

Tracker Digital Video Recorder



APPLICATIONS :

- Vehicle tracking
- Surveillance / security / etc...

FEATURES :

- Equipped with 4 cameras
- Video output to monitor to playback video at site.
- H.264 video compression codec
- Recording Resolution: 720p/CIF
- 14 digital inputs
- 2 analog inputs
- 4 digital outputs
- 2 RS232 com port
- 3 individual 1-wire® port
- Full tracking logic and functions
- Upload firmware over the air
- RFID Reader / Magnetic Card Reader interface(optional)
- CANBus / OBDII Reader interface (optional)
- Harsh Braking / Sudden Acceleration detection alert
- WCDMA for real time video stream

SPECIFICATIONS

Mechanical Characteristics	
Dimension (L x W x H)	250 x 175 x 80 mm (±2mm)
Weight	2.3kg(including hard disk)
Material	Aluminum casing
Environmental Characteristics	
Operation Temperature	-20°C ~ +65°C (board temperature)
Storage Temperature	-40°C ~ +85°C
Electrical Characteristics	
All specifications are at an ambient temperature of 25°C. Extreme operating temperatures can significantly impact specification values.	
Power Supply Requirements	+9 ~ +32 V _{dc} / 5A
Video Characteristics	
Video format	NTSC/PAL
OS	Embedded Linux
Video input	4 Cameras (4 pin mini din male connector)
	4 individual Power output 12V/250mA

Tracker Digital Video Recorder

Video output		2 Video Output
Audio input		1 Audio Input
Audio output		2 Audio Output
Language		English/Traditional Chinese/Simplified Chinese
Display mode		Full screen/Quad
Recording Frame		30 fps@720p 30 fps @CIF
Language		English/Traditional Chinese/Simplified Chinese
Display mode		Full screen/Quad
Operation Mode		Recording/Playback
Resolution	Live	1024x720/640x480/960x582/360x240
	Record	1024x720/640x480/960x582/360x240
Search	Mode	Time/Date Event record
	Full Screen	Yes
Video Loss Alert		Yes
Buzzer		Yes
Remote control		Yes

General Characteristics

I/O	Digital input	Active High Input x 7, Ignition input detection X1 Active low input X2
	Analog input	0~30V analog input X2
	Digital output	Active low Digital output @0.3A max X4
Power supply	Power output	Power source from main power input @0.3A max X1
Communication	RS-485	RS485 port X1
	Rj45	Standard Ethernet port X1
	Comport	RS232 port with 5V@300mA power supply X2
	1 Wire	Digital temperature sensor X2 I button port X1
	GPS output	RS232 for GPS NMEA output

Tracker Digital Video Recorder

	Buzzer	Buzzer X1
	Audio communication	2-way audio communication directly from 2G/3G-Audio channel
Antennas	GPS	External SMA connector
	GSM	External SMA connector
Memory Backup		2.5" SATA HDD X1 SD card slot X1
3-Axes Accelerometer		±16G (default)

GPS SPECIFICATION

General Specifications	
Channels	56 Channels
Receiver	GPS L1 frequency, C/A code
	GALILEO Open Service E1 B/C
Frequency	L1 (1575.42 MHz)
Time to First Fix ⁽¹⁾	
Cold Start	29 s
Warm Start	28 s
Hot Start	1 s
Aided Starts ⁽²⁾	< 5 s
Sensitivity ⁽³⁾	
Tracking & Navigation	-162 dBm
Re-Acquisition	-160 dBm
Cold Start	-148 dBm
Horizontal Position Accuracy ⁽⁴⁾	
Autonomous	2.5 m
SBAS	2.0 m
Accuracy	
Velocity Accuracy	0.1 m/s
Heading Accuracy	0.5 degree
Operation Limits ⁽⁵⁾	
Altitude	50,000 m
Velocity	500 m/s

Tracker Digital Video Recorder

Acceleration Dynamics	≤ 4G max
-----------------------	----------

- ⁽¹⁾ All satellite at -130 dBm
- ⁽²⁾ Dependent on aiding data connection speed and latency
- ⁽³⁾ Demonstrated with a good external LNA
- ⁽⁴⁾ CEP, 50%, 24 hours static, -130 dBm, > 6 SVs
- ⁽⁵⁾ Assuming airborne < 4 g platform
- ⁽⁶⁾ 50% @ 30 m/s

GSM SPECIFICATION

General Specifications	
Five Bands UMTS (WCDMA/FDD) Quad-Band GSM	UMTS 800/850/900/1900/2100 MHz
	HSDPA Cat.8 /HSUPA Cat.6
	DL:max 7.2Mbps, UL:max.5.76Mbps
	GSM 900/1800/850/1900 MHz
	EDGE Class 12: DL: max. 237 kbps, UL: max. 237 kbps
	GPRS Class 12: DL: max. 85.6 kbps, UL: max. 85.6 kbps
3GPP Rel.7 Compliant Protocol Stack	UICC and U/SIM card interface 1.8 V / 3 V
SIM Application Toolkit, Class 3, with BIP and RunAT support	

In-Box Accessories	
In-Box Accessories	8 pin power cable with ACC input
	16 pin video input cable
	GPS Antenna
	GSM Antenna
	Remote control
	IR extension cable