

5

1

2

3

4

5

1

1.	1-1
	1-2
	1-3
2.	2-1

2-2

2-3

3.

<b>7.</b>	7-1
	7-2
	7-3
<b>8.</b>	8-1
	8-2
	8-3
<b>9.</b>	9-1
	9-2
	9-3
<b>10.</b>	10-1
	10-2
	10-3
<b>11.</b>	11-1
	11-2
	11-3

**2**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	√	√			
	√	√			
			√		√
		√			√
		√	√		
				√	
				√	
					√
			√		√
			√		√
				√	

4

3-6

	152	2021	2020	149
55	2021	2020	52	78
		25		6

3

				20	49 (2021 ) 2020 46)	55 (2021 2020 52)		
				4				
				2				
				2			2021	1
				2			2021	
				2				
				8				
				4				
			A-1	6				
				6			2	
				11	53	78		
				24				
				18				
				10				
				15				
		25		6	19			
		152(2021		2020	149	)		

1.

55 2021 2020 52 , , 49 2021 2020 46 ,

6

4

	1152361982013 1152361982009	2021 2020	3	54				1
	1151791950007		3	54				2
	1151791953010		3	54				3
	1152361953012		5	90		36		4
	1151792019008		2	36				5
	1151791987005	I	1	18				1
	1151791987006	II	1	18				1-8
	1152362020015		1	18				4
	1152362020016		1	18				3
	1152362020017		1	18				3
	1152362020018		1	18				3
	1152362020019		1	18				3

		1151772020007	1	0.5	24		20		1
		1151772020008	2	0.5	24		24		2
		1151772020009	3	0.5	24		20		3
		1151772020010	4	0.5	24		24		4
		1151772020011	5	0.5	24		24		5
		1151772020012	6	0.5	24		24		6
		1151772020013	7	0.5					7
		1151772020014	8	0.5					8
		1151772015005		1	18				1-2
		1151772015006		1	120		120		1
		1152322020001	2021	1	18		8		1-8
		1150012020105	2021	2	36				1
		1151642015001		2	36				1-2
			1	4	72				1
			2	4	72				2
		1151712015001	1	2	54		36		1
		1152522020006	2	2	54		36		2
		1151701948001	A-1	6	108				1
				6					1-8

2

1

2.

78  
15  
▲

35

18

10

6

4

5

		1151742015341		3	54				1			35
		1151222015604	A-2	4	72				2			
		1151222015606	A	4	72				2			
		1151731950500		3	54				1			
		1151731950501		3	54				2			
		1151731950502		3	54				2			
		1151731950503		3	54				3			
		1151731950504		3	54				4			
		1151731950305	1	1.5	54	54			2			
		1151731950306	2	1.5	54	54			3			
		1151732015316		2	72	72			4			
		1151731959317	▲	4	72				4			



	1151731963318	▲	3	54				5			18
	1151731959319	▲	3	54				5			
	1151731959320	▲	3	54				6			
	1151731959321	▲	4	72				6			
	1151731959322	▲	3	54				6			
	1151731995323		2	72	72			5			
	1151731950806		6	216	216			7			10
	1151731950352		4	144	144			8			
	1151732020505		1	18				2			15
	1151732015324		0.5	9				1			
	1151732015327		0.5	9							
	1151732015328		0.5	9							
	1151731995325	C	3	54				3			
	1151731950329		2	36				3			
	1151731995330		3	54				3			
	1151731995331		1	36	36			4			
	1151731950332		2	36				5			
	1151731995333		1.5	54	54			2			
	1151731963334		2	36				7			

	1151732011335		1	18								
	1151732015336		1	36	36							
	1151731995337		1.5	54	54				6			
	1151222020721	▲	1	18					6			
	1151732011338		2	36					4			
	1151731995339	2	2	36					7			
	1151731995340	2▲	2	36					7			
	1151731995341	2▲	3	54					7			
	1151731963342		2	36					7			
	1151732004343		2	36					7			
	1151732015344		2	36					8			
	1151732011345		2	36					3			
	1151732004346		2	36					8			
	1151732015347		2	36					7			
	1151731995350		2	36					8			

3

2 4 8 10 4 5 8 25 2 2.5 6 16 6

6

		1152322005800		2	36				5-6
		1152322005814		2	36				7-8
		1152322005802		3	54				4
		1152322005803		1	18				4
		1152322005804		1	18				4
		1152322005805		1	18				4
		1152322005806		1	18				4
		1152322005816		1	18				4
		1152322005808		2	36				4

		1152322005809		1	18					3
		1152322005810		1	18					3
		1152322005811		1	18					3
		1152322005812		1	18					3
		1152322005813		1	18					3
		1152322020814		1	18					5
		1152322020815		1	18					5
		1151731950800	▲	2	36					6
		1151732004801		2	36					5
		1151731950902		1	36	36				6
		1151732005803		2	36					6
		1151732020900		1	18					6
		1151732020901		1	18					6
		1151731950805		2	72	72				6
		1151731950806		6	216	216				7

7

1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	5-3	6-1	6-2	6-3	7-1	7-2	7-3	8-1	8-2	8-3	9-1	9-2	9-3	10-1	10-2	10-3	11-1	11-2	11-3
H	M			L			M												M			M			L			H			L	

**S**

			H			M			M			L				L			L			M			M			M			M
			H			M			M			L				M			H			M					L			M	
			H			H			M			H			M			H			M			M			M			M	
			H			H			M			M			L			H			L			L			L			L	
						M											H	H													M
			M				H														H										L
			M						H			L								M			H				H				L
									H												M		M								M
		1	M										H	H	H					M		L									
		2				M							H	H	H					M										L	
		A-1							H	H	M			L								L			L						
										H																					
		A-2								H																					
		A								H																					
									H	*										H		H								H	
									H											H		H								H	
									H											H		H					M	H			
									H											H		H					M	H			
									H											H		H					M	H			
		1							H	*			H	H															H	H	



							M				M	M																M	M		
							M	M																							
								M			M																				
								M			M				M																
								M									M					M							M		
						M	M				M						M						M								M
																		M													
							M										M				M										
							M																								
							M																								
							M																								
							M																								M
							M																								M
							M																								
							M										M					M									



				H	H				H		H				H	H			H								H												
		H	H	H			H									H													L					M					
						H	H									H																							
										L			H	H							M																		
					H					H	*	H																											
				M			H			H				M													H				H			H					
								H																															
					H					H							H																						
							L					M																						M					
				M				M																															
					L											M	M																						
				M				M																															
					M						L																										M		
						M					L																											M	
						M						M			M																	M							
											M																												M

																				M		M											
				L																M		M											
			M			M			M																		M			M		M	
									M																				M				
										M																			M				

H

M

L

\*

8-1

	1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	5-3
	0.4														
		0.3													
		0.1													
2021 2020		0.1		0.1											
		0.2													
	0.4			0.1											
		0.1													

		0.05													
		0.05			0.15						0.1				
		0.05			0.15										
						0.3									
								0.1							
								0.1							
	1												0.3	0.3	0.5
	2												0.3	0.3	0.5
	A-1							0.2	0.2						
									0.2						
	A-2								0.2						
	A								0.2						
								0.11							
								0.09							
								0.09							
								0.09							
								0.08							
	1							0.1			0.2	0.2			
	2							0.1							
								0.1							

							0.08		0.2						
							0.08			0.2		0.1			
							0.08								
							0.06								
							0.06								
							0.06								
							0.06								
				0.2	0.1					0.1	0.4				
												0.5			
					0.3	0.2				0.1		0.2			
	0.2	0.05	1.0			0.2									
						0.3									
					0.3								0.4	0.4	
				0.4						0.3	0.3				
							0.06			0.2					
								0.3							
				0.2						0.1					

8-2

	6-1	6-2	6-3	7-1	7-2	7-3	8-1	8-2	8-3	9-1	9-2	9-3	10-1	10-2	10-3	11-1	11-2	11-3
														0.2				
					0.1													
					0.1													
2021 2020						1.0												
					0.1													
				0.4														
											0.6							
					0.04													

				0.3														
					0.04													
			0.6	0.3														
								0.1						0.2				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
															0.15	0.2		
1																		
															0.15	0.2		
2																		

															0.2	0.2		
								0.05										
					0.04			0.05										
					0.04			0.05										
					0.2			0.05										
					0.04			0.05										
										1.0					0.25	0.2		
	0.3		0.4														1.0	
							1.0	0.2	1.0				1.0					
	0.7	0.2			0.1							1.0						
		0.4																
		0.3																



											0.4				0.25			1.0
								0.2								0.2		
		0.1																

1.

25

2.

40

3.

5

1

2

3

4

5

1

1.	1-1

	1-2
	1-3
2.	2-1
	2-2
	2-3
3.	3-1
	3-2
	3-3
4.	4-1
	4-2
	4-3
5.	5-1
	5-2
	5-3
6.	6-1

	6-2
	6-3
<b>7.</b>	7-1
	7-2
	7-3
<b>8.</b>	8-1
	8-2
	8-3
<b>9.</b>	9-1
	9-2
	9-3
<b>10.</b>	10-1
	10-2
	10-3
<b>11.</b>	11-1
	11-2

	11-3

2

	1	2	3	4	5
	√	√			
	√	√			
			√		√
		√			√
		√	√		
				√	
				√	
					√
			√		√
			√		√
				√	

4

3-6

154

55

78

27

6

3

			20	49	55	
			4			
			2			
			2 1 )			
			2			
			2			
			8			
			4			
			A-1			6
						6 2
			11	53	78	
			24			
			18			
			10			
			15			
		27	6	21		
		154				

1.

55 , ,

49 ,

6

4

	1152361982013		3	54				1
	1151791950007		3	54				2
	1151791953010		3	54				3
	1152361953012		5	90		36		4
	1151792019008		2	36				5
	1151791987005	I	1	18				1
	1151791987006	II	1	18				1-8
	1152362020015		1	18				4
	1152362020016		1	18				3
	1152362020017		1	18				3
	1152362020018		1	18				3
	1152362020019		1	18				3
	1151772020007	1	0.5	24		20		1
	1151772020008	2	0.5	24		24		2



		1151772020009	3	0.5	24		20		3
		1151772020010	4	0.5	24		24		4
		1151772020011	5	0.5	24		24		5
		1151772020012	6	0.5	24		24		6
		1151772020013	7	0.5					7
		1151772020014	8	0.5					8
		1151772015005		1	18				1-2
		1151772015006		1	120		120		1
		1152322020001		1	18		8		1-8
		1150012020105		2	36				1
		1151642015001		2	36				1-2
			1	4	72				1
			2	4	72				2
		1151712015001	1	2	54		36		1
		1152522020006	2	2	54		36		2
		1151701948001	A-1	6	108				1
				6					1-8

2

1



	1151731963318	▲	3	54					5		
	1151731959319	▲	3	54					5		
	1151731959320	▲	3	54					6		
	1151731959321	▲	4	72					6		
	1151731959322	▲	3	54					6		
	1151731995323		2	72	72				5		
	1151731950806		6	216	216				7		
	1151731950352		4	144	144				8		
	1151732020505		1	18					2		
	1151732015324		0.5	9					1		
	1151732015327		0.5	9							
	1151732015328		0.5	9							
	1151731995325	C	3	54					3		
	1151731950329		2	36					3		
	1151731995330		3	54					3		
	1151731995331		1	36	36				4		
	1151731950332		2	36					5		
	1151731995333		1.5	54	54				2		

	1151731963334		2	36					7		
	1151732011335		1	18							
	1151732015336		1	36	36						
	1151731995337		1.5	54	54				6		
	1151222020721	▲	1	20					6		
	1151732011338		2	36					4		
	1151731995339	2	2	36					7		
	1151731995340	2▲	2	36					7		
	1151731995341	2▲	3	54					7		
	1151731963342		2	36					7		
	1151732004343		2	36					7		
	1151732015344		2	36					8		
	1151732011345		2	36					3		
	1151732004346		2	36					8		
	1151732015347		2	36					7		
	1151731995350		2	36					8		

3.

27 6  
8 5 8 2 2.5 6 16  
2 10 4  
6

6

		1152322005800		2	36					5-6	
		1152322005814		2	36					7-8	
		1152322005802		3	54					4	
		1152322005803		1	18					4	
		1152322005804		1	18					4	
		1152322005805		1	18					4	
		1152322005806		1	18					4	
		1152322005816		1	18					4	
		1152322005808		2	36					4	

		1152322005809		1	18					3	
		1152322005810		1	18					3	
		1152322005811		1	18					3	
		1152322005812		1	18					3	
		1152322005813		1	18					3	
		1152322020814		1	18					5	
		1152322020815		1	18					5	
		1152322021817		1	18					6	
		1152322021818		1	18					5	
		1151731950800	▲	2	36					6	
		1151732004801		2	36					5	
		1151731950902		1	36	36				6	
		1151732005803		2	36					6	
		1151732020900		1	18					6	
		1151732020901		1	18					6	
		1151731950805		2	72	72				6	
		1151731950806		6	216	216				7	

1

2

		1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	5-3	6-1	6-2	6-3	7-1	7-2	7-3	8-1	8-2	8-3	9-1	9-2	9-3	10-1	10-2	10-3	11-1	11-2	11-3
		H	M			L			M												M			M			L			H			L	
			H			L			M			L									H			M			M			M			M	
			H			L			M			L									H			M			L			M			M	
			H		H	L			L												M	H		M									M	
			H			M			M			L									H			M			M			M			M	
			L						M												M			M			H			L			L	
		H				H					M						M				H					M			L					
			H			M			M			L				L		L						M			M			M			M	

			H		M		M		L					M		H		M				L		M
			H		H		M		H		M		L		H			M		M		M		M
			H		H		M		M		M		L			H		L		L		L		L
					M										H	H								M
			M			H												H				H		L
			M				H		L							M		H				H		L
							H										M		M					M
		1	M								H	H	H			M		L						
		2			M						H	H	H			M							L	
		A-1					H	H	M			L					L		L					
								H																
		A-2						H																
		A						H																
							H	*								H		H					H	
							H									H		H					H	
							H									H		H			M	H		
							H									H		H			M	H		
		1					H	*		H	H												H	H







					H	H				H		H				H	H			H								H								
		H	H	H			H										H												L					M		
					H	H											H																			
											L		H	H								M								L						
				H						H	*	H																								
				M			H			H				M														H				H			H	
							H																					H					H			
			H							H							H																			
							L						M																				M			
			M					M																												
				L																																
			M			M																														
					M					L																										M
						M				L																										M

				M				M	M										M							
								M											M							
														M		M										
			L										M		M											
				M											M											
				M											M											
			M		M			M											M			M			M	
								M																		
									M																	

H

M

L

\*

8-1

	1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	5-3
	0.4														
		0.3													
		0.1													
		0.1		0.1											
		0.2													
	0.4			0.1											
		0.1													
		0.05													
		0.05			0.15						0.1				

		0.05			0.15										
						0.3									
								0.1							
								0.1							
1													0.3	0.3	0.5
2													0.3	0.3	0.5
A-1								0.2	0.2						
									0.2						
A-2									0.2						
A									0.2						
								0.11							
								0.09							
								0.09							
								0.09							
								0.08							
1								0.1			0.2	0.2			
2								0.1							
								0.1							
								0.08		0.2					
								0.08			0.2		0.1		

							0.08								
							0.06								
							0.06								
							0.06								
							0.06								
				0.2	0.1					0.1	0.4				
												0.5			
					0.3	0.2				0.1		0.2			
	0.2	0.05	1.0			0.2									
						0.3									
					0.3								0.4	0.4	
				0.4						0.3	0.3				
							0.06			0.2					
								0.3							
				0.2						0.1					

8-2

	6-1	6-2	6-3	7-1	7-2	7-3	8-1	8-2	8-3	9-1	9-2	9-3	10-1	10-2	10-3	11-1	11-2	11-3
														0.2				
					0.1													
					0.1													
						1.0												
					0.1													
				0.4														
											0.6							
					0.04													



				0.3														
					0.04													
			0.6	0.3														
								0.1						0.2				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
					0.04			0.05						0.12				
															0.15	0.2		
															0.15	0.2		

															0.2	0.2		
								0.05										
					0.04			0.05										
					0.04			0.05										
					0.2			0.05										
					0.04			0.05										
										1.0					0.25	0.2		
	0.3		0.4														1.0	
							1.0	0.2	1.0				1.0					
	0.7	0.2			0.1							1.0						
		0.4																
		0.3																

											0.4				0.25			1.0
								0.2								0.2		
		0.1																

1.

25

2.

40

3.

1

2

3

4

1

1	1-1 ,
	1-2
	1-3
2.	2-1
	2-2
	2-3

<b>3.</b>	3-1
	3-2
	3-3
<b>4.</b>	4-1
	4-2
	4-3
<b>5.</b>	5-1
	5-2
	5-3
<b>6.</b>	6-1
	6-2
	6-3
<b>7.</b>	7-1
	7-2
	7-3
<b>8.</b>	8-1
	8-2
	8-3

2

	1	2	3	4
	√			√
		√		√
		√		√
		√		√
			√	√
			√	√
			√	√
			√	√

4

3-6

153 (2021 2020 150 )

54

2021

2020

51

84

15

3

			19		
			4		
			2		
	2	2021		1	)
					48
					2021
		2	2021		
			4		2020
					45
			8		
			2		2020
					51
A-1			6		



1.

54 2021 2020 51 , , 48 2021 2020 45 ,

6

4

	1152361982013 1152361982009	2021 2020	3	54				1	
	1151791950007		3	54				2	
	1151791953010		3	54				3	
	1152361953012		5	90		36		4	
	1151792019008		2	36				5	
	1151791987005	I	1	18				1	
	1151791987006	II	1	18				1-8	
	1152362020016		1	18				3	
	1152362020017		1	18				3	
	1152362020018		1	18				3	
	1152362020019		1	18				3	
	1151772020007	1	0.5	24		20		1	

		1151772020008	2	0.5	24		24		2
		1151772020009	3	0.5	24		20		3
		1151772020010	4	0.5	24		24		4
		1151772020011	5	0.5	24		24		5
		1151772020012	6	0.5	24		24		6
		1151772020013	7	0.5					7
		1151772020014	8	0.5					8
		1151772015005		1	18				1-2
		1151772015006		1	120		120		1
		1152322020001	2021	1	18		8		1-8
		1150012020105	2021	2	36				1
		1151642015001		2	36				1-2
			1	4	72				1
			2	4	72				2
		1151712015001	1	2	54		36		1
		1152522020009	2	2	54		36		2
		1151701948001	A-1	6	108				1
				6					1-8

2

1



		1151732015316		2	72	72			4		
		1151731959317	▲	4	72				4		
		1151731984305		3	54				2		
		1151732016500	电工电子基础实验	1.5	54	54			2		
		1151731963318	▲	3	54				5		
		1151731959319	▲	3	54				5		
		1151731959320	▲	3	54				6		
		1151731959321	▲	4	72				6		
		1151731959322	▲	3	54				6		
		1151731995323		2	72	72			5		
		1151731950351		6	216	216			7		10
		1151731950352		4	144	144			8		
		1151732020505		1	18				2		
		1151732015324		0.5	9				1		
		1151732015327		0.5	9						
		1151732015328		0.5	9						
		1151731995325	C	3	54				3		
		1151731950329		2	36				3		
		1151731995330		3	54				3		
		1151731995331		1	36	36			4		

1151731950332			2	36					5		
1151731995333			1.5	54	54				2		
1151731963334			2	36					7		
1151732011335			1	18							
1151732015336			1	36	36						
1151731995337			1.5	54	54				6		
1151222020721		▲	1	18					6		
1151732011338			2	36					4		
1151731995339		2	2	36					7		
1151731995340		2▲	2	36					7		
1151731995341		2▲	3	54					7		
1151731963342			2	36					7		
1151732004343			2	36					7		
1151732015344			2	36					8		
1151732011345			2	36					3		
1151732004346		▲	2	36					8		
1151732015347			2	36					7		
1151731995350			2	36					8		

3.

15

1-

3

5

6

1-1 1-2 1-3 2-1 2-2 2-3 3-1

2



								H		M	M	L												
					H	M	M		L			M		L						M	L			
					H	M	M		L			M		L						M	L			
					H		H													H				
					H		H													H				
					H		H		M									M	H					
					H	M	H		M											H	L			
					H		H													H				
					L		L			H	M	M					H	L		M				
					L		L			H	M	M					H	L		M				
					L		L			M	H	H					H	H		H				
					H	M	M																	
									H	M														
									H		H						H							



M H H H H  
H H H H

H L  
H L

								M											M			
								M	M	M	M						M		M			
			L				M															
								M			M									M		
						M		M												M		
						M			M											M	L	
									M					M							M	
					L				M	L	M	L			L		M	M		M		L
							M													M		
					L	M	M													M	L	
					L	M	M													M	L	
					L		M		M													
							M									M		M				
							M		L											M		

						L		M		L											L	M	L			
						L		M	M	L											L	M	L			
							L			L											L					
						L		M													L					
								M		L												M				
						L		M														M				

H

M

L

	1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	5-3	6-1	6-2	6-3	7-1	7-2	7-3	8-1	8-2	8-3
2021	0.18	0.2	0.6																					
2020	0.08	0.2																						
	0.18	0.2																						
	0.18	0.2																						
	0.08	0.1																						
			0.4														0.15							
	0.1	0.1																						
																	0.15							
	0.1																							

																	0.05								
	0.1																0.1								
															0.1		0.3				0.2				
															0.1		0.25				0.2				
1																						0.4	0.4	0.25	
2																							0.4	0.4	0.25
A-1				0.25																					
								0.3																	
A-1								0.3																	
A-2				0.25																					
A				0.25																					
					0.08		0.1															0.08			
					0.08		0.1															0.08			
					0.08		0.1															0.08			
					0.08		0.1															0.08			
1										0.3							0.2								
2										0.3							0.2								
										0.3	0.2					0.1		0.45		0.08					
				0.25																					

			0.2						
			0.2		0.2			0.15	
0.12	0.2	0.1		0.16					0.08
0.12	0.2	0.1		0.16					0.08

5 知識

■  $E\mu$  ■  $\ddot{Y}^\circ$

4-5

1

2

3

4

5

1

<b>1</b>	1-1
	1-2
	1-3
<b>2.</b>	2-1



	2-2
	2-3
3. /	3-1
	3-2
	3-3
4.	4-1
	4-2
	4-3
5.	5-1
	5-2
6.	6-1
	6-2
7.	7-1
	7-2

<b>8.</b>	8-1
	8-2
<b>9.</b>	9-1
	9-2
<b>10.</b>	10-1
	10-2
	10-3
<b>11.</b>	11-1
	11-2
<b>12.</b>	12-1
	12-2

2

	1	2	3	4	5
		√	√	√	
		√	√		
/		√	√		
		√	√		
			√	√	
	√	√		√	
	√			√	√
	√				√
				√	√
				√	√
		√		√	
		√			√

4

3-6

160 (2021 2020 157 )  
 54 2021 2020 51 91  
 15

3

			19	48 2021 2020 45 2020 51
			4	
			2	
			2 2021 1 )	
			2 2021	
			4	
			8	
			2	
		A-1	6	
			6 2	
			15.5	66 91
			34	
			16.5	
			10	
			15	
		15		
		160(2021 2020 157 )		



1.

54 2021 2020 51 , ,

48 2021 2020 45 ,

6

		1151772020007	1	0.5	24		20		1
		1151772020008	2	0.5	24		24		2
		1151772020009	3	0.5	24		20		3
		1151772020010	4	0.5	24		24		4
		1151772020011	5	0.5	24		24		5
		1151772020012	6	0.5	24		24		6
		1151772020013	7	0.5	0				7
		1151772020014	8	0.5	0				8
		1151772015005		1	18				1-2
		1151772015006		1	120		120		1
		1152322020001	2021	1	18		8		1-8
		1150012020105	2021	2	36				1
		1151642015001		2	36				1-2
			1	4	72				1
			2	4	72				2
		1151712015001	1	2	54		36		1
		1152522020009	2	2	54		36		2
		1151701948001	A-1	6	108				1
				6					1-8

2

1

2

91  
15

49.5

16.5

10

6

4



5

1151742015341		3	54		1	
1151742000312	A-1	1.5	54	54	1	
1151222015604	A-2	4	72		2	
1151222015606	A	4	72		2	49.5
1151222015605		3	54		3	
1151731950500		3	54		1	
1151731950501		3	54		2	
1151731950502		3	54		2	
1151731950305	1					



		1151731993301	C	3	54					3		
		1151731993500	C	1	36	36				3		
		1151731984303		3	54					3		
		1151731984307	▲	3	54					3		
		1151731985308	1	0.75	27	27				3		
		1151731985309	2	0.75	27	27				4		
		1151731985310	▲	3	54					4		
		1151731985311	▲	3	54					4		
		1151731985312	1	0.75	27	27				4		
		1151731985313	2	0.75	27	27				5		
		1151731985401	▲	3	54					4		
		1151732020560	▲	3	54					5		
		1151731985405		3	54					5		
		1151731997503	▲	3	54					5		
		1151731998411	▲	3	54					6		
		1151732014545		1.5	54	54				6		
		1151731998560		1	36	36				5		
		1151731998407		5	180	180				7		
		1151731999408		4	144	144				8		
											16.5	
											10	

	1151732020505		1	18				2			
	1151732020561		1	36	36			1-7			
	1151732015327		0.5	9							
	1151732015328		0.5	9							
	1151732020562		1	18				3			
	1151731996563	▲	2	36				3			
	1151731995560		1.5	54	54			3			
	1151732012512		2	36	18			4			
	1151732013542		2	36				4			
	1151731990541		3	54				4			
	1151731985402	1	0.75	27	27			4			
	1151731985403	2	0.75	27	27			5			
	1151732013543		1.5	54	54			5			
	1151731985520		2	36				5			
	1151731998410		3	54				5			
	1151731998516		3	54				6			
	1151732020564	▲	2	36				7			
	1151731985404		3	54				4			

8

3	1151732015544		1.5	54	54			5			4
	1151732012540		3	54			5				
	1151732009535	DSP	2	36			6				
	1151732014531	SOPC	2	36			6				
	1151732020565		2	36			7				
	1151731987524		2	36			7				
	1151732020566		2	36			7				
	1151732014547		2	36			8				
	1151731990546		2	36			4			3	
	1151732020567	Matlab	2	36			6				
	1151731997568		2	36			6				
	1151731999525	PLC	2	36			6				
	1151732020569		2	36			7				
	1151731998532		2	36			7				
	1151732020570		2	36			8				
1151732018572		1	36	36		8					
1151731998571		2	36			8					

3

								/																							
		1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	9-1	9-2	10-1	10-2	10-3	11-1	11-2	12-1	12-2	
						M			L			L					M		M		L		M		L					H	
						M			L			L					L		H		M		L		L					H	
						L											L				H									M	
	2021					L											L				H		M							M	
	2020																M		H											L	



A H M M H  
H H H H M M  
H H H M M M



				M		M			M	
	M					M				M
		M	M						M	
				M				M		
	M		M							M
			M			M			M	
DSP	M				M					M
		M				M				
			M							
SOPC					M					
	M						M			
			M						M	
Matlab	M		M						M	
	M		M							M
PLC						M				M
				M			M			
	M		M							M
			M		M					
	M							M		



						M								M																					
							M						M																						

H

M

L

8-1

							/									
	1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2
		0.2			0.1			0.2			0.1					
		0.2			0.1			0.2			0.1					
								0.2								
											0.1					
					0.1											
1														0.25		
2					0.1											
A-1	0.1			0.15								0.2				
				0.15												
A-1													0.2			
A-2			0.3			0.25				0.2		0.2				
A	0.1										0.2					
		0.2				0.25					0.2					
				0.09	0.14											

	0.2															
					0.14											
1											0.1					
		0.2								0.2						
								0.2					0.2			
C														0.25		
C						0.25										
					0.16											
				0.1									0.25			
1								0.25							0.25	
2										0.33				0.2		
				0.17							0.2					
					0.16					0.34		0.3				
1	0.2							0.25								
2	0.2									0.33				0.2		
			0.35										0.25			
																0.5
			0.35			0.25					0.2					
		0.2		0.17							0.2				0.25	
	0.2			0.17												
								0.25							0.2	

																1	
							0.25										0.5
								0.2									

8-2

	7-1	7-2	8-1	8-2	9-1	9-2	10-1	10-2	10-3	11-1	11-2	12-1	12-2
													0.14
		0.2											0.14
			0.34										
2021													
2020				0.25									
		0.2											
		0.2											
		0.4											0.14
						0.5							0.14
				0.25							0.5		0.09
				0.25									0.09

						0.5							0.1
								0.5					0.16
A-1												0.25	
C												0.25	
C													
2							0.5						
2							0.5						
	0.5												
					0.5				0.5			0.25	
			0.33						0.5	0.5			
	0.5			0.25	0.5			0.5			0.5		
			0.33							0.5		0.25	

1.

25

2.

40

3.

4-5

1

2

3

4

5

6

1

1	1-1
	1-2
	1-3
2.	2-1
	2-2



3.

2-3

3-1

3-2

3-3

4.

4-1

4-2

2

	√	√			√	√
		√	√		√	√
			√	√	√	√
			√	√	√	√
			√	√	√	√
		√	√	√	√	√
		√			√	√
		√			√	√

4

3-6

153 (2021 2020 150 )

54 (2021 2020 51 )

84

15

3

			19	48 2021 2020 45 2020 51
			4	
			2	
			2 2021 1 )	
			2 2021	
			4	
			8	
			2	
		A-1	6	
			6 2	
			12.5	59 84
			30	
			16.5	
			10	
			15	
		15		
		153(2021 2020 150 )		

1.

54 (2021 2020 51 ), ,

48 (2021 2020 45 ),

6

4

	1152361982013 1152361982009	2021 2020	3	54				1
	1151791950007		3	54				2
	1151791953010		3	54				3
	1152361953012		5	90		36		4
	1151792019008		2	36				5
	1151791987005	I	1	18				1
	1151791987006	II	1	18				1-8
	1152362020016		1	18				3
	1152362020017		1	18				3
	1152362020018		1	18				3
	1152362020019		1	18				3

		1151772020007	1	0.5	24		20		1	
		1151772020008	2	0.5	24		24		2	
		1151772020009	3	0.5	24		20		3	
		1151772020010	4	0.5	24		24		4	
		1151772020011	5	0.5	24		24		5	
		1151772020012	6	0.5	24		24		6	
		1151772020013	7	0.5	0				7	
		1151772020014	8	0.5	0				8	
		1151772015005		1	18				1-2	
		1151772015006		1	120		120		1	
		1152322020001	2021	1	18		8		1-8	
		1150012020105	2021	2	36				1	
		1151642015001		2	36				1-2	
			1	4	72				1	
			2	4	72				2	
		1151712015001	1	2	54		36		1	
		1152522020009	2	2	54		36		2	
		1151701948001	A-1	6	108				1	
				6					1-8	

2 1

2

84

42.5

16.5

10

6

4

15



5

		1151742015341		3	54					1		42.5	
		1151742000312	A-1	1.5	54	54				1			
		1151222015604	A-2	4	72					2			
		1151222015606	A	4	72					2			
		1151731950500		3	54						1		
		1151731950501		3	54						2		
		1151731950502		3	54						2		
		1151731984305		3	54						2		
		1151732016500		1.5	54	54					2		
		1151731950305	1	1.5	54	54					2		

1151732020557	1.5	54	54	3
1151731950503	3	54		3
1151732020550	3	54		3
1151732020551	1	18		3

	1151732015327		0.5	9							15
	1151732015328		0.5	9							
	1151732018412		2	36				7			
	1151732020500		1.5	54	54			6			
	1151732018408		1	18							
	1151732020553	▲	1	18				6			
	1151732018413		1	18							
	1151732018409		2	36				3			
	1151732018404		2	36				4			
	1151732018550	▲	3	54				4			
	1151732018403	▲	2	36				5			
	1151732018405	▲	2	36				5			
	1151732018414	▲	3	54				5			
	1151732020554		2	36				5			
	1151732018500		2	36				6			
	1151732020555		2	36				6			



1151731995330		3	54					3			
1151731995331		1	36	36				4			
1151732011338		2	36					4			
1151732018411	▲	2	36					5			
1151731959319		3	54					5			
1151731963318		3	54					5			
1151731959320		3	54					6			
1151732020556		2	36					6			
1151731995339	2	2	36					7			
1151731963342		2	36					7			
1151732015347		2	36					7			
1151732015336		1	36	36							

10

3

15

		1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2
	2021 2020	H	M											L						
		H		M											L					
		H	M												L					
		H	M												L					
		H	M												L					
		H	M	L													L			
		H	M												L					

			H																M	M
			H	M	M															
			H	M	M															
			H	M	L													L	M	
						M											H	M		
		1											H	M	M	L				
		2											H	M	M	L				
		A-1				H		L												
			M	M	L															
			M					L												M
								L								M				M

					H			L														
					H			M	M													L
					H		L															
					H		L															
					H			L			L											
					H			M			L											
					H	M				M	L				L							
					H		L															
							M	H	M												L	L
					H			M	L												M	L
					M			H	L												M	L
					H			M			L											

					H						L									
					H				M			M								
					M				H		M				L					L
					H			M			L									
					M	H		M												
					H			H			M				L					
					M			M	H		M	L			L					L
								H	H		M								L	
					M			H		M	M									
					M			H			M				M					
								H			M				L					
								M	H		M	M			H					H

									M		H						H		H	
						L		M							M					
											M			M	M		L			
												M			M					L
						M		M	L		M									
								M	M										M	L
					M				M							M		M		
								M										L		L
		M								M					M					
						M												M	L	L
					M				M											
					M			M			M									

					M				M												
					M		M		M	M											
						M		M								M					
					M			M				L									
					M				M												
						M		M			L										
					L		M	L													
									M				M								
						M					M	L									
								M	M												
					M	M		M			L										
					M	L				M	M	L									

					M										M					
													M	M		M				
					M											L				
					M					M					L					
							M	M											L	
						M							M			M				



	1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2
2021																			
2020	0.1																		
	0.1																		
	0.1																		
	0.1																		
	0.1																		
	0.1																		



A				0.06															
				0.08															
				0.08															
				0.08															
				0.06															
							0.1												
1				0.08															
							0.1												
				0.08															
				0.08															
				0.08															
								0.25											
				0.06															

					0.5														
					0.5		0.2												
								0.25											
							0.1	0.25											
							0.2												
							0.1												
							0.2												
								0.25						1				0.5	
										1						0.5		0.5	

1.

25

2.

40

3.