PRODUCT DATASHEET

TELID® RFID Sensors

TELID® 382.3D *formerly 322.3D*

RFID acceleration logger, event or time triggered

- semi-passive RFID sensor logger device, high memory
- battery powered, long life time
- contactless data communication ISO 14443, passive
- acceleration measurement range 3D, 0…+/-8g, 200Hz
- non flexible hard TAG, package Q54S

RFID Sensor TELID® devices are an integral part of *microsensys* iID® system solution. These devices are very useful for wireless sensor applications in industry, especially for quality check in automotive industry, for vibration measurements in maintenance processes and in transport and logistics. TELIDs are operating optimal with microsensys standard RFID reader.

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RFID Technology:	RFID system TELID®300, based on ISO 14443B (18000-3)		
Chip Type:	iID-L		closed coupling HF sensor solution
Carrier Frequency:	13.56 MHz		Communication Rate:106 kbps
Communication Distance:	0 ... 2 cm		depending on reader antenna and environmental conditions
Data Memory:	EEPROM		read write type endurance >100.000 cycles, data retention > 10 years
Data Memory:	approx. 1 Mbit		
Recording Capacity:	SIMPLE MODE:		approx. 6000 events
	ADVANCED MODE:		max. 123 events, including 3D wave recording, 170 samples per wave and axis
Acceleration Sensor:	MEMS sensor, 3D (x, y, z-axis)		
Range:	0 ... ±8 g		programmable range: ±2 g, ±4 g or ±8 g
Limit Range:	30 mg ... max.		programmable in steps of 1 mg
Frequency Range:	0 … 200 Hz		programmable bandwidth
Sample Rate:	12.5 Hz, 25 Hz, 50 Hz, 100 Hz, 200, 400 Hz		programmable
Sensitivity:	0.5 mg/√Hz		theoretical
Event Triggered Recording:	date and time in SIMPLE / additional 3D wave in ADVANCED MODE		
Event Types:	LIMIT or FREE FALL detection		programmable
Repetition Time:	approx. 10ms, 1s, 10s or 60s (1 s preferred setting)		programmable
Time Triggered Recording:	date, time and 3D wave		
Record Interval:	1 min … 1439 min		interval between two events, programmable
Clock:	quartz RTC		time synchronization while device programming
Accuracy:	+/-20ppm @25°C		resolution 1 s
Operating Mode:	ACTIVE or SLEEP		optional: password protected ACTIVE mode
Measure Modes:	STOP FULL		
Recording Mode:	SIMPLE or ADVANCED or TIME TRIGGERED		
Basic Functions:	programming of sensor parameters, read parameters, read data memory, get current acceleration, read UID		
Parameters:	start time, sample rate, measurement range, bandwidth, shock limit		
Primary Battery:	$LiMnO_2$, 68 mAh		
Life Time:	up to 2 years		depending on using conditions
Working Temperature:	-25°C ... +80°C		
Storage Temperature:	-30°C ... +85°C		recommended 25°C
Dimensions:	54 x 40 mm², thickness max. 4.5 mm		
Packaging:	Q54S		case PA66 GF6 blue, encapsulation epoxy black
Marking:	laser printed		product type on top, optional unique ID-No
Mounting Instruction:	glue, power strip or plastic screws		for data communication don't use on metal
Appropriate RFID Reader:	iID PEN or POCKET reader		with RS232TTL or USB or Bluetooth,
	iID DESKTOP reader		with RS232TTL or USB
	M30-HEAD reader		with RS232TTL, RS485 or USB for industrial application
Software:	TELID programming and reading software for Windows PC		

Product Code:	**14.382.709.10**	**14.382.709.00***	**14.322.719.01**	*) in development
Type :	TELID382.3D LT	TELID382.3D	TELID382.3D TT	
Event Types / Mode:	only LIMIT	all	only TIME TRIGGERED	
Wave Recording:	yes / no*	yes	yes	