U15 RITA
I
Q
90
Phase Comp
GSM850/GSM900
GSM1800/GSM1900
PAD
M div
R div
N div
/2 /4
3.6GHz
26MHz
Voltage Regulators
IQ Control switch
AFC
U14
26 MHz
XTAL
IN
IP
QP
QN
GSM_TX
DCS_TX
APC
U13
SKY77324
Match
PA
CMOS Power Amplifer Controller Current sense
GSM_PA
DCS_PA
R70
R68
Att 2dB
U17
ANT Switch
VC1(DCS_TX)
VC2(EGSM_TX)
JP1
LNA850
LNA900
LNA1800
LNA1900
EGSM_RX
DCS_RX
F2
F3
900
1800
TCXO EN
TSP ACT0
GSM_TXEN
PAENA
RF_LE
RF_CLK
RF_DAT
26 MHz
(to IOTA)
RF_DAT
TEN
CLK13M_OUT
U6
32.768KHz
XTAL
CLK32K_OUT
(Regulator Outputs to support Unit)
VRSIM
VRIO_28V
VRMEM_2.8V
VRRAM_2.8V
VRDBB_1.5V
VBAT (from Battery)
U1 IOTA
Voltage Regulation (VREG)
U7 G2
SLICER
DIV-2
13MHz
TSP
RTC
CK32KHz
PLL & CLKM
WTDOG
INTH
ULPD
GSM Time
TPU
TSP
RHEA bus
SPI
GEA
DieID
TIMER1
TIMER2
Boot ROM
MCU TOP-CELL
MEMIF
Debug Unit
External Memories
Memory Protect Unit
ARM7
BRIDGE
DMA(4+)
2Mbit SRAM
Write buf.
8K API
cDSP
S28C128
DSP subchip
INTH
JTAG
ARMIO(GPIO)
Memory interface
Address Bus A1-22
Backup (BREG)
APC AFC ADAC
Timing Serial Port (TSP)
Baseband Codec (BBC)
Voiceband Codec (VBC)
Auxiliary Drivers (ACD)
Monitoring ADC (MADC)
Internal Bus Controller (IBIC)
Baseband Serial Port (BSP)
Clock Gene
MCU Serial Port (USP)
Test Access Port (TAP)
Voiceband Serial Port (VSP)
Voltage Reference Power Control (VRPC)
Battery Charger Interface (BCI)
SIM CARD Interface (SIM)
BaseBand Interface
ARM Serial Port
Voice Band Interface
GPIO
SIM
RTC ALARM
SWITCHONOFF
RESPWRONZ
DLPWR
PWON
(Wake Up Interrupt from RTC)
(Keypad ON indication from Keypad Interface to Processor)
(Chip Power on Reset)
(from JTag Test Points - not in use)
(Base Band Intercommunication)
(Calypso - IOTA Intercommunication)
(Voice Band Intercommunication)
(from JTag Test Points not in use)
BFSR
BDR
BFSX
BDX
CLK13M_OUT
UDX
UDR
UEN
MCUDI
MCUDO
MCUEN0
TMS
TCK
TDO
VCK
VFS
VDR
VDX
VCLKRX
VFSRX
VDR
VDX
SIO3
SCLK3
SRST3
SCLK5
SIO5
SRST5
VRSIM
VRMEM_2.8V
VRRAM_2.8V
U100
FLASH 32Mbit
U24
SRAM 2Mbit
Data Bus D0-15
nCS0
nCS1
TDI
TCK
TDO
TMS
(from / to JTag Test Points - not in use)
nBLE
nBHE
RF_CLK
RF_DAT
RF_LE
VBACKUP
VRRTC_1.5V
UPR
APC
AFC
DAC
Vibration
RF_DAT
TEN
(from Calypso)
TXQN
TXQP
TXIP
TXIN
RXQN
RXQP
RXIP
RXIN
EARP
EARN
MICIP
MICIN
MICBIAS
SHMICBIAS
HSO
SHMICP
VBAT
Backlight Circuit
LEDC
VADCID
(from JTag Test Points - not in use)
(to Calypso)
(from Battery)
BATTEMP
U12
MUX
Tx MODEM
U11
MUX
HS_EN
(Audio /Data select from Calypso)
Rx MODEM (from Calypso)
ESD
EF2
J5
Headset Connector
Ear_DET.
(to Calypso)
VBAT
VCHG
VCCS
ICTL
PCHG
(from Battery)
(from / to Charger)
TCXOEN
TSPACT0
PAENA
GSM_TXEN
RHEA bus
PWL
UART IRDA
PWT
I2C
Keypad Port
UART modem
LEDKEY_EN
RX_irDA
TX_irDA
(not used)
BUZZER
SDA
SCL
ROW0 - ROW4
COL0 - COL3
PWON
(to IOTA)
LCDA0
(from Calypso)
Display
Keypad
CTS_MODEM
RTS_MODEM
DSR_MODEM
TX_MODEM
RX_MODEM
(from / to JTag Test Points - not in use)
Ear_DET.
(from Headset)
LCDA0
(to Display)
HS_EN
DTR_MODEM
EU/US_DET.
(to Multiplexer Audio / Data select)
(from to Multiplexer at Headset Connector)
Charger
(to U1) (Sense) VCCS
(to U1) (Sense) PCHG
VBAT (to Batterie and IOTA)
D12
VCHG
Ext. Overvoltage Control
J13
Ext. On/Off Switch
U4
nCHG
U5
(Charge Current Control)
ICTL (from U1)
PT1
(to U1) VCHG1 (Sense)
Main Charge Path
Charger Overvoltage Protection
Battery Over Voltage Protection
BATTERY CONNECTOR J1
VBAT
BATTEMP
NC
BATTGND
Sense
U104
Batterie Overvoltage Protection
Switch
U17
GND
BATTGND
Revision Overview
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