RTG-2000 V1.0 Schematic

PCB Revision	Date	Description
V0.1	4/21	Change FIL302 to L303 Add C322(0.1uF),C333(0.01uF) Del U302 1.7V voltage detector Del D301,D320,R302,B301 backup battery Del C309 Add shield-RGM3550 Change Air2U BSM02B-G to BT-1022 Add U404,C420,C421,C419,C418 Change SW3 to SS-B90AP Change U403 Vin to U401 Vout(3.3V) rather then Vcc_5
	4/26	Change L503,L504 33nH 2% 0402(LHL330G20NG) to 0603(LHL330G10NG)
	5/5	DEl R320 100K ADD R323 10K Change X302 24.5535MHz TO 16.369MHz(2.5ppm)ADD R401 47K DEL J101
	5/8	Change D102 BLUE LED TO 192DBK-CT/T DEL U101 7414 ADD R108 0ohm ADD C204 0.22u
V1.0	5/23	DEL C305 1p ADD R334 0ohm DEL R327 100K Change C317 6.8pF TO 22pF Change L301 3.3nH TO 3.9nH Change VL_INDICATOR GPIO[1] TO GPIO[0] Change BLUE LED DRIVE GPIO[0] TO GPIO[1]
	6/5	ADD R420 100K ADD U405 TC1015-2.85VCT ADD C422 12pF ADD C423 0.1uF DEL R104 100ohm ADD BT_RESET BY GPIO[2] Change BLUE LED DRIVE FROM GPIO[1] TO BT_STATUS Change TMC VCC FROM V_GRF_2V85 TO V_RDS_2V85 ADD TMC_EN BY GPIO[9]--TIMEMARK DEL BT_STATUS READING BY GPIO[9]--TIMEMARK ADD BLUETOOTH MODULE BT_STATUS BY PIO[4] FOR RTG-2000 ADD TP26 V_RDS_2V85
	6/7	CHANGE C422 12pf TO 1000pF CHANGE BT_RESET FROM GPIO[2] TO GPIO[1] ADD R212 0ohm DEL C204 0.22uF DEL BT SYMBOL PIN35,36,37,38, AND MODIFY FOODPRINT
	6/8	DEL R212 0ohm ADD C204 0.22uF ADD C424 1uF ADD C425 1uF CANCEL BT_RESET FROM GPIO[1],BECAUSE COLD WARM HOT START WILL CAUSE BLUETOOTH DISCONNECT

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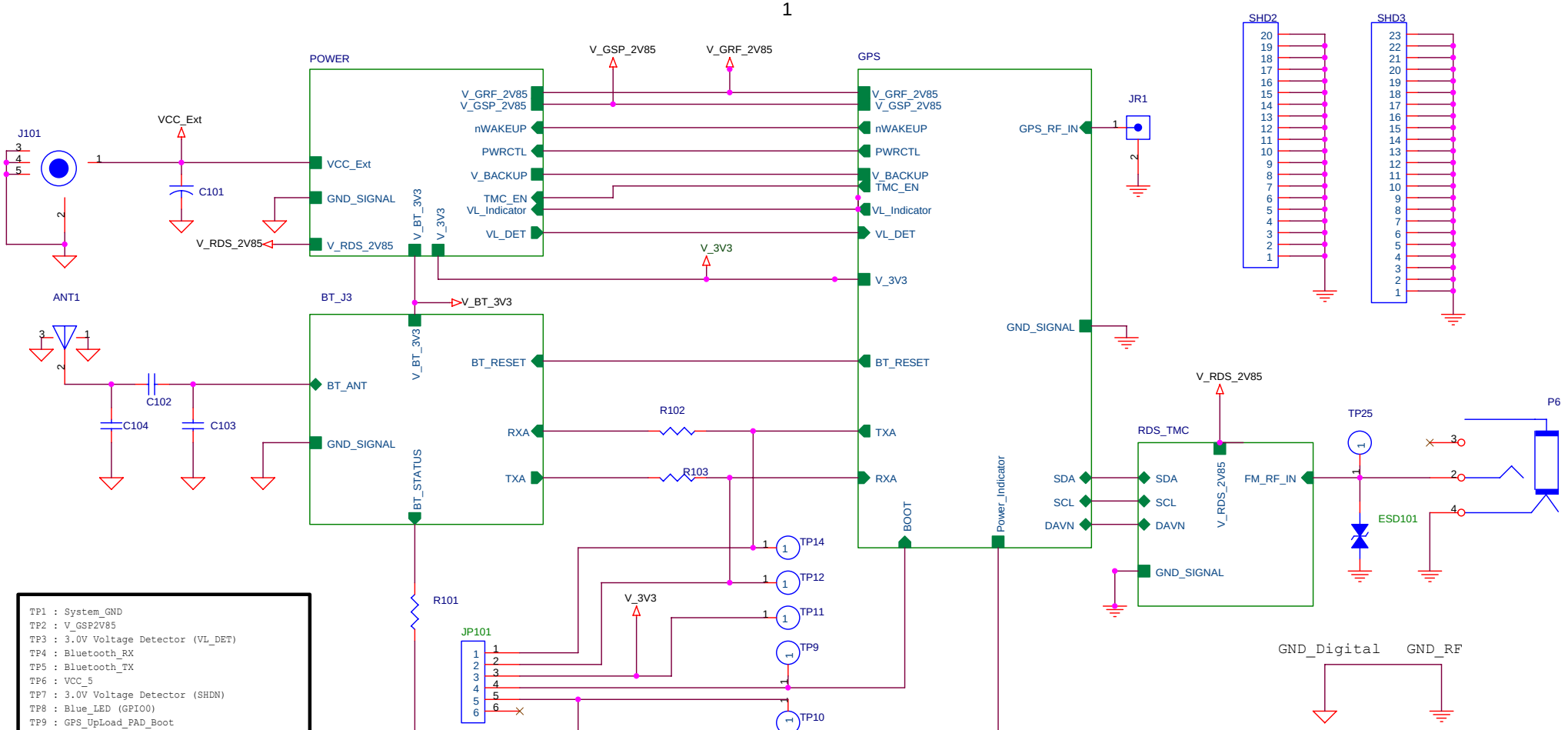
RoyalTek

Title: Revision

Size: C | Document Number: ZK-1001 | Rev: V1.0

Date: Thursday, June 08, 2006 Sheet 1 of 7



TP1 : System_GND
TP2 : V_GSP2V85
TP3 : 3.0V Voltage Detector (VL_DET)
TP4 : Bluetooth_RX
TP5 : Bluetooth_TX
TP6 : VCC_5
TP7 : 3.0V Voltage Detector (SHDN)
TP8 : Blue_LED (GPIO0)
TP9 : GPS_UpLoad_PAD_Boot
TP10: GPS_UpLoad_PAD_GND
TP11: GPS_UpLoad_PAD_VCC_GPS
TP12: GPS_UpLoad_PAD_RX
TP13: Power_Indicator (GPIO4)
TP14: GPS_UpLoad_PAD_TX
TP15: V_BACKUP
TP16: Battery (NTC)
TP17: Battery (Positive pole)
TP18: VCC_Ext
TP21: BT_RTS
TP22: BT_CTS
TP23: V_GRF_2V85
TP24: V_3V3
TP25: FM RF INPUT
TP26: V_RDS_2V85

BT_STATUS--BLUE LED
GPIO[0]--A4 VL_Indicator(RED LED)
GPIO[1]--A2 BT_RESET
GPIO[4]--H1 POWER_Indicator(Green LED)
GPIO[9]--C6--TIMEMARK --TMC_EN
GPIO[10]--B5--EIT[0] DAVN
GPIO[13]--F1--CTS SCL
GPIO[14]--C1--RTS SDA
GPIO[15]--E1-YCLK VL_DET

Blue LED :
閃爍((無連結) ;
恆亮(已連結)

Green LED :
閃爍(GPS No Fixd) ;
恆亮(GPS Fixd)

VCC_EXT : 5.0V +/- 5.0%
V_3V3 : 3.3V +/- 2.5%
V_BT_3V3 : 3.3V +/- 2.5%
V_GSP_2V85 : 2.85V +/- 2.5%
V_GRF_2V85 : 2.85V +/- 2.5%
V_RDS_2V85 : 2.85V +/- 2.5%
V_TMC_2V85 : 2.85V +/- 2.5%

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Title
RTG-2000 BlueGPS ROOT

Size	Document Number	Rev
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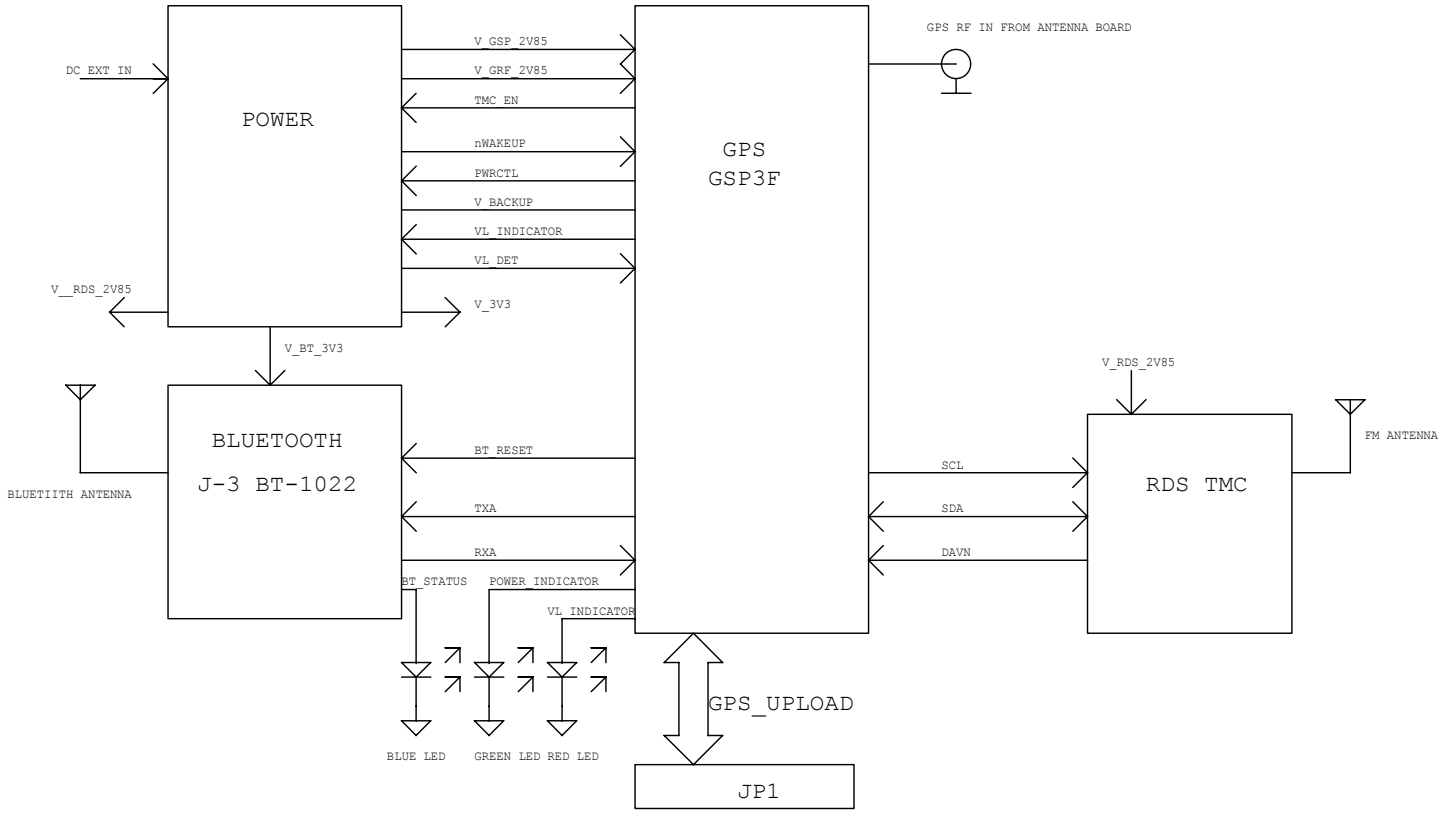
Date: Thursday, June 08, 2006 Sheet 2 of 7

RTG-2000 SYSTEM STRUCTURE



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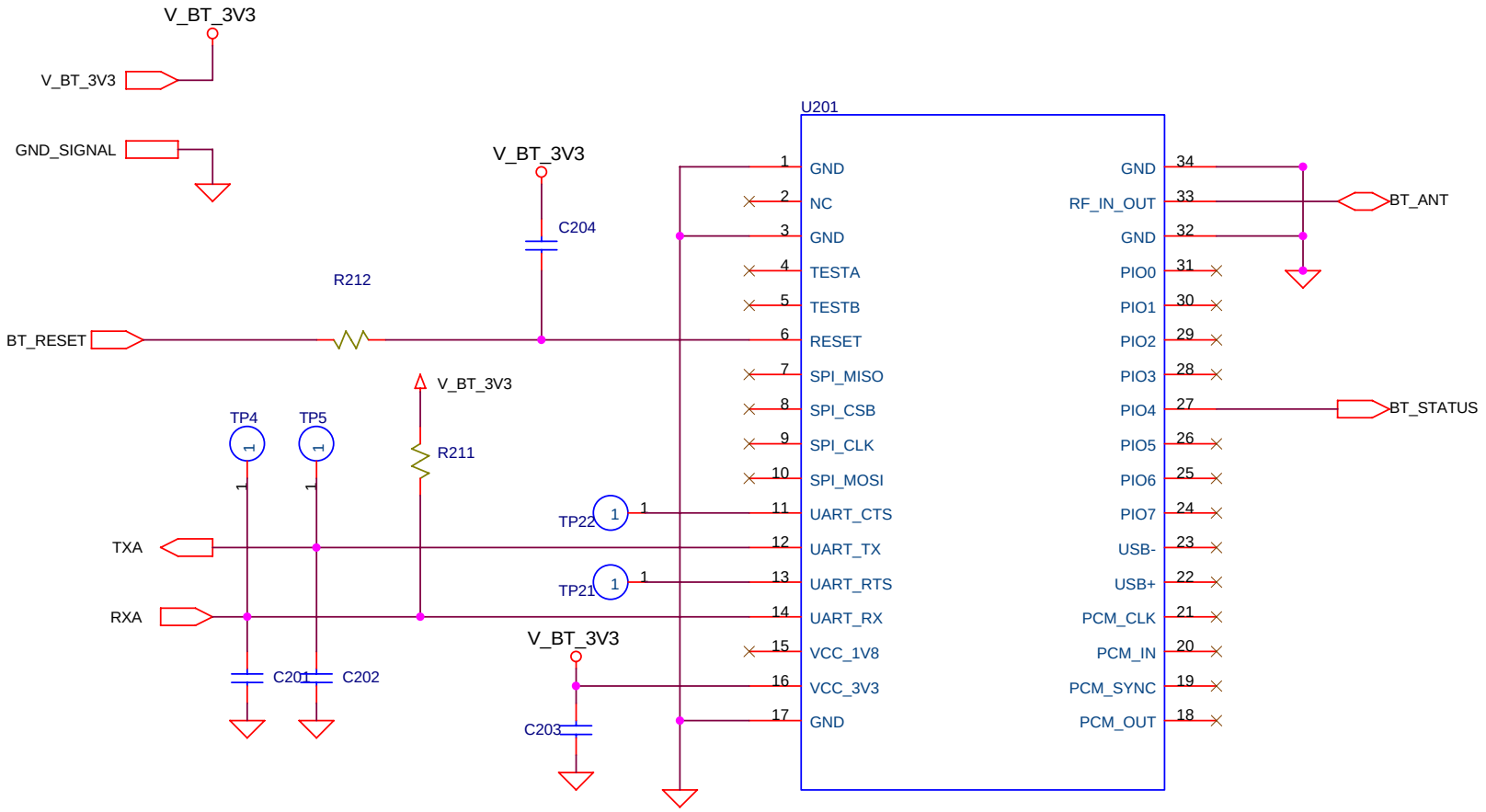
Title: <Title> RTG-2000 SYSTEM STRUCTURE

Size	Document Number	Rev
B	<Doc> ZK-1003	V1.0

Date: Thursday, June 08, 2006 Sheet 3 of 7



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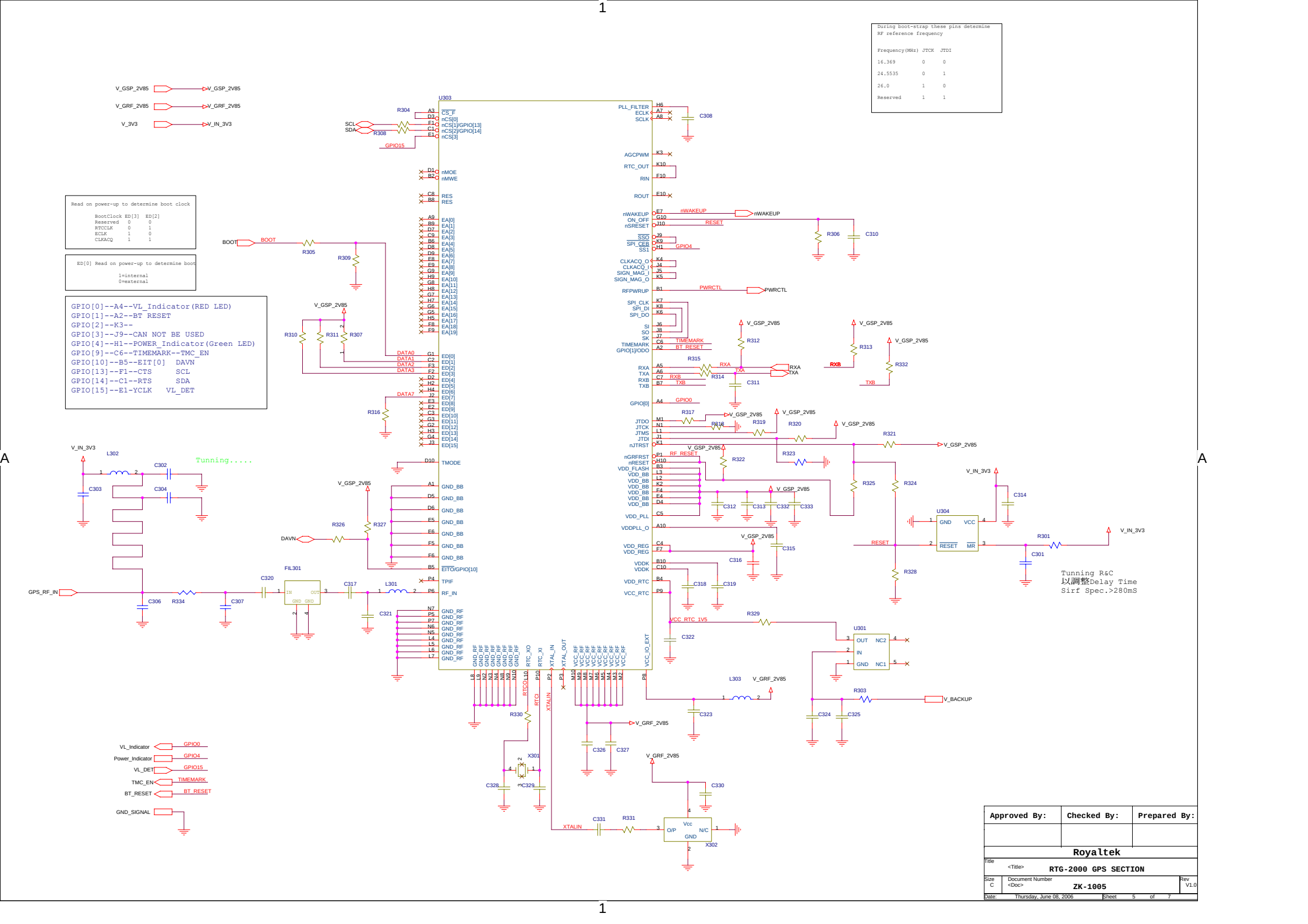
Title: **RTG-2000 BlueGPS BT(1022)**

Size	Document Number	Rev
A4	**ZK-1004**	V1.0

Date: Thursday, June 08, 2006 Sheet 4 of 7


During boot-strap these pins determine RF reference frequency
Frequency(MHz) JTCK JTDI
16.369 0 0
24.5535 0 1
26.0 1 0
Reserved 1 1
Read on power-up to determine boot clock
BootClock ED[3] ED[2]
Reserved 0 0
RTCCLK 0 1
ECLK 1 0
CLKACQ 1 1
ED[0] Read on power-up to determine boot
1=internal
0=external
GPIO[0]--A4--VL_Indicator(RED LED)
GPIO[1]--A2--BT_RESET
GPIO[2]--K3--
GPIO[3]--J9--CAN NOT BE USED
GPIO[4]--H1--POWER_Indicator(Green LED)
GPIO[9]--C6--TIMEMARK--TMC_EN
GPIO[10]--B5--EIT[0] DAVN
GPIO[13]--F1--CTS SCL
GPIO[14]--C1--RTS SDA
GPIO[15]--E1-YCLK VL_DET
U303
U304
U301
FIL301
L301
L302
L303
X301
X302
Tunning.....
Tunning R&C
以調整Delay Time
Sirf Spec.>280mS
Approved By:
Checked By:
Prepared By:
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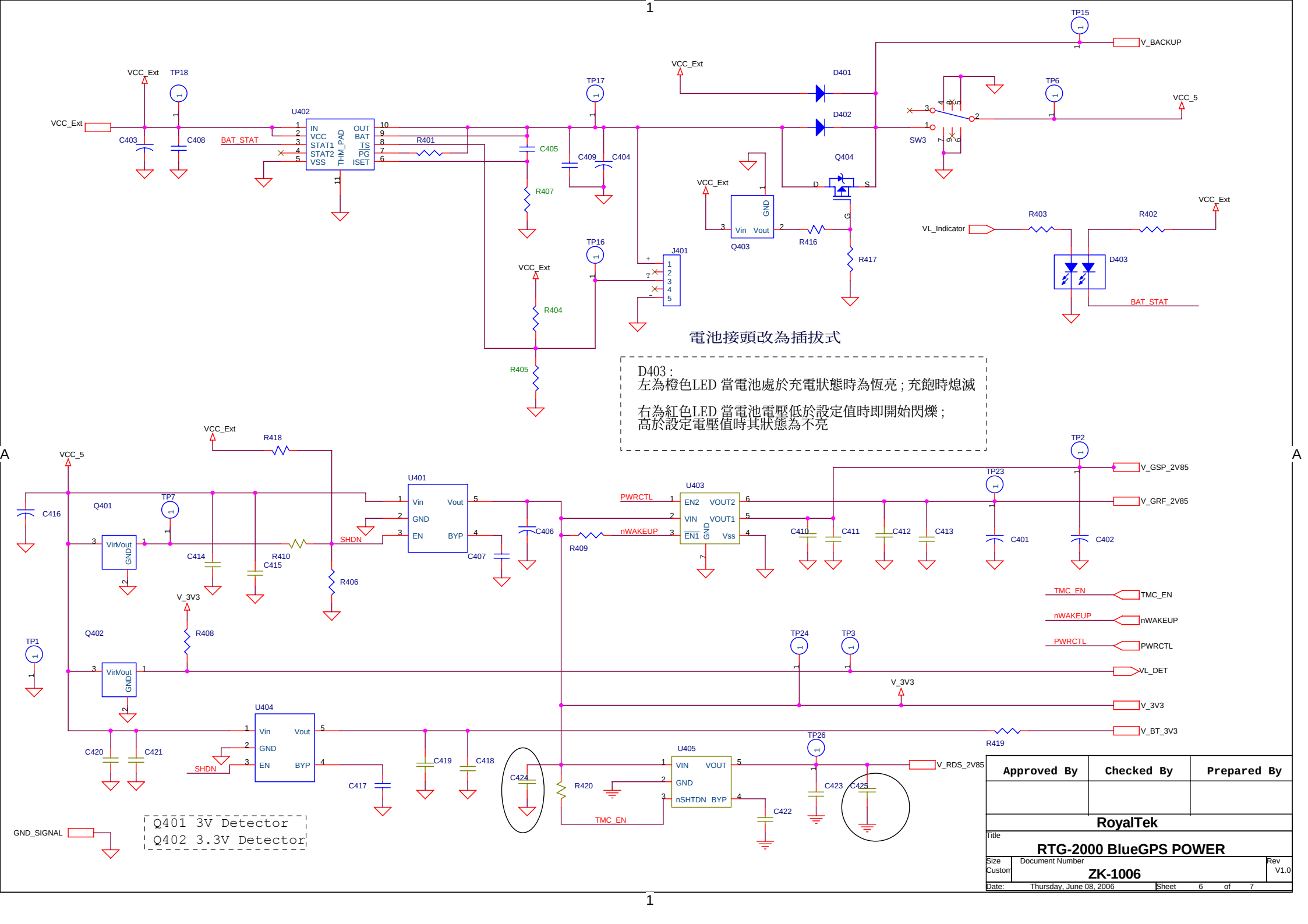
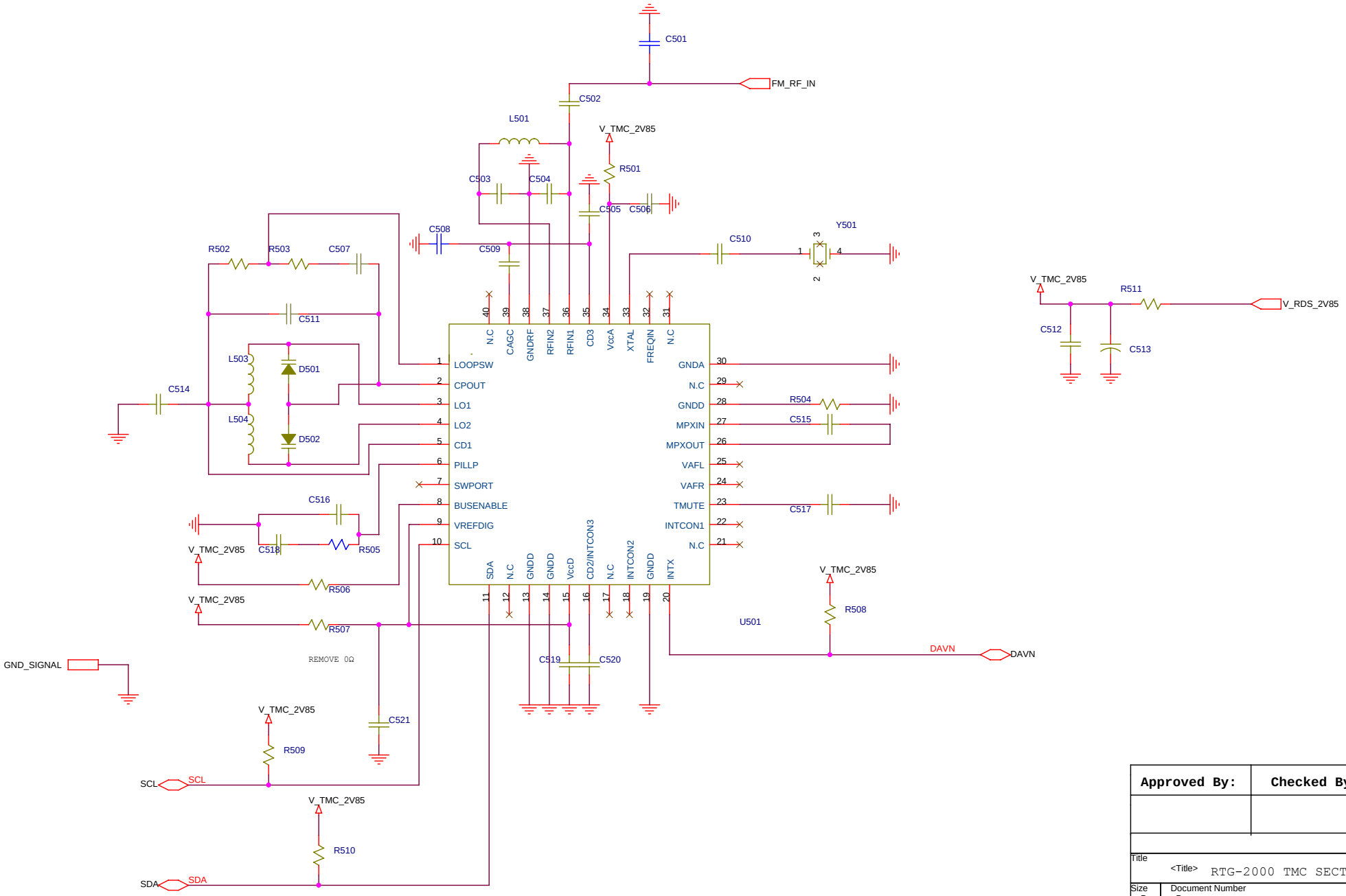
RTG-2000 GPS SECTION
ZK-1005
Thursday, June 08, 2006


VCC_Ext
TP18
C403
C408
BAT_STAT
U402
IN
VCC
STAT1
STAT2
VSS
THM_PAD
OUT
BAT
TS
PG
ISET
R401
C405
C409
C404
TP17
R407
TP16
R404
R405
J401
VCC_Ext
D401
D402
Q404
D
S
G
Q403
GND
Vin
Vout
R416
R417
TP15
V_BACKUP
TP6
VCC_5
SW3
R403
R402
VL_Indicator
D403
BAT_STAT
電池接頭改為插拔式
D403 :
左為橙色LED 當電池處於充電狀態時為恆亮 ; 充飽時熄滅
右為紅色LED 當電池電壓低於設定值時即開始閃爍 ;
高於設定電壓值時其狀態為不亮
VCC_Ext
R418
VCC_5
C416
Q401
TP7
C414
C415
R410
R406
SHDN
U401
Vin
GND
EN
Vout
BYP
C407
C406
R409
PWRCTL
nWAKEUP
U403
EN2
VIN
EN1
VOUT2
VOUT1
Vss
C410
C411
C412
C413
TP23
C401
TP2
C402
V_GSP_2V85
V_GRF_2V85
V_3V3
R408
Q402
TP1
TMC_EN
nWAKEUP
PWRCTL
VL_DET
V_3V3
V_BT_3V3
TP24
TP3
U404
C420
C421
C419
C418
C417
C424
U405
nSHTDN
R420
TP26
C423
C425
C422
V_RDS_2V85
R419
GND_SIGNAL
Q401 3V Detector
Q402 3.3V Detector
Approved By
Checked By
Prepared By
RoyalTek
Title
RTG-2000 BlueGPS POWER
Size
Custom
Document Number
ZK-1006
Rev
V1.0
Date:
Thursday, June 08, 2006
Sheet
6
of
7



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Title: <Title> RTG-2000 TMC SECTION

Size: B | Document Number: <Doc> ZK-1007 | Rev: V1.0

Date: Thursday, June 08, 2006 | Sheet 7 of 7