

Triplets Refresh Block Diagram Signal Description



	Signal	From	To	Description
1	ADDRESS(24)	U800	U701	Multiplexer input to select Memory Partition 1 or 2 of Flash Memory
2	AD_TRIG	EXC_EN	U900	Transmitt Mode indication to Pcap to adjust the Battery Meter between RX Idle Mode and Transmitt Mode
3	AD6	BATT_FDBK	U900	Analog input to measure the Pull Down Resistor in the Charge accessory. Indicates the type of charger to the Phone
4	ADC DATA	Q801	U800	Analog voltage Detect input to the Sense input of Neptune to indicate the Status of the Light sensor Q801
5	ALERT-	U900	Alert	ALERT Out Negative (-) from Alert amplifier to Alert speaker
6	ALERT+	U900	Alert	ALERT Out Positive (+) from Alert amplifier to Alert speaker
7	ANTENNA	U301	R906	ANTENNA Transmitt/ Receive signal from/ to Bluetooth Chip
8	AOC_DRIVE	U800	U300	Bias control signal to U300 TX amplifier (Automatic Output Control Driver)
9	ATI1.8V	U900	J1300	Original VBUCK to supply the ATI Display driver IC
10	AUD_REG	U900	U900	AUDIO 2,775V support voltage for U900 internal functions
11	AUDIO_IN	J1400	U900	Analog Audio Input from Accesory to Pcap Audio Interface.
12	AUDIO_OUT	U900	J1400	Analog Audio Output from Pcap Audio Interface to support Accesory.
13	B+	U900	U900	Main Source for the Phone supporting U900 power supply
14	BATT_DET B	U900	U800	BATTERY In/output detection to Sim Interface of U800. Renamed and used as SIM_PD at U800
15	BATT_DET B	U900	U800	BATTERY DETECTION indication from PCap to U800 SIM Interface to force the VSIM_EN output of U800
16	BATT_FDBK	U900	FL1400 - J1400	BATTERY Feedback Line to adjust the External Power Supplies to 1,4 Volt above Batterie Voltage Level
17	BATT+	M1700	Q952, U900	BATTERY (+) output/input to Battery switch and U900 AD converter input
18	BB_I	U150	U800	positive In phase baseband signal from receiver in Algae to A/D converter in Netune
19	BB_IX	U150	U800	negative In phase baseband signal from receiver in Algae to A/D converter in Netune
20	BB_Q	U150	U800	positive Quadratur-phase signal from receiver in Algae to A/D converter in Netune
21	BB_QX	U150	U800	negative Quadratur-phase signal from receiver in Algae to A/D converter in Netune
22	BB_SAP_CLK	U800	U301, U900	Base Band Serial Audio Port CLock to Clock Audio Data Flow (Audio SPI Bus)
23	BB_SAP_FS	U800	U301, U900	Base Band Serial Audio Port Frame Synchronisation to synchronize the Audio Frames (Audio SPI Bus)
24	BB_SAP_RX	U301, U900	U800	Base Band Serial Audio Port Receive signal to U800 (Audio SPI Bus)
25	BB_SAP_TX	U800	U301, U900	Base Band Serial Audio Port Transmitt signal to U900 and U301 (Audio SPI Bus)
26	BB_SPI_CLK	U800	U900	BaseBand SPI Bus CLock to Clock Data Flow (Neptune /PCAP Control Communication)
27	BB_SPI_MISO	U900	U800	BaseBand SPI Bus Master (U800) Input, Slave (U900) Output (Neptune /PCAP Control Communication)
28	BB_SPI_MOSI	U800	U900	BaseBand SPI Bus Master (U800) Output, Slave (U900) Input (Neptune /PCAP Control Communication)
29	BL_FB	U900	R1459	FeedBack control signal to BL_SINK. R1459 will set the BL_SINK input current.
30	BL_SINK	Backlight LED	U900	SINK input to Pcap to control the LED current and on/Off function
31	BLUE_CLK_EN B	U900	U301	Original CLK_32KHz from Pcap as Enable indication to the Bluetooth Chip
32	BLUE_CTS	U800	U301	Clear To Send Data indication from U800 To U301 (InterChip Communication)
33	BLUE_HOST_WAKE B	U301	U800	Communication WAKEup signal from U301 to U800
34	BLUE_RESET B	U900	U301	Original RESET B from U900 to reset the Bluetooth Chip
35	BLUE_RTS	U301	U800	Request To Send Indication from U301 to U800
36	BLUE_RX	U301	U800	Receive Data Communication from U301 to U800 (InterChip Communication)

37	BLUE_TX	U800	U301	Transmitt Data Communication from U800 To U301(InterChip Communication)
38	BLUE_WAKEB	U800	U301	Communication WAKE Up signal from U800 to U301
39	BTRF_REG	U900	U301	1,8 Volt regulator output from Pcap to support the BT Chipset U301
40	BURSTCLK	U800	U701	BURST CLoCK to clock U700 to synchronize the loading of addresses and delivery of burst read data
41	CE_1	U701	U700	Flash Memory chip select for Memory Partition 1 of the Flash IC U700
42	CE_2	U701	U700	Flash Memory chip select for Memory Partition 1 of the Flash IC U700
43	CHRG	U900	Q950	Analog Tuning Voltage to drive /control the current flow of the Charge Transistor Q950 into the Battery
44	CLK_32KHZ	U900	U800, U1301	32KHZ CLoCK output to RTC timer interface in Neptune and J1300
45	CLK_32KHZ_B	U1301	J1300	Buffered 32Khz CLoCK to support the Camera Driver with system Clock
46	CLK-13MHZ	U800	U900	13 MHz Core CLoCK to PCap
47	CM_IN	U150	U800	Decoupled Ground Connection for RX BaseBand signals
48	CS0B	U800	U701	Chip Select 0 - active low output is used as external Flash Memory chip select
49	CTS2	U800	U301	Clear To Send Data indication from U800 To U301 (InterChip Communication)
50	D-	U900/ J1400	J1400/ U900	USB Data- line in/output passing the FL1400 ESD protection Fliter
51	D+	U900/ J1400	J1400/ U900	USB Data+ line in/output passing the FL1400 ESD protection Fliter
52	DSEL0	J1400	U800	This pin is used to select between serveral different Dumb type devices (External Audio devices like MP3Player, FM Radio...)
53	DSEL1	J1400	U800	This pin is used to select between serveral different Dumb type devices (External Audio devices like MP3Player, FM Radio...)
54	DSEL2	J1400	U800	This pin is used to select between serveral different Dumb type devices (External Audio devices like MP3Player, FM Radio...)
55	EB0_B	U800	U700	Used as write Enable to partition of SRAM
56	EB1_B	U800	U700	Used as write Enable to partition of SRAM
57	ECBB	U800	U700	End Off Curret Burst -active low(B)- to indicate to FLASH the end of current burst sequence.
58	EURO_US	U800	U50	Band Selection Signal from Neptune to RX/TX Switch in Eagle IC U50
59	EXC_EN	U800	U50, U150	EXC iter EN able active high to drive the Switch Control Circuit to TX mode and TX indication to Eagle IC
60	EXT_B+	Q954	Q953, U900	Over Voltage controlled RAW_EXT_B+ as Source for Charger and B+ support
61	EXTAL	Y805	U800	26MHz reference clock differential input
62	FUN_SPI_CS	U800	J1300	FUN light SPI Chip Select . Orginal BB_SPI_CS0 from Neptune
63	GA_1.2V	U900	Q960	1,2V Supply Used to enable Q960
64	GA_INT	U800	J1300	INTerrupt to indicate the end of conversation on Communication Bus
65	GA_SPI_CLK	U800	J1300	Graphic Accelerator SPI Bus CLoCK to Clock Data Flow (Neptune /PCAP/ Display Control Communication) Orginal BB_SPI_CLK
66	GA_SPI_CS	U800	J1300	Graphic Accelerator SPI Chip Select Orginal BB_SPI_CS6
67	GA_SPI_MISO	J1300	U800	Graphic Accelerator SPI Bus Master (U800) Input , Slave (U900) Output (Neptune /PCAP/Display Control Communication) Orginal BB_SPI MISO
68	GA_SPI_MOSI	U800	J1300	Graphic Accelerator SPI Bus Master (U800) Output , Slave (U900) Input (Neptune /PCAP/Display Control Communication) Orginal BB_SPI_MOSI
69	GND	PCB	PCB	GrouND connection
70	HANDSPKR-	U900	U902	Audio amplifier output (-) to Flip connector to support the Earpeace SPeaKeR
71	HANDSPKR+	U900	U902	Audio amplifier output (+) to Flip connector to support the Earpeace SPeaKeR
72	HJACK_DET	J1400	U900	active low interrupt (will be pulled to GND if headset is connected) to headset detect in U900.
73	HJACK_MIC	J1400	U900	analog HEaD phone MIC rophone signal as input to Aux. microphone amplifier. Biased by MIC_BIAS2 output from U900 if Headset is connected.
74	HJACK_SPKR	U900	J1240	Audio signla output from U900 to support the Headset SPeaKeR
75	HKSW	J1400	U800	Logic 0 indicates external unit is in Hands free mode

76	HS_INT	S550	U800	Flip Open/ Close Detect to Neptune
77	INT_MIC_BIAS	U900	Mic Audio Line	BIAS Voltage output to support the INTERNAL MIC Audio line
78	INT_MIC_OUT	J1200	U900	analog INTERNAL MICrophone signal as input to microphone amplifier
79	IO_REG	U900	Q960	Supply for Neptune I/O (NEP_IO_REG), Display, Algae (NEP_IO_REG).
80	ISENSE	R950	U900	AD converter input to Pcap to measure the voltage drop between EXT_B+ and ISENSE as Current flow indicator to Chare interface of Pcap
81	KBC0-1	U800	Keypad/ U511	Keypad (Board) Colum Strobe
82	KBR0-7	U800	Keypad/ U511	Keypad (Board) Row Sense
83	LBAB	U800	U700	Load Burst Address active low- causing that U701 is loading a new starting burst address
84	LCD_CLK_DATA(6)	U800	J1300	Serial CLoCK output to LCD driver to clock the DATA Bus. The (6) stands for Data Line 6.
85	LCD_CS	U801	J1300	Chip Select for LCD driver
86	LCD_DATA (0-5)	U800	J1300	LCD DATA Bus Lines from Neptune Display Interface to Display Driver
87	LCD_RS	U802	J2002	Register Select indicates if display data or control datas are written
88	LCD_SDATA_DATA(7)	U800	J1300	Serial DATA output from Neptune Display SPI interface. The (7) stands for Data Line 7.
89	LOGIC_SENSE	AUDIO_IN	U800	Analog Voltage to SENSE Communication/Connection on the AUDIO_IN line
90	LOWB_HIGH	U800	U50	LOW /HIGH Band selection signal from U800. Active low in Low Band modus.
91	MAINFET	U900	Q952, U900	Enables / Disables Battery BATT+ Switch to support B+ as Main source for the device with Battery power
92	MIC_BIAS2	U900	HJACK_MIC line	Analog BIAS Votage to bias the Heaset MICrophone line
93	MIDRATE1	U800	U900	Enables / Disables the EXT_B+ source to support B+ as Main source for the device with External Power
94	MIDRATE2	U800	U900	Input to Pcap to force the MAIN_FET output of Pcap.
95	MUTE*	J1400	U800	Audio MUTE indication from external accessorys (active low)
96	NEP_IO_REG	Q960	U800, U301,	2,775 Volt supply for different sources like Bluetooth, Neptune.....
97	OEB	U800	U700	Output Enable-active low (B)- is indicating that the bus access is a read and enables slave devicesto drive the bus with read data.
98	ON2	AUDIO_OUT	U900	External ON/OFF line to Pcap.
99	OPT1	J1400	U800	This pin is used for detecting Data Accessorys (RS232 Cable ..)
100	OPT2	J1400	U800	This pin is used for detecting Data Accessorys (RS232 Cable ..)
101	OV_GATE	U900	Q954	OverVoltage control interface output to Enable / Disable the connection to external Supplys (CLA, Wall Charger, Car Kits...)
102	OWB	M1700	U800	One Wire Bus signal line from Battery EEPROM to Neptune. Used to download Battery Recharge information to Neptune
103	PA_B+	VR950	U50	Orginal B+ to support the PA Stages in the Eagle IC
104	PA_DET	U50	U800	Antenna power detect feedback from Eagle power amplifier, refers to output power level typically 50mV without transmitter power
105	PA_REF	U50	U800	Reference feedback from Eagle power amplifier, typically 60 mV and does not vary with transmitter power level
106	PCAP_CS	U800	U900	BaseBand SPI Bus Chip Select from U800 to PCAP (Neptune /PCAP Control Communication)
107	PCAP_INT	U900/ U800	U800/ U900	INTerrupt to indicate the end of conversation on Communication Bus
108	POWER_CUTS_VCC	U900	U800	1,8 Volt Regulator output from Pcap to protect Neptune Memory for short Power cuts (e.g. Phone drops on floor)
109	PWR_SW	S513	U900	if pulled to GND indicates the On /OFF logic in U900 to power on or off the unit
110	R_WB	U800	U700	Read Write, active low in Write. Indicates the bus acces type.
111	RAW_BATT_FDBK	FL1400	J1400	ESD unprotected BATT_FDBK signal
112	RAW_DSEL0	J1400	U800	ESD unprotected DSEL0 signal
113	RAW_DSEL1	J1400	U800	ESD unprotected DSEL1 signal
114	RAW_DSEL2	J1400	U800	ESD unprotected DSEL2 signal
115	RAW_EXT_B+	J1400	Q954	Raw - unfiltered - EXTERNAL Batterie (Supply) input

116	RAW_HKSW	J1400	U800	ESD unprotected HKSW signal
117	RAW_MUTE*	J1400	U800	ESD unprotected MUTE* signal
118	RAW_OPT1	J1400	U800	ESD unprotected OPT1 signal
119	RAW_OPT2	J1400	U800	ESD unprotected OPT2 signal
120	REF_REG	U900	U900	REF ERENCE REG ulator Supply only for internal Pcap use 1,575V
121	RESET_OUT	U800	U700	RESET from Neptune for U700
122	RESET_OUT_B	U1300	J1300	Inverted RESET_OUT signal from Inverter U1300 as reset for the Display Driver
123	RESETB	U900	U800	active low RESET for U800 and U301
124	RF_5V_REG	U900	U800	5V support Voltage REG ulator from U900 to support the RX/TX Charge Pumps
125	RF_CLK	U800	U150	SPI CLocK output to U150 (RF Interface)
126	RF_CS	U800	U150	SPI Chip Select output to U150 (RF Interface)
127	RF_DATA	U800	U150	SPI Serial DATA to U150 (RF Interface)
128	RF_REG	U900	XXX	2,775 Supply for Synthesizer, super filter REG ulators , RF and analog functions
129	RF_REG	U900	U800, U50	2,775 Volt Supply for Eagle IC and Neptune Synthesizer and Algae IC
130	RTC_BATT	J1701	U900	RTC Backup Battery + Supply to RTC Timer Interface interface. RTC Battery will be recharged
131	RTS2	U301	U800	Request To Send Indication from U301 to U800
132	RX_CP	U800	U150	Bias/ tuning voltage from the RX Charge Pump to the RX VCO in Algae
133	RX_EN	U800	U150	RX Enable signal for the Algae Frontend and VCO
134	RXD2	U301	U800	Receive Data Communication from U301 to U800 (InterChip Communication)
135	SIM_CLK	U800	J1350	output CLocK from Sim Card Interface to SIM Card
136	SIM_DIO	U800/J1350	J1350/U800	Data In and Output from and to SIM Card / Interface
137	SIM_PD	U900	U800	SIM Presence Detect signals the insertion or removal of Phone Battery to Neptune organated by BATT_DET output from PCAP
138	SIM_RST	U900	J1350	active low ReSeT signal from SIM interface
139	STANDB	U800	U900	Deep Sleep Signal from Neptune to Pcap to indicate Low Power State
140	SW_B+	U901	J1400	Power Output to support external Accesory with Power from the Phone Batterie. (e.g. MP3 Player)
141	SW_B+_EN	U800	U901	Enable Signal to U901 to support external Accesory with Power from the Phone Batterie. (e.g. MP3 Player)
142	SYNTH_FD_N	U150	U800	downconverted negative differential RX/TX VCO FeeD back to Neptune SYNTH esizer
143	SYNTH_FD_P	U150	U800	downconverted positive differential RX/TX VCO FeeD back to Neptune SYNTH esizer
144	THERM	M1700	U900	Analog Referece voltage Biased by THERM_BIAS to Indicate the Battery Temperature to Pcap Charger Interface.
145	THERMBIAS	U900	THERM signal	Analog Bias Votage to Thermistor line from Battery
146	TRK_CLK	U800	U150	TRacK ing CLocK signal from Neptune to Algae to calibrate the internal digital filters
147	TX_CP	U800	U150	Filtered Charge Pump output from PLL phase detect to bias the TX VCO
148	TX_EN	U800	UU50	TX EN able is enabling the TX signal path in U50
149	TX_IN_HB	U150	U50	TX High frequency Band In put to PA in U50
150	TX_IN_LB	U150	U50	TX Low frequency Band In put to PA in U50
151	TX_MOD	U800	TX_C P- TXVCO	High Pass filter output contains the GSMK Modulation package to modulate the TX VCO via TX_CP Line
152	TXD2	U800	U301	Transmitt Data Communication from U800 To U301(InterChip Communication)
153	USB_PU	U900	D+	Speed detection to USB Slave units. If 15KOhm on D+ it indicates fast communication, If 15KOhm on D- slow communication.
154	USB_PWR	U900	J1400	Power Output from the Pcap USB Interface to support external USB devices with Power (5V)
155	USB_SE0	U900	U800	indicates to U800 that a USB device is connected and communication is Enabled

156	USB_TXENB	U800	U900	USB Transmitt Enable- active low- signals to USB device when to transmit data on USB bus.
157	USB_VMIN_RXD	U900	U800	USB- (MINus) data from U900 to U800
158	USB_VMIN_RXD	U900	U800	RS232 Receive data from U900 to U800
159	USB_VMOUT	U800	U600	USB- (MINus) data from U800 to U600
160	USB_VPIN	U900	U800	USB+ (Positive) data from U900 to U800 for internal Pcap Neptune Communication
161	USB_VPOUT_TXD	U800	U900	USB+ (Positive) data from U800 to U900
162	USB_VPOUT_TXD	U800	U600	RS232 Transmitt data from U800 to U900
163	USB_XRXD_RTS	U900	U800	CMOS logic value of value received from USB wires
164	USB_XRXD_RTS	U800	U900	Request To Send signal for RS232 communication between U800 and U900
165	V_BUCK	U900	XXX	Supply for Neptune (U800) core and logic and U700(FLASH)
166	VBOOST	U900	U800	5,6 Volt regulator output of Pcap to support Pcap internal USB Interface and V10 Regulator for U800 Charge Pumps. Supply for Backlight LED's
167	VPP	D700	U700	1,875V supply Voltage for SRAM U700 generated from VBUCK
168	VSIM	U900	U800/ J1350	SIM Card support voltage VCC 1.8 or 3V from Pcap
169	VSIM_EN	U800	U900	ENable signal from Neptune to Seaweed for the SIM VCC regulator
170	VVIB	U900	J1300	VIB rator regulator OUT put to Motor in the Flip assambly
171	WDOG	U800	U900	WatchDOG- active low signal to U900 to indicate power down of the unit
172	XTAL	Y805	U800	26MHz reference clock differential input