

2022

1999

2016

2020

2021

“ ”

“ ”

1200

3

48%

5

1

2

3

4

5

1

2

3 /

4

5

6

7

8

9

10

11

12

OBE

1 —

	1	2	3	4	5
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

2

			HML
1	1.1		H H H H H
	1.2	B	H H H H M M
	1.3		H H H H M M M
	1.4	Python	H H H H H
2	2.1		H H H H

	2 2	Python	H H H H M
	2 3		H H H H
3 /	3 1 /	B	H H H H
	3 2		H H H H
	3 3		H H H
4	4 1		H H H H H
	4 2		H H H H H
	4 3		H H H H
	4 4		H H H H
5	5 1	B	H H H H H
	5 2		H H H H M
	5 3	Python	H H H H

6	6.1		H H H
	6.2		H H H H
7	7.1	B	H H H H
	7.2		H H H H
8	8.1		H H H H
	8.2		H H H
	8.3		H H H H M
9	9.1		H H H H H
	9.2		H H H
10	10.1		H H H
	10.2		H H H H
11	11.1		H H H
	11.2		H H H

12	12 1		H H H H H
	12 2		H H H H

H M L  
/

- (1) “ ”  
“ - - - - ”
- (2) +
- (3) “ ” “ +”
- 4 1  
4 1 5 1

174 0

:

148 0	128 0	32 0
		30 0
		66 0
	20 0	11 0
		9 0
14 0		
12 0		

2022

COM3G1001		3	48	16	3	1		
FLG4G1001		3	48		3	1		
FLG4G1002		3	48		3	2		
FLG4G2001		3	48		3	3		
FLG4G2002		3	48		3	4		
MAR2G1001		2	32		2	1		
MAR3G1001		3	48		3	2		
MAR3G1002		3	48		3	1		
MAR3G2001		3	48		3	4		
MAR3G2002		3	48		3	3		
PAEA1G1001		1	32	22	2	2		
PAEA1G2001		1	32	22	2	3		
PAEA1G2002		1	32	22	2	4		
		32 0						
								1. 2. “ ” 1
		9 0						
080706B2C2005		2	32	8	2	4		
ENCA2B1001	B	2	32		2	1		

MTA3B2001		3	48		3	3		
MTA3B2002		3	48		3	4		
MTA4B1001		4	64		4	2		
MTA6B1001		6	96		6	1		
PHY2B1L01		2	32	32	2	3		
PHY4B1001		4	64		4	2		
PHY4B2001		4	64		4	3		
		30.0						
080702A4C2002		4	64	8	4	3		
080702A5C1011		5	80	16	5	2		
080702C4C2013		4	64	16	4	4		
080702C5C2012		5	80	16	5	3		
080706C3C1001		3	48	16	3	2		
080706C3C2003		3	48	6	3	4		
080706C3C2004		3	48	12	3	4		
080706C3C3006		3	48	12	3	5		
080706C3C3007		3	48	24	3	6		
080706C4C3005		4	64	10	4	5		
		37.0						
080706C3S3002		3	48	12	3	5		
080706E2S3007		2	32	8	2	6		
080706E3S3001		3	48	12	3	6		
080706E3S3002		3	48	16	3	6		
080706E3S3003		3	48	16	3	5		
080706E3S3004		3	48	12	3	5		
080706E3S3005		3	48	12	3	6		
		20.0						



080702C1P2L14		1	32	32	2	4		
080706C1D1007		1	16	4	1	2		
080706C2D2006	Python	2	32	16	2	3		
080706C3D2001		3	48	18	3	4		
080706E1D3L22		1	2( )	2( )		6		
080706E1P4L03		1	32	32	2	7		
080706F1D3017		1	16		1	6		
080706F1D3L23		1	2( )	2		6		
080706F1D3L24		1	2( )	2( )		6		
080706F1D4L18	( )	1	16	16		7		
080706F1D4L20	FPGA	1	2( )	2		7		
080706F1D4L21		1	2( )	2( )		7		
080706F2D1004		2	32	16	2	2		
080706F2D1L03		2	32	32	2	2		
080706F2D2008		2	32	10	2	4		
080706F2D3009	Matlab	2	32	24	2	5		
080706F2D3012		2	32	12	2	5		
080706F2D3013		2	32	4	2	6		
080706F2D3014	DSP	2	32	16	2	6		
080706F3D2005		3	48	16	3	3		
080706F3D2011		3	48	16	3	4		
080706F3D3006		3	48	32	3	5		
080706F3D3015		3	48	16	3	5		
080706F3D3025		3	48		3	6		
080706F3D3026		3	48	24	3	6		
080717F2D4012		2	32	10	2	7		
080717F2D4013		2	32	16	2	7		
		20 0 ( 9 0 11.0 )						

080201COP1002	B	0.5	1( )	1		2		
080201COP3007		0.5	1( )	1		5		
080706EOP3L01		0.5	1( )	1( )		6		
080706EOP4L02		0.5	1( )	1( )		7		
080706E2P4L05		2	4( )	4( )		7		
080706E3P4004		3	48	48	3	7		
080706E7P4L06		7	14( )	14( )		8		
		14.0						
MRA2Q1001		2	2( )	2( )	2	7		
MRA2Q1001		2	64		4	7		
PAFA1Q1001		1	32	32	2	1		
RAFA0Q1001		0.5	16		1	2		
RAFA0Q3002		0.5	16		1	5		
STUA0Q1001		0.5	16		1	1		( )
STUA0Q1002		0.5	16		1	1		( )
STUA1Q3001		1	32	24	2	6		( )
STUA2Q1001		2	36		2	1		
STUA2Q1002		2	2( )	2		1		( )
		12.0						

1								
COMA3G1001		3	48	16	3			
ENCA2B1001	B	2	32		2			
FLCA4G1001		3	48		3			
MRA2G1001		2	32		2			
MRA3G1002		3	48		3			
MTA6B1001		6	96		6			

PAEA1Q1001		1	32	32	2			
STUA0Q1001		0.5	16		1			( )
STUA0Q1002		0.5	16		1			( )
STUA2Q1001		2	36		2			
STUA2Q1002		2	2( )	2				( )
		25.0		1.0		( )		
2								
080201COP1002	B	0.5	1( )	1				
080702A5C1011		5	80	16	5			
080706C1D1007		1	16	4	1			
080706C3C1001		3	48	16	3			
080706F2D1004		2	32	16	2			
080706F2D1L03		2	32	32	2			
FLGA4G1002		3	48		3			
MARA3G1001		3	48		3			
MTA4B1001		4	64		4			
PAEA1G1001		1	32	22	2			
PHYA4B1001		4	64		4			
RAEA0Q1001		0.5	16		1			
		25.0		2.0		( )		
3								
080702A4C2002		4	64	8	4			
080702C5C2012		5	80	16	5			
080706C2D2006	Python	2	32	16	2			
080706F3D2005		3	48	16	3			
FLGA4G2001		3	48		3			
MARA3G2002		3	48		3			
MTA3B2001		3	48		3			
PAEA1G2001		1	32	22	2			
PHYA2B1L01		2	32	32	2			

PHY4B2001		4	64		4			
		27.0                      30 (                      )						
4								
080702C1P2L14		1	32	32	2			
080702C4C2013		4	64	16	4			
080706B2C2005		2	32	8	2			
080706C3C2003		3	48	6	3			
080706C3C2004		3	48	12	3			
080706C3D2001		3	48	18	3			
080706F2D2008		2	32	10	2			
080706F3D2011		3	48	16	3			
FLG4C2002		3	48		3			
MAR3C2001		3	48		3			
MAT3B2002		3	48		3			
PAEA1C2002		1	32	22	2			
		26.0                      40 (                      )						
5								
080201COP3007		0.5	1( )	1				
080706C3C3006		3	48	12	3			
080706C3S3002		3	48	12	3			
080706C4C3005		4	64	10	4			
080706E3S3003		3	48	16	3			
080706E3S3004		3	48	12	3			
080706F2DB009	Mitlab	2	32	24	2			
080706F2DB012		2	32	12	2			
080706F3DB006		3	48	32	3			
080706F3DB015		3	48	16	3			
RAEAQ3002		0.5	16		1			
		17.0                      40 (                      )						
6								

080706C3C3007		3	48	24	3			
080706E0P3L01		0.5	1( )	1( )				
080706E1DBL22		1	2( )	2( )				
080706E2S3007		2	32	8	2			
080706E3S3001		3	48	12	3			
080706E3S3002		3	48	16	3			
080706E3S3005		3	48	12	3			
080706F1DB017		1	16		1			
080706F1DBL23		1	2( )	2				
080706F1DBL24		1	2( )	2( )				
080706F2DB013		2	32	4	2			
080706F2DB014	DSP	2	32	16	2			
080706F3DB025		3	48		3			
080706F3DB026		3	48	24	3			
STUA1Q8001		1	32	24	2			( )
		16.5		4.0		( )		
7								
080706E0P4L02		0.5	1( )	1( )				
080706E1P4L03		1	32	32	2			
080706E2P4L05		2	4( )	4( )				
080706E3P4004		3	48	48	3			
080706F1D4L18	( )	1	16	16				
080706F1D4L20	FPGA	1	2( )	2				
080706F1D4L21		1	2( )	2( )				
080717F2D4012		2	32	10	2			
080717F2D4013		2	32	16	2			
MRA2Q1001		2	2( )	2( )	2			
MRA2Q1001		2	64		4			
		10.5		2.0		( )		
8								

080706E7P4L06		7	14( )	14( )				
		7.0						