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#### 1200CH TFT LCD Source Driver with TCON

#### 1. GENERAL DESCRIPTION

fitipower

EK9716 is a highly integrated 1200 channel source driver with TTL interface Timing Controller for color TFT-LCD panels. EK9716 integrated source driver, timing controller and pin control interface.

EK9716 input timing support TTL digital 24bit parallel RGB data format, and source output support 8-bit resolution 256 gray scales with dithering features. Operating parameters can be set via pin control for all control features. Special circuit architecture is designed for lower power dissipation.

EK9716 support two chip cascade operation mode to reduce the FPC amount and save the cost. Configure able Master and Slave configuration increase the flexibility for different panel design. With wide range of supply voltages and small output deviations make this chip more suitable for various applications.

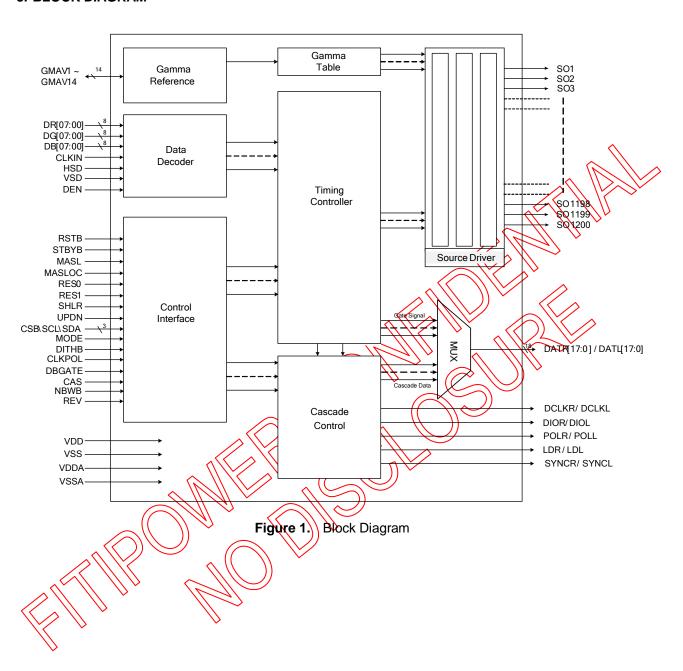
#### 2. FEATURES

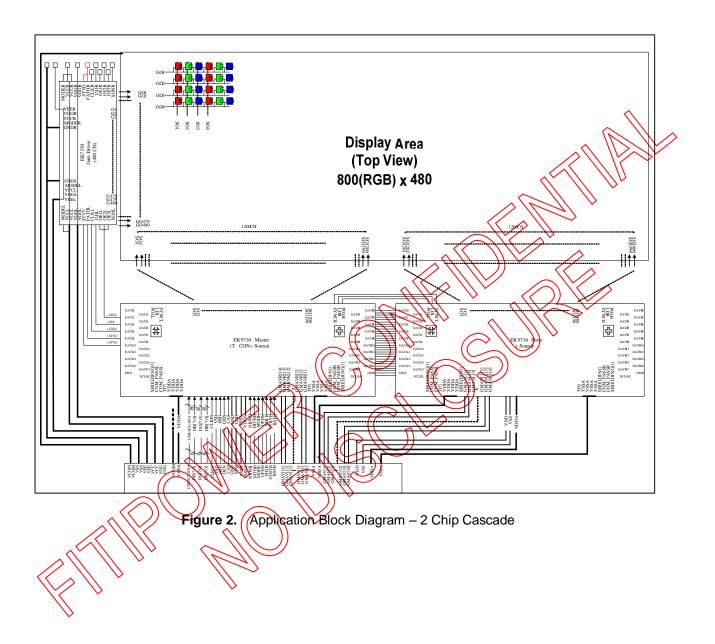
- Special design for small-sized color TFT LCD source drivers with timing controller
- Integrated 1200 channel source driver
- Support display resolutions: 800(RGB)x600\800(RGB)x480\400(RGB)x480\400(RGB)x240
- 8-bit resolution 256 gray scale with 2-bits dithering (6bits DAC + 2bits HFRC)
- Support TTL 24-bit parallel (RGB) input timing
- Support cascade function with bidirectional shift central (CMOS signal)
- Support single or dual-gate operation mode
- Support Stripe color filter configuration
- Support stand-by mode for low power consumption
- Support dot inversion driving scheme (Cascade mode)
- Support 2 dot one inversion driving scheme (Dual Gate mode)
- V1 ~ V1A tor adjusting Gamma correction
- Output dynamic range: Q.1V ~ VDDA-0.1V (Dual Gate mode)
- Power for source driver voltage VDDA: 6.5V ~ 13.5V
- Power for digital interface circuit VDD: 2.5 ~ 3.6V (Dual Gate mode)
- Rower for digital interface circuit VDD: 3.0 ~ 3.6V (Cascade mode)
- Max. operating frequency: 50 MHz (Dual Gate mode)
- Max. operating frequency: 40MHz (Cascade mode)
- Minimum operating frequency: 20 MHz (800(RGB)x600 and 800(RGB)x480 display resolution)
- Built-in AUTO pattern
- COG package
- Chip Size: 22487um X 803um(not include srcibe line), Output Pad Pitch: 17um

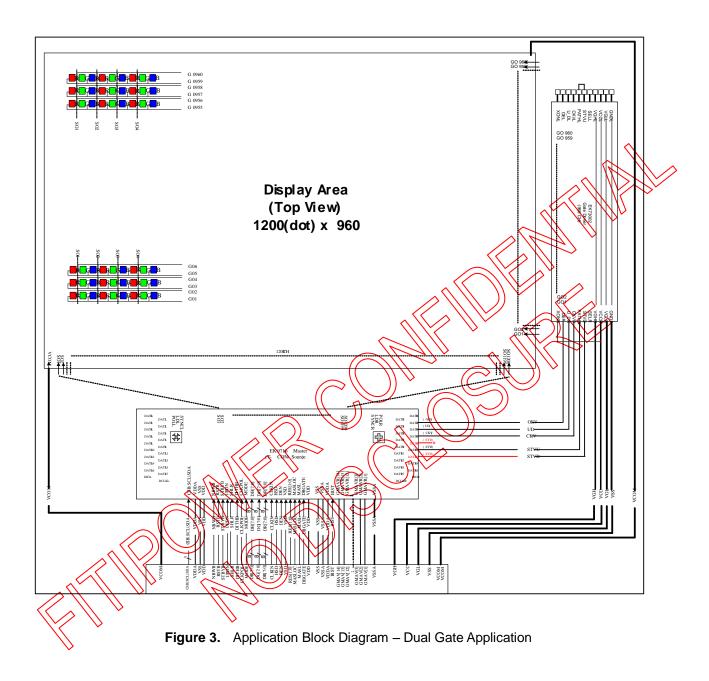
2018/03/27 2 Rev. 1.1



#### 3. BLOCK DIAGRAM







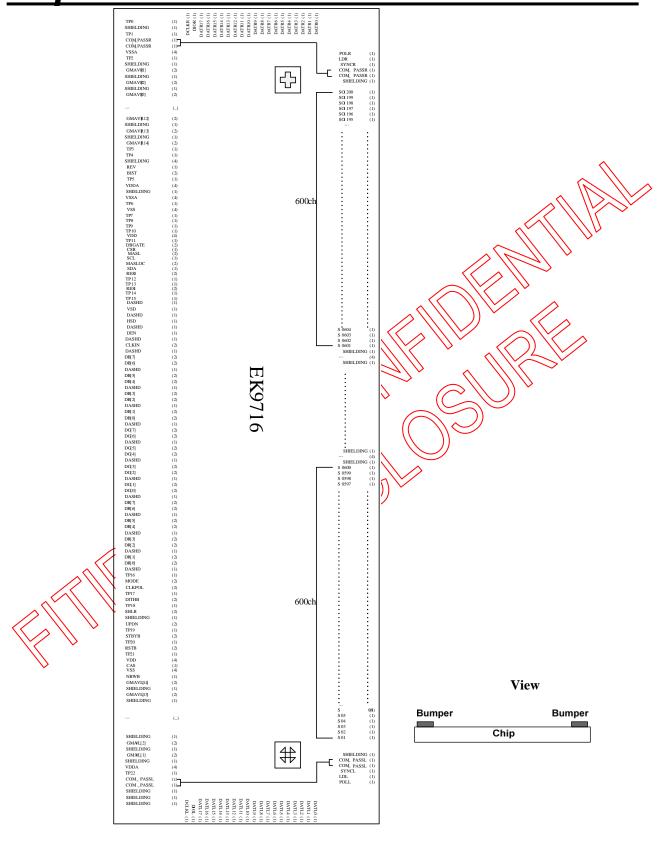


Figure 4. Pad Sequence (Bump Side)



#### 4. PIN DESCRIPTION

Table 1. Pin Description

Pin Name	Pin Type	Description
FIII Naille	riii i ype	•
DR[07:00] DG[07:00] DB[07:00]	Input	Parallel data Input. For TTL 24-bit parallel RGB image data input. DR[07:00]=R[7:0] data; DG[07:00]=G[7:0] data; DB[07:00]=B[7:0] data. For 18bit RGB interface, connect two LSB bits of all the R/G/B data buses to VSS.
CLKIN	Input	Clock for Input Data. Data latched at rising/falling edge of this signal. Default falling edge.
HSD	Input	Horizontal Sync input. Negative polarity.
VSD	Input	Vertical Sync input. Negative polarity.
DEN	Input	Data Input Enable. Active High to enable the data input bus under DE Mode". Normally pull low.
MODE	Input	DE / SYNC mode select. Normally pull high H: DE mode.(Default) L: HSD/VSD mode.
RES[1:0]	Input	Display resolution selection.  RES[1:0] = "00", for 800(RGB)*480 display resolution(Default)  RES[1:0] = "01", for 800(RGB)*600 display resolution  RES[1:0] = "10", for 400(RGB)*480 display resolution  RES[1:0] = "11", for 400(RGB)*240 display resolution
DITHB	Input	Dithering function enable control Normally pull high DITHB = "1", Disable internal dithering function (Default) DITHB = "0", Enable internal dithering function
CLKPOL	Input	Input clock edge selection. Normally pull low  CLKPOL = "1" Latch data at CLKIN using edge.  CLKPOL = "0" Latch data at CLKIN falling edge. (Default)
DBGATE	Input	Dual Gate function enables control Normally pull low  DBGATE = "1", Enable Dual Gate Function.  DBGATE = "0", Disable Dual Gate Function (Default)  Wote: Cascade function will be disabled under "dual gate" mode
GMAV1 ~ GMAV14	Typut/Output	Gamma correction reference voltage. These input voltage must be offered by user.  VSSA+0.1 VSSA+0.1 VDDA-0.1   (Dual Gate) VSSA+1 VDDA-1   (Cascade mode) V2, V6, V9, V13 pads are disabled.
RSTB	Input	Global reset pin. Active Low to enter Reset State. Suggest to connecting with an RC reset circuit for stability. Normally pull high.
STBYB	Input	Standby mode, Normally pull high. STBYB = "1", normal operation(Default) STBYB = "0", timing controller, source driver will turn off, all output are High-Z
MASL	Input	Master and Slave Mode selection. Normally pull high.  MASL = "H", for Master mode. (Default Mode)  MASL = "L", for Slave mode.  Only the Master chip will issue the Gate and Cascade control signal.
MASLOC	Input	Master location definition pin. Normally pull low.  MASLOC = "L", Master locate on right side (Panel top view). (Default Mode)  MASLOC = "H", Master locate on left side (Panel top view).
CSB	Input	Serial communication chip select. Normally pull high
SDA	Input/Output	Serial communication data input. Normally pull low



Pin Name	Pin Type	Description								
	7.	·								
SCL	Input	Serial communication clock input. Normally pull low								
SHLR	Input	Source Right or Left sequence control. Normally pull high. SHLR = "L", shift left: last data = $S1 \leftarrow S2 \leftarrow S3 \leftarrow S1200$ = first data. SHLR = "H", shift right: first data = $S1 \rightarrow S2 \rightarrow S3 \rightarrow S1200$ = last data.								
UPDN	Input	Gate Up or Down scan control. Normally pull low.  UPDN = "L", STV2 output vertical start pulse and UD pin output logical  "0" to Gate driver.(Default)  UPDN = "H", STV1 output vertical start pulse and UD pin output logical  "1" to Gate driver.								
BIST	Input	Normal Operation/BIST pattern select. Normally pull low BIST = H : BIST(DCLK input is not needed) BIST = L : Normal Operation								
CAS	Input	Cascade function select. Normally pull high.  CAS = "H", Enable cascade function.(Default)  CAS = "L", Disable cascade function.								
NBWB	Input	Normally black or normally white setting.  NBWB = "0" : Normally black  NBWB = "1" : Normally white (Default)								
REV	Input	Controls whether the data of 200 D27 are inverted or not, formally pulled low.  When "REV"=1 these data will be inverted, EX. "00" → "3F", "07"→ "38", "15"→ "24" and so on.								
DATR[17:0]	Input/Output	Multi function (O pip.  Refer to the Cascade DAT pin mapping table for the detail.								
DCLKR	Input/Output	Master and Slave cascade control signal.								
DIOR	Input/Output	Master and Slave cascade control signal								
POLR	Input/Output	Master and Slave cascade control signal.								
LDR	Input/Output	Whater and Slave cascade control signal.								
SYNCR	Input/Qutput	Waster and Slave eascade control signal.								
DATL[17:0]	Input/Output	Multi function 10 pin.  Refer to the Cascade DAT pin mapping table for the detail.								
DCLKL	Input/Output	Master and Slave cascade control signal.								
DIOL	Input/Output	Master and Slave cascade control signal.								
POL	Input/Output									
SYNCL	Input/Output Input/Output	Master and Slave cascade control signal.  Master and Slave cascade control signal.								
VDDA	Power Input	Power supply for analog circuits								
VSSA	Power Input	Ground pins for analog circuits								
· ·	·	· · · · · · · · · · · · · · · · · · ·								
VDD VSS	Power Input Power Input	Power supply for digital circuits  Ground pins for digital circuits								
SO1~SO1200	Output	Source Driver Output Signals. All outputs will be of unknown values under stand-by mode.								
ALIGN	Mark	For assembly alignment.								
COM_PASSR COM_PASSL	Shorted line	Internal link together between input side and output side.								
TP22~0	Testing	Float these pins for normal operation.								
SHIELDING	Shielding	IC Shielding pads. Those pins are internally connected to the VSSA. DO NOT connect to any WOA on the panel.								



Pin Name	Pin Type	Description
DASHD	Shielding	Data Bus Shielding pad. Those pins are internally connected to the VSS. RECOMMAND to add shielding lines on the FPC to reduce EMI.

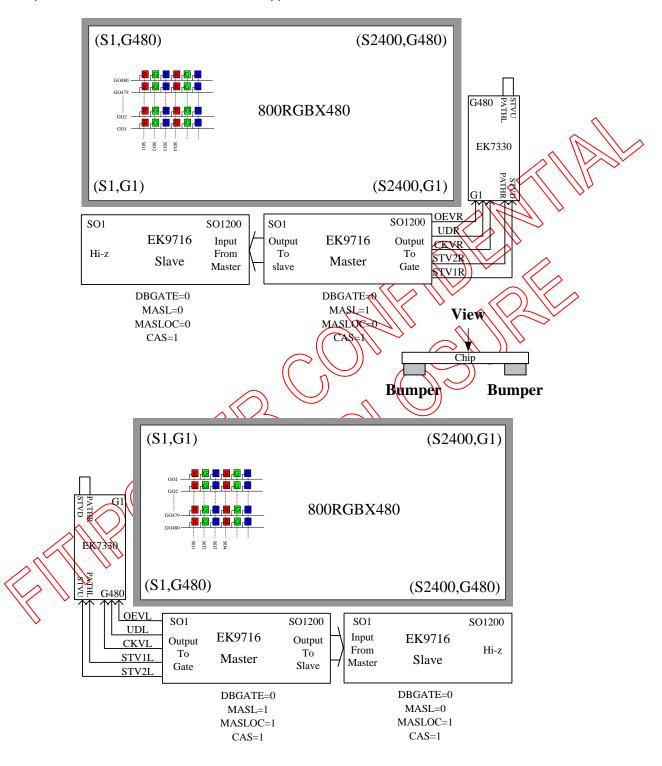
Table 2. EK9716 Pass Line Description:

1 able 2. EK9/1	16 Pass Line Des				
Pass Line No:		Name			
1	COM_PASSR	COM_PASSR			$\wedge$
2	COM_PASSL	COM_PASSL			
		<u> </u>			
					1121
				_ <<	
					/) ·
			(		
				<b>//</b> \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
				$\gamma$ .	
			>(( ))/		<i>)</i> )
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			))	$(( \ \ \ \ \ \ ))$	
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	11/11				
	, //	4)			



#### 4.1. Chip Driver configuration examples of the EK9716

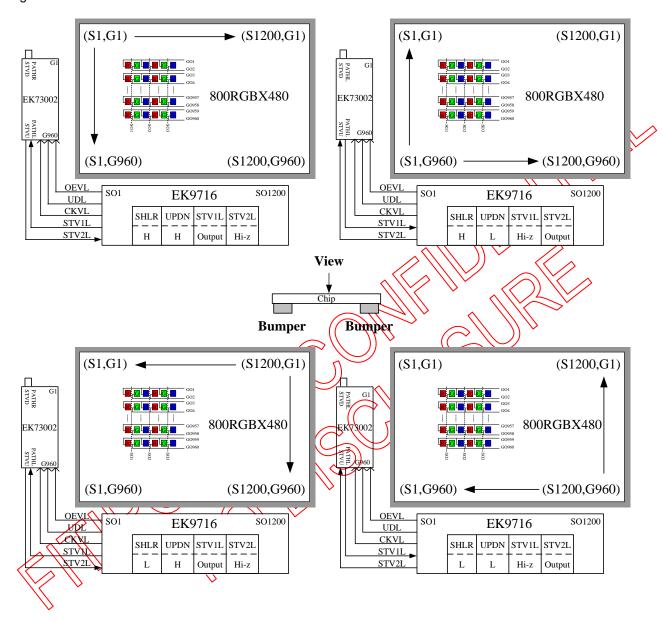
Two pieces of EK9716 driver are cascaded application for 800RGB x480





#### 4.2. EK9716 put down and EK73002 put left side for 800RGBx480 of dual-gate mode

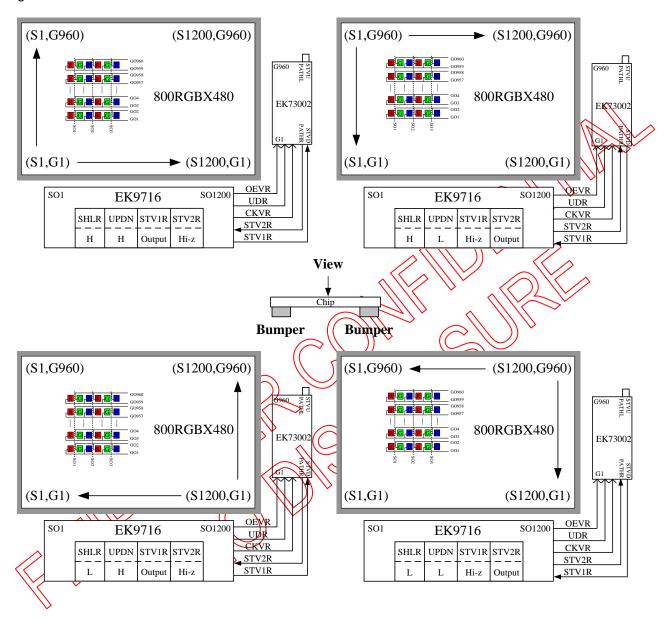
When DBGATE=1, MASL=1, MASLOC=X and CAS=0, application of the EK9716 will be illustrated as figure.





#### 4.3. EK9716 put down and EK73002 put right side for 800RGBx480 of dual-gate mode

When DBGATE=1, MASL=1, MASLOC=X and CAS=0, application of the EK9716 will be illustrated as figure.





#### 4.4. Value of wiring resistance to each pin

The recommended wiring resistance values are shown below. The wiring resistance values affect the current capacity of the power supply, so be sure to design using values that do not exceed those recommended.

Table 3. wiring resistance

Pin Name	Wiring resistance value( $\Omega$ )	Pin Name	Wiring resistance value (Ω)
VDD	<25	BIST	<1K
VDDA	<5	CAS	<1K
VSS	<25	CSB/SCL/SDA	<200
VSSA	<5	DATR[17:0]	<200 & 20 pf
GMAV1~GMAV14	<10	DCLKR	<200 & 20 pt
DR[07:00]	<200	DIOR	<200 & 20 pf
DG[07:00]	<200	POLR	≥200 & 20 pf
DB[07:00]	<200	LDR	<200 & 20 pf
DEN	<200	SYNCR	<200 & 20 pt
MODE	<1K	DATLITZO	<200 & 20 pf
RES[1:0]	<1K	DCLKL	200 & 20 pf
DITHB	<1K	DIOL	<200 & 20 pf
CLKPOL	<1K)	POLL	<200 & 20 pf
DIMO	<1K	LDL	<200 & 20 pf
DBGATE	SHE I	CASCADE GMAV1~GMAV14	<30
RSTB	<1K	CLKIN	<50
MASL	€1K V	HSD	<200
MASLOC	(AK)	VSD	<200
SHLR	// XIK		
UPDN	<1K		

# **fitipower**Table 4. DATR[17:0] / DATL[17:0] pin mapping Table:

Table 4. DA	TR[17:0] / DATL					
	DBGATE = "0"	DBGATE = "0"	DBGATE = "0"	DBGATE = "0"	DBGATE = "1"	DBGATE = "0"
DATR[17:0]	MASL = "1"	MASL = "1"	MASL = "0"	MASL = "0"	MASL = "1"	MASL = "1"
	MASLOC = "0"	MASLOC = "1"	MASLOC = "0"	MASLOC = "1"	MASLOC = "X"	MASLOC = "X"
	CAS = "1"	CAS = "1"	CAS = "1"	CAS = "1"	CAS = "0"	RES[1:0]="1X"
						CAS = "0"
	Master for	Master for	Slave for	Slave for	Dual Gate	Single Source
Description	cascade.	cascade.	cascade.	cascade.	Mode	Mode
·	Master locate	Master locate	Master locate	Master locate		
	on panel right	on panel left	on panel right	on panel left		
	side	side	side	side		
DATR0	Х	DAT0	DAT0	Х	Х	XX
DATR1	X	DAT1	DAT1	Х	Х	C/K/M
DATR2	OEV	DAT2	DAT2	Х	OEV 💉	DEV
DATR3	X	DAT3	DAT3	Х	X	\\\\X
DATR4	UD	DAT4	DAT4	X	UD	\\\\UD
DATR5	X	DAT5	DAT5	X	~X//	X
DATR6	CKV	DAT6	DAT6	X	CKA	CKV
DATRO DATR7	X	DATO DAT7	DATO DAT7	X	X	X
				X	11///	
DATR8	STV1	DAT8	DAT8		STYY	STV1
DATR9	X	DAT9	DAT9	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	X	X
DATR10	STV2	DAT10	DAT10	X\\\\	STV2	STV2
DATR11	X	DAT11	DAT11			X
DATR12	STV1	DAT12	DAT12	////X	\$\(\f\)\	STV1
DATR13	X	DAT13	DAT13	<b>X</b>		Х
DATR14	Х	DAT14	DAT/A	$\times$	// / <u>/</u> *//	Х
DATR15	Χ	DAT15	DAT(15	> X	<b>X</b>	X
DATR16	STBN	DAT16	(DAT 16)	X	STBN	STBN
DATR17	Х	DAT17	(\DAT17	(X)	// X	Х
DCLKR	X	DCLK 🚫	DCLK	(X)	X	Х
DIOR	Х	DIQ	DIO		X	Х
LDR	X	78 V		X	X	X
SYNCR	X	()SYNC	SYNC	n\X	X	X
OTHER		(190%)		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	A	X
DATL0	DAT0	II//IIXV		DAT0	Х	Х
DATE0	DATO			DATO DAT1	X	X
DATL1 DATL2	DAT2	OEV (	// X	DAT1	OEV	OEV
DATL3	DAT3		X	DAT3	X	X
DATL4	DAT4	(D)	X	DAT4	UD	UD
DATL5	NAT5		X	DAT5	X	X
DATL6	DAT6	CKV	X	DAT6	CKV	CKV
BATLY	DAT7		X	DAT7	X	Х
(DATL8)	DAT8	\\STV1	X	DAT8	STV1	STV1
XXTL9 V	DAT9	X	X	DAT9	X	X
DATL10	DAT10	STV2	Х	DAT10	STV2	STV2
DATL11	DAT11	X	X	DAT11	Х	Х
DATL12	DAT12	STV1	X	DAT12	STV1	STV1
DATL13	DAT13	Χ	Х	DAT13	X	Х
DATL14	DAT14	Х	Х	DAT14	Х	Х
DATL15	DAT15	X	X	DAT15	X	X
DATL16	DAT16	STBN	X	DAT16	STBN	STBN
DATE10 DATL17	DAT10	X	X	DAT10 DAT17	X	X
		X	X		X	X
DCLKL	DCLK			DCLK		
DIOL	DIO	X	X	DIO	X	X
LDL	LD	X	X	LD	X	X
SYNCL	SYNC	X	X	SYNC	X	X

#### 5. 3-WIRE SERIAL PORT INTERFACE

#### 5.1. 3-Wire Command Format

EK9716 use the 3-wire serial port as communication interface for all the function and parameter setting.

3-Wire communication can be bi-directional controlled by the "R/W" bit in address field. EK9716 3-Wire engine act as a "slave mode" for all the time, and will not issue any command to the 3-Wire bus itself.

Under read mode, 3-Wire engine will return the data during "Data phase". The returned data should be latched at the rising edge of SCL by external controller. Data in the "Hi-Z phase" will be ignored by 3-Wire engine during write operation, and should be ignored during read operation also. During read operation, external controller should float SDA pin under "Hi-Z phase" and "Data phase".

Each Read/Write operation should be exactly 16 bit. To prevent from incorrect setting of the internal register, any write operation with more or less than 16 bit data during a CSB Low period will be ignored by 3-Wire engine.

For prevent from incorrect setting of the internal register. Please refer to the section of "3-Wire Timing Diagram" for the detail timing.

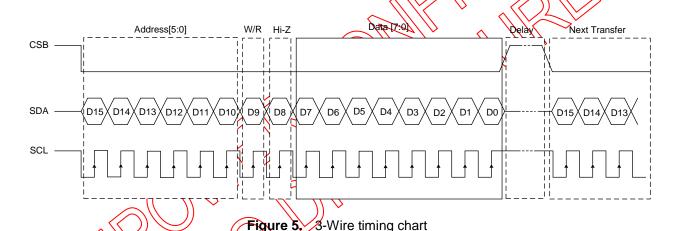


Table 5. 3-Wire Command Format

Bit	Description
D15 - D10	Register Address [5:0].
<b>\\</b> D9	W/R control bit. "0" for Write; "1" for Read
D8	Hi-Z bit during read mode. Any data within this bits will be ignored during write mode
D7 – D0	Data for the W/R operation to the address indicated by Address phase

Table 6. 3-Wire Writer Format

MSB															LSB
D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0
	Register Address [5:0]						Χ		DAT	A (Issu	e by ex	xternal	contr	oller)	

Table 7. 3-Wire Read Format

MSB															LSB
D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0
Register Address [5:0]							Hi-Z	DATA (Issue by 3-Wire engine)							



#### 5.2. 3-Wire Control Registers

Following table list all the 3-Wire control registers and bit name definition for EK9716. Refer to the next section for detail register function description, please.

Setting of all the 3-Wire registers will take effect at the coming falling edge of VSD except GRB and STB bit.

#### 5.3. 3-Wire Control Register List

NO.			Add	ress			R/W	D8	MSB			Initial	value			LSB					
NO.	D15	D14	D13	D12	D11	D10	D9	סט	D7	D6	D5	D4	D3	D2	<b>(D</b> 1	D0					
R0	0	0	0	0	0	0	DAM(O)		RES[1]	RES[0]	SHLR	UPDN	STBYB	GRB		MODE					
KU	0	U	U	U	U		0		U	0 R/W(0)	K/W (U)	14,44 (0)	X	0	0	1	0	1	(1)		1
R1	0	0	0	0	0	1	R/W(0)	Х	NBWB	-	SCI_ON	-		HFRC	рітнв	BIST					
							(-)		1	-	0			1	1	0					

#### Note:

1. The register except upper list was for testing use, to write test register was not allowed.

Table 8. R0: System Control Register

Table 6. Ru. 3	l	in register
Designation	Address	Description
MODE	R0[0]	DE / SYNC mode select.  MODE="0", HSD/VSD mode, MODE="1", DE mode. (Default)
GRB	R0[2]	Global reset bit.  GRB="0", The controller is in reset state.  GRB="1", Normal operation. (Default)
STBYB	R0[3]	Standby mode selection bit.  STBYB="0" Timing control and driver are off. All outputs are High-Z.  STBYB="1" Normal operation. (Default)
UPDN	R0[4]	Gate Up or Down scan control.  UPDN = "0", STV2 output vertical start pulse and UD pin output logical "0" to Gate driver. (Default)  UPDN = "1" STV1 output vertical start pulse and UD pin output logical "1" to Gate driver.
SHER	R0[5]	Right/Left sequence control of source driver. SHLR="0", Shift left: Last data=S1<-S2<-S3 <-S1200=First data. SHLR="1", Shift right: First data=S1->S2->S3>S1200=Last data. (Default)
RES[1:0]	R0[7:6]	Display resolution selection.  RES[1:0] = "00", for 800(RGB)*480 display resolution.(Default)  RES[1:0] = "01", for 800(RGB)*600 display resolution.  RES[1:0] = "10", for 400(RGB)*480 display resolution.  RES[1:0] = "11", for 400(RGB)*240 display resolution.

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Table 9. R1: System Control Register

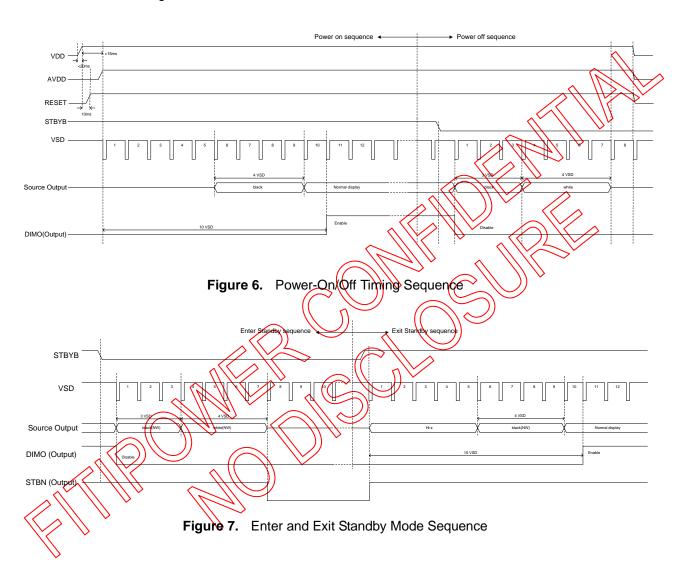
Designation	Address	Description
BIST	R1[0]	Normal Operation/BIST pattern select. BIST = "0" : Normal Operation (Default) BIST = "1" : BIST(DCLK input is not needed)
DITHB	R1[1]	Dithering function enable control. Normally pull high DITHB = "0", Enable internal dithering function. DITHB = "1", Disable internal dithering function.(Default)
HFRC	R1[2]	H-FRC selection.  HFRC = "0": FRC enable.  HFRC = "1": HiFRC enable(Default).  If DITHER = "1", disable dithering function(HiFRC and FRC disable)
SCI_ON	R1[5]	Enable 3-wire control function. Normally pull low SCI_ON = "0": Base on pin control function. (Default) SCI_ON = "1": Base on 3-wire register.
NBWB	R1[7]	Normally black or normally white setting  NBWB = "0" : Normally black  NBWB = "1" : Normally white (Default)



#### 6. FUNCTION DESCRIPTION

#### 6.1. Power On/Off Sequence

In order to prevent IC from power on reset fail, the rising time  $(T_{POR})$  of the digital power supply VDD should be maintained within the given specifications. Refer to "AC Characteristics" for more detail on timing.





#### 6.2. Input Data VS Output Channels

#### 6.2.1. DBGATE="0" (Stripe Mode)

Table 10. SHLR="1", right shift

Output	SO1	SO2	SO3		SO1198	SO1199	SO1200
Order		First data		$\rightarrow$		Last data	
Odd Line	DR[07:00]	DG[07:00]	DB[07:00]		DR[07:00]	DG[07:00]	DB[07:00]
Even Line	DR[07:00]	DG[07:00]	DB[07:00]		DR[07:00]	DG[07:00]	DB[07:00]

Table 11. SHLR="0", left shift

Output	SO1	SO2	SO3		SO1198	SO1199	SO1200
Order		Last data		<b></b>		First data	
Odd Line	DR[07:00]	DG[07:00]	DB[07:00]		DR[07:00]	DG[07:00]	DB[07:00]
Even Line	DR[07:00]	DG[07:00]	DB[07:00]		DR[07:00]	<b>DG[0X:00]</b>	DB[07:00]

#### 6.2.2. DBGATE="1" (Stripe Mode)

Table 12. SHLR="1", right shift

Output	SO1	SO2	SO3		SO1198	SO1199	SO1200
Order		First data		4		Last data	
Odd Line/Gn	DR[07:00]	DB[07:00]	DG[07:00]		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(DB[07:08])	DG[07:00]
Odd Line/Gn+1	DG[07:00]	DR[07:00]	DB[07:00]		DG[07:00]	DR[07:00]	DB[07:00]
Even Line/Gn	DR[07:00]	DB[07:00]	DG[07:00]\\	1	DR[07:00]\	DB[07:00]	DG[07:00]
Even Line/Gn+1	DG[07:00]	DR[07:00]	(DB(0X:00])		DG[07:00]	ĐŔ[07:00]	DB[07:00]

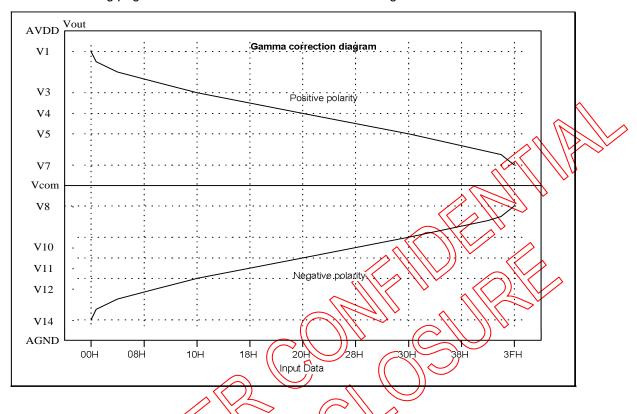
**Table 13.** SHLR="0", left shift

Output	SO1	SO2	SO3		SO1198	SO1199	SO1200
Order	Λ'	Last data	<u> </u>	4		First data	
Odd Line/Gn	DR[07:00]\	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	D&{67:00}	<i>)</i> } `	DR[07:00]	DB[07:00]	DG[07:00]
Odd Line/Gn+1	DG[07:00]	\\DR\(07:00]	(DB(07:60)		DG[07:00]	DR[07:00]	DB[07:00]
Even Line/Gn	DR(07:00)	<b>B</b> [07:00]	DG[07:00]		DR[07:00]	DB[07:00]	DG[07:00]
Even Line/Gn+1	(pg[07:00})	DR[07:00]	<b>B</b> [07:00]		DG[07:00]	DR[07:00]	DB[07:00]

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#### 6.3. Input Data VS Output Voltage

The figure below shows the relationship between the input data and the output voltage. Refer to the following pages for the relative resistor values and voltage calculation method.



#### Remark:

Dual Gate: VDDA-0.1V > V1 > V3 > V4 > V5 > V7; V8 > V10 > V11 > V12 > V14 > VSSA+0.1V Cascade: VDDA-7V > V1 > V3 > V4 > V5 > V7; V8 > V10 > V11 > V12 > V14 > VSSA+1V



#### 6.4. Input Data and Output Voltage Reference Table

Table 14. Gamma correction resistor ratio

V1 V14	Name	Resistor	Name	Resistor	<b>⋖</b> ──V4, V11
V1, V14	R0	8.0	R32	0.63	<b>▼</b> V4, V11
	R1	7.11	R33	0.63	
	R2	6.22	R34	0.63	
	R3	5.33	R35	0.62	
	R4	4.45	R36	0.62	
	R5	3.56	R37	0.62	
	R6	2.97	R38	0.62	
	R7	2.48	R39	0.61	
	R8	2.14	R40	0.61	
	R9	1.89	R41	0.61	
	R10	1.69	R42	0.62	ı
	R11	1.54	R43	0.63	
	R12	1.39	R44	0.64	
	R13	1.28	(R45)	0.64	
	R14	1.21	R46	0.65	
V3, V12— <b>▶</b>	R15	1.14	)R47	((0.67)	<b>◄</b> —V5, V10
, 3, , 12	R16	1.05	R48	0.75	
	R17		R49	0.9	
	R18	0.94	R50	1	
	R19	0.91	R5/1	1	
	))R20	78.0	R52	1.2	
	R21	0.84	R53	1.2	
	R22	Ø.81	R54	1.4	
	R23	0.78	R55	1.5	
	R24	0.76	R56	1.7	
	R25	0.73	R57	2	
	R26	0.71	R58	2.1	
	R27	0.7	R59	2.3	
	R28	0.68	R60	3.1	
	R29	0.67	R61	4.2	
	R30	0.66	R62	20.1	<b>◄</b> ∨7, ∨8
V4, V11——	R31	0.64			.,, .

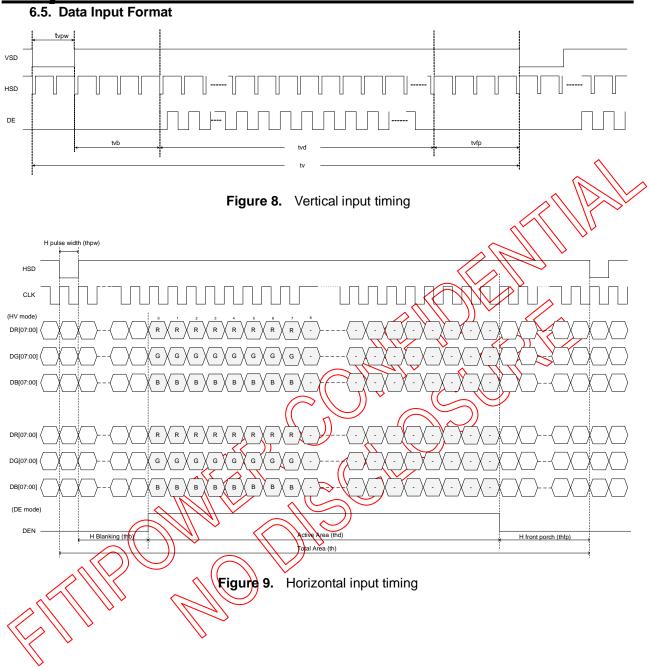


Data	Positive polarity Output Voltage	Negative polarity Output Voltage
00H	V1	V14
01H	V3 + (V1 – V3) X 44.4 / 52.4	V14+ (V12 – V14) X 8 / 52.4
02H	V3 + (V1 – V3) X 37.29 / 52.4	V14+ (V12 – V14) X 15.11 / 52.4
03H	V3 + (V1 – V3) X 31.06 / 52.4	V14+ (V12 – V14) X21.34 / 52.4
04H	V3 + (V1 – V3) X 25.73 / 52.4	V14+ (V12 – V14) X 26.67 / 52.4
05H	V3 + (V1 – V3) X 21.28 / 52.4	V14+ (V12 – V14) X 31.12 / 52.4
06H	V3 + (V1 – V3) X 17.73 / 52.4	V14+ (V12 – V14) X 34.67 \$2.4
07H	V3 + (V1 – V3) X 14.76 / 52.4	V14+ (V12 – V14) X-37.64 / 52.4
08H	V3 + (V1 – V3) X 12.28 / 52.4	V14+ (V12 – V14) X 40,11752.4
09H	V3 + (V1 – V3) X 10.14 / 52.4	V14+ (V12-V14) X 42:26 / 52.4
0AH	V3 + (V1 – V3) X 8.25 / 52.4	V144 (V12 - V14) X 44.15 (52.4)
0BH	V3 + (V1 – V3) X 6.56 / 52.4	V14+ (V12 V14) X 45.84 / 52.4
0CH	V3 + (V1 – V3) X 5.02 / 52.4	V12+ (V12 - V14) X 47.38 / 52.4
0DH	V3 + (V1 – V3) X 3.64/52.4	V14+ (V12 - V14) X 48.76 / 52.4
0EH	V3 + (V1 – V3) X 2.36 / 52.4	V14+ (V12-V44) X 50.04 / 52.4
0FH	V3 + (V1 – V3) X) 1.14 / 52.4	V14+ V12+ V14) X 51.26 / 52.4
10H	NV3	V12
11H	V4+ (V3-V4) X 11.7/12.75	12 + (V11 – V12) X 1.05 / 12.75
12H	V4+ (V3-V4) X10.7/12.75	V12 + (V11 – V12) X 2.05 / 12.75
13H	V4 + (V3 – V4) X 9.76 / 12.75	V12 + (V11 – V12) X 2.99 / 12.75
1414	V4 + (V3 – V4) X 8.85 / 12.75	V12 + (V11 – V12) X 3.9 / 12.75
15H)	V4 = (V3 - V4) X 7.98 / 12.75	V12 + (V11 – V12) X 4.77 / 12.75
16H	V4 + (V3 – V4) X 7.14 / 12.75	V12 + (V11 – V12) X 5.61 / 12.75
17H	V4 + (V3 – V4) X 6.33 / 12.75	V12 + (V11 – V12) X 6.41 / 12.75
18H	V4 + (V3 – V4) X 5.55 / 12.75	V12 + (V11 – V12) X 7.19 / 12.75
19H	V4 + (V3 – V4) X 4.8 / 12.75	V12 + (V11 – V12) X 7.95 / 12.75
1AH	V4 + (V3 – V4) X 4.06 / 12.75	V12 + (V11 – V12) X 8.68 / 12.75
1BH	V4 + (V3 – V4) X 3.35 / 12.75	V12 + (V11 – V12) X 9.4 / 12.75
1CH	V4 + (V3 – V4) X 2.65 / 12.75	V12 + (V11 – V12) X10.09/ 12.75
1DH	V4 + (V3 – V4) X 1.97 / 12.75	V12 + (V11 – V12) X10.78/ 12.75
1EH	V4 + (V3 – V4) X 1.3 / 12.75	V12 + (V11 – V12) X11.44/ 12.75
1FH	V4 + (V3 – V4) X 0.65 / 12.75	V12 + (V11 – V12) X 12.1 / 12.75



Data	Positive polarity Output Voltage	Negative polarity Output Voltage
20H	V4	V11
21H	V5 + (V4 – V5) X 9.37 / 10	V11 + (V10 – V11) X 0.63 / 10
22H	V5 + (V4 – V5) X 8.74 / 10	V11 + (V10 – V11) X 1.26 / 10
23H	V5 + (V4 – V5) X 8.11 / 10	V11 + (V10 – V11) X 1.89 / 10
24H	V5 + (V4 – V5) X 7.49 / 10	V11 + (V10 – V11) X 2.51 / 10
25H	V5 + (V4 – V5) X 6.87 / 10	V11 + (V10 – V11) X 3.13 / 10
26H	V5 + (V4 – V5) X 6.25 / 10	V11 + (V10 – V11) X 3.75 / 10
27H	V5 + (V4 – V5) X 5.63 / 10	V11 + (V10 − V11) X 4.36 \ 10
28H	V5 + (V4 – V5) X 5.02 / 10	V11 + (V10 – V11) X 4.98 × 10
29H	V5 + (V4 – V5) X 4.41 / 10	V11 + (V10 – V11) X 5.59 / 10
2AH	V5 + (V4 – V5) X 3.8 / 10	V11 + (X10 - X11) X 6.2 / 10
2BH	V5 + (V4 – V5) X 3.18 / 10	V11 + (V10 - V11) X 6-82 \ 10
2CH	V5 + (V4 – V5) X 2.55 / 10	V17+ (V10 - V11) X 7.45/10
2DH	V5 + (V4 – V5) X 1.91	V11+ (V10-V11) X 8.08 / 10
2EH	V5 + (V4 – V5) X 1.27 \ 10	V11 + (V10 - V11) X 8.72 / 10
2FH	V5 + (V4 – V5) X 0.62 10	V1 (+ (V10 - V11) X 9.38 / 10
30H	Ve	V10
31H	V7 + (V5 - V7) & 43.7 / A4:45	V10+ (V8 – V10) X 0.75 / 44.45
32H	V7+(V5-V7) X 42:8 44:45	V10 + (V8 – V10) X 1.65 / 44.45
33H	V7+ (V5 – V7) X 41.8 / 44.45	V10 + (V8 – V10) X 2.65 / 44.45
34H	7 + (V5 77) X 40.8/ 44.45	V10 + (V8 – V10) X 3.65 / 44.45
35H	V7 + (V5 – V7) X 39.6 / 44.45	V10 + (V8 – V10) X 4.85 / 44.45
36H	VX+(V5-V7) X 38.4 / 44.45	V10 + (V8 – V10) X 6.05 / 44.45
37H	V7 + (V5 – V7) X 37 / 44.45	V10 + (V8 – V10) X 7.45 / 44.45
38H	V7 + (V5 – V7) X 35.5 / 44.45	V10 + (V8 – V10) X 8.95 / 44.45
39H	V7 + (V5 – V7) X 33.8 / 44.45	V10 + (V8 – V10) X10.6 / 44.45
3AH	V7 + (V5 – V7) X 31.8 / 44.45	V10 + (V8 – V10) X 12 / 44.45
3ВН	V7 + (V5 – V7) X 29.7/ 44.45	V10 + (V8 – V10) X 14.7 / 44.45
3CH	V7 + (V5 – V7) X 27.4 / 44.45	V10 + (V8 – V10) X 17 / 44.45
3DH	V7 + (V5 – V7) X 24.3 / 44.45	V10 + (V8 – V10) X 20.1 / 44.45
3EH	V7 + (V5 – V7) X 20.1 / 44.45	V10 + (V8 – V10) X 24.3 / 44.45
3FH	V7	V8







#### 6.6. Timing Characteristic (TA = 25°C, VDD = 3.3V)

#### 6.6.1. For 800 × 480 panel (Dual gate mode/Cascade mode)

#### I. Dual gate mode

Table 16. Horizontal input timing

Parameter	Symbol	Value			Unit	Note
Horizontal display area	thd		800		DCLK	
DCLK frequency	fclk	Min.	Тур.	Max		
DCLK frequency	ICIK	28.2	29.2	46.5	MHz	$\wedge$
1 Horizontal Line	th	908	928	1088		thbathpw=88
HSD pulse width	thpw	1	48	87	DCLK	DCLKis
HSD Back Porch (Blanking)	thb	87	40	1		\\fixed.
HSD Front Porch	thfp	20	40	200	_ (  '	/ 0.

Table 17. Vertical input timing

Parameter	Symbol	Min.	Тур.	Max.	Unit	Note
Vertical display area	tvd		480		У Н //	
VSD period time	tv	517	525	712	#	
VSD pulse width	tvpw	1 ,	1/4/	3	((H))	tvpv/+tvb=32H Is fixed
VSD Back Porch (Blanking)	tvb	31	34	29	// H	S 13 lixeu
VSD Front Porch	tvfp	<u>(</u> 5	////3	200	))H\	

#### II. Cascade mode

Table 18. Horizontal input timing

Table 101 Honzontal Inpat tilling		$\overline{}$	A 11	7.1		
Parameter	Symbol		Value		Unit	Note
Horizontal display area	that	((	800		DCLK	
DCLK frequency	fclk	Min.	Jyp.	Max		
DOLK frequency	W CIK	28.2	29.2	40	MHz	
1 Horizontal Line	th	908	928	1088		thb+thpw=88
HSD pulse width	thpw	)) 🔀	48	87	DCLK	DCLK is
HSD Back Porch (Blanking)	thp	87	40	1	JOLIN	fixed.
HSD Front Porch	\\\ thfp	20	40	200		

Table 19. Vertical input timing

Parameter	Symbol	Min.	Тур.	Max.	Unit	Note
Vertical display area	tvd		480		Н	
VSD period time	tv	517	525	613	Н	(
VSD pulse width	tvpw	1	1	3	Н	tvpw+tvb=32H Is fixed
VSD Back Porch (Blanking)	tvb	31	31	29	Н	10 lixed
VSD Front Porch	tvfp	5	13	101	Н	



6.6.2. For 800 × 600 panel (Dual gate mode)

Table 20. Horizontal input timing

Parameter	Symbol		Value		Unit	Note
Horizontal display area	thd		800		DCLK	
DCLK fraguanay	fclk	Min.	Тур.	Max		
DCLK frequency	ICIK	35.1	39.6	50	MHz	
1 Horizontal Line	th	908	1000	1088		thb+thpw=88
HSD pulse width	thpw	1	48	87	DCLK	DCLK is
HSD Back Porch (Blanking)	thb	87	40	1		fixed.
HSD Front Porch	thfp	20	112	200	1	11

Table 21. Vertical input timing

Parameter	Symbol	Min.	Тур.	Max.	Unit	Note
Vertical display area	tvd		600		THE	7
VSD period time	tv	644	660	766	N/	
VSD pulse width	tvpw	1	1	3	P	tvpw+tvb=39H  Is fixed
VSD Back Porch (Blanking)	tvb	38	38	( 36 )	Ун //	13 lixeu
VSD Front Porch	tvfp	5	21	127	五	

Table 22. Horizontal input timing

			-4	/// *	$\sim$		
6.6.3. For 400 × 480 panel (Dual gate mode)  Table 22. Horizontal input timing							
Parameter	Symbol		Value		Unit		
Horizontal display area	thd		400		DCLK		
DCI K fraguanay	fclk	Min	Тур.	Max			
DCLK frequency	ICIK	\\ <b>\\5</b> .8	16.4	29.4	MHz		
1 Horizontal Line	th	508	520	688		thb+thpw=88	
HSD pulse width	thpw	1	48	87	DCLK	DCLK is	
HSD Back Porch (Blanking)	thb	87	40	1	DOLK	fixed.	
HSD Front Porch	thfp	20	32	200			

Table 23. Vertical input timing

Parameter	Symbol	Min.	Тур.	Max.	Unit	
Vertical display area	tvd		480		Н	
VSD period time	tv	517	525	712	Н	t
VSD pulse width	tvpw	1	1	3	Н	tvpw+tvb=32H Is fixed
VSD Back Porch (Blanking)	tvb	31	31	29	Н	io lixed
VSD Front Porch	tvfp	5	13	200	Н	

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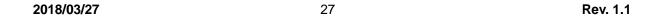
6.6.4. For 400 × 240 panel (Dual gate mode)

Table 24. Horizontal input timing

Parameter	Symbol		Value		Unit	
Horizontal display area	thd		400		DCLK	
DCLK fraguancy	fclk	Min.	Тур.	Max		
DCLK frequency	ICIK	8	8.4	18.9	MHz	
1 Horizontal Line	th	508	520	688		thb+thpw=88
HSD pulse width	thpw	1	48	47	DCLK	DCLK is
HSD Back Porch (Blanking)	thb	87	40	1	DCLK	fixed.
HSD Front Porch	thfp	20	32	200	1	~ //

Table 25. Vertical input timing

Parameter	Symbol	Min.	Тур.	Max.	Unit	
Vertical display area	tvd		240		(4)	
VSD period time	tv	262	270	457	A	
VSD pulse width	tvpw	1	1	3	H	tvpw+tvb=17H Is fixed
VSD Back Porch (Blanking)	tvb	16	16	(\\14 \)	V н /	
VSD Front Porch	tvfp	5	13	200	上	





#### 7. ELECTRICAL SPECIFICATION

#### 7.1. Absolute Maximum Ratings

Table 26. VOLTAGE (TA = 25°C, VSS = VSSA = 0V)

	Min.	Max.	Unit
Digital Supply Voltage, VDD	-0.5	+5.0	V
Analog Supply Voltage, VDDA, V1~V14	-0.5	+15.0	V

#### Table 27. TEMPERATURE

	Min.	Max.	Unit
Operating temperature	-20	+85	1/200V
Storage temperature	-55	+125	//√°C

#### **Comments**

Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only. Functional operation of this device at these or any other conditions above those indicated in the operational sections of this specification is not implied and exposed to absolute maximum rating conditions for extended periods may affect device reliability.

#### 7.2. Recommended Operating Range

Table 28. Recommended Operating Range (TA -20 to 85°C, VS = VSSA = 0V)

Parameter	Symbol	Min.	Тур.	Max.	Unit
Digital supply voltage(Dual gate)	NØD.	> 1.7	3.3	3.6	V
Digital supply voltage(Cascade)	(VDD)	3.0	3.3	3.6	V
Analog supply voltage	<b>₩</b> DA	(6.5)	-	13.5	V
Digital input voltage	) VIV		-	VDD	V

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7.3. DC Characteristics

Table 29. DC Characteristics

 $(TA = -20 \text{ to } 85^{\circ}\text{C}, VDD = 1.7 \text{ to } 3.6\text{V}, VDDA = 6.5 \text{ to } 13.5\text{V}, VSS = VSSA = 0\text{V})$ 

Parameter	Symbol	Condition	Min.	Тур.	Max.	Unit
Low level input voltage	Vil	For the digital circuit	0	-	0.3×VDD	V
High level input voltage	Vih	For the digital circuit	0.7×VDD	-	VDD	V
Input leakage current	li	For the digital circuit	-	-	±1	μΑ
High level output voltage	Voh	Ioh= -400 μA	VDD-0.4	-	A	V
Low level output voltage	Vol	Iol= +400 Ma	-	-	V8\$+0.4	
Pull low/high resistor	Ri	For the digital input pin @ VDD=3.3V	200K	250K	360K	ohm
Digital Operation current	ldd	Fclk=50 MHz, FLD=48KHz, VDD=3.3V	- (	14	18	mA
Digital Stand-by current	lst1	Clock and all functions are stopped		10	50	μΑ
Analog Operating Current	ldda	No load, Fclk=50MHz, FLD=48KHz @ VDDA=10V, V1=8V, V14=0.4V			12	mA
Analog Stand-by current	lst2	No load, Clock and all functions are stopped		10	50	μΑ
Input level of V1 ~ V7	Vref1	Gamma correction voltage input(Cascade Mode)	0.4*VDDA	<i>り</i> -	VDDA-1	V
Input level of V8 ~ V14	Vref2	Gamma correction voltage input Cascade Mode	VSSA+1	-	0.6*VDDA	V
Input level of V1 ~ V7	Vref3	Gamma correction voltage input(Dual Gate Mode)	0.4*VDDA	-	VDDA-0.1	V
Input level of V8 ~ V14	Vre/4	Gamma correction voltage input(Dual Gate Mode)	VSSA+0.1	-	0.6*VDDA	V
Output Voltage deviation	Vod1	Vo = V\$\$A+0.1V ~ V\$\$A+0.5V and Vo = VDDA-0.5V ~ VDDA-0.1V	-	±20	±35	mV
Output Voltage deviation	Vod2	Vo = VSSA+0.5V ~ VDDA-0.5V	-	±15	±20	mV
Output Voltage Offset between Chips	Voc	Vo = VSSA+0.5V ~ VDDA-0.5V	-	-	±20	mV
Dynamic Range of Output	Vdr	SO1 ~ SO1200	0.1	-	VDDA-0.1	V
Sinking Current of Outputs	lOLy	SO1 ~ SO1200; Vo=0.1V v.s 1.0V , VDDA=13.5V	80	-	-	uA
Driving Current of Outputs	ЮНу	SO1 ~ SO1200; Vo=13.4V v.s 12.5V , VDDA=13.5V	80	-	-	uA
Resistance of Gamma Table	Rg	Rn: Internal gamma resistor	0.7*Rn	1.0*Rn	1.3*Rn	ohm



#### 7.4. AC Characteristics

Table 30. AC Characteristics

 $(TA = -20 \text{ to } 85^{\circ}\text{C}, \ VDD = 1.7 \text{ to } 3.6\text{V}, \ VDDA = 6.5 \text{ to } 13.5\text{V}, \ VSS = VSSA = 0\text{V})$ 

Parameter	Symbol	Condition	Min.	Тур.	Max.	Unit
VDD Power On Slew rate	T <sub>POR</sub>	From 0V to 90% VDD	-	-	20	ms
RSTB pulse width	T <sub>RST</sub>	CLKIN = 50MHz	50	-	-	us
CLKIN cycle time	Tcph	-	20	-	-	ns
CLKIN pulse duty	Tcwh	-	40	50	60	%
VSD setup time	Tvst	-	8	-	A .	ns
VSD hold time	Tvhd	-	8	-//	1 - 1/2	30
HSD setup time	Thst	-	8	75-7	1/1	ns
HSD hold time	Thhd	-	8		)  -	ns
Data set-up time	Tdsu	DR[7:0], DG[7:0], DB[7:0] to CLKIN	8		ı	ns
Data hold time	Tdhd	DR[7:0], DG[7:0], DB[7:0] to CLKIN	8	<i>/</i> // -	-	ns
DEN setup time	Tesu	-	18	-//	-	ns
DEN hold time	Tehd	-	8	$\mathbb{A}^{(\!\!(\!\!\cdot\!\!\!)}$	<b>/</b> -	ns
Output stable time	Tsst	10% to 90% target voltage			6	us

#### 7.5. Timing Table

Table 31. Parallel 24-bit RGB Mode

Table 31. I arailer 24-bit NOD Wode			$\sim$ $\sim$			
Parameter	Symbol	Condition	Min.	Тур.	Max.	Unit
CLKIN Frequency(Dual gate)	Folk	₩DD = 3.3₩	<i>)) -</i>	29.2	46.5	MHz
CLKIN Cycle Time(Dual gate)	Tctk	-	22	34	-	ns
CLKIN Frequency(cascade)	Fck	VDB = 3.3V)	-	29.2	40	MHz
CLKIN Cycle Time(cascade)	Tclk		25	34	-	ns
CLKIN Pulse Duty	Tcwb	TCIK	40	50	60	%
Time from HSD to Source Output	Thso		-	46	-	CLKIN
Time from HSD to LD	Thld	-	-	46	-	CLKIN
Time from (HSD to STV	Thstv	-	-	2	-	CLKIN
Time from HSD to CKV	Thckv	-	-	20	-	CLKIN
Time from HSD to OEV	Thoev	-	-	4	-	CLKIN
LD Rulse W idth	Twld			10		CLKIN
CKV Pulse Width	Twckv	-	-	66	-	CLKIN
OEV Pulse Width	Twoev	-	-	74	-	CLKIN
						_

#### 7.6. Timing Waveform

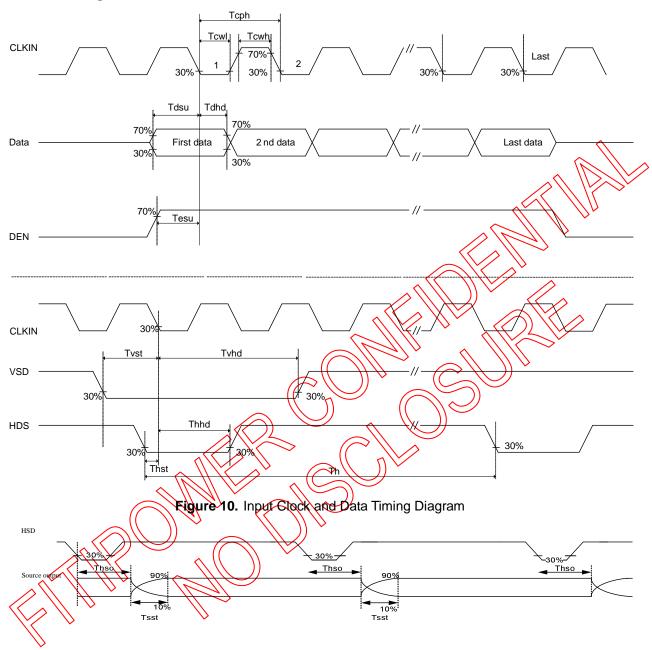


Figure 11. Source Output Timing Diagram(Cascade)

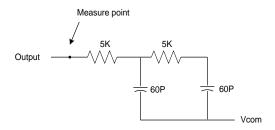


Figure 12. Output load condition

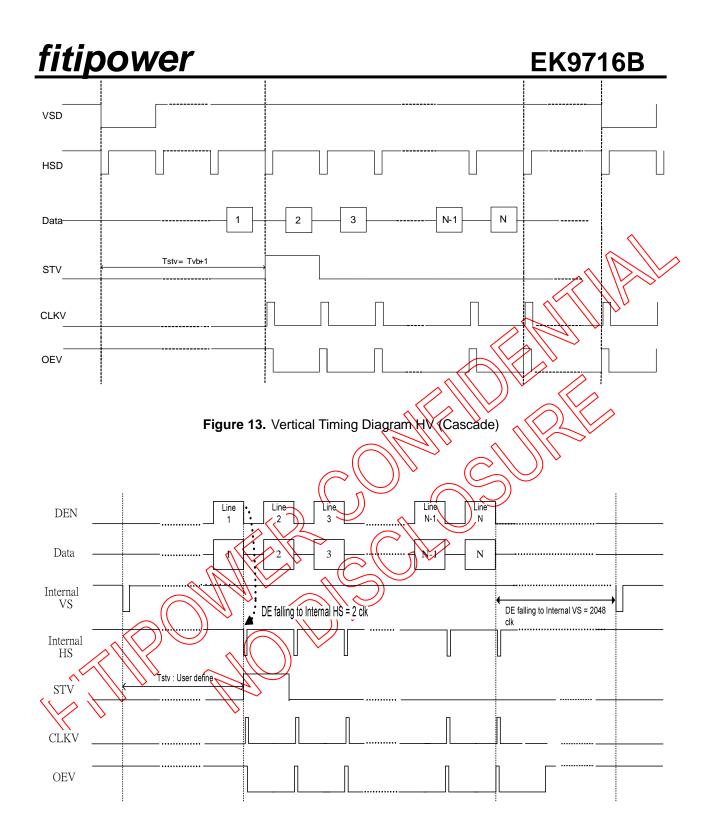


Figure 14. Vertical Timing Diagram DE (Cascade)



## **EK9716B**

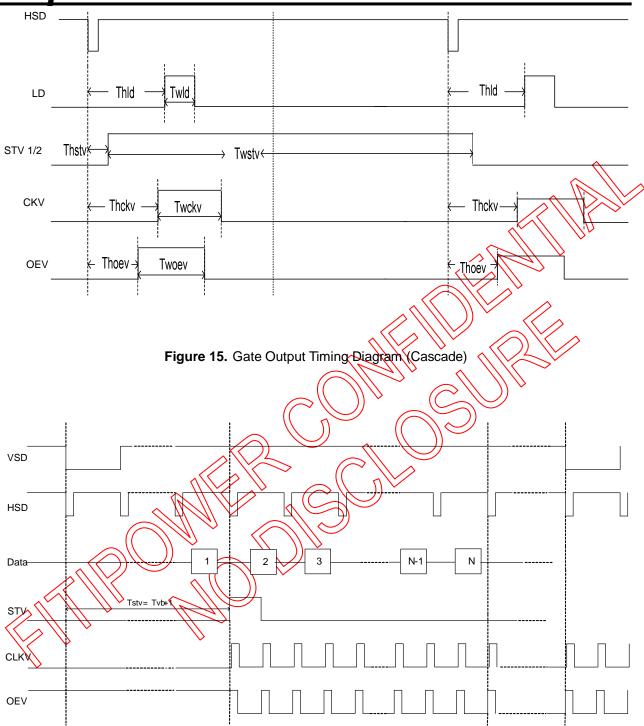


Figure 16. Vertical Timing Diagram HV (Dual Gate)

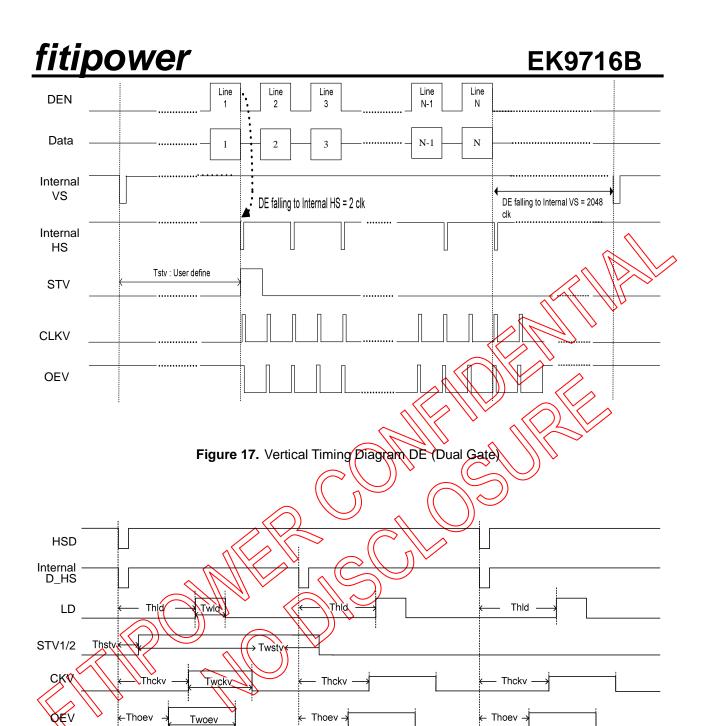


Figure 18. Gate Output Timing Diagram (Dual Gate)

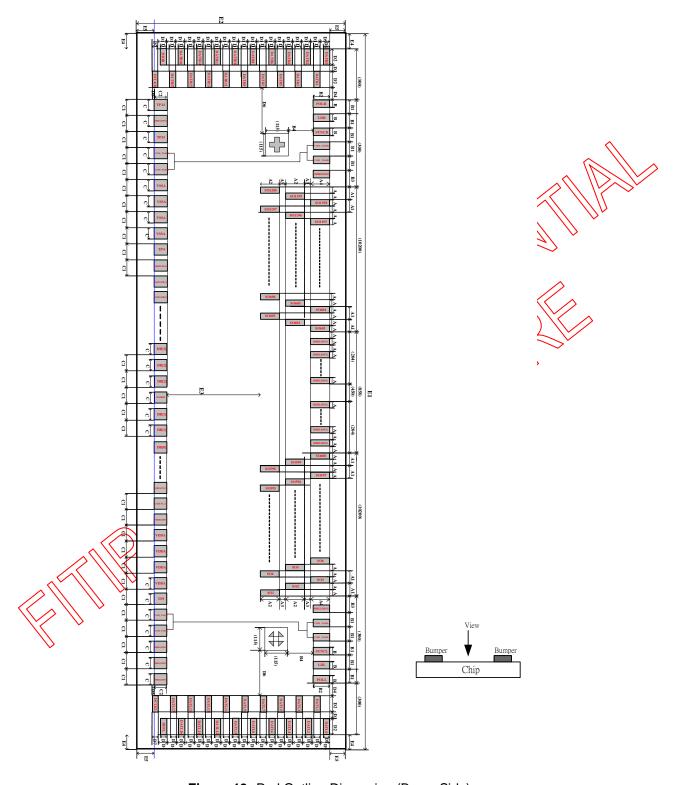


Figure 19. Pad Outline Dimension (Bump Side)

#### 8.1. Alignment Mark

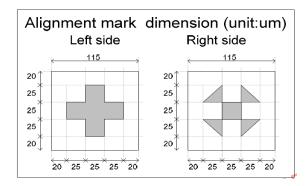


Figure 20. Alignment Mark

#### 8.2. Pad Information

Symbol	Dimension(um)		Symbol	Dimension(um)	
A	17	<	Dh	40	
A1	34	The state of the s	1/2/3	100	<b>&gt;</b> /
A2	110		D3 (	30	
A3	30		D4	70	
A4	102		D5_	1	
В	30		D6	168.5	
B1	30		D7	27	
B2	62		D8	23.5	
B3	50		D9	33.5	
<b>B</b> 4	191(5		E1	22487 (max) *	
//C	(F63)		E2	803 (max) *	
C1	85		E4	14.5(max)	
C2	72		E5	12.5(max)	
D	30				

\*Note: Chip dimension (not include srcibe line)

#### 8.3. Pad Coordinates

No         Name         CX         CY           1         TP0         -10922.5         -353           2         SHIELDING[1]         -10837.5         -353           3         TP1         -10752.5         -353           4         COM_PASSR         -10667.5         -353           5         COM_PASSR         -10582.5         -353           6         VSSA         -10412.5         -353           7         VSSA         -10412.5         -353           8         VSSA         -10327.5         -353           9         VSSA         -10242.5         -353           10         TP2         -10157.5         -353           11         SHIELDING[2]         -10072.5         -353           12         GMAVR[1]         -9987.5         -353           13         GMAVR[1]         -9987.5         -353           14         SHIELDING[3]         -9817.5         -353           15         GMAVR[2]         -9732.5         -353           16         GMAVR[2]         -9647.5         -353           17         SHIELDING[4]         -9562.5         -353           20         SHIELDING				
2 SHIELDING[1] -10837.5 -353 3 TP1 -10752.5 -353 4 COM_PASSR -10667.5 -353 5 COM_PASSR -10582.5 -353 6 VSSA -10497.5 -353 7 VSSA -10412.5 -353 8 VSSA -10242.5 -353 9 VSSA -10242.5 -353 10 TP2 -10157.5 -353 11 SHIELDING[2] -10072.5 -353 12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9987.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9647.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9477.5 -353 19 GMAVR[4] -922.5 -353 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -922.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9082.5 -353 24 GMAVR[6] -8712.5 -353 25 GMAVR[6] -8712.5 -353 27 GMAVR[6] -8797.5 -353 28 GMAVR[6] -8712.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	No	Name	CX	CY
3 TP1 -10752.5 -353 4 COM_PASSR -10667.5 -353 5 COM_PASSR -10582.5 -353 6 VSSA -10497.5 -353 7 VSSA -10412.5 -353 8 VSSA -10327.5 -353 9 VSSA -10242.5 -353 10 TP2 -10157.5 -353 11 SHIELDING[2] -10072.5 -353 12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9987.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 19 GMAVR[4] -9222.5 -363 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9082.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8797.5 -353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8797.5 -353 28 GMAVR[6] -8712.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	1	TP0	-10922.5	-353
4 COM_PASSR -10667.5 -353 5 COM_PASSR -10582.5 -353 6 VSSA -10497.5 -353 7 VSSA -10412.5 -353 8 VSSA -10327.5 -353 9 VSSA -10242.5 -353 10 TP2 -10157.5 -353 11 SHIELDING[2] -10072.5 -353 12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9987.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9477.5 -353 19 GMAVR[4] -9222.5 -353 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -9137.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9082.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8797.5 -353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8797.5 -353 28 GMAVR[6] -8627.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	2	SHIELDING[1]	-10837.5	-353
5         COM_PASSR         -10582.5         -353           6         VSSA         -10497.5         -353           7         VSSA         -10412.5         -353           8         VSSA         -10242.5         -353           9         VSSA         -10242.5         -353           10         TP2         -10157.5         -353           11         SHIELDING[2]         -10072.5         -353           12         GMAVR[1]         -9987.5         -353           13         GMAVR[1]         -9902.5         -353           14         SHIELDING[3]         -9817.5         -353           15         GMAVR[2]         -9732.5         -353           16         GMAVR[2]         -9647.5         -353           17         SHIELDING[4]         -9562.5         -353           18         GMAVR[3]         -9477.5         -353           20         SHIELDING[5]         -9307.5         353           21         GMAVR[4]         -9222.5         -353           22         GMAVR[6]         -8967.5         -353           23         SHIELDING[6]         -802.5         -353           24	3	TP1	-10752.5	-353
6 VSSA -10497.5 -353 7 VSSA -10412.5 -353 8 VSSA -10327.5 -353 9 VSSA -10242.5 -353 10 TP2 -10157.5 -353 11 SHIELDING[2] -10072.5 -353 12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9902.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8967.5 -353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8797.5 -353 28 GMAVR[6] -8797.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	4	COM_PASSR	-10667.5	-353
7 VSSA -10412.5 -353 8 VSSA -10327.5 -353 9 VSSA -10242.5 -353 10 TP2 -10157.5 -353 11 SHIELDING[2] -10072.5 -353 12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9902.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9477.5 -353 19 GMAVR[4] -9222.5 -353 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9222.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8797.5 -353 27 GMAVR[6] -8797.5 -353 28 GMAVR[6] -8797.5 -353 29 SHIELDING[7] -8797.5 -353 30 GMAVR[6] -8627.5 -353 31 GMAVR[7] -8457.5 -353 32 SHIELDING[8] -8202.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353 35 GMAVR[8] -8202.5 -353	5	COM_PASSR	-10582.5	-353
8       VSSA       -10327.5       -353         9       VSSA       -10242.5       -353         10       TP2       -10157.5       -353         11       SHIELDING[2]       -10072.5       -353         12       GMAVR[1]       -9987.5       -353         13       GMAVR[1]       -9902.5       -353         14       SHIELDING[3]       -9817.5       -353         15       GMAVR[2]       -9732.5       -353         16       GMAVR[2]       -9647.5       -353         17       SHIELDING[4]       -9562.5       -353         18       GMAVR[3]       -9477.5       -353         20       SHIELDING[5]       -9307.5       353         21       GMAVR[4]       -9222.5       -353         21       GMAVR[4]       -9222.5       -353         22       GMAVR[4]       -9037.5       -353         23       SHIELDING[6]       -9082.5       -353         24       GMAVR[6]       -8967.5       -353         25       GMAVR[6]       -8712.5       -353         27       GMAVR[6]       -8712.5       -353         29       SHIELDING[6]<	6	VSSA	-10497.5	-353
9 VSSA -10242.5 -353 10 TP2 -10157.5 -353 11 SHIELDING[2] -10072.5 -353 12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9902.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9647.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[6] -8067.5 -353 25 GMAVR[6] -8882.5 -353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	7	VSSA	-10412.5	-353
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11 SHIELDING[2] -10072.5 -353 12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9902.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9082.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8797.5 -353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8797.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8627.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	9	VSSA	-10242.5	-353
12 GMAVR[1] -9987.5 -353 13 GMAVR[1] -9902.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	10	TP2	-10157.5	-353
13 GMAVR[1] -9902.5 -353 14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 353 21 GMAVR[4] -9222.5 -363 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9082.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	11	SHIELDING[2]	-10072.5	-353
14 SHIELDING[3] -9817.5 -353 15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 -353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9082.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8967.5 -353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8627.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	12	GMAVR[1]	-9987.5	-353
15 GMAVR[2] -9732.5 -353 16 GMAVR[2] -9647.5 -353 17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 (353) 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8882.5 353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8712.5 -353 29 SHIELDING[8] -8627.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	13	GMAVR[1]	-9902.5	-353
16 GMAVR[2] -9647.5 -353  17 SHIELDING[4] -9562.5 -353  18 GMAVR[3] -9477.5 -353  19 GMAVR[3] -9392.5 -353  20 SHIELDING[5] -9307.5 353  21 GMAVR[4] -9222.5 -353  22 GMAVR[4] -9137.5 -353  23 SHIELDING[6] -9082.5 -353  24 GMAVR[6] -8967.5 -353  25 GMAVR[6] -8882.5 353  27 GMAVR[6] -8797.5 -353  28 GMAVR[6] -8797.5 -353  29 SHIELDING[8] -8627.5 -353  29 SHIELDING[8] -8627.5 -353  30 GMAVR[7] -8457.5 -353  31 GMAVR[7] -8372.5 -353  32 SHIELDING[9] -8287.5 -353  33 GMAVR[8] -8202.5 -353  34 GMAVR[8] -8202.5 -353	14	SHIELDING[3]	-9817.5	-353
17 SHIELDING[4] -9562.5 -353 18 GMAVR[3] -9477.5 -353 19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5 353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8627.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8202.5 -353	15	GMAVR[2]	-9732.5	-353
18 GMAVR[3] -9477.5 -353  19 GMAVR[3] -9392.5 -353  20 SHIELDING[5] -9307.5 (353)  21 GMAVR[4] -9222.5 -363  22 GMAVR[4] -9137.5 -353  23 SHIELDING[6] -9052.5 -353  24 GMAVR[5] -8967.5 -353  25 GMAVR[5] -8882.5 353  27 GMAVR[6] -8712.5 -353  28 GMAVR[6] -8712.5 -353  29 SHIELDING[8] -8627.5 -353  29 SHIELDING[8] -8542.5 -353  30 GMAVR[7] -8457.5 -353  31 GMAVR[7] -8372.5 -353  32 SHIELDING[9] -8287.5 -353  33 GMAVR[8] -8202.5 -353  34 GMAVR[8] -8117.5 -353	16	GMAVR[2]	-9647.5	-353
19 GMAVR[3] -9392.5 -353 20 SHIELDING[5] -9307.5   353 21 GMAVR[4] -9222.5 -353 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9082.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[5] -8882.5   353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8627.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	17	SHIELDING[4]	-9562.5	-353
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21 GMAVR[4] -9222.5 -363 22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[5] -8867.5 -353 25 GMAVR[5] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	19	GMAVR[3]	-9392.5	-353
22 GMAVR[4] -9137.5 -353 23 SHIELDING[6] -9052.5 -353 24 GMAVR[5] -8967.5 -353 25 GMAVR[5] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8642.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8457.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	20	SHIELDING[5]	-9307.5	<del>-</del> 353
23 SHIELDING[6] -90\$2.5 -353 24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	21	GMAVR[4]	-9222.5	-353
24 GMAVR[6] -8967.5 -353 25 GMAVR[6] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	22	GMAVR[4]	-9137.5	-353
25 GMAVR[5] -8882.5 353 26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	23	SHIELDING[6]	-9052.5	
26 SHIELDING[7] -8797.5 -353 27 GMAVR[6] -8712.5 -353 28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	24	GMAVR[6]	-8967.5	-353
27 GMAVR[6] -8712.5 -353  28 GMAVR[6] -8627.5 -353  29 SHIELDING[8] -8542.5 -353  30 GMAVR[7] -8457.5 -353  31 GMAVR[7] -8372.5 -353  32 SHIELDING[9] -8287.5 -353  33 GMAVR[8] -8202.5 -353  34 GMAVR[8] -8117.5 -353	25	GMAVR[5]	-8882.5	353
28 GMAVR[6] -8627.5 -353 29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	26	SHIELDING[7]	-8797.5	-353
29 SHIELDING[8] -8542.5 -353 30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	27	GMAVR[6]	-8712.5	-353
30 GMAVR[7] -8457.5 -353 31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	28	GMAVR[6]	-8627.5	-353
31 GMAVR[7] -8372.5 -353 32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	29	SHIELDING[8]	-8542.5	-353
32 SHIELDING[9] -8287.5 -353 33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	30	GMAVR[7]	-8457.5	-353
33 GMAVR[8] -8202.5 -353 34 GMAVR[8] -8117.5 -353	31	GMAVR[7]	-8372.5	-353
34 GMAVR[8] -8117.5 -353	32	SHIELDING[9]	-8287.5	-353
	33	GMAVR[8]	-8202.5	-353
35 SHIELDING[10] -8032.5 -353	34	GMAVR[8]	-8117.5	-353
	35	SHIELDING[10]	-8032.5	-353

36         GMAVR[9]         -7947.5         -353           37         GMAVR[9]         -7862.5         -353           38         SHIELDING[11]         -7777.5         -353           39         GMAVR[10]         -7692.5         -353           40         GMAVR[10]         -7607.5         -353           41         SHIELDING[12]         -7522.5         -353           42         GMAVR[11]         -7437.5         -353           43         GMAVR[11]         -7352.5         -353           44         SHIELDING[13]         -7267.5         -353           45         GMAVR[12]         -7097.5         -353           46         GMAVR[12]         -7097.5         -353           47         SHIELDING[14]         -7012.5         -353           48         GMAVR[13]         -6842.5         -353           50         SHIELDING[15]         6762.5         -353           51         GMAVR[14]         -6672.5         -353           52         GMAVR[14]         -6672.5         -353           53         TP3         -6502.5         -353           54         TP4         -6475.5         -353      <				
38 SHIELDING[11] -7777.5 -353 39 GMAVR[10] -7692.5 -353 40 GMAVR[10] -7692.5 -353 41 SHIELDING[12] -7522.5 -353 42 GMAVR[11] -7437.5 -353 43 GMAVR[11] -7352.5 -353 44 SHIELDING[13] -7267.5 -353 45 GMAVR[12] -7182.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 -353 49 GMAVR[13] -6842.5 -353 50 SHIELDING[15] 6757.5 -353 51 GMAVR[14] -6672.5 -353 52 GMAVR[14] -6672.5 -353 53 TP3 -6502.5 -353 54 TP4 -6417.5 -353 55 SHIELDING[16] -6332.5 -353 56 SHIELDING[16] -6332.5 -353 57 SHIELDING[16] -6077.5 -353 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6162.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 64 VDDA -5652.5 -353 65 VDDA -5652.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5142.5 -353 69 VSSA -5142.5 -353	36	GMAVR[9]	-7947.5	-353
39 GMAVR[10] -7692.5 -353 40 GMAVR[10] -7607.5 -353 41 SHIELDING[12] -7522.5 -353 42 GMAVR[11] -7437.5 -353 43 GMAVR[11] -7352.5 -353 44 SHIELDING[13] -7267.5 -353 45 GMAVR[12] -7182.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 -353 49 GMAVR[13] -6842.5 -353 50 SHIELDING[15] 6757.5 363 51 GMAVR[14] -6642.5 -353 52 GMAVR[14] -6642.5 -353 53 TP3 -6502.5 353 54 TP4 -6417.5 -353 55 SHIELDING[16] -6332.5 363 56 SHIELDING[16] -6332.5 363 57 SHIELDING[16] -6077.5 -353 58 SHIELDING[18] -6162.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5142.5 -353 69 VSSA -5142.5 -353	37	GMAVR[9]	-7862.5	-353
40 GMAVR[10] -7607.5 -353 41 SHIELDING[12] -7522.5 -353 42 GMAVR[11] -7437.5 -353 43 GMAVR[11] -7352.5 -353 44 SHIELDING[13] -7267.5 -353 45 GMAVR[12] -7182.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 -353 49 GMAVR[13] -6927.5 -353 50 SHIELDING[15] -6757.5 -353 51 GMAVR[14] -6587.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 -353 54 TP4 -6417.5 -353 55 SHIELDING[16] -6332.5 -353 56 SHIELDING[16] -6332.5 -353 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5142.5 -353 69 VSSA -5142.5 -353	38	SHIELDING[11]	-7777.5	-353
41 SHIELDING[12] -7522.5 -353 42 GMAVR[11] -7437.5 -353 43 GMAVR[11] -7352.5 -353 44 SHIELDING[13] -7267.5 -353 45 GMAVR[12] -7182.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 -353 49 GMAVR[13] -6842.5 -353 50 SHIELDING[15] -6757.5 -353 51 GMAVR[14] -6587.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 -353 54 TP4 -6417.5 -353 55 SHIELDING[16] -6332.5 -353 56 SHIELDING[16] -6332.5 -353 57 SHIELDING[16] -6077.5 -353 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	39	GMAVR[10]	-7692.5	-353
42 GMAVR[11] -7437.5 -353 43 GMAVR[11] -7352.5 -353 44 SHIELDING[13] -7267.5 -353 45 GMAVR[12] -7097.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -6927.5 -353 49 GMAVR[13] -6842.5 -353 50 SHIELDING[15] 6767.5 363 51 GMAVR[14] -6842.5 363 51 GMAVR[14] -6587.5 363 52 GMAVR[14] -6587.5 353 53 TP3 -6502.5 353 54 TP4 -6417.5 353 55 SHIELDING[16] -6332.5 363 56 SHIELDING[16] -6332.5 363 57 SHIELDING[16] -6077.5 -353 58 SHIELDING[18] -6162.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5907.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	40	GMAVR[10]	-7607.5	-353
43 GMAVR[11] -7352.5 -353 44 SHIELDING[13] -7267.5 -353 45 GMAVR[12] -7182.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 -353 49 GMAVR[13] -6842.5 -353 50 SHIELDING[15] -6767.5 -353 51 GMAVR[14] -6587.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 (353 54 TP4 -6417.5 -353 55 SHIELDING[16] -6332.5 -353 56 SHIELDING[16] -6332.5 -353 57 SHIELDING[16] -6077.5 -353 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	41	SHIELDING[12]	-7522.5	-353
44 SHIELDING[13] -7267.5 -353 45 GMAVR[12] -7182.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 -353 49 GMAVR[13] -6842.5 -353 50 SHIELDING[15] -6757.5 -353 51 GMAVR[14] -6672.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 -353 54 TP4 -6417.5 -353 56 SHIELDING[16] -6332.5 -363 57 SHIELDING[16] -6332.5 -353 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	42	GMAVR[11]	-7437.5	-353
45 GMAVR[12] -7182.5 -353 46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 -353 49 GMAVR[13] -6842.5 -353 50 SHIELDING[15] -6757.5 -353 51 GMAVR[14] -6672.5 -353 52 GMAVR[14] -6672.5 -353 53 TP3 -6502.5 -353 54 TP4 -6417.5 -353 55 SHIELDING[16] -6332.5 -353 57 SHIELDING[18] -6162.5 -353 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	43	GMAVR[11]	-7352.5	-353
46 GMAVR[12] -7097.5 -353 47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 383 49 GMAVR[13] -6842.5 363 50 SHIELDING[15] -6767.5 363 51 GMAVR[14] -6587.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 (353 54 TP4 -6417.5 -353 56 SHIELDING[16] -6332.5 363 57 SHIELDING[16] -6077.5 -353 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5667.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	44	SHIELDING[13]	-7267.5	-353
47 SHIELDING[14] -7012.5 -353 48 GMAVR[13] -6927.5 353 49 GMAVR[13] -6842.5 363 50 SHIELDING[15] -6757.5 363 51 GMAVR[14] -6672.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 353 54 TP4 -6417.5 -353 56 SHIELDING[16] -6332.5 363 57 SHIELDING[16] -6332.5 363 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5567.5 -353 65 VDDA -5482.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	45	GMAVR[12]	-7182.5	-353
48 GMAVR[13] -6927.5 353 49 GMAVR[13] -6842.5 353 50 SHIELDING[15] 6757.5 363 51 GMAVR[14] -6672.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 (353 54 TP4 -6417.5 -353 56 SHIELDING[16] -6332.5 363 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	46	GMAVR[12]	-7097.5	-353
49 GMAVR[13] -6842.5 -363 50 SHIELDING[15] 6757.5 363 51 GMAVR[14] -6872.5 -353 52 GMAVR[14] -68787.5 -353 53 TP3 -6502.5 (353 54 TP4 -6417.5 -353 56 SHIELDING[16] -6332.5 363 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 64 VDDA -5652.5 -353 65 VDDA -5652.5 -353 66 VDDA -5482.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	47	SHIELDING[14]	-7012.5	-353
50 SHIELDING[15] 6757.5 363 51 GMAVR[14] 6672.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 (353 54 TP4 -6417.5 -353 55 SHIELDING[16] -6332.5 363 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5567.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	48	GMAVR[13]	-6927.5	7353
51 GMAVR[14] 660 2.5 -353 52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 (353 54 TP4 -6417.5 -353 56 SHIELDING[16] -6332.5 363 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	49	GMAVR[13]	-6842.5	-853
52 GMAVR[14] -6587.5 -353 53 TP3 -6502.5 (353 54 TP4 -64\7.5 -353 56 SHIELDING[16] -6332.5 363 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353 70 VSSA -5057.5 -353	50	SHIELDING[15]	-6757.5	353
53 TP3 -6502.5 (353 54 TP4 -6417.5 -353 56 SHIELDING[16] -6332.5 363 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5567.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353	51	GMAVR[14]	-6672.5	-353
54 TP4 -64 7.5 -353 56 SHIELDING[16] -6332 5 -363 57 SHIELDING[18] -6162.5 -353 58 SHIELDING[19] -6077.5 -353 59 REV -5992.5 -353 60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5652.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353 70 VSSA -5057.5 -353	52	GMAVR[14]	-6587.5	-353
56         SHIELDING[16]         -6332.5         363           58         SHIELDING[18]         -6162.5         -353           57         SHIELDING[18]         -6162.5         -353           58         SHIELDING[19]         -6077.5         -353           59         REV         -5992.5         -353           60         BIST         -5907.5         -353           61         BIST         -5822.5         -353           62         TP5         -5737.5         -353           63         VDDA         -5652.5         -353           64         VDDA         -5567.5         -353           65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	53	TP3	-6502.5	-353
SHIELDING[17]         6247/5         -353           57         SHIELDING[18]         -6162.5         -353           58         SHIELDING[19]         -6077.5         -353           59         REV         -5992.5         -353           60         BIST         -5907.5         -353           61         BIST         -5822.5         -353           62         TP5         -5737.5         -353           63         VDDA         -5652.5         -353           64         VDDA         -5567.5         -353           65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	54	TP4	-6 <b>4</b> 17.5	-353
57         SHIELDING[18]         -6162.5         -353           58         SHIELDING[19]         -6077.5         -353           69         REV         -5992.5         -353           60         BIST         -5907.5         -353           61         BIST         -5822.5         -353           62         TP5         -5737.5         -353           63         VDDA         -5652.5         -353           64         VDDA         -5567.5         -353           65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	55	SHIELDING[16]	-6332.5	-353
58         SHIELDING[19]         -6077.5         -353           69         REV         -5992.5         -353           60         BIST         -5907.5         -353           61         BIST         -5822.5         -353           62         TP5         -5737.5         -353           63         VDDA         -5652.5         -353           64         VDDA         -5567.5         -353           65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	56	SHIELDING[17]	-6247.5	-353
\$9         REV         -5992.5         -353           60         BIST         -5907.5         -353           61         BIST         -5822.5         -353           62         TP5         -5737.5         -353           63         VDDA         -5652.5         -353           64         VDDA         -5567.5         -353           65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	57	SHIELDING[18]	-6162.5	-353
60 BIST -5907.5 -353 61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5567.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353 70 VSSA -5057.5 -353	58	SHIELDING[19]	-6077.5	-353
61 BIST -5822.5 -353 62 TP5 -5737.5 -353 63 VDDA -5652.5 -353 64 VDDA -5567.5 -353 65 VDDA -5482.5 -353 66 VDDA -5397.5 -353 67 SHIELDING[20] -5312.5 -353 68 VSSA -5227.5 -353 69 VSSA -5142.5 -353 70 VSSA -5057.5 -353	59	REV	-5992.5	-353
62       TP5       -5737.5       -353         63       VDDA       -5652.5       -353         64       VDDA       -5567.5       -353         65       VDDA       -5482.5       -353         66       VDDA       -5397.5       -353         67       SHIELDING[20]       -5312.5       -353         68       VSSA       -5227.5       -353         69       VSSA       -5142.5       -353         70       VSSA       -5057.5       -353	60	BIST	-5907.5	-353
63         VDDA         -5652.5         -353           64         VDDA         -5567.5         -353           65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	)61	BIST	-5822.5	-353
64         VDDA         -5567.5         -353           65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	62	TP5	-5737.5	-353
65         VDDA         -5482.5         -353           66         VDDA         -5397.5         -353           67         SHIELDING[20]         -5312.5         -353           68         VSSA         -5227.5         -353           69         VSSA         -5142.5         -353           70         VSSA         -5057.5         -353	63	VDDA	-5652.5	-353
66       VDDA       -5397.5       -353         67       SHIELDING[20]       -5312.5       -353         68       VSSA       -5227.5       -353         69       VSSA       -5142.5       -353         70       VSSA       -5057.5       -353	64	VDDA	-5567.5	-353
67       SHIELDING[20]       -5312.5       -353         68       VSSA       -5227.5       -353         69       VSSA       -5142.5       -353         70       VSSA       -5057.5       -353	65	VDDA	-5482.5	-353
68 VSSA -5227.5 -353 69 VSSA -5142.5 -353 70 VSSA -5057.5 -353	66	VDDA	-5397.5	-353
69 VSSA -5142.5 -353 70 VSSA -5057.5 -353	67	SHIELDING[20]	-5312.5	-353
70 VSSA -5057.5 -353	68	VSSA	-5227.5	-353
	69	VSSA	-5142.5	-353
71 VSSA -4972.5 -353	70	VSSA	-5057.5	-353
	74	VSSA	-4972.5	-353

72	TP6	-4887.5	-353
73	VSS	-4802.5	-353
74	VSS	-4717.5	-353
75	VSS	-4632.5	-353
76	VSS	-4547.5	-353
77	TP7	-4462.5	-353
78	TP8	4377.5	-353
79	TP9	-4292.5	353
80	TP10	-4207.5	-353
81	VRD \	-4122.5	-353
82	VDD	-4037.5	-353
83	VDD	-3952.5	-353
)84	VPD	-3867.5	-353
85	TRIV	<b>3</b> 782.5	-353
86	DBGATE	-3697.5	-353
87	DBGATE	-3612.5	-353
88	CSB	-3527.5	-353
89	MASL	-3442.5	-353
90	MASL	-3357.5	-353
91	SCL	-3272.5	-353
92	MASLOC	-3187.5	-353
93	MASLOC	-3102.5	-353
94	SDA	-3017.5	-353
95	RES[0]	-2932.5	-353
96	RES[0]	-2847.5	-353
97	TP12	-2762.5	-353
98	TP13	-2677.5	-353
99	RES[1]	-2592.5	-353
100	RES[1]	-2507.5	-353
101	TP14	-2422.5	-353
102	TP15	-2337.5	-353
103	DASHD[1]	-2252.5	-353
104	VSD	-2167.5	-353
105	VSD	-2082.5	-353
106	DASHD[2]	-1997.5	-353
107	HSD	-1912.5	-353

	<del></del>												
108	HSD	-1827.5	-353		147	DG[3]	1487.5	-353		186	SHLR	4802.5	-353
109	DASHD[3]	-1742.5	-353		148	DG[2]	1572.5	-353		187	SHIELDING[21]	4887.5	-353
110	DEN	-1657.5	-353		149	DG[2]	1657.5	-353		188	UPDN	4972.5	-353
111	DEN	-1572.5	-353		150	DASHD[12]	1742.5	-353		189	UPDN	5057.5	-353
112	DASHD[4]	-1487.5	-353		151	DG[1]	1827.5	-353		190	TP19	5142.5	-353
113	CLKIN	-1402.5	-353		152	DG[1]	1912.5	-353		191	STBYB	5227.5	-353
114	CLKIN	-1317.5	-353		153	DG[0]	1997.5	-353		192	STBYB	5312.5	-353
115	DASHD[5]	-1232.5	-353		154	DG[0]	2082.5	-353		193	TP20	5397.5	-353
116	DB[7]	-1147.5	-353		155	DASHD[13]	2167.5	-353		194	RSTB	5482.5	-358
117	DB[7]	-1062.5	-353		156	DR[7]	2252.5	-353		195	RSTB	95675	-353
118	DB[6]	-977.5	-353		157	DR[7]	2337.5	-353		196	TRX1	5652.5	-353
119	DB[6]	-892.5	-353		158	DR[6]	2422.5	-353		197	VDB	5737.5	-353
120	DASHD[6]	-807.5	-353		159	DR[6]	2507.5	-353		198	VOD	5822.5	-353
121	DB[5]	-722.5	-353		160	DASHD[14]	2592.5	-353		199	VDD/	5907.5	-353
122	DB[5]	-637.5	-353		161	DR[5]	2677.5	-353		200	<b>∀B</b> D	5992.5	-353
123	DB[4]	-552.5	-353		162	DR[5]	2762.5	<b>-3</b> 53	<b>V</b>	201 <	CAS	6077.5	-353
124	DB[4]	-467.5	-353		163	DR[4]	2847.5	-353		202	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	6162.5	-353
125	DASHD[7]	-382.5	-353		164	DR14	2932.5	-353	(C	203	VSS	6247.5	-353
126	DB[3]	-297.5	-353		165	DASHD[15]	3017.5	-353	//<	204	VSS	6332.5	-353
127	DB[3]	-212.5	-353		168	DR[3]	3102.5	-353	))	205	VSS	6417.5	-353
128	DB[2]	-127.5	-353		167	DR[3]	3187.5	-353		206	NBWB	6502.5	-353
129	DB[2]	-42.5	-353	//	168	DR[2]	3272.5	-353		207	GMAVL[14]	6587.5	-353
130	DASHD[8]	42.5	-353	<i>Ŋ</i> .	169	DR(2)	3357.5	-353		208	GMAVL[14]	6672.5	-353
131	DB[1]	127.5	-368	ľ	170 <	DASHIDIYGI	3442.5	-353		209	SHIELDING[22]	6757.5	-353
132	DB[1]	212.5	353	6	<del>-1</del> 71	DR[1]	3527.5	-353		210	GMAVL[13]	6842.5	-353
133	DB(0)	297.5	-353	$\mathcal{N}$	172	ĎR[1]	3612.5	-353		211	GMAVL[13]	6927.5	-353
134	DB[0]	382.5	353		173	DR[0]	3697.5	-353		212	SHIELDING[23]	7012.5	-353
135	DASHD[9]	467.5	-353		174	DR[0]	3782.5	-353		213	GMAVL[12]	7097.5	-353
136	DG[7]	552.5	-353		175	DASHD[17]	3867.5	-353		214	GMAVL[12]	7182.5	-353
137	OG[7]	637.5	-353		176	TP16	3952.5	-353		215	SHIELDING[24]	7267.5	-353
138	DG[6]	722.5	-353		177	MODE	4037.5	-353		216	GMAVL[11]	7352.5	-353
139	DG[6]	807.5	-353		178	MODE	4122.5	-353		217	GMAVL[11]	7437.5	-353
140	DASHD[10]	892.5	-353		179	CLKPOL	4207.5	-353		218	SHIELDING[25]	7522.5	-353
141	DG[5]	977.5	-353		180	CLKPOL	4292.5	-353		219	GMAVL[10]	7607.5	-353
142	DG[5]	1062.5	-353		181	TP17	4377.5	-353		220	GMAVL[10]	7692.5	-353
143	DG[4]	1147.5	-353		182	DITHB	4462.5	-353		221	SHIELDING[26]	7777.5	-353
144	DG[4]	1232.5	-353		183	DITHB	4547.5	-353		222	GMAVL[9]	7862.5	-353
145	DASHD[11]	1317.5	-353		184	TP18	4632.5	-353		223	GMAVL[9]	7947.5	-353
146	DG[3]	1402.5	-353		185	SHLR	4717.5	-353		224	SHIELDING[27]	8032.5	-353

225   GMAVLI		<u> </u>	<del>'                                    </del>										100	
227   SHIELDING[28]   8287.5   353   266   DATL[13]   11049   -138   304   SO[20]   10297.5   202   229   GMAVL[7]   3457.5   353   268   DATL[11]   11179   -18   306   SO[21]   10280.5   338   323   SHIELDING[39]   8797.5   -353   270   DATL[9]   11179   -18   306   SO[22]   10283.6   62   223   GMAVL[6]   8882.5   -353   270   DATL[9]   11179   -18   306   SO[22]   10283.6   62   232   GMAVL[5]   8882.5   -353   271   DATL[6]   11179   -12   308   SO[24]   1922.9   338   328   SHIELDING[39]   8967.5   -353   272   DATL[9]   11179   422   308   SO[24]   1922.9   338   328   SHIELDING[31]   9867.5   -353   274   DATL[6]   11179   422   308   SO[24]   1922.9   338   328   SHIELDING[31]   9362.5   -353   274   DATL[6]   11179   222   308   SO[25]   10413.5   202   328   SHIELDING[32]   9307.5   -353   275   DATL[9]   11179   300   314   SO[36]   1014.5   202   308   SO[24]   1922.9   338   328   SHIELDING[32]   9307.5   -353   276   DATL[6]   11179   300   314   SO[36]   1014.5   202   308   SO[24]   1922.9   338   328   SHIELDING[32]   9307.5   -353   276   DATL[6]   11179   300   314   SO[36]   1014.5   202   308   SO[24]   1028.5   308   308   SO[24]   1024.5   308   308   SO[25]   1024.5   308   308   SO[25]   1024.5   308   308   SO[26]   1024.5   308   308   SO[27]   10178.5   338   328   SHIELDING[32]   9307.5   -353   276   DATL[6]   11179   300   314   SO[36]   1014.5   202   308   SO[27]   10178.5   338   3	225	GMAVL[8]	8117.5	-353		263	DATL[15]	11049	-218		301	SO[17]	10348.5	202
228   GMAVL[7]   8372.5   353   266   DATL[12]   11179   -98   305   SO[21]   10287.5   202   205   SHIELDING[29]   6542.5   353   269   DATL[9]   11179   -18   306   SO[22]   10283.5   62   202   205	226	GMAVL[8]	8202.5	-353		264	DATL[14]	11179	-178		302	SO[18]	10331.5	338
229   GMAVL[7]   8467.5   363   267   DATL[11]   11049   -58   306   SO[21]   10280.5   338   328   338	227	SHIELDING[28]	8287.5	-353		265	DATL[13]	11049	-138		303	SO[19]	10314.5	62
230   SHIELDING[29]   8542.5   363   268   DATL[10]   11179   -18   300   SO[22]   10263.5   62   232   GMAVL[6]   8712.5   -353   270   DATL[6]   11179   -16   308   SO[22]   10263.5   62   233   SHIELDING[30]   8797.5   -353   274   DATL[7]   11049   102   310   SO[26]   1022.5   338   338   SHIELDING[31]   9052.5   -353   274   DATL[6]   11179   308   311   SO[27]   10178.5   338   338   SHIELDING[32]   3907.5   -353   274   DATL[6]   11179   308   311   SO[27]   10178.5   338   339   SHIELDING[32]   3907.5   -353   275   DATL[6]   11179   308   311   SO[27]   10178.5   338   339   SHIELDING[32]   3907.5   -353   276   DATL[6]   11179   308   311   SO[27]   10144.5   202   312   SO[28]   10161.5   62   313   SO[39]   10172.5   338   338   339   SO[39]   307.5   -353   276   DATL[6]   11179   308   318   SO[39]   10172.5   338   338   SO[39]   307.5   -353   276   DATL[6]   11179   308   318   SO[39]   10172.5   338   328   SO[39]   307.5   -353   276   DATL[6]   11179   308   318   SO[39]   10172.5   338   328   SO[39]   307.5   -353   276   DATL[6]   11179   308   318   SO[39]   10172.5   338   328   SO[39]   307.5   -353   276   DATL[6]   11179   308   318   SO[39]   307.5   -353   276   DATL[6]   11179   308   308   SO[28]   309.5   3	228	GMAVL[7]	8372.5	-353		266	DATL[12]	11179	-98		304	SO[20]	10297.5	202
231   GMAVL[6]   8627.5   -353   270   DATL[9]   11049   22   307   SO[23]   10246.5   202   308   SHIELDING[30]   8797.5   -353   271   DATL[7]   11049   102   309   SO[25]   10229.5   338	229	GMAVL[7]	8457.5	-353		267	DATL[11]	11049	-58		305	SO[21]	10280.5	338
232 GMAVL[6] 8712.6 -363 233 SHIELDING[30] 8797.5 -363 234 GMAVL[5] 8882.5 -363 235 GMAVL[6] 8967.5 -363 236 SHIELDING[31] 9052.5 -363 237 GMAVL[4] 9137.5 -363 238 GMAVL[4] 9137.5 -363 239 SHIELDING[32] 907.5 -363 240 GMAVL[3] 9392.6 -363 241 GMAVL[3] 9392.6 -363 242 SHIELDING[33] 9662.5 -363 243 GMAVL[3] 9392.6 -363 244 GMAVL[3] 9392.6 -363 245 SHIELDING[33] 9662.5 -363 246 GMAVL[3] 9973.5 -363 247 GMAVL[3] 9973.5 -363 248 GMAVL[3] 9973.5 -363 249 GMAVL[3] 9973.5 -363 240 GMAVL[3] 9973.5 -363 241 GMAVL[3] 9973.5 -363 242 SHIELDING[33] 9662.5 -363 243 GMAVL[3] 9973.5 -363 244 GMAVL[3] 9973.5 -363 245 SHIELDING[33] 9973.5 -363 246 GMAVL[3] 9973.5 -363 247 GMAVL[3] 9973.5 -363 248 SHIELDING[33] 9973.5 -363 249 VODA 0102.5 -363 250 VDDA 0102.5 -363 251 VBDA 0327.5 -363 252 VDDA 10412.5 -363 253 SHIELDING[33] 10072.5 -363 254 COM_PASSL 10582.5 -363 255 COM_PASSL 10582.5 -363 256 SHIELDING[33] 10072.5 -363 257 SHIELDING[33] 10072.5 -363 258 SHIELDING[33] 10072.5 -363 259 DCLKL 11049 -376.5  260 DIOL 11179 -338	230	SHIELDING[29]	8542.5	-353		268	DATL[10]	11179	-18		306	SO[22]	10263.5	62
233   SHIELDING[30]   8797.5   .353   271   DATL[7]   11049   102   309   SO[25]   102   86   234   GMAVL[5]   8882.5   .353   272   DATL[6]   11179   142   310   SO[26]   10178.5   338   338   338   SHIELDING[31]   9052.5   .353   274   DATL[4]   11179   222   322	231	GMAVL[6]	8627.5	-353		269	DATL[9]	11049	22		307	SO[23]	10246.5	202
272   DATL[6]   11179   142   310   SQ[6]   10175.5   338   326   SHIELDING[31]   9052.5   353   274   DATL[6]   11179   142   311   SQ[7]   10175.5   338   338   GMAVL[4]   9137.5   353   275   DATL[3]   11049   262   311   SQ[7]   10175.5   338   329   SHIELDING[32]   9307.5   353   275   DATL[4]   11179   300   342   365   SQ[8]   10161.5   62   338   344   SQ[8]   10161.5   62   338   348   S	232	GMAVL[6]	8712.5	-353		270	DATL[8]	11179	62		308	SO[24]	10229.5	338
235 GMAVL[5] 8967.5 -353 236 SHIELDING[31] 9052.5 -353 237 GMAVL[4] 9137.5 -353 238 GMAVL[4] 9137.5 -353 239 SHIELDING[32] 9307.5 -353 240 GMAVL[3] 9392.5 -353 241 GMAVL[3] 9392.5 -353 242 SHIELDING[33] 9562.5 -353 243 GMAVL[2] 9477.5 -353 244 GMAVL[2] 9475353 245 SHIELDING[33] 9562.5 -353 246 GMAVL[1] 9902.5 -353 247 GMAVL[1] 9902.5 -353 248 SHIELDING[35] 1072.5 -353 249 VDDA 1012.5 -353 241 GMAVL[1] 9902.5 -353 242 SHIELDING[35] 1072.5 -353 243 SHIELDING[35] 1072.5 -353 244 GMAVL[1] 9902.5 -353 245 SHIELDING[35] 1072.5 -353 246 SHIELDING[35] 1072.5 -353 247 GMAVL[1] 9902.5 -353 248 SHIELDING[35] 1072.5 -353 249 VDDA 1012.5 -353 250 VDDA 1012.5 -353 251 TP22 10497.5 -353 252 COM_PASSL 10562.5 -353 253 TP22 10497.5 -353 254 COM_PASSL 10562.5 -353 255 COM_PASSL 10562.5 -353 256 SHIELDING[36] 1072.5 -353 257 SHIELDING[36] 1072.5 -353 258 SHIELDING[36] 1072.5 -353 259 DCLKL 11049 -376.5 -353 250 DDLKL 111049 -376.5 -353 251 DDLKL 111049 -376.5 -353 252 DDLKL 11049 -376.5 -353 253 DCLKL 11049 -376.5 -353 254 DDLKL 111049 -376.5 -353 255 DDLKL 111049 -376.5 -353 256 DDLKL 111049 -298 -361[1] 10467.5 -62 257 SHIELDING[36] 1072.5 -353 258 SO[1] 10467.5 -62 259 DCLKL 11049 -376.5 -353 250 DDLKL 111049 -298 -30[15] 10382.5 -338 250 DDLKL 111049 -376.5 -353 250 DDLKL 111049 -376.5 -353 250 DDLKL 111049 -376.5 -353 250 DDLKL 111049 -298 -30[15] 10382.5 -338 250 DDLKL 111049 -298 -30[15] 10382.	233	SHIELDING[30]	8797.5	-353		271	DATL[7]	11049	102		309	SO[25]	102125	62
274   DATL[4]   11179   222   317   \$\infty{\text{College}   10161.5   62   62   62   62   62   62   62   6	234	GMAVL[5]	8882.5	-353		272	DATL[6]	11179	142		310	SQ[26]	10195.5	202
237 GMAVL[4] 9137.5 - 363 238 GMAVL[4] 922.5 - 363 239 SHIELDING[32] 9307.5 - 363 240 GMAVL[3] 9392.5 - 363 241 GMAVL[3] 947.5 - 363 242 SHIELDING[33] 9662.5 - 363 243 GMAVL[2] 9647.5 - 363 244 GMAVL[2] 9732.5 - 363 245 SHIELDING[34] 9817.5 - 363 246 GMAVL[1] 9902.5 - 363 247 GMAVL[1] 9902.5 - 363 248 SHIELDING[35] 10072.5 - 363 249 VDDA 1042.5 - 363 250 VDDA 10412.5 - 363 251 VDDA 1042.5 - 363 252 COM_PASSL 10667.5 - 363 253 SHIELDING[36] 10752.5 - 363 254 COM_PASSL 10582.5 - 363 255 SHIELDING[37] 10837.5 - 363 256 SHIELDING[37] 10837.5 - 363 257 SHIELDING[37] 10837.5 - 363 258 SHIELDING[37] 10837.5 - 363 259 DCLKL 11049 376.5   298 SO[14] 10399.5   202 258 SHIELDING[38] 10922.5 - 363 259 DCLKL 11049 376.5   298 SO[14] 10399.5   202 261 DATL[17] 11049 298 262 DATL[1] 11049 262 276 DATL[2] 11179 302 277 DATL[1] 11049 262 278 DATL[0] 14179 368,75 279 POLL 10914 368 280 LBI 10944 358 281 SVICL 170814 968 282 DOM_PASSL 10764 368 283 COM_PASSL 10764 368 284 SO[6] 1060.5 62 285 SO[1] 1060.5 62 286 SO[1] 1060.5 62 287 SO[6] 10552.5 62 288 SO[6] 10552.5 62 289 SO[6] 10552.5 202 280 SO[6] 10552.5 202 280 SO[6] 10552.5 202 281 SO[7] 10518.5 62 282 SO[8] 10501.5 202 283 SO[9] 10484.5 338 284 SO[14] 10490.5 62 285 SO[11] 10460.5 202 286 SO[12] 10433.5 338 287 SO[13] 10416.5 62 288 SO[14] 10399.5 202 289 SO[14] 10399.5 202 280 SO[15] 10433.5 338 280 SO[15] 10760.5 202 281 SO[15] 10433.5 338 282 SO[15] 10770.5 338 283 SO[15] 10760.5 202 284 SO[15] 10433.5 338 285 SO[15] 10760.5 202 286 SO[12] 10433.5 338 287 SO[15] 10460.5 202 288 SO[14] 10399.5 202 289 SO[15] 10430.5 202 280 SO[15] 10430.5 202 280 SO[15] 10440.5 202	235	GMAVL[5]	8967.5	-353		273	DATL[5]	11049	182		311	SQ[27]	10178.5	338
238	236	SHIELDING[31]	9052.5	-353		274	DATL[4]	11179	222		312	E0[28]	10161.5	62
239   SHIELDING[32]   9307.5   -353   240   GMAVL[3]   9392.5   -353   221   GMAVL[3]   9477.5   -353   222   241   GMAVL[3]   9477.5   -353   220   LB	237	GMAVL[4]	9137.5	-353		275	DATL[3]	11049	262		313	\$0[29]	10144.5	202
240 GMAVL[3] 9392.5 -363 241 GMAVL[3] 9477.5 -363 242 SHIELDING[33] 9562.5 -363 243 GMAVL[2] 9647.5 -353 244 GMAVL[2] 9732.5 -353 245 SHIELDING[34] 9817.5 -353 246 GMAVL[1] 9902.5 -353 247 GMAVL[1] 9987.5 -353 248 SHIELDING[35] 10772.5 -353 249 VDDA 1042.5 -353 251 VDDA 10412.5 -353 251 VDDA 10412.5 -353 252 COM_PASSL 10569.5 62 253 TP2 10497.5 -353 254 COM_PASSL 10569.5 62 255 COM_PASSL 10562.5 -353 256 SHIELDING[36] 10752.5 -353 257 SHIELDING[36] 10752.5 -353 258 SHIELDING[36] 10752.5 -353 259 DCLKL 11049 -376.5 260 DIOL 11179 -338 261 DATL[0] 14179 378.75 279 POLL 1040 368 270 SHIELDING[33] 10076.5 338 280 LB 1060 1060 368 281 SVICL 1060 4 358 282 OM_PASSL 10764 358 283 DOM_PASSL 10764 358 284 SHIELDING[36] 10042.5 202 285 SQL 10603.5 202 286 SQL 10603.5 202 287 SQL 10603.5 202 288 SQL 10603.5 202 288 SQL 10603.5 202 288 SQL 10603.5 202 289 SQL 10603.5 202 290 SQL 10503.5 338 291 SQL 10503.5 338 292 SQL 10503.5 338 293 SQL 10503.5 338 294 SQL 10603.5 202 295 SQL 10503.5 338 296 SQL 10603.5 202 297 SQL 10465.5 62 298 SQL 10603.5 202 298 SQL 10603.5 202 299 SQL 10603.5 338 290 SQL 10603.5 202 291 SQL 10603.5 202 292 SQL 10603.5 202 293 SQL 10603.5 202 294 SQL 10603.5 202 295 SQL 10603.5 202 296 SQL 10603.5 202 297 SQL 10603.5 202 298 SQL 10603.5 202 299 SQL 10603.5 202 299 SQL 10603.5 202 299 SQL 10603.5 202 299 SQL 10603.5 202 290 SQL 10603.5 202 290 SQL 10603.5 202 290 SQL 10603.5 202 291 SQL 10465.5 62 292 SQL 1043.5 338 293 SQL 10603.5 202 294 SQL 10603.5 202 295 SQL 10603.5 202 296 SQL 10603.5 202 297 SQL 10603.5 202 298 SQL 10603.5 202 299 SQL 10603.5 202 299 SQL 10603.5 202 290 SQL 10603.5 2	238	GMAVL[4]	9222.5	-353		276	DATL[2]	11179	302		314	SO[30]	10127.5	338
241 GMAVL[3] 9477.5 -353 242 SHIELDING[33] 9562.5 -353 243 GMAVL[2] 9647.5 -353 244 GMAVL[2] 9732.5 -353 245 SHIELDING[34] 9817.5 -353 246 GMAVL[1] 9902.5 -353 247 GMAVL[1] 9902.5 -353 248 SHIELDING[35] 10072.5 -363 249 VDDA 1042.5 -353 250 VDDA 10412.5 -353 251 VDDA 10412.5 -353 252 VDDA 10412.5 -353 253 TP22 10497.5 -353 254 COM_PASSL 10582.5 -353 255 COM_PASSL 10582.5 -353 256 SHIELDING[36] 10752.5 -353 256 SHIELDING[37] 10837.5 -353 257 SHIELDING[38] 10922.5 -353 258 SO[1] 10586.5 -3263 259 DCLKL 11049 -376.5 -329 250 DIOL 11179 -338 250 DIOL 11179 -338 251 DATL[17] 11049 -298 252 SO[31] 10076.5 -3263 253 SO[32] 10076.5 -3263 259 SO[41] 10582.5 -3263 250 DIOL 11179 -338 251 DATL[17] 11049 -298 252 SO[31] 10076.5 -3263 253 SO[32] 10076.5 -3263 254 SO[32] 10076.5 -3263 255 SO[41] 10582.5 -3263 256 SO[42] 10582.5 -3263 257 SO[41] 10582.5 -3263 258 SO[41] 10582.5 -3263 259 SO[41] 10497.5 -3263 250 SO[42] 10497.5 -3263 250 SO[42] 10497.5 -3263 251 SO[42] 10497.5 -3263 252 SO[42] 10497.5 -3263 253 SO[42] 10497.5 -3263 254 SO[42] 10497.5 -3263 255 SO[41] 10497.5 -3263 256 SHIELDING[38] 10582.5 -3263 257 SHIELDING[38] 10467.5 -62 258 SHIELDING[38] 10467.5 -62 259 SO[41] 10497.5 -3263 250 SO[42] 10497.5 -32	239	SHIELDING[32]	9307.5	-353		277	DATL[1]	11049	342		315	80(31)	10110.5	62
242 SHIELDING[33] 9562.5 -353	240	GMAVL[3]	9392.5	-353		278	DATL[0]	11179	3 <b>7</b> 8.75	V	316	SØ[32]	10093.5	202
243 GMAVL[2] 9647.5 -353	241	GMAVL[3]	9477.5	-353		279	POLL (	10914	358	(	<b>\$</b> 17	SO[33]	10076.5	338
244 GMAVL[2] 9732.5 -353 245 SHIELDING[34] 9817.5 -353 246 GMAVL[1] 9902.5 -353 247 GMAVL[1] 9987.5 -353 248 SHIELDING[35] 10072.5 388 248 SHIELDING[35] 10072.5 388 249 VDDA 10132.5 353 250 VDDA 1022.5 353 251 VDDA 1022.5 353 252 VDDA 10412.5 -353 253 TP22 10497.5 -353 254 COM_PASSL 10582.5 -353 255 COM_PASSL 10582.5 -353 256 SHIELDING[35] 10567.5 -353 257 SHIELDING[35] 10752.5 -353 258 SHIELDING[35] 10667.5 -353 259 DCLKL 11049 -376.5 299 SO[15] 10416.5 62 260 DIOL 11179 -338 261 COM_PASSL 10714 358 262 COM_PASSL 10714 358 263 COM_PASSL 10714 358 264 COM_PASSL 10603.5 202 265 SHIELDING[35] 10062.5 388 267 SO[1] 10603.5 202 268 SO[2] 10582.5 202 27 SO[43] 9906.5 62 287 SO[4] 9923.5 338 288 SO[4] 10595.5 202 290 SO[6] 10535.5 338 291 SO[7] 10518.5 62 292 SO[8] 10501.5 202 293 SO[9] 10484.5 338 294 SO[10] 10467.5 62 295 SO[11] 10480.5 202 296 SO[12] 10433.5 338 297 SO[45] 9838.5 202 298 SO[14] 9804.5 62 299 SO[15] 10416.5 62 299 SO[15] 10382.5 338 200 SO[36] 10025.5 338 201 SO[37] 10008.5 62 202 SO[38] 991.5 202 203 SO[39] 9974.5 338 204 SO[39] 9974.5 338 205 SO[39] 9974.5 338 207 SO[39] 9974.5 338 208 SO[40] 9957.5 62 209 SO[6] 10535.5 338 209 SO[44] 9989.5 202 209 SO[6] 10535.5 338 209 SO[45] 9875.5 62 209 SO[15] 10433.5 338 200 SO[36] 10025.5 338 201 SO[37] 10008.5 62 202 SO[38] 991.5 202 203 SO[40] 9957.5 62 204 SO[40] 9957.5 62 205 SO[41] 9940.5 202 207 SO[41] 10484.5 338 208 SO[44] 9889.5 202 209 SO[45] 9875.5 62 209 SO[45] 9875.5 62 209 SO[45] 9770.5 338 209 SO[45] 9	242	SHIELDING[33]	9562.5	-353		280	LPED \\	10864	358	(C	318	SO[34]	10059.5	62
245   SHIELDING[34]   9817.5   -353   288   CONDPASSL   10714   358   321   SO[37]   10008.5   62     246   GMAVL[1]   9902.5   -353   285   SO[1]   10603.5   62     247   GMAVL[1]   9987.5   -353   285   SO[1]   10603.5   202     248   SHIELDING[35]   10072.5   368   286   SO[2]   10603.5   202     249   VDDA   1047.5   353   288   SO[4]   10566.5   338   325   SO[41]   9940.5   202     250   VDDA   1042.5   -353   288   SO[5]   10552.5   202   326   SO[42]   9923.5   338     251   VDDA   10412.5   -353   290   SO[6]   10535.5   338   328   SO[44]   9889.5   202     252   VDDA   10412.5   -353   291   SO[7]   10518.5   62   329   SO[45]   9872.5   338     254   COM_PASSL   10562.5   -353   292   SO[8]   10501.5   202   330   SO[46]   9855.5   62     255   COM_PASSL   10667.5   -353   293   SO[9]   10484.5   338   331   SO[47]   9838.5   202     256   SHIELDING[36]   10752.5   -353   294   SO[10]   10467.5   62   332   SO[48]   9821.5   338     257   SHIELDING[38]   10922.5   -353   295   SO[11]   10450.5   202   333   SO[49]   9804.5   62     258   SHIELDING[38]   10922.5   -353   296   SO[12]   10433.5   338   334   SO[50]   9787.5   202     259   DCLKL   11049   -376.5   297   SO[13]   10416.5   62   336   SO[52]   9753.5   62     260   DIOL   11179   -338   299   SO[15]   10382.5   338   337   SO[53]   9736.5   202     261   DATL[17]   11049   -298   299   SO[15]   10382.5   338   337   SO[53]   9736.5   202     262   COM_PASSL   10667.5   -353   296   SO[14]   10399.5   202   336   SO[52]   9753.5   62     263   COM_PASSL   10667.5   -353   296   SO[14]   10399.5   202   336   SO[52]   9753.5   62     264   COM_PASSL   10667.5   -353   296   SO[14]   10399.5   202   336   SO[52]   9753.5   62     265   SHIELDING[38]   10922.5   -353   296   SO[14]   10484.5   338   331   SO[47]   9838.5   202     266   DIOL   11179   -338   298   SO[14]   10399.5   202   336   SO[52]   9753.5   62     267   COM_PASSL   10667.5   -353   296   SO[14]   10484.5   338   337   SO[53]   9736.5   202     268   SO[41]   10467.5	243	GMAVL[2]	9647.5	-353		281	SYNCL	10814	358	)	319	SO[35]	10042.5	202
246         GMAVL[1]         9902.5         353         284         SHIELDING[38]         0664         358         322         SO[38]         9991.5         202           247         GMAVL[1]         9987.5         383         285         SO[1]         19620.5         62         323         SO[39]         9974.5         338           248         SHIELDING[35]         10072.5         388         286         SO[2]         10603.5         202         324         SO[40]         9957.5         62           249         VDDA         10242.5         -353         287         SO[3]         10569.5         62         326         SO[41]         9940.5         202           250         VDDA         10327.5         -353         288         SO[4]         10569.5         62         326         SO[41]         9940.5         202           251         VDDA         10412.5         -353         290         SO[6]         10535.5         338         328         SO[44]         989.5         502           253         TP22         10497.5         -353         291         SO[7]         10518.5         62         329         SO[44]         989.5.5         62	244	GMAVL[2]	9732.5	-353		282	OOM_PASSL	10764	358	))	320	SO[36]	10025.5	338
247         GMAVL[1]         9987.5         363         285         SQ[1]         10620.5         62         323         SQ[39]         9974.5         338           248         SHIELDING[35]         10072.5         383         286         SQ[2]         10603.5         202         324         SQ[40]         9957.5         62           249         VDDA         10242.5         -353         288         SQ[4]         10586.5         338         325         SQ[41]         9940.5         202           250         VDDA         10242.5         -353         289         SQ[6]         10569.5         62         326         SQ[42]         9923.5         338           251         VDDA         10412.5         -353         289         SQ[6]         10535.5         202         327         SQ[43]         9906.5         62           252         VDDA         10412.5         -353         290         SQ[6]         10535.5         338         328         SQ[44]         9889.5         202           253         TP22         10497.5         -353         291         SQ[7]         10518.5         62         329         SQ[45]         9872.5         338	245	SHIELDING[34]	9817.5	-353		283	COMPASSL	107/14	358		321	SO[37]	10008.5	62
248         SHIELDING[35]         10072.5         388         286         SQ[2]         10603.5         202         324         SO[40]         9957.5         62           249         VDDA         10 87.5         353         287         SO[3]         10586.5         338         325         SO[41]         9940.5         202           250         VDDA         10242.5         -353         288         SO[6]         10569.5         62         326         SO[42]         9923.5         338           251         VDDA         10412.5         -353         289         SO[6]         10535.5         202         327         SO[43]         9906.5         62           252         VDDA         10412.5         -353         290         SO[6]         10535.5         338           254         COM_PASSL         10582.5         -353         291         SO[7]         10518.5         62         329         SO[45]         9872.5         338           255         COM_PASSL         10582.5         -353         292         SO[8]         10501.5         202         330         SO[46]         9855.5         62           255         SHIELDING[36]         10752.5         -	246	GMAVL[1]	9902.5	-353	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	284	SHIELDING[39]	10664	358		322	SO[38]	9991.5	202
249         VDDA         70137.5         353           250         VDDA         70242.5         -353           251         VDDA         10327.5         353           251         VDDA         10412.5         -353           288         SO[5]         10552.5         202           252         DDA         10412.5         -353           253         TP22         10497.5         -353           254         COM_PASSL         10582.5         -353           292         SO[8]         10501.5         62           255         COM_PASSL         10667.5         -353           293         SO[9]         10484.5         338           330         SO[46]         9855.5         62           255         COM_PASSL         10667.5         -353           293         SO[9]         10484.5         338           331         SO[47]         9838.5         202           255         COM_PASSL         10667.5         -353           294         SO[10]         10467.5         62           332         SO[48]         9821.5         338           257         SHIELDING[38]	247	GMAVL[1]	9987.5	-353	N	285	SQ(1)	10620.5	62		323	SO[39]	9974.5	338
250   VDDA   10242.5   -353   288   SO[4]   10569.5   62   326   SO[42]   9923.5   338   251   VDDA   10412.5   -353   290   SO[6]   10552.5   202   327   SO[43]   9906.5   62   258   TP22   10497.5   -353   291   SO[7]   10518.5   62   329   SO[44]   9889.5   202   255   COM_PASSL   10582.5   -353   292   SO[8]   10501.5   202   330   SO[46]   9855.5   62   256   SHIELDING[36]   10752.5   -353   294   SO[10]   10467.5   62   332   SO[48]   9821.5   338   257   SHIELDING[37]   10837.5   -353   295   SO[11]   10450.5   202   258   SHIELDING[38]   10922.5   -353   296   SO[12]   10433.5   338   334   SO[50]   9787.5   202   259   DCLKL   11049   -376.5   297   SO[13]   10416.5   62   335   SO[52]   9753.5   62   261   DATL[17]   11049   -298   SO[15]   10382.5   338   337   SO[53]   9736.5   202   202   202   203   2	248	SHIELDING[35]	10072.5	-35%	$\vee$	286 <	SQ[2]	10603.5	202		324	SO[40]	9957.5	62
251 VNDA 10327.5 353 289 SO[5] 10552.5 202 327 SO[43] 9906.5 62 252 VDDA 10412.5 -353 290 SO[6] 10535.5 338 254 COM_PASSL 10582.5 -353 292 SO[8] 10501.5 202 329 SO[45] 9872.5 338 255 COM_PASSL 10667.5 -353 293 SO[9] 10484.5 338 256 SHIELDING[36] 10752.5 -353 294 SO[10] 10467.5 62 332 SO[48] 9821.5 338 257 SHIELDING[37] 10837.5 -353 295 SO[11] 10450.5 202 333 SO[49] 9804.5 62 258 SHIELDING[38] 10922.5 -353 296 SO[12] 10433.5 338 324 SO[50] 9787.5 202 259 DCLKL 11049 -376.5 297 SO[13] 10416.5 62 335 SO[51] 9770.5 338 260 DIOL 11179 -338 298 SO[14] 10399.5 202 336 SO[52] 9753.5 62 202 261 DATL[17] 11049 -298 299 SO[15] 10382.5 338 337 SO[53] 9736.5 202	249	VDDA	<b>4015</b> 7.5	353		287	SO[3]	10586.5	338		325	SO[41]	9940.5	202
252         DDA         10412.5         -353         290         SO[6]         10535.5         338         328         SO[44]         9889.5         202           253         TP22         10497.5         -353         291         SO[7]         10518.5         62         329         SO[45]         9872.5         338           254         COM_PASSL         10582.5         -353         292         SO[8]         10501.5         202         330         SO[46]         9855.5         62           255         COM_PASSL         10667.5         -353         293         SO[9]         10484.5         338         331         SO[47]         9838.5         202           256         SHIELDING[36]         10752.5         -353         294         SO[10]         10467.5         62         332         SO[48]         9838.5         202           257         SHIELDING[37]         10837.5         -353         295         SO[11]         10450.5         202         333         SO[49]         9804.5         62           258         SHIELDING[38]         10922.5         -353         296         SO[12]         10433.5         338         334         SO[50]         9787.5         202 </td <td>250</td> <td>VDDA</td> <td>10242.5</td> <td>-353</td> <td>(</td> <td>288</td> <td>ŠO[4]</td> <td>10569.5</td> <td>62</td> <td></td> <td>326</td> <td>SO[42]</td> <td>9923.5</td> <td>338</td>	250	VDDA	10242.5	-353	(	288	ŠO[4]	10569.5	62		326	SO[42]	9923.5	338
253         TP22         10497.5         -353         291         SO[7]         10518.5         62         329         SO[45]         9872.5         338           254         COM_PASSL         10582.5         -353         292         SO[8]         10501.5         202         330         SO[46]         9855.5         62           255         COM_PASSL         10667.5         -353         293         SO[9]         10484.5         338         331         SO[47]         9838.5         202           256         SHIELDING[36]         10752.5         -353         294         SO[10]         10467.5         62         332         SO[48]         9821.5         338           257         SHIELDING[37]         10837.5         -353         295         SO[11]         10450.5         202         333         SO[49]         9804.5         62           258         SHIELDING[38]         10922.5         -353         296         SO[12]         10433.5         338         334         SO[50]         9787.5         202           259         DCLKL         11049         -376.5         297         SO[13]         10416.5         62         335         SO[51]         9770.5         338	251	VDDA \	10327.5	<del>-353</del>	7/,	289	SO[5]	10552.5	202		327	SO[43]	9906.5	62
254       COM_PASSL       10582.5       -353       292       SO[8]       10501.5       202       330       SO[46]       9855.5       62         255       COM_PASSL       10667.5       -353       293       SO[9]       10484.5       338       331       SO[47]       9838.5       202         256       SHIELDING[36]       10752.5       -353       294       SO[10]       10467.5       62       332       SO[48]       9821.5       338         257       SHIELDING[37]       10837.5       -353       295       SO[11]       10450.5       202       333       SO[49]       9804.5       62         258       SHIELDING[38]       10922.5       -353       296       SO[12]       10433.5       338       334       SO[50]       9787.5       202         259       DCLKL       11049       -376.5       297       SO[13]       10416.5       62       335       SO[51]       9770.5       338         260       DIOL       11179       -338       298       SO[14]       10399.5       202       336       SO[52]       9753.5       62         261       DATL[17]       11049       -298       299       SO[15] <td< td=""><td>252</td><td>VDDA</td><td>10412.5</td><td>-358</td><td>"</td><td>290</td><td>SO[6]</td><td>10535.5</td><td>338</td><td></td><td>328</td><td>SO[44]</td><td>9889.5</td><td>202</td></td<>	252	VDDA	10412.5	-358	"	290	SO[6]	10535.5	338		328	SO[44]	9889.5	202
255       COM_PASSL       10667.5       -353       293       SO[9]       10484.5       338       331       SO[47]       9838.5       202         256       SHIELDING[36]       10752.5       -353       294       SO[10]       10467.5       62       332       SO[48]       9821.5       338         257       SHIELDING[37]       10837.5       -353       295       SO[11]       10450.5       202       333       SO[49]       9804.5       62         258       SHIELDING[38]       10922.5       -353       296       SO[12]       10433.5       338       334       SO[50]       9787.5       202         259       DCLKL       11049       -376.5       297       SO[13]       10416.5       62       335       SO[50]       9770.5       338         260       DIOL       11179       -338       298       SO[14]       10399.5       202       336       SO[52]       975.5       62         261       DATL[17]       11049       -298       299       SO[15]       10382.5       338       337       SO[53]       9736.5       202	253	TP22	10497.5	-353		291	SO[7]	10518.5	62		329	SO[45]	9872.5	338
256       SHIELDING[36]       10752.5       -353       294       SO[10]       10467.5       62       332       SO[48]       9821.5       338         257       SHIELDING[37]       10837.5       -353       295       SO[11]       10450.5       202       333       SO[49]       9804.5       62         258       SHIELDING[38]       10922.5       -353       296       SO[12]       10433.5       338       334       SO[50]       9787.5       202         259       DCLKL       11049       -376.5       297       SO[13]       10416.5       62       335       SO[51]       9770.5       338         260       DIOL       11179       -338       298       SO[14]       10399.5       202       336       SO[52]       9753.5       62         261       DATL[17]       11049       -298       299       SO[15]       10382.5       338       337       SO[53]       9736.5       202	254	COM_PASSL	10582.5	-353		292	SO[8]	10501.5	202		330	SO[46]	9855.5	62
257     SHIELDING[37]     10837.5     -353     295     SO[11]     10450.5     202     333     SO[49]     9804.5     62       258     SHIELDING[38]     10922.5     -353     296     SO[12]     10433.5     338     334     SO[50]     9787.5     202       259     DCLKL     11049     -376.5     297     SO[13]     10416.5     62     335     SO[51]     9770.5     338       260     DIOL     11179     -338     298     SO[14]     10399.5     202     336     SO[52]     9753.5     62       261     DATL[17]     11049     -298     299     SO[15]     10382.5     338     337     SO[53]     9736.5     202	255	COM_PASSL	10667.5	-353		293	SO[9]	10484.5	338		331	SO[47]	9838.5	202
258 SHIELDING[38]       10922.5       -353       296       SO[12]       10433.5       338       334       SO[50]       9787.5       202         259 DCLKL       11049       -376.5       297       SO[13]       10416.5       62       335       SO[51]       9770.5       338         260 DIOL       11179       -338       298       SO[14]       10399.5       202       336       SO[52]       9753.5       62         261 DATL[17]       11049       -298       299       SO[15]       10382.5       338       337       SO[53]       9736.5       202	256	SHIELDING[36]	10752.5	-353		294	SO[10]	10467.5	62		332	SO[48]	9821.5	338
259     DCLKL     11049     -376.5     297     SO[13]     10416.5     62     335     SO[51]     9770.5     338       260     DIOL     11179     -338     298     SO[14]     10399.5     202     336     SO[52]     9753.5     62       261     DATL[17]     11049     -298     299     SO[15]     10382.5     338     337     SO[53]     9736.5     202	257	SHIELDING[37]	10837.5	-353		295	SO[11]	10450.5	202		333	SO[49]	9804.5	62
260         DIOL         11179         -338         298         SO[14]         10399.5         202         336         SO[52]         9753.5         62           261         DATL[17]         11049         -298         299         SO[15]         10382.5         338         337         SO[53]         9736.5         202	258	SHIELDING[38]	10922.5	-353		296	SO[12]	10433.5	338		334	SO[50]	9787.5	202
261         DATL[17]         11049         -298         299         SO[15]         10382.5         338         337         SO[53]         9736.5         202	259	DCLKL	11049	-376.5		297	SO[13]	10416.5	62		335	SO[51]	9770.5	338
	260	DIOL	11179	-338		298	SO[14]	10399.5	202		336	SO[52]	9753.5	62
262 DATL[16] 11179 -258 300 SO[16] 10365.5 62 338 SO[54] 9719.5 338	261	DATL[17]	11049	-298		299	SO[15]	10382.5	338		337	SO[53]	9736.5	202
	262	DATL[16]	11179	-258		300	SO[16]	10365.5	62		338	SO[54]	9719.5	338

339	SO[55]	9702.5	62		377	SO[93]	9056.5	338		415	SO[131]	8410.5	202
340	SO[56]	9685.5	202		378	SO[94]	9039.5	62		416	SO[132]	8393.5	338
341	SO[57]	9668.5	338		379	SO[95]	9022.5	202		417	SO[133]	8376.5	62
342	SO[58]	9651.5	62		380	SO[96]	9005.5	338		418	SO[134]	8359.5	202
343	SO[59]	9634.5	202		381	SO[97]	8988.5	62		419	SO[135]	8342.5	338
344	SO[60]	9617.5	338		382	SO[98]	8971.5	202		420	SO[136]	8325.5	62
345	SO[61]	9600.5	62		383	SO[99]	8954.5	338		421	SO[137]	8308.5	202
346	SO[62]	9583.5	202		384	SO[100]	8937.5	62		422	SO[138]	8291.5	338
347	SO[63]	9566.5	338		385	SO[101]	8920.5	202		423	SO[139]	8274.5	62
348	SO[64]	9549.5	62		386	SO[102]	8903.5	338		424	SO[140]	8257.5	202
349	SO[65]	9532.5	202		387	SO[103]	8886.5	62		425	SO[(41]	8240.5	338
350	SO[66]	9515.5	338		388	SO[104]	8869.5	202		426	90[142]	8223.5	62
351	SO[67]	9498.5	62		389	SO[105]	8852.5	338		427	SO[143]	8206.5	202
352	SO[68]	9481.5	202		390	SO[106]	8835.5	62 <		428	SO[144]	8189.5	338
353	SO[69]	9464.5	338		391	SO[107]	8818.5	202		429	SO(145)	8172.5	62
354	SO[70]	9447.5	62		392	SO[108]	8801.5	338	_	430 <	SO[146]	8155.5	202
355	SO[71]	9430.5	202		393	SO[109]	8784 5	62		431	\$0[147]	8138.5	338
356	SO[72]	9413.5	338		394	SOUTE)	8767.5	202	(C	432	<b>S</b> O[148]	8121.5	62
357	SO[73]	9396.5	62		395	SO[111]	8750.5	388		433	SO[149]	8104.5	202
358	SO[74]	9379.5	202		398	SO[112]	8733.5	62		434	SO[150]	8087.5	338
359	SO[75]	9362.5	338		397	<b>SO</b> [113]	8716.5	202		435	SO[151]	8070.5	62
360	SO[76]	9345.5	62	///	398	SO[114]	8699.5	338		436	SO[152]	8053.5	202
361	SO[77]	9328.5	202	<i>M</i> .	399	SO[115]	8682.5	62		437	SO[153]	8036.5	338
362	SO[78]	9311.5	338	) ~	400	SONTE	8665.5	202		438	SO[154]	8019.5	62
363	SO[79]	9294.5	62	6	401	SO[117]	8648.5	338		439	SO[155]	8002.5	202
364	SØ[88]	9277.5	202	// ((	402	SO[118]	8631.5	62		440	SO[156]	7985.5	338
365	SQ[81]	9260.5	338		403	SO[119]	8614.5	202		441	SO[157]	7968.5	62
366	SO[82]	9243.5	62		404	SO[120]	8597.5	338		442	SO[158]	7951.5	202
36 <b>7</b>	SO[83]	9226.5	202		405	SO[121]	8580.5	62		443	SO[159]	7934.5	338
368	SO[84]	9209.5	338		406	SO[122]	8563.5	202		444	SO[160]	7917.5	62
369	SO[85]	9192.5	62		407	SO[123]	8546.5	338		445	SO[161]	7900.5	202
370	SO[86]	9175.5	202		408	SO[124]	8529.5	62		446	SO[162]	7883.5	338
371	SO[87]	9158.5	338		409	SO[125]	8512.5	202		447	SO[163]	7866.5	62
372	SO[88]	9141.5	62		410	SO[126]	8495.5	338		448	SO[164]	7849.5	202
373	SO[89]	9124.5	202		411	SO[127]	8478.5	62		449	SO[165]	7832.5	338
374	SO[90]	9107.5	338		412	SO[128]	8461.5	202		450	SO[166]	7815.5	62
375	SO[91]	9090.5	62		413	SO[129]	8444.5	338		451	SO[167]	7798.5	202
376	SO[92]	9073.5	202		414	SO[130]	8427.5	62		452	SO[168]	7781.5	338
				-					-				

453	SO[169]	7764.5	62		491	SO[207]	7118.5	338		529	SO[245]	6472.5	202
454	SO[170]	7747.5	202		492	SO[208]	7101.5	62		530	SO[246]	6455.5	338
455	SO[171]	7730.5	338		493	SO[209]	7084.5	202		531	SO[247]	6438.5	62
456	SO[172]	7713.5	62		494	SO[210]	7067.5	338		532	SO[248]	6421.5	202
457	SO[173]	7696.5	202		495	SO[211]	7050.5	62		533	SO[249]	6404.5	338
458	SO[174]	7679.5	338		496	SO[212]	7033.5	202		534	SO[250]	6387.5	62
459	SO[175]	7662.5	62		497	SO[213]	7016.5	338		535	SO[251]	6370.5	202
460	SO[176]	7645.5	202		498	SO[214]	6999.5	62		536	SO[252]	6353.5	338
461	SO[177]	7628.5	338		499	SO[215]	6982.5	202		537	SO[253]	6336.5	62
462	SO[178]	7611.5	62		500	SO[216]	6965.5	338		538	SO[254]	6319.5	202
463	SO[179]	7594.5	202		501	SO[217]	6948.5	62		539	SO[255]	6302.5	338
464	SO[180]	7577.5	338		502	SO[218]	6931.5	202		540	90[256]	6285.5	62
465	SO[181]	7560.5	62		503	SO[219]	6914.5	338		541	SO[257]	6268.5	202
466	SO[182]	7543.5	202		504	SO[220]	6897.5	62 <		542	SO[258]	6251.5	338
467	SO[183]	7526.5	338		505	SO[221]	6880.5	202		543	SO[259]	6234.5	62
468	SO[184]	7509.5	62		506	SO[222]	6863.5	338	_	544 <	SO[260]	6217.5	202
469	SO[185]	7492.5	202		507	SO[223]	6846,5	62		545	\$0[261]	6200.5	338
470	SO[186]	7475.5	338		508	SO[224]	6829.5	202	(C	546	<b>S</b> O[262]	6183.5	62
471	SO[187]	7458.5	62		509	SO[225]	6812.5	388	11	547	SO[263]	6166.5	202
472	SO[188]	7441.5	202		510	SO[226]	6795.5	62		548	SO[264]	6149.5	338
473	SO[189]	7424.5	338		511	<b>SO</b> [227]	6778.5	202		549	SO[265]	6132.5	62
474	SO[190]	7407.5	62	$//\langle$	512	SO[228]	6X61.5	338		550	SO[266]	6115.5	202
475	SO[191]	7390.5	202	111	513	SO[229]	6744.5	62		551	SO[267]	6098.5	338
476	SO[192]	7373.5	338	`	514	SQ[230]	6727.5	202		552	SO[268]	6081.5	62
477	SO[193]	7356.5	62	6	<b>5</b> 15	SO[281]	6710.5	338		553	SO[269]	6064.5	202
478	son 94)	7339.5	202 (	// ((	516	SO[232]	6693.5	62		554	SO[270]	6047.5	338
479	SO[195]	7322.5	338		517	SO[233]	6676.5	202		555	SO[271]	6030.5	62
480	SO[196]	7305.5	62		518	SO[234]	6659.5	338		556	SO[272]	6013.5	202
481	SO[197]	7288.5	202	ľ	519	SO[235]	6642.5	62		557	SO[273]	5996.5	338
482	SO[198]	7271.5	338		520	SO[236]	6625.5	202		558	SO[274]	5979.5	62
483	SO[199]	7254.5	62		521	SO[237]	6608.5	338		559	SO[275]	5962.5	202
484	SO[200]	7237.5	202		522	SO[238]	6591.5	62		560	SO[276]	5945.5	338
485	SO[201]	7220.5	338		523	SO[239]	6574.5	202		561	SO[277]	5928.5	62
486	SO[202]	7203.5	62		524	SO[240]	6557.5	338		562	SO[278]	5911.5	202
487	SO[203]	7186.5	202		525	SO[241]	6540.5	62		563	SO[279]	5894.5	338
488	SO[204]	7169.5	338		526	SO[242]	6523.5	202		564	SO[280]	5877.5	62
489	SO[205]	7152.5	62		527	SO[243]	6506.5	338		565	SO[281]	5860.5	202
490	SO[206]	7135.5	202		528	SO[244]	6489.5	62		566	SO[282]	5843.5	338
				•	•				•				-

567	SO[283]	5826.5	62		605	SO[321]	5180.5	338		643	SO[359]	4534.5	202
568	SO[284]	5809.5	202		606	SO[322]	5163.5	62		644	SO[360]	4517.5	338
569	SO[285]	5792.5	338		607	SO[323]	5146.5	202		645	SO[361]	4500.5	62
570	SO[286]	5775.5	62		608	SO[324]	5129.5	338		646	SO[362]	4483.5	202
571	SO[287]	5758.5	202		609	SO[325]	5112.5	62		647	SO[363]	4466.5	338
572	SO[288]	5741.5	338		610	SO[326]	5095.5	202		648	SO[364]	4449.5	62
573	SO[289]	5724.5	62		611	SO[327]	5078.5	338		649	SO[365]	4432.5	202
574	SO[290]	5707.5	202		612	SO[328]	5061.5	62		650	SO[366]	4415.5	338
575	SO[291]	5690.5	338		613	SO[329]	5044.5	202		651	SO[367]	4398.5	62
576	SO[292]	5673.5	62		614	SO[330]	5027.5	338		652	SO[368]	4381.5	202
577	SO[293]	5656.5	202		615	SO[331]	5010.5	62		653	SO[369]	4364.5	338
578	SO[294]	5639.5	338		616	SO[332]	4993.5	202		654	90[370]	4347.5	62
579	SO[295]	5622.5	62		617	SO[333]	4976.5	338		655	SO[371]	4330.5	202
580	SO[296]	5605.5	202		618	SO[334]	4959.5	62 <		656	SO[372]	4313.5	338
581	SO[297]	5588.5	338		619	SO[335]	4942.5	202		657	SO(373)	4296.5	62
582	SO[298]	5571.5	62		620	SO[336]	4925.5	338	`	658 <	SO[374]	4279.5	202
583	SO[299]	5554.5	202		621	SO[337]	4908 5	62		659	\$0[375]	4262.5	338
584	SO[300]	5537.5	338		622	SO[338]	4891.5	202	(C	660	<b>S</b> O[376]	4245.5	62
585	SO[301]	5520.5	62		623	SO[339]	4874.5	388	11.	661)	SO[377]	4228.5	202
586	SO[302]	5503.5	202		624	SO[340]	4857.5	62		662	SO[378]	4211.5	338
587	SO[303]	5486.5	338		626	<b>SO</b> [341]	4840.5	202		663	SO[379]	4194.5	62
588	SO[304]	5469.5	62	///	626	SO[342]	4823.5	338		664	SO[380]	4177.5	202
589	SO[305]	5452.5	202	111.	627	SO[343]	4806.5	62		665	SO[381]	4160.5	338
590	SO[306]	5435.5	338/	) ~	628	SO(344)	4789.5	202		666	SO[382]	4143.5	62
591	SO[307]	\$418.5	62	6	629	SO[345]	4772.5	338		667	SO[383]	4126.5	202
592	SOBJOSI	5401.5	202 (	// ((	630	SO[346]	4755.5	62		668	SO[384]	4109.5	338
593	SO[309] \	5384.5	338		631	SO[347]	4738.5	202		669	SO[385]	4092.5	62
594	\$0[310]	5367.5	62		632	SO[348]	4721.5	338		670	SO[386]	4075.5	202
595	SO[311]	5350.5	202		633	SO[349]	4704.5	62		671	SO[387]	4058.5	338
596	SO[312]	5333.5	338		634	SO[350]	4687.5	202		672	SO[388]	4041.5	62
597	SO[313]	5316.5	62		635	SO[351]	4670.5	338		673	SO[389]	4024.5	202
598	SO[314]	5299.5	202		636	SO[352]	4653.5	62		674	SO[390]	4007.5	338
599	SO[315]	5282.5	338		637	SO[353]	4636.5	202		675	SO[391]	3990.5	62
600	SO[316]	5265.5	62		638	SO[354]	4619.5	338		676	SO[392]	3973.5	202
601	SO[317]	5248.5	202		639	SO[355]	4602.5	62		677	SO[393]	3956.5	338
602	SO[318]	5231.5	338		640	SO[356]	4585.5	202		678	SO[394]	3939.5	62
603	SO[319]	5214.5	62		641	SO[357]	4568.5	338		679	SO[395]	3922.5	202
604	SO[320]	5197.5	202		642	SO[358]	4551.5	62		680	SO[396]	3905.5	338
				•					•				

681   SO(387)   3888.5   62   719   SO(435)   3242.5   338   757   SO(475)   2586.5   202   768   SO(389)   3871.5   202   721   SO(437)   3226.5   62   758   SO(476)   2545.5   202   768   SO(490)   3837.5   62   722   SO(488)   3191.5   338   768   SO(490)   3837.5   62   722   SO(488)   3191.5   338   768   SO(490)   3837.5   62   722   SO(488)   3191.5   338   768   SO(490)   3837.5   62   728   SO(440)   3157.5   202   728   SO(441)   3140.5   338   768   SO(477)   258.5   338   768   SO(490)   3785.5   62   728   SO(441)   3140.5   328   768   SO(478)   244.5   202   728   SO(441)   3140.5   328   768   SO(478)   244.5   202   728   SO(441)   3140.5   328   768   SO(478)   244.5   328   768   SO(478)   244.5													IOL	
Fig.	681	SO[397]	3888.5	62		719	SO[435]	3242.5	338		757	SO[473]	2596.5	202
684         SO(400)         3837.5         62         722         SO(438)         3191.5         338         760         SO(476)         2545.5         202           685         SO(401)         3820.5         202         723         SO(439)         3174.5         62         761         SO(477)         2528.5         338           686         SO(402)         3803.5         338         724         SO(404)         3167.5         202         762         SO(479)         2494.5         202           688         SO(405)         3752.5         338         727         SO(443)         3103.5         62         764         SO(480)         247.5         30           699         SO(406)         3735.5         62         728         SO(444)         3089.5         338         766         SO(480)         247.5         30           691         SO(406)         3735.5         62         729         SO(441)         308.5         338         766         SO(481)         2425.5         338           692         SO(408)         3701.5         338         732         SO(441)         303.5         338         766         SO(488)         232.5         202	682	SO[398]	3871.5	202		720	SO[436]	3225.5	62		758	SO[474]	2579.5	338
685   SO 401    3820.5   202   723   SO 439    3174.5   62   762   SO 479    2525.5   338   686   SO 402    3603.5   338   724   SO 404    3157.5   202   762   SO 479    2494.5   202   688   SO 404    3769.5   202   726   SO 441    3140.5   338   763   SO 479    2494.5   202   690   SO 405    3735.5   62   728   SO 444    3085.5   338   763   SO 479    2494.5   202   765   SO 489    2477.5   338   768   SO 479    2494.5   202   765   SO 489    2477.5   338   768   SO 479    2494.5   202   765   SO 489    2477.5   338   768   SO 479    2494.5   202   765   SO 489    2477.5   338   768   SO 479    2494.5   202   765   SO 489    2477.5   338   768   SO 479    2494.5   202   765   SO 489    2477.5   338   768   SO 489    2478.5   338   769   SO 489    2478.5   338	683	SO[399]	3854.5	338		721	SO[437]	3208.5	202		759	SO[475]	2562.5	62
666         SO(402]         3803.5         338           687         SO(403]         3786.5         62           688         SO(404]         3768.5         62           689         SO(404]         3768.5         202           689         SO(405)         3752.5         338           690         SO(407)         3718.5         202           691         SO(409)         3684.5         62           692         SO(409)         3684.5         62           693         SO(409)         3667.5         202           694         SO(411)         3667.5         202           698         SO(411)         3650.5         338           699         SO(411)         3650.5         338           699         SO(412)         3633.5         62           730         SO(448)         3021.5         62           731         SO(416)         366.5         202           732         SO(441)         369.5         62           733         SO(441)         369.5         62           734         SO(451)         282.5         62           735         SO(451)         282.5	684	SO[400]	3837.5	62		722	SO[438]	3191.5	338		760	SO[476]	2545.5	202
687         SO(403)         3786.5         62           688         SO(404)         3769.5         202           689         SO(405)         3752.5         338           699         SO(406)         3735.5         62           691         SO(407)         3718.5         202           692         SO(408)         3701.5         338           693         SO(408)         3701.5         338           694         SO(401)         3667.5         202           695         SO(411)         3660.5         338           696         SO(411)         3660.5         338           698         SO(413)         3616.5         202           697         SO(413)         3616.5         202           700         SO(416)         3565.5         202           701         SO(413)         3516.5         202           700         SO(416)         3565.5         202           701         SO(411)         3566.5         202           702         SO(418)         3511.5         202           703         SO(421)         3465.5         202           704         SO(420) <td< td=""><td>685</td><td>SO[401]</td><td>3820.5</td><td>202</td><td></td><td>723</td><td>SO[439]</td><td>3174.5</td><td>62</td><td></td><td>761</td><td>SO[477]</td><td>2528.5</td><td>338</td></td<>	685	SO[401]	3820.5	202		723	SO[439]	3174.5	62		761	SO[477]	2528.5	338
688         SO(404)         3769.5         202           689         SO(405)         3752.5         338           690         SO(406)         3735.5         62           691         SO(407)         3718.5         202           692         SO(408)         3701.5         338           693         SO(409)         3684.5         62           694         SO(409)         3684.5         62           694         SO(411)         3665.5         202           696         SO(411)         3655.5         202           696         SO(412)         3633.5         62           697         SO(413)         3616.5         202           699         SO(413)         3616.5         202           700         SO(413)         353.5         62           700         SO(413)         356.5         202           701         SO(413)         356.5         202           700         SO(413)         356.5         202           701         SO(421)         3548.5         328           702         SO(413)         351.5         62           703         SO(421)         346.5 <td>686</td> <td>SO[402]</td> <td>3803.5</td> <td>338</td> <td></td> <td>724</td> <td>SO[440]</td> <td>3157.5</td> <td>202</td> <td></td> <td>762</td> <td>SO[478]</td> <td>2511.5</td> <td>62</td>	686	SO[402]	3803.5	338		724	SO[440]	3157.5	202		762	SO[478]	2511.5	62
688         SO[405]         3752.5         338         727         SO[443]         3106.5         202         765         SO[481]         2400.3         80         727         SO[444]         3089.5         338         766         SO[481]         2400.3         80         766         SO[481]         2400.5         62         766         SO[481]         2426.5         338         766         SO[481]         2400.5         62         766         SO[481]         2426.5         338         766         SO[481]         2426.5         338         766         SO[481]         2400.5         62         766         SO[481]         2426.5         338         766         SO[481]         2426.5         338         766         SO[481]         2426.5         338         766         SO[481]         2426.5         338         766         SO[481]         2400.5         62         767         SO[481]         2400.5         62         768         338         766         SO[441]         360.5         202         733         SO[448]         3021.5         62         771         SO[481]         358.5         62         733         SO[441]         300.5         38         766         SO[451]         290.5         202	687	SO[403]	3786.5	62		725	SO[441]	3140.5	338		763	SO[479]	2494.5	202
689         \$\text{S}(406)\$         \$3735.5\$         62         728         \$\text{S}(444)\$         3089.5\$         338         766         \$\text{S}(485)\$         \$\text{2}02\$         729         \$\text{S}(445)\$         3072.5\$         62         767         \$\text{S}(485)\$         \$\text{2}45.5\$         338         692         \$\text{S}(408)\$         3701.5\$         338         730         \$\text{S}(446)\$         3055.5\$         202         767         \$\text{S}(485)\$         \$\text{2}45.5\$         338         693         \$\text{S}(411)\$         3667.5\$         202         733         \$\text{S}(444)\$         3038.5\$         338         732         \$\text{S}(444)\$         3038.5\$         338         733         \$\text{S}(444)\$         3038.5\$         338         734         \$\text{S}(444)\$         304.5\$         602         774         \$\text{S}(448)\$         \$\text{2}358.5\$         62         7735         \$\text{S}(444)\$         304.5\$         502         774         \$\text{S}(488)\$         238.5\$         502         7736         \$\text{S}(451)\$         2903.5\$         202         774         \$\text{S}(488)\$         238.5\$         502         774         \$\text{S}(483)\$         2393.5\$         202         774         \$\text{S}(483)\$         2393.5\$         338         774	688	SO[404]	3769.5	202		726	SO[442]	3123.5	62		764	SO[480]	2477.5	338
691         SO(407)         3718.5         202           692         SO(408)         3701.5         338           693         SO(409)         3684.5         62           694         SO(410)         3667.5         202           695         SO(411)         3650.5         338           696         SO(412)         3633.5         62           697         SO(413)         3616.5         202           698         SO(414)         3599.5         338           699         SO(415)         3582.5         62           700         SO(416)         3565.5         202           700         SO(411)         3595.5         62           700         SO(416)         3565.5         202           700         SO(411)         3595.5         62           700         SO(411)         3548.5         338           701         SO(411)         3548.5         338           702         SO(411)         3548.5         338           703         SO(421)         3448.5         202           704         SO(420)         3448.5         203           705         SO(421)         34	689	SO[405]	3752.5	338		727	SO[443]	3106.5	202		765	SO[481]	2460.5	62
692         SO(408)         3701.5         338         730         SO(446)         3055.5         202         766         \$01409         3684.5         62         731         SO(447)         3038.5         338         700         \$014101         3667.5         202         731         SO(448)         3021.5         62         700         \$014111         3650.5         338         732         SO(448)         3021.5         62         771         \$014861         2392.5         2323.5         62         772         2361411         3582.5         62         733         \$014511         290.5         222         772         \$014911         230.5         222         774         \$014511         290.5         222         774         \$014511         \$014511         \$014511         \$014511 </td <td>690</td> <td>SO[406]</td> <td>3735.5</td> <td>62</td> <td></td> <td>728</td> <td>SO[444]</td> <td>3089.5</td> <td>338</td> <td></td> <td>766</td> <td>SO[482]</td> <td>2443.5</td> <td>202</td>	690	SO[406]	3735.5	62		728	SO[444]	3089.5	338		766	SO[482]	2443.5	202
693         SO[409]         3684.5         62         731         SO[447]         3038.5         338         769         SO[410]         3667.5         202         732         SO[448]         3021.5         62         770         SO[488]         2375.5         338           695         SO[411]         3650.5         338         733         SO[449]         3004.5         602         771         SO[488]         2375.5         338           696         SO[412]         3633.5         62         734         SO[450]         2987.5         338         772         SO[451]         290.5         62         772         SO[489]         2324.5         338           698         SO[411]         3598.5         62         736         SO[451]         290.5         202         774         SO[490]         2307.5         62           700         SO[416]         3565.5         202         735         SO[451]         2919.5         62         776         SO[491]         2290.5         202           700         SO[416]         3531.5         62         737         SO[451]         2919.5         62         777         SO[491]         2290.5         202           702	691	SO[407]	3718.5	202		729	SO[445]	3072.5	62		767	SO[483]	2426.5	338
694         SO[410]         3667.5         202         732         SO[448]         3021.5         62         770         SO[486]         2375.5         338           695         SO[411]         3650.5         338         733         SO[449]         3004.5         202         771         SO[487]         2368.5         62           696         SO[413]         3616.5         202         735         SO[451]         2870.5         62         774         SO[499]         2324.5         338           698         SO[414]         3599.5         338         736         SO[451]         2870.5         62         774         SO[499]         2324.5         338           699         SO[416]         3565.5         202         735         SO[451]         2936.5         36         776         SO[491]         2290.5         202           700         SO[416]         3565.5         202         737         SO[451]         2919.5         62         776         SO[491]         2290.5         202           702         SO[418]         3531.5         62         749         SO[451]         2885.5         338         778         SO[491]         2292.5         778         SO[49	692	SO[408]	3701.5	338		730	SO[446]	3055.5	202		788	90[484]	2409.5	62
Fig.	693	SO[409]	3684.5	62		731	SO[447]	3038.5	338		769	SO[485]	2392.5	202
696         SO[412]         3633.5         62           697         SO[413]         3616.5         202           698         SO[414]         3599.5         338           699         SO[415]         3582.5         62           700         SO[416]         3565.5         202           701         SO[417]         3548.5         338           701         SO[418]         3531.5         62           702         SO[418]         3531.5         62           703         SO[420]         347.5         338           704         SO[420]         347.5         338           705         SO[421]         340.5         52           706         SO[421]         340.5         52           705         SO[421]         340.5         52           706         SO[421]         346.5         32           707         SO[423]         344.6         33           707         SO[425]         341.5         202           743         SO[469]         283.5         338           707         SO[423]         344.6         33           708         SO[425]         341.5	694	SO[410]	3667.5	202		732	SO[448]	3021.5	62 <		770	SO[486]	2375.5	338
697         SO[413]         3616.5         202         735         SO[451]         3270.5         62         774         30[490]         2307.5         62           698         SO[414]         3599.5         338         736         SO[453]         2939.5         202         774         30[490]         2307.5         62           700         SO[416]         3565.5         202         738         SO[453]         2936.5         360         776         SO[491]         2290.5         202           701         SO[418]         3531.5         62         749         SO[455]         2885.5         338         777         SO[491]         2293.5         202           703         SO[419]         3514.5         202         741         SO[457]         3868.5         62         778         SO[491]         2293.5         202           704         SO[421]         3463.5         202         744         SO[467]         388.5         62         779         SO[496]         2205.5         62           705         SO[421]         3463.5         202         744         SO[460]         2817.5         62         780         SO[496]         2205.5         62	695	SO[411]	3650.5	338		733	SO[449]	3004.5	202		<b>71</b> 1	SO[48X]	2358.5	62
698         SO[414]         3599.5         338           699         SO[415]         3582.5         62           700         SO[416]         3565.5         202           701         SO[417]         3548.5         338           701         SO[418]         3531.5         62           702         SO[418]         3531.5         62           703         SO[419]         3514.5         202           704         SO[420]         3497.5         338           704         SO[420]         3497.5         338           704         SO[421]         3480.5         62           705         SO[421]         3480.5         62           706         SO[423]         3446.5         33           707         SO[423]         3446.5         33           708         SO[424]         3429.5         62           744         SO[466]         2817.5         62           708         SO[423]         3446.5         33           707         SO[423]         3446.5         32           746         SO[466]         280.5         62           747         SO[466]         273.5	696	SO[412]	3633.5	62		734	SO[450]	2987.5	338		772 <	SO[4 <del>8</del> 8]	2341.5	202
699         SO[415]         3582.5         62           700         SO[416]         3565.5         202           701         SO[417]         3548.5         338           702         SO[418]         3531.5         62           703         SO[419]         3514.5         202           704         SO[420]         3467.5         338           705         SO[421]         3485.5         62           706         SO[421]         3486.5         338           707         SO[423]         3446.5         338           707         SO[425]         3429.5         62           748         SO[461]         2800.5         202           743         SO[469]         2834.5         338           707         SO[421]         3429.5         62           708         SO[424]         3429.5         62           709         SO[425]         3412.5         202           708         SO[425]         3429.5         62           746         SO[461]         2800.5         202           788         SO[499]         2154.5         62           747         SO[466]         2715.	697	SO[413]	3616.5	202		735	SO[451]	2970,5	62		<b>\$</b> 73	\$0[489]	2324.5	338
700         SO[416]         3565.5         202         788         SO[454]         2919.6         62         776         SO[492]         2273.5         338           701         SO[417]         3548.5         338         736         SO[455]         2902.5         202         777         SO[492]         2273.5         338           702         SO[418]         3531.5         62         740         SO[456]         2885.5         338         778         SO[494]         2239.5         202           703         SO[420]         3497.5         338         741         SO[457]         2868.5         62         779         SO[496]         222.5         338           704         SO[421]         3485.5         62         742         SO[469]         2834.5         338         781         SO[496]         2205.5         62           705         SO[421]         3486.5         338         745         SO[460]         2817.5         62         780         SO[496]         2205.5         62           706         SO[421]         3429.5         62         746         SO[462]         2783.5         338         781         SO[499]         2154.5         62	698	SO[414]	3599.5	338		736	SO[458]	2953.5	202	$\mathcal{L}(\mathcal{C})$	774	<b>S</b> O[490]	2307.5	62
701         SO[417]         3548.5         338         738         SO[455]         2902.5         202         777         SO[493]         2256.5         62           702         SO[418]         3531.5         62         740         SO[456]         2885.5         338         778         SO[494]         2239.5         202           703         SO[419]         3514.5         202         741         SO[457]         2868.5         62         779         SO[496]         2222.5         338           704         SO[420]         3497.5         338         742         SO[459]         2834.5         338         780         SO[496]         2205.5         62           705         SO[421]         340.5         202         744         SO[460]         2817.5         62         780         SO[496]         2205.5         62           706         SO[423]         3446.5         338         743         SO[460]         2817.5         62         782         SO[498]         2171.5         338           707         SO[423]         3412.5         202         746         SO[462]         2783.5         338         784         SO[500]         2137.5         62	699	SO[415]	3582.5	62		737	SO[453]	2936.5	388		775)	SO[491]	2290.5	202
702         SO[418]         3531.5         62         740         SO[456]         2885.5         338         778         SO[494]         2239.5         202           703         SO[419]         3514.5         202         741         SO[457]         388.5         62         779         SO[495]         222.5         338           704         SO[420]         3480.5         62         742         SO[458]         2851.5         202         780         SO[496]         2205.5         62           705         SO[421]         3480.5         62         743         SO[469]         2834.5         338         781         SO[497]         2188.5         202           706         SO[423]         3446.5         338         748         SO[460]         2817.5         62         782         SO[498]         2171.5         338           707         SO[423]         3446.5         338         746         SO[461]         2800.5         202         783         SO[499]         2154.5         62           708         SO[426]         3395.5         338         748         SO[461]         2749.5         202         786         SO[501]         210.5         338	700	SO[416]	3565.5	202		738	SO[454]	2919.5	62		776	SO[492]	2273.5	338
703         SO[419]         3514.5         202         741         SO[457]         2868.5         62         779         SO[495]         2222.5         338           704         SO[420]         3497.5         338         742         SO[458]         2851.5         202         780         SO[496]         2205.5         62           705         SO[421]         3480.5         62         743         SO[460]         2817.5         62         781         SO[497]         2188.5         202           706         SO[423]         3446.5         338         738         SO[461]         2800.5         202         783         SO[498]         2171.5         338           707         SO[423]         3446.5         338         746         SO[461]         2800.5         202         783         SO[498]         2171.5         338           710         SO[425]         3412.5         202         747         SO[462]         2783.5         338         784         SO[500]         2137.5         202           711         SO[427]         3378.5         62         749         SO[463]         2765.5         62         785         SO[501]         210.5         62	701	SO[417]	3548.5	338		730	<b>SO</b> [455]	2902.5	202		777	SO[493]	2256.5	62
704         SO[420]         3497.5         338         742         SO[458]         2851.5         202         780         SO[496]         2205.5         62           705         SO[421]         3480.5         62         743         SO[469]         2834.5         338         781         SO[497]         2188.5         202           706         SO[423]         3446.5         338         745         SO[461]         2800.5         202         783         SO[498]         2171.5         338           707         SO[423]         3446.5         338         746         SO[462]         2783.5         338         784         SO[500]         2137.5         62           708         SO[425]         3412.5         202         747         SO[462]         2783.5         338         784         SO[500]         2137.5         202           709         SO[426]         3395.5         338         748         SO[463]         2766.5         62         785         SO[501]         2120.5         338           710         SO[427]         3378.5         62         749         SO[466]         2715.5         62         786         SO[502]         2103.5         62 <tr< td=""><td>702</td><td>SO[418]</td><td>3531.5</td><td>62</td><td><math>/\!/\!/</math></td><td>740</td><td>SO[456]</td><td>2885.5</td><td>338</td><td></td><td>778</td><td>SO[494]</td><td>2239.5</td><td>202</td></tr<>	702	SO[418]	3531.5	62	$/\!/\!/$	740	SO[456]	2885.5	338		778	SO[494]	2239.5	202
705         SO[421]         3480.5         62         743         SO[460]         2834.5         338         781         SO[497]         2188.5         202           706         SO[423]         346.5         202         744         SO[460]         2817.5         62         782         SO[498]         2171.5         338           707         SO[423]         3446.5         338         745         SO[461]         2800.5         202         783         SO[499]         2154.5         62           708         SO[425]         3412.5         202         747         SO[462]         2783.5         338         784         SO[500]         2137.5         202           710         SO[426]         3395.5         338         748         SO[463]         2766.5         62         785         SO[501]         2120.5         338           710         SO[426]         3395.5         338         748         SO[464]         2749.5         202         786         SO[502]         2103.5         62           711         SO[427]         3378.5         62         749         SO[466]         2715.5         62         788         SO[503]         2086.5         202	703	SO[419]	3514.5	202	M.	741	SO[457]	2868.5	62		779	SO[495]	2222.5	338
706         SO[42]         3463.5         202         744         SO[460]         2817.5         62         782         SO[498]         2171.5         338           707         SO[423]         3446.5         338         Z45         SO[461]         2800.5         202         783         SO[499]         2154.5         62           708         SO[424]         3429.5         62         746         SO[462]         2783.5         338         784         SO[500]         2137.5         202           709         SO[425]         3412.5         202         747         SO[463]         2766.5         62         785         SO[501]         2120.5         338           710         SO[426]         3395.5         338         748         SO[463]         2766.5         62         785         SO[501]         2120.5         338           711         SO[427]         3378.5         62         749         SO[465]         2732.5         338         787         SO[503]         2086.5         202           712         SO[428]         3344.5         338         751         SO[467]         2698.5         202         788         SO[504]         2069.5         338 <tr< td=""><td>704</td><td>SO[420]</td><td>3497.5</td><td>338/</td><td>) `</td><td>742</td><td>SO(458)</td><td>2851.5</td><td>202</td><td></td><td>780</td><td>SO[496]</td><td>2205.5</td><td>62</td></tr<>	704	SO[420]	3497.5	338/	) `	742	SO(458)	2851.5	202		780	SO[496]	2205.5	62
707         SO[423]         3446.5         338         748         SO[461]         2800.5         202         783         SO[499]         2154.5         62           708         SO[424]         3429.5         62         746         SO[462]         2783.5         338         784         SO[500]         2137.5         202           710         SO[426]         3395.5         338         748         SO[463]         2766.5         62         785         SO[501]         2120.5         338           711         SO[426]         3395.5         338         748         SO[464]         2749.5         202         786         SO[502]         2103.5         62           711         SO[427]         3378.5         62         749         SO[465]         2732.5         338         787         SO[503]         2086.5         202           712         SO[428]         3361.5         202         750         SO[466]         2715.5         62         788         SO[504]         2069.5         338           713         SO[429]         3344.5         338         751         SO[467]         2698.5         202         789         SO[505]         2052.5         62 <tr< td=""><td>705</td><td>SO[421]</td><td>3480.5</td><td>62</td><td>(</td><td>743</td><td>SO[459]</td><td>2834.5</td><td>338</td><td></td><td>781</td><td>SO[497]</td><td>2188.5</td><td>202</td></tr<>	705	SO[421]	3480.5	62	(	743	SO[459]	2834.5	338		781	SO[497]	2188.5	202
708         SO[424]         3429.5         62         746         SO[462]         2783.5         338         784         SO[500]         2137.5         202           709         SO[425]         3412.5         202         747         SO[463]         2766.5         62         785         SO[501]         2120.5         338           710         SO[426]         3395.5         338         748         SO[464]         2749.5         202         786         SO[502]         2103.5         62           711         SO[427]         3378.5         62         749         SO[465]         2732.5         338         787         SO[503]         2086.5         202           712         SO[428]         3361.5         202         750         SO[466]         2715.5         62         788         SO[504]         2069.5         338           713         SO[429]         3344.5         338         751         SO[467]         2698.5         202         789         SO[505]         2052.5         62           714         SO[431]         3310.5         202         753         SO[469]         2664.5         62         791         SO[507]         2018.5         338 <tr< td=""><td>706</td><td></td><td>3463.5</td><td>202 (</td><td>// ((</td><td>744</td><td>SO[460]</td><td>2817.5</td><td>62</td><td></td><td>782</td><td>SO[498]</td><td>2171.5</td><td>338</td></tr<>	706		3463.5	202 (	// ((	744	SO[460]	2817.5	62		782	SO[498]	2171.5	338
709         SO[425]         3412.5         202         747         SO[463]         2766.5         62         785         SO[501]         2120.5         338           710         SO[426]         3395.5         338         748         SO[464]         2749.5         202         786         SO[502]         2103.5         62           711         SO[427]         3378.5         62         749         SO[465]         2732.5         338         787         SO[503]         2086.5         202           712         SO[428]         3361.5         202         750         SO[466]         2715.5         62         788         SO[504]         2069.5         338           713         SO[429]         3344.5         338         751         SO[467]         2698.5         202         789         SO[504]         2069.5         62           714         SO[430]         3327.5         62         752         SO[468]         2681.5         338         790         SO[506]         2035.5         202           715         SO[431]         3310.5         202         753         SO[469]         2664.5         62         791         SO[507]         2018.5         338 <tr< td=""><td>707</td><td>SO[423]</td><td>3446.5</td><td>338</td><td></td><td>745</td><td>SO[461]</td><td>2800.5</td><td>202</td><td></td><td>783</td><td>SO[499]</td><td>2154.5</td><td>62</td></tr<>	707	SO[423]	3446.5	338		745	SO[461]	2800.5	202		783	SO[499]	2154.5	62
710       SO[426]       3395.5       338         711       SO[427]       3378.5       62         712       SO[428]       3361.5       202         713       SO[429]       3344.5       338         714       SO[430]       3327.5       62         715       SO[431]       3310.5       202         716       SO[432]       3293.5       338         750       SO[466]       2715.5       62         751       SO[467]       2698.5       202         752       SO[468]       2681.5       338         751       SO[469]       2664.5       62         752       SO[469]       2664.5       62         751       SO[470]       2647.5       202         752       SO[469]       2664.5       62         753       SO[469]       2664.5       62         754       SO[470]       2647.5       202         755       SO[471]       2630.5       338         754       SO[509]       1984.5       202	708	\$0[424]	3429.5	62		746	SO[462]	2783.5	338		784	SO[500]	2137.5	202
711       SO[427]       3378.5       62         712       SO[428]       3361.5       202         713       SO[429]       3344.5       338         751       SO[466]       2715.5       62         714       SO[430]       3327.5       62         715       SO[431]       3310.5       202         716       SO[432]       3293.5       338         751       SO[466]       2647.5       202         752       SO[468]       2681.5       338         751       SO[469]       2664.5       62         752       SO[469]       2664.5       62         751       SO[506]       2035.5       202         753       SO[469]       2664.5       62       791       SO[507]       2018.5       338         754       SO[470]       2647.5       202       792       SO[508]       2001.5       62         717       SO[433]       3276.5       62       755       SO[471]       2630.5       338       793       SO[509]       1984.5       202	709	SO[425]	3412.5	202		747	SO[463]	2766.5	62		785	SO[501]	2120.5	338
712         SO[428]         3361.5         202         750         SO[466]         2715.5         62         788         SO[504]         2069.5         338           713         SO[429]         3344.5         338         751         SO[467]         2698.5         202         789         SO[505]         2052.5         62           714         SO[430]         3327.5         62         752         SO[468]         2681.5         338         790         SO[506]         2035.5         202           715         SO[431]         3310.5         202         753         SO[469]         2664.5         62         791         SO[507]         2018.5         338           716         SO[432]         3293.5         338         754         SO[470]         2647.5         202         792         SO[508]         2001.5         62           717         SO[433]         3276.5         62         755         SO[471]         2630.5         338         793         SO[509]         1984.5         202	710	SO[426]	3395.5	338		748	SO[464]	2749.5	202		786	SO[502]	2103.5	62
713     SO[429]     3344.5     338       714     SO[430]     3327.5     62       715     SO[431]     3310.5     202       716     SO[432]     3293.5     338       717     SO[433]     3276.5     62       751     SO[467]     2698.5     202       752     SO[468]     2681.5     338       753     SO[469]     2664.5     62       754     SO[470]     2647.5     202       755     SO[471]     2630.5     338       753     SO[506]     2035.5     202       754     SO[470]     2647.5     202       755     SO[471]     2630.5     338       754     SO[506]     2035.5     202       755     SO[471]     2630.5     338       755     SO[471]     2630.5     338       754     SO[509]     1984.5     202	711	SO[427]	3378.5	62		749	SO[465]	2732.5	338		787	SO[503]	2086.5	202
714     SO[430]     3327.5     62     752     SO[468]     2681.5     338     790     SO[506]     2035.5     202       715     SO[431]     3310.5     202     753     SO[469]     2664.5     62     791     SO[507]     2018.5     338       716     SO[432]     3293.5     338     754     SO[470]     2647.5     202     792     SO[508]     2001.5     62       717     SO[433]     3276.5     62     755     SO[471]     2630.5     338     793     SO[509]     1984.5     202	712	SO[428]	3361.5	202		750	SO[466]	2715.5	62		788	SO[504]	2069.5	338
715     SO[431]     3310.5     202     753     SO[469]     2664.5     62     791     SO[507]     2018.5     338       716     SO[432]     3293.5     338     754     SO[470]     2647.5     202     792     SO[508]     2001.5     62       717     SO[433]     3276.5     62     755     SO[471]     2630.5     338     793     SO[509]     1984.5     202	713	SO[429]	3344.5	338		751	SO[467]	2698.5	202		789	SO[505]	2052.5	62
716     SO[432]     3293.5     338       754     SO[470]     2647.5     202       717     SO[433]     3276.5     62       755     SO[471]     2630.5     338       792     SO[508]     2001.5     62       793     SO[509]     1984.5     202	714	SO[430]	3327.5	62		752	SO[468]	2681.5	338		790	SO[506]	2035.5	202
717 SO[433] 3276.5 62 755 SO[471] 2630.5 338 793 SO[509] 1984.5 202	715	SO[431]	3310.5	202		753	SO[469]	2664.5	62		791	SO[507]	2018.5	338
	716	SO[432]	3293.5	338		754	SO[470]	2647.5	202		792	SO[508]	2001.5	62
718         SO[434]         3259.5         202         756         SO[472]         2613.5         62         794         SO[510]         1967.5         338	717	SO[433]	3276.5	62		755	SO[471]	2630.5	338		793	SO[509]	1984.5	202
	718	SO[434]	3259.5	202		756	SO[472]	2613.5	62		794	SO[510]	1967.5	338

<u>fitipower</u>

795	SO[511]	1950.5	62		833	SO[549]	1304.5	338		871	SO[587]	658.5	202
796	SO[512]	1933.5	202		834	SO[550]	1287.5	62		872	SO[588]	641.5	338
797	SO[513]	1916.5	338		835	SO[551]	1270.5	202		873	SO[589]	624.5	62
798	SO[514]	1899.5	62		836	SO[552]	1253.5	338		874	SO[590]	607.5	202
799	SO[515]	1882.5	202		837	SO[553]	1236.5	62		875	SO[591]	590.5	338
800	SO[516]	1865.5	338		838	SO[554]	1219.5	202		876	SO[592]	573.5	62
801	SO[517]	1848.5	62		839	SO[555]	1202.5	338		877	SO[593]	556.5	202
802	SO[518]	1831.5	202		840	SO[556]	1185.5	62		878	SO[594]	539.5	338
803	SO[519]	1814.5	338		841	SO[557]	1168.5	202		879	SO[595]	522.5	62
804	SO[520]	1797.5	62		842	SO[558]	1151.5	338		880	SO[596]	505.5	202
805	SO[521]	1780.5	202		843	SO[559]	1134.5	62		881	SO[597]	488.5	338
806	SO[522]	1763.5	338		844	SO[560]	1117.5	202		882	50[598]	471.5	62
807	SO[523]	1746.5	62		845	SO[561]	1100.5	338		<b>-883</b>	SO[599]	454.5	202
808	SO[524]	1729.5	202		846	SO[562]	1083.5	62		884	SO[600]	437.5	338
809	SO[525]	1712.5	338		847	SO[563]	1066.5	202	2	885	SHIELDING(40)	403.5	338
810	SO[526]	1695.5	62		848	SO[564]	1049.5	338	`	886	SHIELDING[41]	369.5	338
811	SO[527]	1678.5	202		849	SO[565]	1032.5	62	,	887	SHIELDING[42]	335.5	338
812	SO[528]	1661.5	338		850	SO[566]	1015	202		888	SHIELDING[43]	301.5	338
813	SO[529]	1644.5	62		851	SO[567]	998.5	338		889	SHIELDING[44]	267.5	338
814	SO[530]	1627.5	202		852	SO[568]	981.5	62		890	SHIELDING[45]	233.5	338
815	SO[531]	1610.5	338		853	<b>SQ[</b> 569]	964.5	202	)	891	SHIELDING[46]	-233.5	338
816	SO[532]	1593.5	62		854	SO[570]	947.5	338		892	SHIELDING[47]	-267.5	338
817	SO[533]	1576.5	202		855	SO[\$X1]	930.5	62		893	SHIELDING[48]	-301.5	338
818	SO[534]	1559.5	338	$\emptyset$ $\check{\ }$	856	SO[SX2]	913.5	202		894	SHIELDING[49]	-335.5	338
819	SO[535]	7542.5	Job Job		857	SO[578]	896.5	338		895	SHIELDING[50]	-369.5	338
820	SO[536]	1525.5	202	V ((	858	SO[574]	879.5	62		896	SHIELDING[51]	-403.5	338
821	SO[537]	1508.5	338		859	SO[575]	862.5	202		897	SO[601]	-437.5	338
822	SO[538 <del>]</del>	1491.5	62		860	SO[576]	845.5	338		898	SO[602]	-454.5	202
823	SO[539]	1474.5	202		861	SO[577]	828.5	62		899	SO[603]	-471.5	62
824	SO[540]	1457.5	338		862	SO[578]	811.5	202		900	SO[604]	-488.5	338
825	SO[541]	1440.5	62		863	SO[579]	794.5	338		901	SO[605]	-505.5	202
826	SO[542]	1423.5	202		864	SO[580]	777.5	62		902	SO[606]	-522.5	62
827	SO[543]	1406.5	338		865	SO[581]	760.5	202		903	SO[607]	-539.5	338
828	SO[544]	1389.5	62		866	SO[582]	743.5	338		904	SO[608]	-556.5	202
829	SO[545]	1372.5	202		867	SO[583]	726.5	62		905	SO[609]	-573.5	62
830	SO[546]	1355.5	338		868	SO[584]	709.5	202		906	SO[610]	-590.5	338
831	SO[547]	1338.5	62		869	SO[585]	692.5	338		907	SO[611]	-607.5	202
832	SO[548]	1321.5	202		870	SO[586]	675.5	62		908	SO[612]	-624.5	62
				1			1						

909	SO[613]	-641.5	338		947	SO[651]	-1287.5	62		985	SO[689]	-1933.5	202
910	SO[614]	-658.5	202		948	SO[652]	-1304.5	338		986	SO[690]	-1950.5	62
911	SO[615]	-675.5	62		949	SO[653]	-1321.5	202		987	SO[691]	-1967.5	338
912	SO[616]	-692.5	338		950	SO[654]	-1338.5	62		988	SO[692]	-1984.5	202
913	SO[617]	-709.5	202		951	SO[655]	-1355.5	338		989	SO[693]	-2001.5	62
914	SO[618]	-726.5	62		952	SO[656]	-1372.5	202		990	SO[694]	-2018.5	338
915	SO[619]	-743.5	338		953	SO[657]	-1389.5	62		991	SO[695]	-2035.5	202
916	SO[620]	-760.5	202		954	SO[658]	-1406.5	338		992	SO[696]	-2052.5	62
917	SO[621]	-777.5	62		955	SO[659]	-1423.5	202		993	SO[697]	-2069.5	338
918	SO[622]	-794.5	338		956	SO[660]	-1440.5	62		994	SO[898]	-2086.5	202
919	SO[623]	-811.5	202		957	SO[661]	-1457.5	338		995	SO[699]	-2103.5	62
920	SO[624]	-828.5	62		958	SO[662]	-1474.5	202		996	\$0[760]	-2120.5	338
921	SO[625]	-845.5	338		959	SO[663]	-1491.5	62		766	SO[701]	-2137.5	202
922	SO[626]	-862.5	202		960	SO[664]	-1508.5	338		998	SO[702]	-2154.5	62
923	SO[627]	-879.5	62		961	SO[665]	-1525.5	202		999	SO[703]	-2171.5	338
924	SO[628]	-896.5	338		962	SO[666]	-1542.5	62	\ \	1000	\$0/764]	-2188.5	202
925	SO[629]	-913.5	202		963	SO[667]	-1559.5	338		1001	\$ <b>0</b> [₹05]	-2205.5	62
926	SO[630]	-930.5	62		964	SO(668)	-1576.5	202	(C	1002	<b>\$</b> O[706]	-2222.5	338
927	SO[631]	-947.5	338		965	SO[669]	-1593.5	62		19	SO[707]	-2239.5	202
928	SO[632]	-964.5	202		966	SO[670]	-1610:5	338		1004	SO[708]	-2256.5	62
929	SO[633]	-981.5	62		967	<b>SO</b> [671]	-1627.5	202		1005	SO[709]	-2273.5	338
930	SO[634]	-998.5	338	$\langle \langle $	968	SO[672]	1644.5	62		1006	SO[710]	-2290.5	202
931	SO[635]	-1015.5	202	Ø,	969	SO(673]	-1661.5	338		1007	SO[711]	-2307.5	62
932	SO[636]	-1032.5	62	) ~	970<	SQ[674]	-1678.5	202		1008	SO[712]	-2324.5	338
933	SO[637]	-1049.5	338		971	\$0[675]	-1695.5	62		1009	SO[713]	-2341.5	202
934	SO[638]	-1066.5	202 <	/ ((	972	SO[676]	-1712.5	338		1010	SO[714]	-2358.5	62
935	SO[639]	-1083.5	62		973	SO[677]	-1729.5	202		1011	SO[715]	-2375.5	338
936	\$0[640]	-1100.5	338		974	SO[678]	-1746.5	62		1012	SO[716]	-2392.5	202
937	SO[641]	-1117.5	202	<b>~</b>	975	SO[679]	-1763.5	338		1013	SO[717]	-2409.5	62
938	SO[642]	-1134.5	62		976	SO[680]	-1780.5	202		1014	SO[718]	-2426.5	338
939	SO[643]	-1151.5	338		977	SO[681]	-1797.5	62		1015	SO[719]	-2443.5	202
940	SO[644]	-1168.5	202		978	SO[682]	-1814.5	338		1016	SO[720]	-2460.5	62
941	SO[645]	-1185.5	62		979	SO[683]	-1831.5	202		1017	SO[721]	-2477.5	338
942	SO[646]	-1202.5	338		980	SO[684]	-1848.5	62		1018	SO[722]	-2494.5	202
943	SO[647]	-1219.5	202		981	SO[685]	-1865.5	338		1019	SO[723]	-2511.5	62
944	SO[648]	-1236.5	62		982	SO[686]	-1882.5	202		1020	SO[724]	-2528.5	338
945	SO[649]	-1253.5	338		983	SO[687]	-1899.5	62		1021	SO[725]	-2545.5	202
946	SO[650]	-1270.5	202		984	SO[688]	-1916.5	338		1022	SO[726]	-2562.5	62
								•	•				

		<del>'                                    </del>										IOL	
1023	SO[727]	-2579.5	338		1061	SO[765]	-3225.5	62		1099	SO[803]	-3871.5	202
1024	SO[728]	-2596.5	202		1062	SO[766]	-3242.5	338		1100	SO[804]	-3888.5	62
1025	SO[729]	-2613.5	62		1063	SO[767]	-3259.5	202		1101	SO[805]	-3905.5	338
1026	SO[730]	-2630.5	338		1064	SO[768]	-3276.5	62		1102	SO[806]	-3922.5	202
1027	SO[731]	-2647.5	202		1065	SO[769]	-3293.5	338		1103	SO[807]	-3939.5	62
1028	SO[732]	-2664.5	62		1066	SO[770]	-3310.5	202		1104	SO[808]	-3956.5	338
1029	SO[733]	-2681.5	338		1067	SO[771]	-3327.5	62		1105	SO[809]	-3973.5	202
1030	SO[734]	-2698.5	202		1068	SO[772]	-3344.5	338		1106	SO[810]	-3990.5	62
1031	SO[735]	-2715.5	62		1069	SO[773]	-3361.5	202		1107	SO[811]	-4007.5	338
1032	SO[736]	-2732.5	338		1070	SO[774]	-3378.5	62		1108	SO[812]	-4024.5	202
1033	SO[737]	-2749.5	202		1071	SO[775]	-3395.5	338		1109	SO[813]	-4041.5	62
1034	SO[738]	-2766.5	62		1072	SO[776]	-3412.5	202		1110	\$0[814]	-4058.5	338
1035	SO[739]	-2783.5	338		1073	SO[777]	-3429.5	62		1141	SO[815]	-4075.5	202
1036	SO[740]	-2800.5	202		1074	SO[778]	-3446.5	338		11/12	SO[816]	-4092.5	62
1037	SO[741]	-2817.5	62		1075	SO[779]	-3463.5	202		1113	SO[817]	-4109.5	338
1038	SO[742]	-2834.5	338		1076	SO[780]	-3480.5	62		1114	SO[848]	-4126.5	202
1039	SO[743]	-2851.5	202		1077	SO[781]	-3497.5	338		1715	\$0[819]	-4143.5	62
1040	SO[744]	-2868.5	62		1078	SO[782]	-35)4.5	202	(C	1116	<b>S</b> O[820]	-4160.5	338
1041	SO[745]	-2885.5	338		1079	SO[783]	-3531.5	62		11/7	SO[821]	-4177.5	202
1042	SO[746]	-2902.5	202		1080	SO[784]	-3548:5	338		1118	SO[822]	-4194.5	62
1043	SO[747]	-2919.5	62		1081	<b>SO</b> [785]	-3565.5	202		1119	SO[823]	-4211.5	338
1044	SO[748]	-2936.5	338	$/\!/\langle$	1082	SO[786]	3582.5	62		1120	SO[824]	-4228.5	202
1045	SO[749]	-2953.5	202	Ŋ,	1083	SO[787]	-3599.5	338		1121	SO[825]	-4245.5	62
1046	SO[750]	-2970.5	62	, `	1084	SØ 788	-3616.5	202		1122	SO[826]	-4262.5	338
1047	SO[751]	-298×5	338		1085	\$0[789]	-3633.5	62		1123	SO[827]	-4279.5	202
1048	SO7521	-3004.5	202	//(	1086	SO[790]	-3650.5	338		1124	SO[828]	-4296.5	62
1049	SO[X53]	-3021.5	62		1087	SO[791]	-3667.5	202		1125	SO[829]	-4313.5	338
1050	\$0[754]	-3038.5	338		1088	SO[792]	-3684.5	62		1126	SO[830]	-4330.5	202
1051	SO[755]	-3055.5	202	•	1089	SO[793]	-3701.5	338		1127	SO[831]	-4347.5	62
1052	SO[756]	-3072.5	62		1090	SO[794]	-3718.5	202		1128	SO[832]	-4364.5	338
1053	SO[757]	-3089.5	338		1091	SO[795]	-3735.5	62		1129	SO[833]	-4381.5	202
1054	SO[758]	-3106.5	202		1092	SO[796]	-3752.5	338		1130	SO[834]	-4398.5	62
1055	SO[759]	-3123.5	62		1093	SO[797]	-3769.5	202		1131	SO[835]	-4415.5	338
1056	SO[760]	-3140.5	338		1094	SO[798]	-3786.5	62		1132	SO[836]	-4432.5	202
1057	SO[761]	-3157.5	202		1095	SO[799]	-3803.5	338		1133	SO[837]	-4449.5	62
1058	SO[762]	-3174.5	62		1096	SO[800]	-3820.5	202		1134	SO[838]	-4466.5	338
1059	SO[763]	-3191.5	338		1097	SO[801]	-3837.5	62		1135	SO[839]	-4483.5	202
1060	SO[764]	-3208.5	202		1098	SO[802]	-3854.5	338		1136	SO[840]	-4500.5	62

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1137	SO[841]	-4517.5	338		1175	SO[879]	-5163.5	62		1213	SO[917]	-5809.5	202
1138	SO[842]	-4534.5	202		1176	SO[880]	-5180.5	338		1214	SO[918]	-5826.5	62
1139	SO[843]	-4551.5	62		1177	SO[881]	-5197.5	202		1215	SO[919]	-5843.5	338
1140	SO[844]	-4568.5	338		1178	SO[882]	-5214.5	62		1216	SO[920]	-5860.5	202
1141	SO[845]	-4585.5	202		1179	SO[883]	-5231.5	338		1217	SO[921]	-5877.5	62
1142	SO[846]	-4602.5	62		1180	SO[884]	-5248.5	202		1218	SO[922]	-5894.5	338
1143	SO[847]	-4619.5	338		1181	SO[885]	-5265.5	62		1219	SO[923]	-5911.5	202
1144	SO[848]	-4636.5	202		1182	SO[886]	-5282.5	338		1220	SO[924]	-5928.5	62
1145	SO[849]	-4653.5	62		1183	SO[887]	-5299.5	202		1221	SO[925]	-5945.5	338
1146	SO[850]	-4670.5	338		1184	SO[888]	-5316.5	62		1222	SO[926)	-6962/5	202
1147	SO[851]	-4687.5	202		1185	SO[889]	-5333.5	338		1223	SO[927]	-5979.5	62
1148	SO[852]	-4704.5	62		1186	SO[890]	-5350.5	202		1224	SO[928]	-5996.5	338
1149	SO[853]	-4721.5	338		1187	SO[891]	-5367.5	62		1225	SO[929]	-6013.5	202
1150	SO[854]	-4738.5	202		1188	SO[892]	-5384.5	338		1226	SO[930]	-6030.5	62
1151	SO[855]	-4755.5	62		1189	SO[893]	-5401.5	202		1227	SO(931)	-6047.5	338
1152	SO[856]	-4772.5	338		1190	SO[894]	-5418.5	62		1228	SO 1992]	-6064.5	202
1153	SO[857]	-4789.5	202		1191	SO[895]	-5435.5	338		1229	<b>\$0</b> [933]	-6081.5	62
1154	SO[858]	-4806.5	62		1192	SO(836)	-5452.5	202	(C	1230	<b>8</b> O[934]	-6098.5	338
1155	SO[859]	-4823.5	338		1193	SO[897]	-5469.5	62		1287	SO[935]	-6115.5	202
1156	SO[860]	-4840.5	202		1194	SO[898]	-5486:5	338		1232	SO[936]	-6132.5	62
1157	SO[861]	-4857.5	62		1195	<b>SO</b> [899]	-8503.5	202		1233	SO[937]	-6149.5	338
1158	SO[862]	-4874.5	338	$//\langle$	1196	SO[900	5520.5	62		1234	SO[938]	-6166.5	202
1159	SO[863]	-4891.5	202	Ø,	1197	SO(901)	-6537.5	338		1235	SO[939]	-6183.5	62
1160	SO[864]	-4908.5	62	\ \	1198	SQ19021	-5554.5	202		1236	SO[940]	-6200.5	338
1161	SO[865]	-4925.5	338	6	1199	SO[903]	-5571.5	62		1237	SO[941]	-6217.5	202
1162	SO[866]	-4942.5	202 <	//(	1200	SO[904]	-5588.5	338		1238	SO[942]	-6234.5	62
1163	SO[867]	-4959.5	62	7//	1201	SO[905]	-5605.5	202		1239	SO[943]	-6251.5	338
1164	SO[868]	-4976.5	338		1202	SO[906]	-5622.5	62		1240	SO[944]	-6268.5	202
1165	SO[869]	-4993.5	202	_	1203	SO[907]	-5639.5	338		1241	SO[945]	-6285.5	62
1166	SO[870]	-5010.5	62		1204	SO[908]	-5656.5	202		1242	SO[946]	-6302.5	338
1167	SO[871]	-5027.5	338		1205	SO[909]	-5673.5	62		1243	SO[947]	-6319.5	202
1168	SO[872]	-5044.5	202		1206	SO[910]	-5690.5	338		1244	SO[948]	-6336.5	62
1169	SO[873]	-5061.5	62		1207	SO[911]	-5707.5	202		1245	SO[949]	-6353.5	338
1170	SO[874]	-5078.5	338		1208	SO[912]	-5724.5	62		1246	SO[950]	-6370.5	202
1171	SO[875]	-5095.5	202		1209	SO[913]	-5741.5	338		1247	SO[951]	-6387.5	62
1172	SO[876]	-5112.5	62		1210	SO[914]	-5758.5	202		1248	SO[952]	-6404.5	338
1173	SO[877]	-5129.5	338		1211	SO[915]	-5775.5	62		1249	SO[953]	-6421.5	202
1174	SO[878]	-5146.5	202		1212	SO[916]	-5792.5	338		1250	SO[954]	-6438.5	62
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1251	SO[955]	-6455.5	338		1289	SO[993]	-7101.5	62		1327	SO[1031]	-7747.5	202
1252	SO[956]	-6472.5	202		1290	SO[994]	-7118.5	338		1328	SO[1032]	-7764.5	62
1253	SO[957]	-6489.5	62		1291	SO[995]	-7135.5	202		1329	SO[1033]	-7781.5	338
1254	SO[958]	-6506.5	338		1292	SO[996]	-7152.5	62		1330	SO[1034]	-7798.5	202
1255	SO[959]	-6523.5	202		1293	SO[997]	-7169.5	338		1331	SO[1035]	-7815.5	62
1256	SO[960]	-6540.5	62		1294	SO[998]	-7186.5	202		1332	SO[1036]	-7832.5	338
1257	SO[961]	-6557.5	338		1295	SO[999]	-7203.5	62		1333	SO[1037]	-7849.5	202
1258	SO[962]	-6574.5	202		1296	SO[1000]	-7220.5	338		1334	SO[1038]	-7866.5	62
1259	SO[963]	-6591.5	62		1297	SO[1001]	-7237.5	202		1335	SO[1039]	-7883.5	338
1260	SO[964]	-6608.5	338		1298	SO[1002]	-7254.5	62		1336	SO[1040]	-7900/5	202
1261	SO[965]	-6625.5	202		1299	SO[1003]	-7271.5	338		1337	SO[1041]	-7917.5	62
1262	SO[966]	-6642.5	62		1300	SO[1004]	-7288.5	202		1338	\$0[1642]	-7934.5	338
1263	SO[967]	-6659.5	338		1301	SO[1005]	-7305.5	62		1339	SQ[4043]	-7951.5	202
1264	SO[968]	-6676.5	202		1302	SO[1006]	-7322.5	338		1340	SO[1044]	-7968.5	62
1265	SO[969]	-6693.5	62		1303	SO[1007]	-7339.5	202		1341	SOTWAST	-7985.5	338
1266	SO[970]	-6710.5	338		1304	SO[1008]	-7356.5	62	<b>&gt;</b>	1342	SOM 6461	-8002.5	202
1267	SO[971]	-6727.5	202		1305	SO[1009]	7373.5	338		1343	\$0[1047]	-8019.5	62
1268	SO[972]	-6744.5	62		1306	SO[1010]	-7390.5	202	(C	1344	\$0[1048]	-8036.5	338
1269	SO[973]	-6761.5	338		1307	SQ[1011]	-7407.5	62		1345	SO[1049]	-8053.5	202
1270	SO[974]	-6778.5	202		1308	SO[1042]	-7424.5	338		1346	SO[1050]	-8070.5	62
1271	SO[975]	-6795.5	62		1309	<b>SO</b> [1013]	-7441.5	202		1347	SO[1051]	-8087.5	338
1272	SO[976]	-6812.5	338	$//\langle$	1310	SO[1014]	7458.5	62		1348	SO[1052]	-8104.5	202
1273	SO[977]	-6829.5	202	Ø),	1311	50(1015]	-7475.5	338		1349	SO[1053]	-8121.5	62
1274	SO[978]	-6846.5	62	, ~	1312	SOLIVARI	-7492.5	202		1350	SO[1054]	-8138.5	338
1275	SO[979]	-6863.5	338		1313	SO[1017]	-7509.5	62		1351	SO[1055]	-8155.5	202
1276	SO(980)	-6880.5	202 <	/ ((	1314	SO[1018]	-7526.5	338		1352	SO[1056]	-8172.5	62
1277	SO[981]	-6897.5	62	7//	1315	SO[1019]	-7543.5	202		1353	SO[1057]	-8189.5	338
1278	SO[982 <del>]</del>	-6914.5	338		1316	SO[1020]	-7560.5	62		1354	SO[1058]	-8206.5	202
1279	SO[983]	-6931.5	202	_	1317	SO[1021]	-7577.5	338		1355	SO[1059]	-8223.5	62
1280	SO[984]	-6948.5	62		1318	SO[1022]	-7594.5	202		1356	SO[1060]	-8240.5	338
1281	SO[985]	-6965.5	338		1319	SO[1023]	-7611.5	62		1357	SO[1061]	-8257.5	202
1282	SO[986]	-6982.5	202		1320	SO[1024]	-7628.5	338		1358	SO[1062]	-8274.5	62
1283	SO[987]	-6999.5	62		1321	SO[1025]	-7645.5	202		1359	SO[1063]	-8291.5	338
1284	SO[988]	-7016.5	338		1322	SO[1026]	-7662.5	62		1360	SO[1064]	-8308.5	202
1285	SO[989]	-7033.5	202		1323	SO[1027]	-7679.5	338		1361	SO[1065]	-8325.5	62
1286	SO[990]	-7050.5	62		1324	SO[1028]	-7696.5	202		1362	SO[1066]	-8342.5	338
1287	SO[991]	-7067.5	338		1325	SO[1029]	-7713.5	62		1363	SO[1067]	-8359.5	202
1288	SO[992]	-7084.5	202		1326	SO[1030]	-7730.5	338		1364	SO[1068]	-8376.5	62
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1365	SO[1069]	-8393.5	338		1403	SO[1107]	-9039.5	62		1441	SO[1145]	-9685.5	202
1366	SO[1070]	-8410.5	202		1404	SO[1108]	-9056.5	338		1442	SO[1146]	-9702.5	62
1367	SO[1071]	-8427.5	62		1405	SO[1109]	-9073.5	202		1443	SO[1147]	-9719.5	338
1368	SO[1072]	-8444.5	338		1406	SO[1110]	-9090.5	62		1444	SO[1148]	-9736.5	202
1369	SO[1073]	-8461.5	202		1407	SO[1111]	-9107.5	338		1445	SO[1149]	-9753.5	62
1370	SO[1074]	-8478.5	62		1408	SO[1112]	-9124.5	202		1446	SO[1150]	-9770.5	338
1371	SO[1075]	-8495.5	338		1409	SO[1113]	-9141.5	62		1447	SO[1151]	-9787.5	202
1372	SO[1076]	-8512.5	202		1410	SO[1114]	-9158.5	338		1448	SO[1152]	-9804.5	62
1373	SO[1077]	-8529.5	62		1411	SO[1115]	-9175.5	202		1449	SO[1153]	-9821.5	338
1374	SO[1078]	-8546.5	338		1412	SO[1116]	-9192.5	62		1450	SO[1154]	-9838.5	202
1375	SO[1079]	-8563.5	202		1413	SO[1117]	-9209.5	338		1451	SO[Y1,55]	-9855.5	62
1376	SO[1080]	-8580.5	62		1414	SO[1118]	-9226.5	202		1452	\$0[7156]	-9872.5	338
1377	SO[1081]	-8597.5	338		1415	SO[1119]	-9243.5	62		1453	SQ[+157]	-9889.5	202
1378	SO[1082]	-8614.5	202		1416	SO[1120]	-9260.5	338		1454	SO[1158]	-9906.5	62
1379	SO[1083]	-8631.5	62		1417	SO[1121]	-9277.5	202		1455	SO[1159]	-9923.5	338
1380	SO[1084]	-8648.5	338		1418	SO[1122]	-9294.5	62		1456	SONTEOL	-9940.5	202
1381	SO[1085]	-8665.5	202		1419	SO[1123]	9314.5	338		1457	<b>S</b> O[1161]	-9957.5	62
1382	SO[1086]	-8682.5	62		1420	SO[1124]	-9328.5	202	(C	1458	<b>S</b> O[1162]	-9974.5	338
1383	SO[1087]	-8699.5	338		1421	SQ[1125]	-9345.5	62		1459	SO[1163]	-9991.5	202
1384	SO[1088]	-8716.5	202		1422	SO[1126]	-9362.5	338		1460	SO[1164]	-10008.5	62
1385	SO[1089]	-8733.5	62		1423	SO[1127]	-0379.5	202		1461	SO[1165]	-10025.5	338
1386	SO[1090]	-8750.5	338	$//\langle$	1424	SO[1128]	9396.5	62		1462	SO[1166]	-10042.5	202
1387	SO[1091]	-8767.5	202	Ø,	1425	SO[1129]	9413.5	338		1463	SO[1167]	-10059.5	62
1388	SO[1092]	-8784.5	62	\ \	1426	SO[1130]	-9430.5	202		1464	SO[1168]	-10076.5	338
1389	SO[1093]	-8801.5	338		1427	SO[1131]	-9447.5	62		1465	SO[1169]	-10093.5	202
1390	SO/1094J	-8818.5	202 <	/ ((	1428	SO[1132]	-9464.5	338		1466	SO[1170]	-10110.5	62
1391	SO[(1095]	-8835.5	62	7//	1429	SO[1133]	-9481.5	202		1467	SO[1171]	-10127.5	338
1392	\$0[1096]	-8852.5	338		1430	SO[1134]	-9498.5	62		1468	SO[1172]	-10144.5	202
1393	SO[1097]	-8869.5	202	_	1431	SO[1135]	-9515.5	338		1469	SO[1173]	-10161.5	62
1394	SO[1098]	-8886.5	62		1432	SO[1136]	-9532.5	202		1470	SO[1174]	-10178.5	338
1395	SO[1099]	-8903.5	338		1433	SO[1137]	-9549.5	62		1471	SO[1175]	-10195.5	202
1396	SO[1100]	-8920.5	202		1434	SO[1138]	-9566.5	338		1472	SO[1176]	-10212.5	62
1397	SO[1101]	-8937.5	62		1435	SO[1139]	-9583.5	202		1473	SO[1177]	-10229.5	338
1398	SO[1102]	-8954.5	338		1436	SO[1140]	-9600.5	62		1474	SO[1178]	-10246.5	202
1399	SO[1103]	-8971.5	202		1437	SO[1141]	-9617.5	338		1475	SO[1179]	-10263.5	62
1400	SO[1104]	-8988.5	62		1438	SO[1142]	-9634.5	202		1476	SO[1180]	-10280.5	338
1401	SO[1105]	-9005.5	338		1439	SO[1143]	-9651.5	62		1477	SO[1181]	-10297.5	202
1402	SO[1106]	-9022.5	202		1440	SO[1144]	-9668.5	338		1478	SO[1182]	-10314.5	62
		1		1		1	1		1		I.	1	

<u> </u>			
1479	SO[1183]	-10331.5	338
1480	SO[1184]	-10348.5	202
1481	SO[1185]	-10365.5	62
1482	SO[1186]	-10382.5	338
1483	SO[1187]	-10399.5	202
1484	SO[1188]	-10416.5	62
1485	SO[1189]	-10433.5	338
1486	SO[1190]	-10450.5	202
1487	SO[1191]	-10467.5	62
1488	SO[1192]	-10484.5	338
1489	SO[1193]	-10501.5	202
1490	SO[1194]	-10518.5	62
1491	SO[1195]	-10535.5	338
1492	SO[1196]	-10552.5	202
1493	SO[1197]	-10569.5	62
1494	SO[1198]	-10586.5	338
1495	SO[1199]	-10603.5	202
1496	SO[1200]	-10620.5	62
1497	SHIELDING[52]	-10664	358
1498	COM_PASSR	-10714	358
1499	COM_PASSR	-10764	358
1500	SYNCR	-10814	358
1501	LDR	-10864	358
1502	POLR	-10914	358
1503	DATRIQI	-11179	378,75
1504	DATR[1]	-11049	342
1505	DATR(2)	-11179	302
1506	DATR[3]	-11049	262
1507	DATR[4]	-11179	222
1508	DATR[5]	-11049	182
1509	DATR[6]	-11179	142
1510	DATR[7]	-11049	102
1511	DATR[8]	-11179	62
1512	DATR[9]	-11049	22
1513	DATR[10]	-11179	-18
1514	DATR[11]	-11049	-58
1515	DATR[12]	-11179	-98
1516	DATR[13]	-11049	-138
_	040/02/27		

1517	DATR[14]	-11179	-178
1518	DATR[15]	-11049	-218
1519	DATR[16]	-11179	-258
1520	DATR[17]	-11049	-298
1521	DIOR	-11179	-338
1522	DCLKR	-11049	-376.5

ı	ALIGN_L	-10773	78
-	ALIGN_R	10773	78



#### 9. DEFINITIONS

#### 9.1. Data Sheet Status

Data Sheet	This data sheet contains final product specifications.

Contents in the document are subject to change without notice.

#### 9.2. Life Support Application

These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury, fitipower customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify fitipower for any damages resulting from such improper use of sale.

#### 10. REVISION HISTORY

Revision	Content	Page	Date
1.0	New spec.		2018/01/25
1.1	Timing characteristic dclk frequency value modify     Timing table clkin frequency modify	25-27	2018/03/27

**2018/03/27** 51 **Rev. 1.1** 



#### APPENDIX A : BIST PATTERN

 $R \rightarrow G \rightarrow B \rightarrow Black \rightarrow White \rightarrow Color Bar \rightarrow Horizontal 256 gray scale \rightarrow Vertical 256 gray scale \rightarrow Crosstalk pattern \rightarrow Chess board (L255/L0) \rightarrow Flicker pattern \rightarrow Black background with white out frame$ 

