

XI\_T1\_A1\_C1\_COMMON COMMANDS

COMMON COMMANDS		DESCRIPTION
Commands marked * only support X1/T1-INS/A1		
1	LOG VERSION	query firmware version
	LOG COMCONFIG	<b>query serial port baud rate, input and output format</b>
	LOG AUTHORIZATION	query authorization time, number of weeks of BeiDou time
	LOG FLASHDNA	query DNA
	LOG PJKPARA	query PJK parameters
	LOG LOGLIST	<b>query port status and messages</b>
	LOG REFSTATIONA	<b>query base station position</b>
2	SAVECONFIG	<b>save configuration</b>
	SERIALCONFIG COM2 19200	<b>set com2 baudrate to 19200</b>
	REBOOT	reboot program
	FRESET	<b>restore factory settings</b>
	RESET	<b>reset to last configuration</b>
	RTKTYPE [ROVER/BASE]	<b>set work mode as base or rover, or query current work mode when without value</b>
	RTKTIMEOUT[DIFFAGE]	set the valid time of the differential correction data
3	INTERFACEMODE COM1 BYNAV BYNAV	<b>set com1 to bynav format (NMEA0183)</b>
	INTERFACEMODE COM1 LOG LOG	set com1 to debug format
	INTERFACEMODE COM1 RTCM RTCM	<b>set com1 to RTCM format (RTCM3.2 by default)</b>
	INTERFACEMODE COM1 NONE NONE	disable com1 input and output
4	FIX POSITION 28.234042909 112.888089727 91.0662	set base station position, lat, lon, hgt (geodetic hgt)
	FIX AUTO	<b>automatically get base station position (the last positioning results)</b>
5	UNLOG COM3 GPGGA	disable com3 gpgga output
	UNLOG GPGGA	disable gpgga output from all ports
	UNLOGALL COM3	<b>disable com3 output</b>
	UNLOGALL	disable all ports output (including RTCM differential data output in base mode)
6	LOG INSCONFIG	query INS-related configuration*
	LOG IPCONFIG	query Ethernet configuration
	LOG RTKCONFIG ONCE	query RTK configuration
7	SETINSTRANSALATION ANT1 1.0 2.0 3.0 0.05 0.05 0.05 VEHICLE	set the Lever Arm from IMU body frame to other frame*
	SETINSROTATION RBV 1.0 2.0 3.0 0.05 0.05 0.05	set the RBV from IMU body frame to other frame*
	SETALIGNMENTVEL 5.0	set the min. velocity of alignment*
	SET OBSFREQ 5	set observation frequency to 5Hz
8	INSCALIBRATE RBV NEW	Initialize IMU calibration*
	IPCONFIG ETHA STATIC 192.168.74.10 255.255.255.0 192.168.74.1	set Ethernet static or dynamic TCP/IP
	ICOMCONFIG ICOM1 TCP :2000	set Ethernet transmission/application layer
	DUALANTENNAPOWER [ON/OFF]	set dual antenna mode, take affect after reboot. Or to query current mode
9	LOG COM3 GPGGA ONTIME 0.2	Supported messages: gsv/gsa/avr/dhv/vtg/gsi/fpd/hpd/ntr/tra/atr/hdt/psrvela/bestposa/dop/gga/headinga/ksxt/ori/pa shr/ptnlpjk/rmc/zda ptnlavr/besgrid/antstatusa set frequency: log com3 gpgga ontime 0.2, set frequency to 5Hz If without com3, e.g. log gpgga ontime 1, it is to configure current communication port
	LOG BESTPOSA ONTIME 1	
	LOG HEADINGA ONTIME 1	
	LOG PTNLPJK ONTIME 1	
	LOG KSXT ONTIME 1	
10	LOG BESTGNSSPOSA ONTIME 1	Supported messages: BESTGNSSPOSA/ENUAVR/INSCALSTATUSA*/INSPVAA*/INSPVASA*/INSPVAXA*/BESTGNSSVELA/CORRIMUDATAA*/CORRIMUDATASA*/IPSTATUSA/INSATTA*/INSSTATUSA*/INSPOSA*/INSSPDA*/INSSSTDEVA*/INSVELA*/MARKTIMEA/MARK2 TIMEA/RAWIMUA*/RAWIMUSA*/RAWIMUXA*/RAWIMUSXA*
	LOG INSPVAXA ONTIME 1	
	LOG ENUAVR ONTIME 1	
	LOG INSCALSTATUSA ONCHANGED	

	SOME DEBUG COMMANDS	DESCRIPTION
11	SET SHIFTDATUM 0 0 0	set the coordinates translation parameters in meters, x, y, z represent East-North-Up respectively.
	SET PJKPARA 6378245 298.3 0 121 0 500000	set PJK parameters, SET PJKPARA <A> <1/F> <B0> <L0> <N0> <E0>
12	TRANS ON COM1 COM2	data pass-through between com1 and com2, forward data received by com1 to com2
	TRANS OFF	disable data pass-through
	SEND ABCDEF	return ABCDEF to the sender, to test the port
13	SETBASELINE ON [baseline length M] [margin M]	set baseline constraint length, take effect after reboot, or query current configuration when without value
	SETBASELINE OFF	clear baseline constraint
	HEADINGOFFSET	query baseline offset
	HEADINGOFFSET 0 0	set baseline offset to correct baseline fixed offset
	HEADINGOFFSET 180 0	Reserve the Azimuth
14	LOG NMEATALKER ONCE	query NMEA talker
	NMEATALKER GP	force nmea to start with \$GP
	NMEATALKER AUTO	automatically choose \$BD,\$GP,\$GN as talker according to the positioning mode
	DGPSTXID RTCMV3	query base station ID
	DGPSTXID RTCMV3 1001	set base station ID
15	SETINSUPDATE ZUPT DISABLE	set filter update data, limited to advanced users*
	SETINSPROFILE LAND_BASIC	set INS profile*
	FREQUENCYOUT ENABLE 20000000 100000000 POSITIVE 1	set pulse signal output
	DNSCONFIG 1 192.168.1.5	set Ethernet DNS server
	GPSREFWEEK [WEEKNUM]	set GPS reference week, take effect after saveconfig and reboot. It is to query current configuration when without parameters.
	SAVEEPHDATA	save current ephemeris data
	SNRCUTOFF [SNR]	set CNR limit (dB) , take effect after reboot
	LOG SHIFRDATUM ONCE	query coordinates shift parameters X, Y, Z
	16	LOG COM1 BDSRAWNAVSUBFRAMEB ONCHANGED
LOG COM1 RAWGPSSUBFRAMEB ONCHANGED		set com1 output GPS navigation sub-frame data
LOG COM1 GPSEPHEMB ONCHANGED		set com1 output decoded GPS ephemeris data
LOG COM1 IONUTCB ONCHANGED		set com1 output Ionosphere parameters
LOG COM1 BDSIONOB ONCHANGED		set com1 output BDS Klobuchar model Ionosphere parameters
LOG COM1 BESTPOSB ONCHANGED		set com1 output BESTPOS
LOG COM1 SATVIS2B ONCHANGED		set com1 output satellites in view
LOG COM1 TIMEB ONCHANGED		output local time
LOG COM1 BDSALMANACB ONCHANGED		set com1 output BDS almanac
LOG COM1 HEADINGB ONCHANGED		set com1 output HEADING
LOG COM1 RANGECPMB ONCHANGED		set com1 output compressed raw data
LOG COM1 GLOEPHEMERISB ONCHANGED		set com1 output GLONASS ephemeris data
LOG COM1 BDSEPHemerisB ONCHANGED		set com1 output BDS ephemeris data
LOG COM1 RAWEPHEMB ONCHANGED		set com1 output GPS ephemeris data
17	LOG COM2 RTCM1074 ONTIME 1	set com2 output GPS pseudorange, carrier phase and CNR once per 1 second
	LOG COM2 RTCM1084 ONTIME 1	set com2 output GLONASS pseudorange, carrier phase and CNR once per 1 second
	LOG COM2 RTCM1094 ONTIME 1	set com2 output GALILEO pseudorange, carrier phase and CNR once per 1 second
	LOG COM2 RTCM1114 ONTIME 1	set com2 output QZSS pseudorange, carrier phase and CNR once per 1 second
	LOG COM2 RTCM1124 ONTIME 1	set com2 output BDS pseudorange, carrier phase and CNR once per 1 second
	LOG COM2 RTCM1134 ONTIME 1	set com2 output IRNSS pseudorange, carrier phase and CNR once per 1 second
	LOG COM2 RTCM1006 ONTIME 5	set com2 output base station position with antenna height once per 5 seconds
	LOG COM2 RTCM1033 ONTIME 10	set com2 output base receiver model information per 10 seconds
	LOG COM2 RTCMNAV ONTIME 1	set com2 output navigation message / satellite ephemeris per 1 second
18	WORKFREQS [FREQ] [SYSTEM]	set work frequency, take effect after reboot, when the SYSTEM filed is blank, it's considered as full system, at this moment you need to write all frequencies. Or query current configuration when without value.
	ECUFTOFF [elevation cut-off angle °]	Set elevation cut-off angle (°) of the satellites used in the solution , take effect after savconfig and reboot. When the parameter is not set, it is used to query the current configuration.