✓ (resize_bilinear) ✓ / ✓ / ✓ / ✓ ANEURALNETWORKS_HASHTABLE_LOOKUP ANEURALNETWORKS_SEMBEDDING_LOOKUP ANEURALNETWORKS_STANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE ANEURALNETWORKS_TRANSPOSE	V	V (legistic) V (resize_bilinear) V			
V V	v	Rebu Rehaipe Roth Paoling Symoid Tesh Seria (Imago) Soite Soite (Soite Soite S	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		√ √ √ √ √ √ √ √ √ ✓ √ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	V (Ingistato) V (resize bilinear) V V AMELIRALISET WORKS HASHTABLE LOCKUP ANEURALISET WORKS SHASHTABLE LOCKUP ANEURALISET WORKS SHASHTABLE LOCKUP ANEURALISET WORKS SUBEREDING LOCKUP ANEURALISET WORKS SUBERED ANEURALISET WORKS STANSPOSE ANEURALISET WORKS STANSPOSE ANEURALISET WORKS TO ANEURALISET WORKS TO ANEURALISET WORKS TO ANEURALISET WORKS TO ANEURALISET WORKS THE ANEURALISET WORKS STRINGED SLICE	V	V (legistic) V (resize_bilinear) V			
V V	v	Rebu Rehaipe Roth Paoling Symoid Tesh Seria (Imago) Soite Soite (Soite Soite S	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		√ √ √ √ √ √ √ √ √ √ √ √ √	✓ (Ingitable) ✓ (Ingitable) ✓ (resize bilinear)	V	V (legistic) V (resize_bilinear) V			
V V	v	Rebu Rehaipe Roth Paoling Symoid Tesh Seria (Imago) Soite Soite (Soite Soite S	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		√ √ √ √ √ √ √ √ √ ✓ √ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	V (Institution) V (Institution) V (Institution) V (Institution) V (Institution) V (Institution) ANGELIARAMETWORKS JAMSHTABLE, LOOKUP ANGELIARAMETWORKS SAMEDIONIO, LOOKUP ANGELIARAMETWORKS SAMEDIO, LOOKUP ANGELIARAMETWORKS SAMEDIO, SAMEDIO ANGELIARAMETRO ANGELIARAME	V	V (legistic) V (resize_bilinear) V			
V Y	v	Rebu Rehaipe Roth Paoling Symoid Tesh Seria (Imago) Soite Soite (Soite Soite S	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		√ √ √ √ √ √ √ √ √ √ √ √ √	✓ (Ingitable) ✓ (Ingitable) ✓ (resize bilinear) ✓ (resize bilinear) ✓ / ✓ / ✓ / ✓ / ✓ / ✓ / ✓ / ✓	V	V (legistic) V (resize_bilinear) V			
V V	~	Reture Returing ROD Pooling Symoul Train Soziel (Imager) Soziel Soziel (Soziel) Soziel Softmax Tile Thor L2 pooling 26 L2 normalization dequantize Lookup operations array operations	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		√ √ √ √ √ √ √ √ √ √ √ √ √	V V V (resize bilinear) V V V (resize bilinear) V V V V V V V V V V V V V V V V V V	V	V (legistic) V (resize_bilinear) V			
V V	V	Return Reshape Robring Sprond Tash Coate Changel) Soate State Changel) Soate State State Changel State	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		√ √ √ √ √ √ √ √ √ √ √ √ √	✓ (Ingitate) ✓ (Ingitate) ✓ (Ingitate) ✓ (Ingitate) ✓ (Ingitate) ✓ ✓ ✓ (Ingitate) ✓ ✓ ✓ (Ingitate) ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	V	V (legistic) V (resize_bilinear) V			
V V	~	Reture Returing ROD Pooling Symoul Train Soziel (Imager) Soziel Soziel (Soziel) Soziel Softmax Tile Thor L2 pooling 26 L2 normalization dequantize Lookup operations array operations	V V V V V V X n/a	X V V X n/a V	√ √ √ √ √ √		√ √ √ √ √ √ √ √ √ √ √ √ √	V V V (resize bilinear) V V V (resize bilinear) V V V V V V V V V V V V V V V V V V	V	V (legistic) V (resize_bilinear) V			