

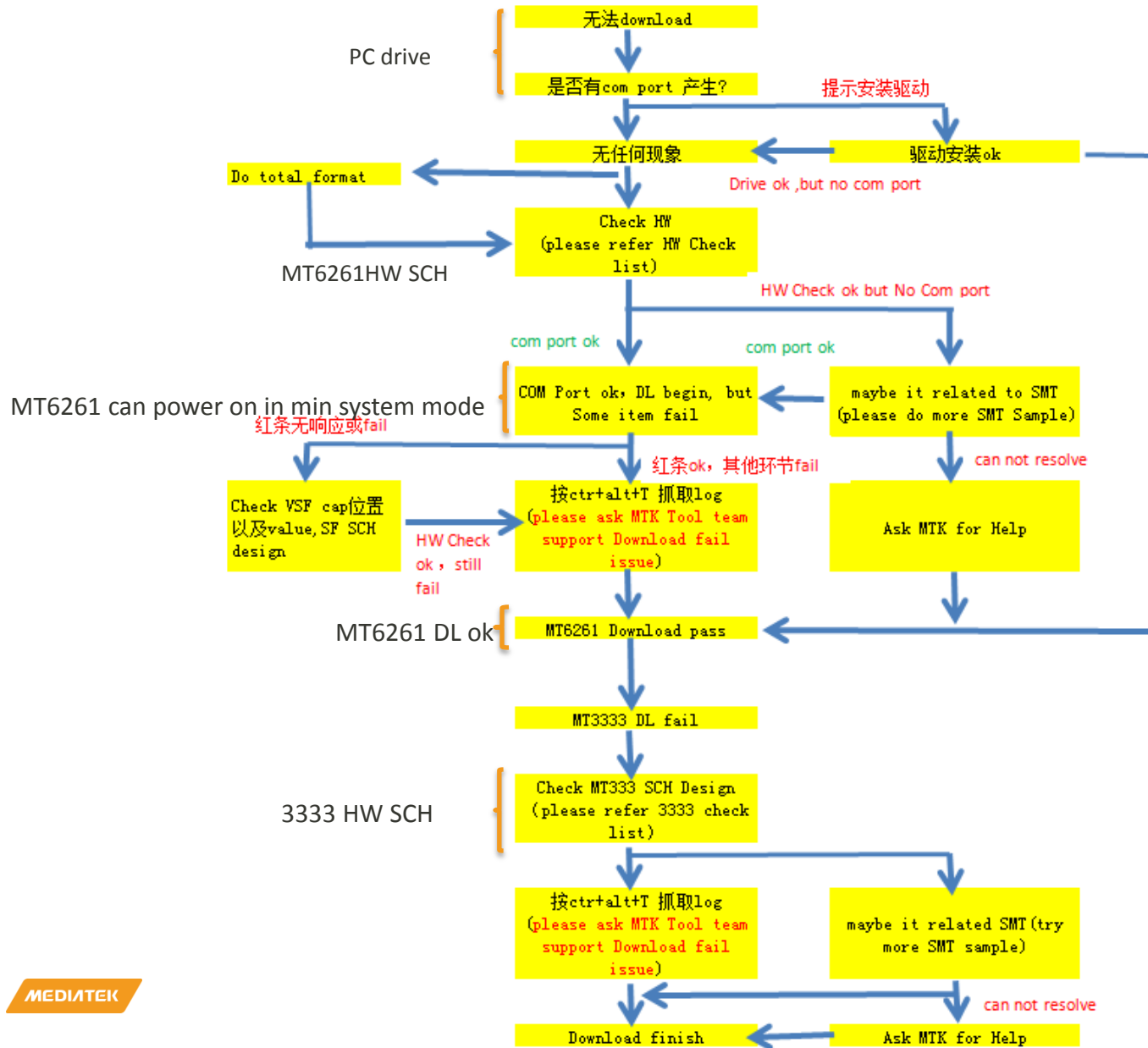
INTERNAL USE



MT2503 Download Debug SOP V0.1



Download issue Debug Follow1/3



Download issue HW Check list—BB(2/3)

Please follow bellow table to check BB Hardware design and output signal ,if all of them is ok ,but still can not Download ,please ask Mediatek support team for help immediately ,thanks

Category	Check Item
System setting	insert battery or USB cable
	VRF/VRTC 2.8V
	26M CLK
	Test mode D pin 10K PD
	SCK pin low
	USB trace
USB Detect Circuit	VCDET =330K;39K
	CHR_LDO 2.8V
	CHR_LDO 1uF BB pin 1cm
	Rsense
	Rsense 0.67ohm
	VBAT 3.2V 4.2V
System power On check	VRF/VRTC 2.8V
	Vcore 1.25V
	VDDK pin 1.25V~1.3V
	VI018/VI028/VSF/VA/VUSB
	VSF serial flash
	LSA0 PD/PU configure
	1uF cap external serial flash
	Resetb pin high

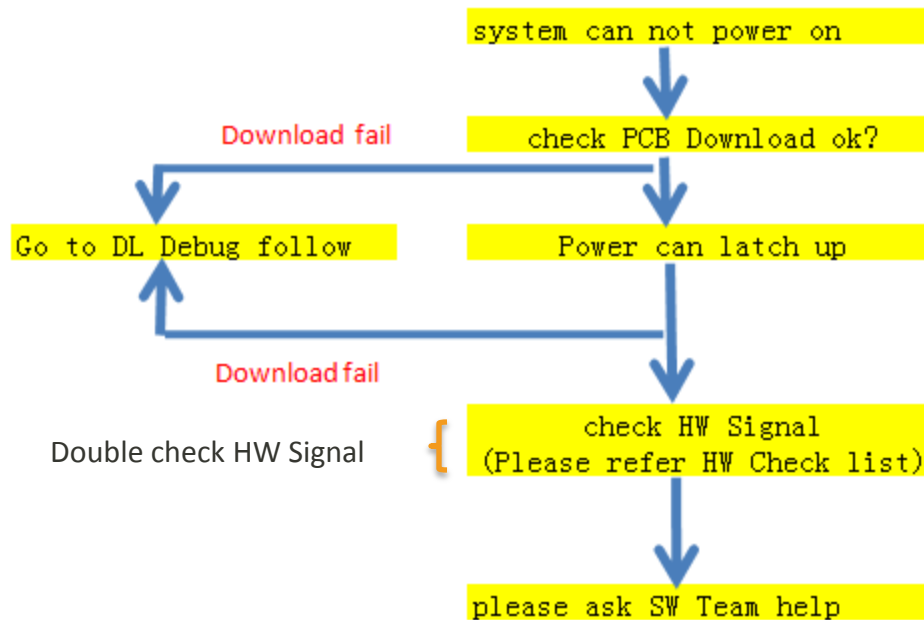
Download issue HW Check list—GPS(3/3)

Please follow bellow table to check GPS Hardware design and output signal ,if all of them is ok ,but still can not Download ,please ask Mediatek support team for help immediately ,thanks

Category	Check Item
System setting	GPS UART connect to BB uart2(GPSRX---KROW4&GPSTX---KCOL4)
	GPS 32K connect to BB Krow3
	GPS VBAT power LDO enable Pin should be connctet to Krow2
	GPS SCK1/GPS_SCS1 Pin Configure should be right(floating for 16.368MHZ tcxo/SCK1 10k PD ,SCS1 Floating for 26MHZ tcxo)
System CLK Check	GNSS_TCX0_SW should be 2.8V Output,TCX0 Should be output CLK
	GPS 32K pin can find 32K CLK
System power On check	GPS AVDD43 VBAT/DCV should be 3.3V
	GPS_AVDD28_TLDO Should be 2.8V
	GPS DCV should be 1.8V output(after inductor)
	GPS_AVDD11_CLD0 Should be output 1.1V

Power on issue Debug Follow1/2

download pass fail HW issue power on debug sop download ok power
ready ok SW log



Power on issue Debug Follow2/2

Please follow bellow table to check MT2503 Hardware design and output signal ,if all of them is ok ,but still can not power on ,please ask Mediatek support team for help immediately ,thanks

Category	Check Item
System setting	Insert battery VRF/VRTC 2.8V
	26M CLK
	Test mode D pin 10K PD
	LSCK pin low
System power On check	VRF/VRTC 2.8V
	Vcore 1.25V
	VDDK pin 1.25V~1.3V
	VI018/VI028/VSF/VA/VUSB
	ISP serial flash
	ISA0 PD/PU configure
	luf cap external serial flash
	Resetb pin high
Others	System Re-download ok

Case1@GPS DL Fail

- **Issue Description**

- MT6261 dl ok but MT333 DL fail ,No Respond

- **Root cause**

- **Test GPS AVDD43_VBAT power is 0V**(should be 3.3V),Review Customer SCH Customer change GPS LDO enable pin to another GPIO ,So Flash tool can't enable GPS power.
- GPS SCH design should as follow table :

MT6261	MT3333	Direction of MT6261	Note
KCOL4 (pin D11)	GNSS_UART_TX (pin M16)	INPUT	Don't change to other pin
KCOL3 (pin D9)	GNSS_TXIND (pin E18)	INPUT	
KROW4 (pin E9)	GNSS_UART_RX (pin K16)	OUTOUT	Don't change to other pin
KROW3 (pin D8)	GPS_32K (pin A17)	OUTOUT	Don't change to other pin
KROW2 (pin C10)	GPS_LDO_EN (to external LDO of enable)	OUTOUT	Don't change to other pin

Case2@GPS DL Fail

- **Issue Description**

- MT6261 dl ok but MT333 DL fail ,No Respond

- **Root cause**

- Test GPS TCXO power(GPS GNSS_TCXO_SW)is 0v(should be 2.8V) ,test GPS other powers is ok Review Customer SCH ,and find customer use crystal for TCXO ,so ,GPS TCXO power short to GND .
- Change Components from crystal to TCXO ,download is ok .

Case3@GPS DL Fail

- **Issue Description**

- MT6261 dl ok but MT333 DL fail in stress test ,GPS Download No Respond

- **Root cause**

- Flash tool use 32k CLK before MT6261 Finish 32k Calibration in sometimes ,so HW test 32k is 37K(or other frequency),in this time ,GPS download will be fail .
- Update flash After W1613 .

Appendix

