

TagTrans®

Barcode 2D Imager / RFID Read / Write-System for UHF, HF, LF

Rugged housing, IP67. ATEX approval
BlueTooth, USB, RS232, RS485

A modular design features optimal adaption to the application



TagTrans® and FlexiScan®

2 D Imager and RFID Identification-System for UHF, HF und LF Transponder.

Mainly used as a handheld reader to identify objects, like cans, beer kegs, pressure cylinders; and persons or live stock. The **Bluetooth Technology** realises a contact less – wireless operation. Best example is a Mobile Computer in the driver's cabinet connected wireless to the TagTrans reading milk cans or gas bottles around a truck. Or it is used as a fixed device for applications in asset control, factory automation, access control, etc.

- ✓ Low power consumption, power management utility for integrated rechargeable batteries
- ✓ integrated front side antenna
- ✓ reading distance from touch up to 100 mm, depending on HF or LF transponder type, with UHF transponders up to 600 mm, LongRange up to 3 m.
- ✓ 2 D Imager to read all standard 1 D and 2D Barcodes
- ✓ Programmable motion sensor to switch the device ON and OFF
- ✓ Operating Temperature -20C to +85C
Storage Temperature -40C to +85
- ✓ CE, FCC, ATEX II 3G Ex ic IIB T4 Gc // II 3D Ex ic IIIC T135°C Dc
- ✓ Communication protocol ASCII or Binary, transparent mode
- ✓ Communication Interface BlueTooth, USB and serial RS232, RS422, RS485
- ✓ RoHS and UL compliant
- ✓ Easy to handle, robust body, highest protection against dust and submerge under water, IP67
- ✓ Industrial Bluetooth Class 1, Bluetooth 2.0 (2.1) + EDR module
- ✓ Connection to PDA's, PCs, Mobile Computers with Bluetooth - USB Stick, CF, SD, PC Cards or integrated Bluetooth (Mobile Phones)
- ✓ Beeper, LED indicators for Power, Signal, Communication Control
- ✓ Made for outside operations, industrial areas, rough environment, on vehicles, ...
- ✓ Compact and ergonomic design, small size: 49 mm Ø x 225 mm



Modular design:

Batterypack, electronic-unit with decoder, antennacap with Barcode 2D Imager and / or RFID Antenna



TagTrans®

Decoder and supported Transponders

Depending on tag type is Read Only or Read / Write

The modular design of TagTrans® ensures that decoders for different technologies and frequencies can be integrated, even Legic in HF band and in LF HDX.

UHF 868 – 960 MHz	
RF Frequencies	EU: 865.600+867.600 MHz (ETSI EN 302 208), USA: 902+928 MHz (FCC part 15), JP 952 – 954 MHz
Supported UHF Standards	ISO 18000 – 6C, EPC Class1 Gen2
Supported Tag-ICs	NXP: G2iL, UCODE HSL, G2XL, G2XM, G2iL, G2iL+, G2iM, G2iM+, I ² C Impinj Monza-Familie, und alle ISO18000-6C kompatibel

HF 13.56 MHz Multi ISO				
RF Frequencies	13.56MHz			
Supported HF Standards	ISO14443A, ISO14443B, ISO 15693, ISO 18000-3, NFC enabled , I-CODE			
Supported Tag-ICs For HF Multi ISO	Mifare® Standard Mifare® 4k Mifare® Pro Mifare® Ultralight Mifare® DESFIRE Mifare® SmartMX LEGIC® Advant	I-CODE SLI (SL2 ICS 20) I-CODE EPC (SL2 ICS 10) I-CODE UID (SL2 ICS 11) I-CODE NFC (Reader To Tag Mode) SLE 55Rxx SRF55VxxP+S	SR176 SRIX4K LRI 64 LRI 512 EM4135 KSW Temp Sens® Tag-it™ HF-I Standard Tag-it™ HF-I Pro	Jewel Tag Sharp B ASK GTML ASK GTML2ISO TOSMART P032/P064 ISO14443A ISO14443B ISO15693 ISO18000-3

HF 13.56 MHz Gem+	
RF Frequencies	13.56MHz
Supported Tag-ICs	Gem+ / Tag-Sys, ARI0 10/210, ARI0 40/240

LF 125/134 kHz Multi Tag				
RF Frequencies	125 kHz, 134,2 kHz			
Supported LF Standards	ISO 11784, ISO 11785, ISO 18000-2			
Supported Tag-ICs for LF Multi Tag	Hitag 1 Hitag 2 Hitag S	Q5 EM4X02 EM4X05 (ISO FDX B) EM4X50	TI-RFID Systems HDX	134.2 kHz: 64Bit R/O 64Bit R/W 1088Bit Multipage

TagTrans®

Barcode 2 D Imager

Read and Decode 1D and 2D Barcodes 2D Imaging for mobile Applications.

Superior 2D imaging for mobile applications

The miniature 2D Imager Engine is designed for optimal integration into mobile devices. The superior image quality of the VGA charge coupled device (CCD) also enables signature and image capture. Its companion decoder, controls camera functions and decodes all popular 1D and 2D symbology omni-directionally.

Barcode 2D Imager - Scan Engine von Motorola	
Scan Engine	Technical Data
Sensor Resolution:	640 (H) x 480 (V) (grey scale)
Field of View:	Horizontal: 32.2° Vertical: 24.5°
Focal Distance from Front of Engine:	Standard image sharpness: Near: 5 inches, Distant: 9 inches HD Image Sharpness: Close: 3.2 inches, Distant: 6.5 inches
Indicator LED (VLD):	650 ± 5 nm
Illumination Element:	635 ± 20 nm (LED)
Min. Print Contrast:	Minimal print contrast 25% absolute Dark / Light Reflex measured at 650 nm
Decoder	Technical Data
Symbologies Supported:	All 1D and 2D Barcodes 2-D: MaxiCode, PDF417, DataMatrix, QR Code, Aztec & Composite Codes Postal Codes: US Postnet, US Planet, UK Postal, Australian Postal, Japan Postal
Image File Formats:	BMP, TIFF, JPEG
Programable Parameters:	Power mode, trigger mode, signal transmitter, session duration, image sharpness control, camera control, image control, advanced data formatting, document capture, signature capture

Communications modules

BlueTooth

Communication modul from BlueGiga

WT11 is a next-generation, class 1, Bluetooth 2.1 + EDR module. It's a highly integrated Bluetooth module, containing all the necessary elements from Bluetooth radio to antenna, and a fully implemented iWRAP protocol stack.

WT11 EDR Modul	
	Technical Data
Class	Bluetooth Class 1 BlueTooth 2.1+ EDR,
Antenna	Integrated Chip Antenne or U.FL Anschluss
Operating Distances	100 - 300m
Interfaces	USB, UART, GPIO, AIO and PCM Interface
Standard	802.11 co-existence Interface
Memory	8MB Flash Memory
Size:	35 x 14 x 2,3mm
iWRAP	Simple iWRAP Firmware for controlling Bluetooth Wireless Technologie
Industrial Temperature Range	-40C to +85C
PCB	RoHS conforme
Programmable	Up to 14 supported Bluetooth Profiles in iWRAP Firmware
Approvals	CE, IEC and FCC
Bluetooth-Stacks	reccommendation: IVT BlueSoleil www.bluesoleil.com

TagTrans®

Communication Interfaces

USB, RS232, RS485, BUS Module: CAN open, MOD-Bus Serial and BUS Interfaces

Connection to USB-Port USB1.1 or USB2.0
USB Driver included

	USB
	Technical Data
Supply Voltage	Vcc + 5 VDC
USB Interface	Data-, Data+, Vcc, GND

	RS232, RS422, RS485
	Technical Data
Supply Voltage	Vcc +5 VDC oder +12 VDC
Interface	TX, RX, Vcc, GND
Parameter	9800, 1, 8, N, 1,N

	CAN open, MOD-Bus
	Technical Data
According customers requirements	On request

Firmware

Configuration of TagTrans with any Terminal program

Default 9600,1,8,N,1,N

All functions can be set with ASCII Commands.

The programming manual i spart of the Start Up Kits.

Configuration files can be loaded remotely, as well as the firmware, or a reset to „Factory Default“.

	über ASCII Commands einstellbar
	Technical Data
Power Management	Control of the battery status with treshold values
Time Out	Timeout values for the RFID / Barcode Reader, the Bluetooth communication and the power supply
Motion Sensor	3-xis Motionssensor (instead of a trigger swith) to activate the TagTrans
Communication Parameter	Baudrate etc
Bluetooth Parameter	Activation and Deactivate of PIN, Pairing, device name, etc.
Light and Acoustic Signals	LED and Beeper control
Data Formating	Multiblock Commands to edit and adjust the data read.
Barcode Imager	Reading intervalls, Barcodetyps, Pre- and Postamble, toggle between Barcode and RFID

System Requirements: Windows XP and higher

TagTrans®

Softwaretools

Wedge / HID Software DIVERSION

Program to copy the data from the serial port to the keyboard buffer. Time stamp could be added to the data

ATEX Certification

Certificate of Conformity from Bureau Veritas

All TagTrans® versions had been tested and approved for Zone 2 and Zone 22, gas and dust.
Drop tests: 2 m on concrete in whole temperature range.
Protection class IP67 confirmed for all versions.

FlexiScan

Antenna-Extension with 10, 36 and 60 cm (others on request)

The antenna is fixed in its own housing on the end of the extension, which is a watertight metal tube.
It can be bend, but still is stiff enough to allow stabile reading.



Inductive Charger System for TagTrans®

The benefits:

- no and connector on the battery pack
- special chargers are not needed, it works with a standard USB connection.

TT-ACC-IC

- has a bayonet connection.
- has a new cheaper rechargeable battery with 4.400 mAh
- the charger electronic is integrated in the battery pack

TT-ACC-IC-Ex2

The ATEX approval is available on request

TT-IC

The Charger Cradle has a Micro-B USB connector like most of the Smart Phones.
You connect to a standard Handy charger or any USB interface connector, that's all!

TagTrans® Zubehör / Accessoires

Produkt / product	Ladegerät / Charger	
TT-2PA-C2CFS	Ladegerät / Charger Egston 100-240VAC, 12 W, 4,2 V, 1,5A, international plugs Mikroprozessor gesteuert / <i>microprocessor controlled</i> , Steckernetzteil / <i>Wall mount version</i>	
TT-2PA-2240MS	Ladegerät / Charger Mascot 100-240VAC, 12 W, 4,2 V, 1,3A, international plugs Mikroprozessor gesteuert / <i>microprocessor controlled</i> , Kabelanschluß / <i>cable connection</i>	
	Ladestation / Cradle Bitte separat bestellen / Please order separately! Dazu bestellen die Akku-Packs TT-ACC-IC <i>Order together with cradle battery packs TT-ACC-IC</i>	
TT-IC	Ladestation für induktive Ladung mit Micro-B USB Stecker, inkl. USB Ladegerät und Kabel Cradle for inductive charging with Micro-B USB connector, including USB charger and cable	
TT-C	Ladestation ohne Ladegerät / <i>Cradle without charger</i>	
TT-X	Ladestation ohne Elektronik , nur als Halterung zu verwenden Cradle without electronic, to be used as a holder only	
Akku wieder aufladbar / Battery pack rechargeable / Standard 4.400 mA		
TT-ACC-IC	Akku – Pack mit integrierter Lade-Elektronik zur induktiven Ladung Battery pack with integrated charger electronic for inductive charging	
TT-ACC-IC-Ex2	Akku – Pack mit integrierter Lade-Elektronik zur induktiven Ladung, Ex2 Version Battery pack with integrated charger electronic for inductive charging, Ex2 version	
TT-ACC-CN	Akku für Anschluss an Ladestation TT-C-ACC od. TT-C und Ladegerät TT2PA <i>Battery pack with charger connector and charging pins. Can be charged directly without cradle or charged with cradle</i>	
TT-ACC-CN- Ex2	Akku wie darüber, aber Ex2 Version, <i>Battery-Pack as above but Ex2 version</i>	
Bluetooth Adapter		
SD1000	Bluetooth RS232 Adapter: BT Specification v2.0 + EDR, Supports up to 4 multiple simultaneous connections, Working distance (In an open field) : Nom. 100 meters, up to 1000m using patch antenna, No external drivers required	
UD 100	Bluetooth USB Adapter: BT 2.0+EDR Class 1, Working distance 300m, up to 1000m using optional antenna, USB 2.0 interface, Bluetooth driver CD (Toshiba / BlueSoleil driver)	
SD-DU	Zusatz Antenne / additional antenna 5 dBi dipol for Bluetooth adapters	
Optional		
L	Neck – Lanyard and clip on TT / Schlüsselband und Lasche am TT Nur für FlexiScan Versionen / only for FlexiScan Versions	
Software		
DIVERSION	Software Diversion Programm für die Umleitung von Daten von der seriellen Schnittstelle in den Tastaturpuffer. Die Daten können auch in einer externen Datei mit Zeitstempel gespeichert werden. <i>Program for the redirection of data from the serial interface to the keyboard buffer. Data can also be saved in an external file with timestamps.</i>	

LongRange-TagTrans	LongRange Antenna	Ladegeräte / Charger	Handband / Lanyard	BT Adapter USB / RS232
				

Akku – Pack mit integrierter Lade-Elektronik zur induktiven Ladung Battery pack with integrated charger electronic for inductive charging	Ladestation für induktive Ladung mit Micro-B USB Stecker, inkl. USB Ladegerät und Kabel Cradle for inductive charging with Micro-B USB connector, including USB charger and cable	Standard USB - Charger
		

TagTrans®

Versions

More Details see price list

A modular design features optimal adoption to the application

TagTrans® Bluetooth Interface

	RFID	Imager	Interface	Antennenkappe
TT -		BC2	BT -	F
TT -	LF -		BT -	F / D / FS10 / FS36
TT -	LF -	BC2 -	BT -	F
TT -	HF1 -		BT -	F / D / FS10 / FS36
TT -	HF1 -	BC2 -	BT -	F
TT -	UHF3 -		BT -	F / LR
TT -	UHF3 -	BC2 -	BT -	F

TagTrans® USB Interface

	RFID	Imager	Interface	Antennenkappe
TT -	-	BC2	USB -	F
TT -	LF -		USB -	F / D
TT -	LF -	BC2 -	USB -	F
TT -	HF1 -		USB -	F / D
TT -	HF1 -	BC2 -	USB -	F
TT -	UHF3 -		USB -	F / LR
TT -	UHF3 -	BC2 -	USB -	F

TagTrans® RS232/485 Interface

	RFID	Imager	Interface	Antennenkappe
TT -	-	BC2	RS232/RS485 -	F
TT -	LF -		RS232/RS485 -	F / FS10 / FS36 / D
TT -	LF -	BC2 -	RS232/RS485 -	F
TT -	HF1 -		RS232/RS485 -	F / FS10 / FS36 / D
TT -	HF1 -	BC2 -	RS232/RS485 -	F
TT -	UHF3 -		RS232/RS485 -	F / LR
TT -	UHF3 -	BC2 -	RS232/RS485 -	F

TagTrans® ATEX Ex2

	RFID	Imager	Interface	Antennenkappe	ATEX-Zulassung
TT -	-	BC2	BT -	F -	Ex2
TT -	LF -		BT -	F -	Ex2
TT -	LF -	BC2 -	BT -	F -	Ex2
TT -	HF1 -		BT -	F -	Ex2
TT -	HF1 -	BC2 -	BT -	F -	Ex2
TT -	UHF3 -		BT -	F/LR -	Ex2
TT -	UHF3 -	BC2 -	BT -	F -	Ex2

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